



2020 Integrated Sustainable **Management Report**

WE PUT ALL OUR ENERGY INTO
BUILDING A COMPANY **-AND A COUNTRY-**
FROM US ALL TO US ALL



ecopETROL

Ecopetrol S.A.

General Secretary and Presidency Support
Corporate Responsibility Management
Corporate Communication Managements

Edition

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BOARD OF DIRECTORS ECOPETROL S.A.



Juan Emilio Posada Echeverri

Business administrator, business and finance MBA and “title in” international economic law.



Hernando Ramírez Plazas

Chemical engineer, Public health MA, Specialist in gas engineering.



Germán, Quintero Rojas

Lawyer, Specialist in Public Law.



Esteban Piedrahíta Uribe

Economist, Philosophy and Science History MA.



Sergio Restrepo Isaza

Business Administrator, Business Administrator MA.



Luis Santiago Perdomo Maldonado

Business Administrator.



Orlando Ayala Lozano

Information Systems Administrator, Honorary degree.



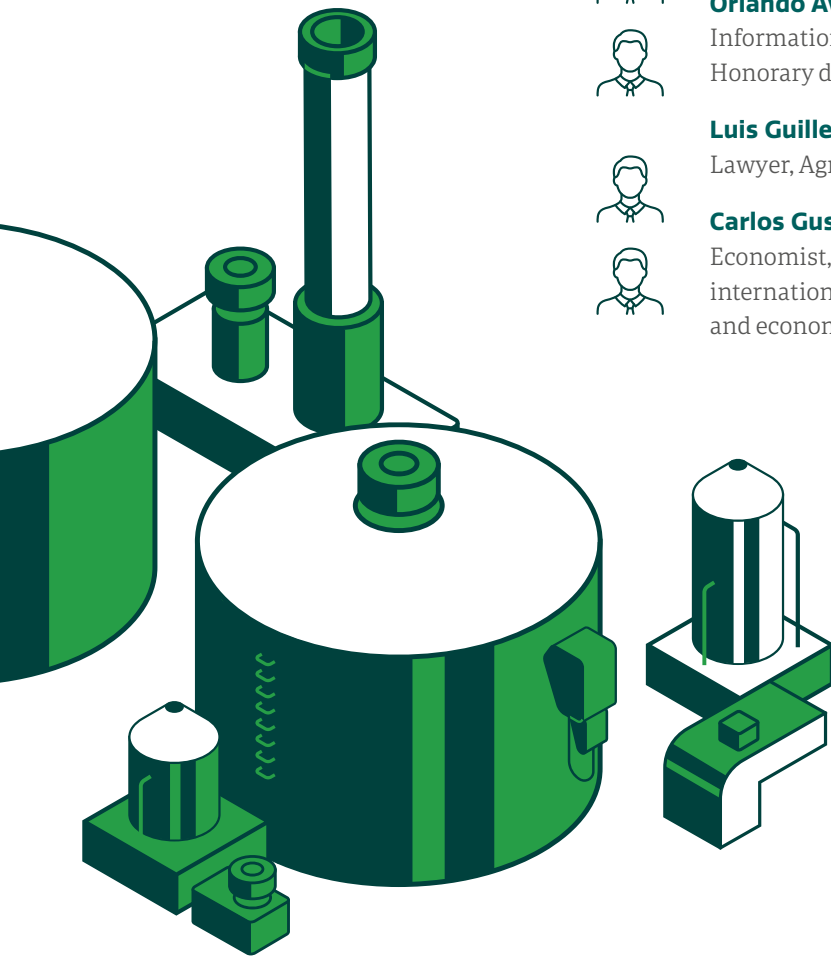
Luis Guillermo Echeverri Vélez

Lawyer, Agricultural economics MA.



Carlos Gustavo Cano Sanz

Economist, Economic MA, studies of international governance, business and economics.



STEERING COMMITTEE ECOPETROL S.A.



Felipe Bayón

President



Alberto Consuegra

Executive Operating
Vice President



Jaime Caballero

Corporate Financial
Vice President



Walter Canova

Refining and Industrial processes
Vice President



Jorge Osorio

Development and Production
Vice President



Mónica Jiménez

General Secretary and
Support to the Presidency



Fernán Bejarano

Legal Vice President



Alejandro Arango

Human Talent
Vice President



Jürgen Loeber

Projects and drilling
Vice President



Andrés Mantilla

Director of the Centre of
Innovation and Technology



Diana Escobar

Sustainable Development
Vice President



María Juliana Albán

Corporate Compliance
Vice President



Bibiana Duque

Operations and Transportation
logistics Vice President



Carlos Santos

Supply and services
Vice President



Juan Manuel Rojas

Corporate strategy and new
businesses Vice President



Ernesto Gutiérrez

Vicepresidente Digital



Jorge Calvache

Exploration Vice President



Pedro Manrique

Commercial and Marketing
Vice President



Héctor Manosalva

CENIT President



Mauricio Jaramillo

HSE Vice President



Yeimy Patricia Baez

Gas Vice President



Rafael Espinosa

Central Region
VicePresident



Edgar Paternina

Orinoquia Region
Vice President



Sergio Alberto Hernandez

Piedemonte Region
Vice President



Francy Edith Ramirez

Andina Oriente Region
Vice President



Edward Mauricio Gironza

Assets with partners Vice President



Gabriel Antonio Combariza

Non-conventional reservoirs
Vice President

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KF_92



About **THIS REPORT**



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Castilla Solar Park

GRI 102-14

MESSAGE FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS, ECOPETROL S.A.

After delivering positive results in 2019, the Company started 2020 with high expectations in terms of investment, new businesses, and commitment to long-term value creation for Ecopetrol and its Group, while fulfilling its mission and strategy.

These expectations include working to achieve excellence in our core business as an Oil and Gas producer in the region, growing in gas as the source in the energy transition and a source of social welfare, and entering a transformation process aligned with the trends of decarbonization and environmental mitigation demanded by the future of the energy industry worldwide.

However, the global challenges associated with the Pandemic, which took place in 2020, led us to act in a timely and expeditious manner, keeping sight of the long-term growth of the Company. Great efforts were made in matters related to health, safety, and environment (HSE) in 2020. In addition, we focused on the health of our employees and their families, our partners and the communities where the Group operates. We also adopted measures to maintain strict capital discipline, protect cash, seize new opportunities to generate value and mitigate risks for the Company. I want to highlight some of these actions:

- Activation of the Contingency Financial Plan approved in 2019 to ensure the survival and adaptation of the Group against price volatility.
- Approval of the settlement of the 2020 - 2022 Financial and Investment Plan settlement.

- Updateing and approval of the 2040 portfolio and the guidelines for capital allocation and portfolio rotation for the 2021 - 2023 planning cycle, for the preparation of Ecopetrol Group's Investment Plan.

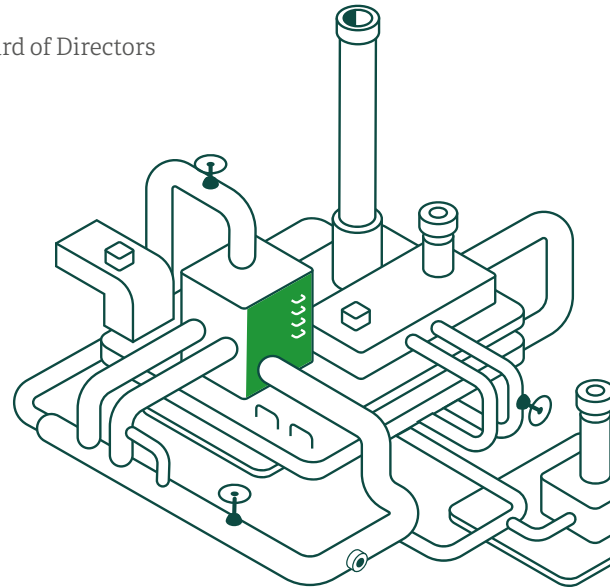
The Board of Directors continued with the task of driving our corporate strategy during the course of the year – and amidst the crisis – seeking for Ecopetrol to prevail over time as the largest and most important company in the country, guaranteeing its solidness, national energy security, and leading an entire energy transition process.

In this regard, we adopted the *SosTECnibilidad* Technology, Environmental, Social, and Governance (TESG) - Technology-based Sustainability strategy, a long-haul effort for our Organization, as a result of extensive discussions around environmental, social and governance (ESG) issues. We pioneered the inclusion of ESG in the technological equation -(TESG-), as an accelerator and amplifier in the implementation of innovative solutions to the challenges associated with all our activities.

Ecopetrol's foremost asset is its people, and life is our main value. It is with these tenets in mind that we have prepared - and hereby submit - our Declaration of Corporate Culture alongside the Management division.

Thus, the Board of Directors reaffirms its commitment to continue guiding the Company on the path to long-term value creation.

Luis Guillermo Echeverri Velez
 President
 Ecopetrol Board of Directors



ABOUT THIS REPORT

ECOPETROL IN FIGURES 2020*

*Unless otherwise stated, all financial data in this report is expressed in Colombian Pesos (COP).



FINANCE

EG Operating Income (COP Trillion)

2017	55.21
2018	67.82
2019	70.84
2020	50.02

EG Operating Profit (COP Trillion)

2017	15.50
2018	21.71
2019	20.42
2020	7.01

EG Ebitda (COP Trillion)

2017	23.07
2018	30.80
2019	31.11
2020	16.84

Ecopetrol S.A. Net Profit (COP Trillion)

2017	6.62
2018	11.56
2019	13.25
2020	1.68

EG Organic Investments (USD Billions)

2017	2.2
2018	2.9
2019	3.5
2020	2.7



ECOPETROL S.A EXPORTS

Volume (Kbpde)

2017	425
2018	407
2019	425
2020	433

Value (USD Million)

2017	7,427
2018	9,354
2019	9,017
2020	5,376



ECOPETROL S.A FUEL / DIESEL SALES

Fuel (Bpd)

2017	92,574
2018	91,873
2019	95,458
2020	82,529

Diesel (Bpd)

2017	97,846
2018	99,768
2019	102,011
2020	85,573



ECOPETROL GROUP RESERVES (As per SEC definitions)

Crude oil / gas proven reserves (Mboe)

2017	1,659
2018	1,727
2019	1,893
2020	1,770



ECOPETROL GROUP EXPLORATION

Exploratory wells (Number of wells)

2017	20
2018	17
2019	20
2020	18



PRODUCTION

EG Crude Oil / Gas (Kbpde)

2017	715
2018	720
2019	725
2020	697

Ecopetrol S.A total crude (Kbpd)

2017	545
2018	549
2019	548
2020	516



TRANSPORTATION

Volumes Transported (Kbdc)

2017	1,091
2018	1,109
2019	1,153
2020	1,017



REFINING

Load to refineries* (Kbdc)

2017	345.5
2018	372.9
2019	373.7
2020	319.8

Gross margin from Refining** (USD per barrel)

2017	13.5
2018	11.8
2019	10.6
2020	9.1

*Barrancabermeja and Cartagena Refineries

**Barrancabermeja Refinery



Ecopetrol S.A.

Social Investment (COP Million)

2017	18,502
2018	45,088*
2019	229,684
2020	226,295

Environmental Investment (COP Million)

2017	470,548
2018	678,949
2019	841,852
2020	929,660

Procurement (COP Trillion)

2017	9.5
2018	10.4
2019	13.4
2020	12.9

*In 2018, Ecopetrol invested resources for social and environmental investment projects for a value of equivalent to \$ 52.334 billion. Of this value, \$ 45.088 billion corresponds to social investment projects. The remaining \$ 7.246 billion corresponds to voluntary environmental investment projects and are part of environmental investments.



ABBREVIATIONS

EG	Ecopetrol Group	Mbpe	Millions of barrels of oil equivalent
Bpd	Barrels per day	COP	Colombian pesos
Kbdc	Thousands of barrels calendar day	US\$	Dólares
Kbpd	Thousands of barrels of oil a day	One billion pesos	One billion Colombian pesos (\$1,000,000,000)
Kbpde	Thousands of barrels of oil equivalent day	One trillion Colombian pesos	One thousand billion Colombian pesos (\$1,000,000,000,000)

RELEVANT FACTS

Despite the challenges imposed during 2020, Ecopetrol achieved theits proposed goals proposed on different fronts thanks to rapid and timely decision-making.

01



We faced the crisis

We responded, and adapted to, the crisis in an agile and efficient fashion.

- Action plan to protect life
- Financial Plan to ensure sustainability

Rating agencies recognize the efforts we made, and reaffirmed our rating and risk perspective.

02



We had a comprehensive response towards the pandemic

We rendered over \$ 88 billion available to address the pandemic generated by COVID-19.

- Humanitarian aid, solidarity contributions, personal protection elements and strengthening health systems and technological developments in 21 departments.
- 250,000 families and 200 institutions benefited.

WEF 1E

03



We are committed to TESG (Technology, Environment, Social and Governance)

We launched our TESG Strategy¹. This is a major undertaking that defines how we manage the present to secure our future.

04



New goals in renewable energy

The energy transition is fostered in the expansion of our renewable energy goal to an installed capacity of **400 MW** by 2023, and we started the construction of San Fernando Solar Park.

05



We launched Cenit's CIO

We launched Cenit's Integrated Operations Center – CIO (from its original Spanish language initials: *Centro Integrado de Operaciones*), with the most advanced technology in Latin America. The CIO makes it possible to remotely manage the operation of all the country's oil transportation systems.

06



We were successful in exploration

We executed an 18-well exploratory campaign, with three successful wells. We began drilling our first exploratory well in Mexico: Moyote-1.

07



Outstanding results with Arrecife-1

Hocol conducted extensive testing in Arrecife-1, critical to Ecopetrol Group's Gas strategy.

08



We strengthened the Colombian Eastern Plains Piedmont

We received and gave operational continuity to the Pauto and Floreña fields as of March 1, 2020 to strengthen our gas strategy at the *Piedemonte Llanero* – Colombian Eastern Plains Piedmont.


¹ Contribution and value generation model for the society. Through innovative and technological solutions, this model aims to harmonize economic, social and environmental development, under a framework of trustworthy, transparent and ethical government.



09

We have become consolidated in the Permian Basin

Alongside Oxy, we consolidated the operation in the Permian Basin with an increase in production.



10

We moved forward in Unconventional Oil Reservoirs


The ANH (For its original Spanish language initials: *Agencia Nacional de Hidrocarburos*) awarded us the Kalé Integral Research Pilot Project, located in Puerto Wilches.



11

We reached maximum loads in refineries


As for refining, we closed the year with peak loads in both refineries and production records and sales in Esenttia.



12

We sold our crude oil at a higher value

We developed a stage-based strategy of sales of barrels of crude that allowed us to minimize the negative impact on price differentials due to COVID-19.




13

We are more diverse and inclusive

We advanced in our commitment to diversity and inclusion.


- We ranked second in the public companies category in the Par Ranking (measuring good gender equality practices).
- We made progress in the Equipares seal for gender equality.
- We scored 87 out of 100 points in the Women Empowerment Principles.
- We improved the participation of women in leadership positions by six percent.



14

We managed to make investments in challenging environments

We made investments at Corporate Group level in the amount of \$ 2,674 MUSD (\$ 1,595 MUSD by Ecopetrol S.A. and \$ 1,079 MUSD by Subsidiaries). 78% thereof took place in Colombia and 22% internationally. Of the total investment, 76% corresponds to the exploration and production segment, with the remaining 24% in this transportation and refining segments. 66% of the aforesaid investment corresponds to growth opportunities.




15

We strengthened our circular economy

We consolidated our own circular economy model to minimize the use of natural resources and reduce environmental impacts with estimated benefits of:

- 333 EG initiatives
- 15 business opportunities
- \$ 45 billion in Savings
- Estimated reduction of 700 thousand tonCO₂e / year.



16

We protect the planet

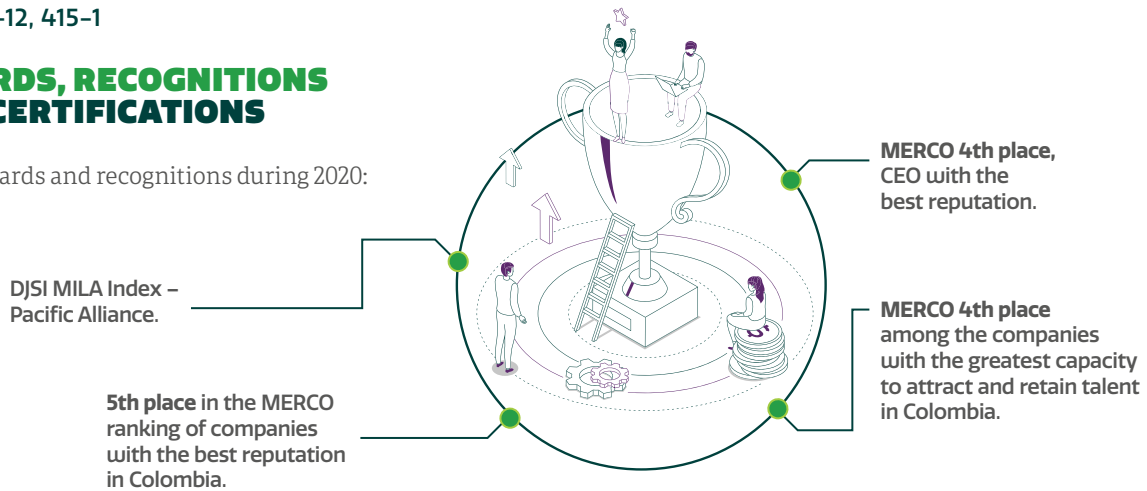
We are making steady progress in biodiversity:

- We announced the planting of six million trees, of which we planted 1.8 million trees between 2018 and 2020.
- We will form a network of 50 Eco-reserves.

GRI 102-12, 415-1

AWARDS, RECOGNITIONS AND CERTIFICATIONS

Main awards and recognitions during 2020:



GRI 102-13

CURRENT CERTIFICATIONS

PROCESS / AREA- CERTIFICATE	
Corporate Certification (Ecopetrol S.A.)	ISO 9001: 2015
Corporate Certification (Ecopetrol S.A.) Vice Presidency of HSE	ISO 14001: 2015
Corporate Certification (Ecopetrol S.A.) Vice Presidency of HSE	ISO 45001: 2018
Information Security Certification Colombian Petroleum Institute (ICP)	ISO 27001: 2013

For other prizes granted to Ecopetrol in 2020, enter [here](#).

To learn more about these certifications and their scope, enter [here](#).

GRI 102-51, 102-52, 102-54, 102-56

ABOUT THIS REPORT

Ecopetrol prepares its Integrated Sustainable Management Report based on the standards of the *Global Reporting Initiative (GRI)*, Comprehensive Option. It features the Company’s management during 2020, incorporating the Annual Financial and Sustainability Reports.

The information contained in this report was verified by *BSD Consulting* to guarantee the integration of the AA1000 - AS2008 * principles in Ecopetrol’s management processes and the application of the principles and contents of the GRI standards. Figures under the economic and financial statements were audited by *Ernst & Young Audit SAS*, whose certificate

is enclosed herewith in the annexes. Compliance with the eighth Communication on Progress (COP) was verified by the Local Network of the Global Compact in Colombia. Finally, a Content Index revision was carried out by GRI.

During 2020, Ecopetrol made the decision to report under the Sustainability Accounting Standards Board (**SASB**), the Stakeholder Capitalism Metrics (**SCM**) of the World Economic Forum (**WEF**), and the TaskForce on Climate-related Financial Disclosures (**TCFD**). This information will be reflected in this report, and aligns the company with the best practices and international standards on sustainability disclosure.



Dow Jones Sustainability Index (DJSI)

In 2020, the company obtained a rating that allowed it to enter the DJSI Latin American Integrated Market.



CDP-Climate Change

Ecopetrol's participation in the most recent version of CDP-Climate Change allowed an improvement of its rating from previous years. For the year 2020, Ecopetrol obtained a "C" grade.



CDP- Water:

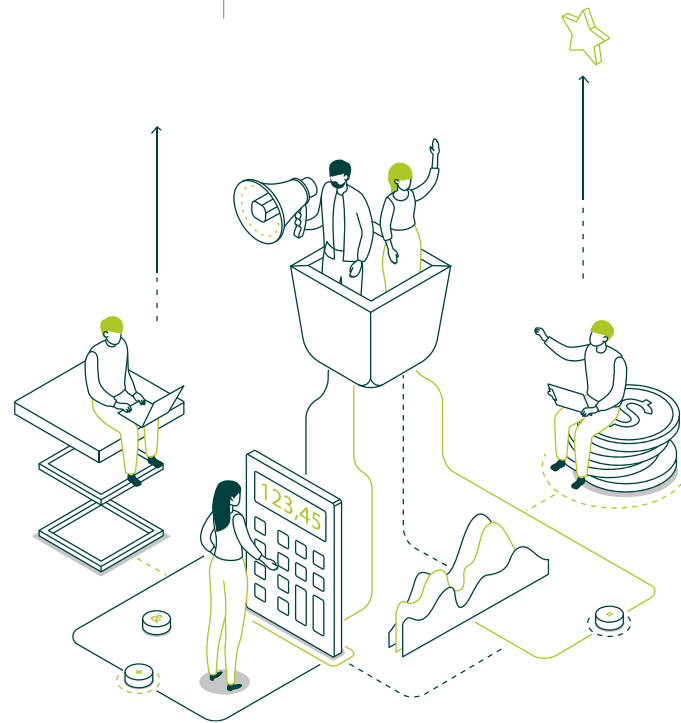
Ecopetrol's participation in the most recent version of CDP-Water allowed it to maintain its "B" rating from previous years, securing a spot in the list of companies with the best rating in the Oil & Gas sector.



Sustainable Development Goals

The information related to social and environmental programs and investments is articulated with the Sustainable Development Goals of the United Nations. The company focused its efforts in five prioritized SDGs: SDG-6: Drinking water and sanitation; SDG -7: Affordable and clean energy; SDG-8: Decent work and economic growth; SDG-13: Climate Action.

Ecopetrol has a wide range of social and environmental projects and investments and, given their interconnection, the company also has investments in other non-prioritized SDGs. Further information can be found in the Economic, Social and Environmental sections of this report.



GRI 102-50

LIMITS AND SCOPE

This report presents the relevant topics, the fulfillment of goals and the most important indicators of the economic, social and environmental management of Ecopetrol S.A. for the FY running from January 1 to December the 31st, 2020. Some sections include information from companies belonging to Ecopetrol Group (EG), corresponding clarifications will be made.

GRI 102-53

POINT OF CONTACT

Any concern, query or request for additional information about this report should be sent to the following email: reportedesostenibilidad@ecopetrol.com.co

Similarly, this report is available to the general public by [clicking here](#), in its English and Spanish versions.



GRI 102-14, 102-56

MESSAGE TO OUR STAKEHOLDERS



FELIPE BAYÓN PARDO
President of Ecopetrol S.A.

The year 2020 was one of great challenges, which led us as individuals and as companies to face unprecedented situations. We experienced a pandemic with devastating health tolls that made visible the vulnerability of global value and commercial chains; we saw how some sectors had to close operations overnight and others had to adapt to a new normal; and we witnessed one of the biggest oil price crashes in history.

Despite these complexities, Ecopetrol responded in a timely and expeditious manner. Thanks to everyone's commitment, we continue to be a pillar of the country's energy security by ensuring the uninterrupted fuel supply required for the country's advancement and development – even amidst times of pandemic.

For this reason, I am pleased to present the main results for 2020, which we achieved as a team. This is the twelfth disclosure reported under the *Global Reporting Initiative (GRI)* methodology, the fourth under the new GRI* standard, and it is equivalent to the Communication on Progress (COP) required by the United Nations Global Compact – an initiative we have been committed to for 10 years, to which we ratify our commitment to its 10 principles.

In order to communicate to all our Stakeholders with greater transparency, we have started an exercise that allows us to incorporate the *Stakeholder Capitalism Metrics* of the World Economic Forum (WEF) and the *Sustainable Accounting Standards Board (SASB)*. Thus, we are in alignment with global best practices in information disclosure.

Since March 2020, Ecopetrol launched a rigorous plan in response to the pandemic, with remote work for more than 10,000 employees, supported by the digital transformation already underway. In order to safeguard the health of workers and communities, we kept a vital minimum of people working in the field under strict biosafety protocols.

*The Global Reporting Initiative (GRI) is an international organization that purports to promote the preparation of sustainability reports in all types of organizations. To this end, it promotes guidelines that include the principles and indicators to measure and publicize its economic, environmental and social performance.

While the pandemic starkly showed us that we live in a fragile, uncertain and changing world, it has also prompted us to be more supportive of our most vulnerable fellow nationals. In our commitment to the country, we allocated resources for more than \$ 88 billion to strengthen health systems, institutions, and to support the population in 21 departments with humanitarian aid. This was all coordinated alongside national and local governments, as well as with the private sector.

In parallel, we reformulated our business plan for the 20-22 period in record time, in order to quickly and efficiently adapt to the price and demand crisis. This was recognized by risk rating agencies that reaffirmed their confidence in our Company.

In 2020, we demonstrated the resilience of the company once again and – despite the impacts of the situation – we reached important milestones on most fronts which I will refer to briefly, but which you will find in further detail along this report.

One of these achievements was the progress in our TESG Strategy: a major undertaking that defines how we manage the present looking to ensure our future in environmental, social, economic and governance terms, using a technological vision that allows us to accelerate and scale innovative solutions to current challenges all while personalizing and decentralizing our relationship with stakeholders.

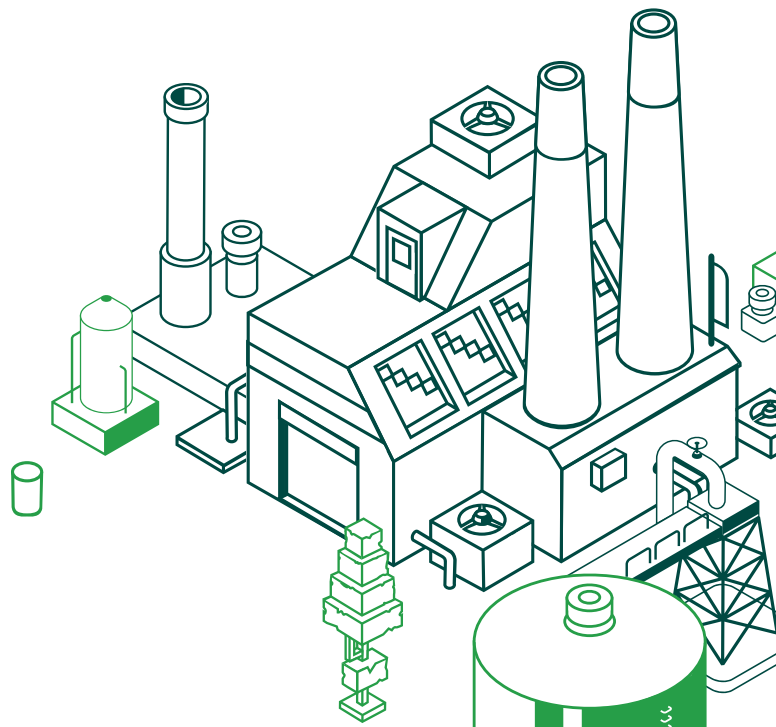
At Ecopetrol Group we are committed to the energy transition. To achieve this, we have a robust decarbonization plan, growth in renewable energy sources, increased natural gas production and participation in other energy fields, all leveraged on digital transformation and technological convergence.

In line with the above, we set a new renewable energy goal of 400 megawatts by 2023 and began construction of the San Fernando Self-Generation Solar Park in Castilla La Nueva (department of Meta), with a capacity of 59 MW – the largest in its kind nationwide. In 2021 we began the construction of six solar ecoparks to continue growing our portfolio. These ecoparks will allow us to reduce the emission of approximately 1.1 million tons of CO₂e in the years of duration of the contracts.

Until 2020's closure, we have already achieved a reduction of 8.4 million tons of CO₂e, of which 1.7 million tons have been verified. Ecopetrol has set the goal by 2030 of reducing CO₂ emissions (Scope 1 and 2) by 25% regarding the base line established in 2019.

By 2050, Ecopetrol Group's goal is to achieve net-zero emissions (Scope 1 and 2), additionally we will seek a 50% reduction of total emissions (Scope 1, 2 and 3). We are the first Oil and Gas company in Latin America to assume this ambitious commitment, contributing to the targets of the Paris Climate Agreement (PCA) and Colombia in reducing emissions, and following the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

In addition, we adhered to the World Bank's (WB) "Zero Routine Flaring by 2030" Initiative, which aims to eliminate routine gas flaring in oil and gas fields as soon as possible, and no later than 2030.



ABOUT THIS REPORT

We also joined the “*Sembrar Nos Une*” (*Planting Brings us Together*) initiative, promoted by the National Government through the commitment to plant six million trees by 2022. Since 2018, Ecopetrol Group has planted 1.8 million trees between voluntary activities and environmental compensation

As part of the environmental commitment to the production of clean fuels, and in line with national policies for the improvement of air quality in the country, at the end of the year Ecopetrol began the delivery of gasoline averaging 50 parts per million (ppm) of sulfur, set against a maximum allowed of 300 ppm, for distribution to the final consumer -complying with the provisions of the national regulation one year in advance.

On the operational front - and despite the complexities of the environment due to the health issue and social isolation measures - we invested the equivalent to about \$2.647 MUSD under strict biosafety protocols as Group Ecopetrol. 78% were implemented in Colombia, which allowed us to boost economies and employment in the regions where we operate.

We gave operational continuity to our Pauto and Floreña fields in the Llanos Orientales Piedemonte, an operation we received from our subsidiary Equión. We also became consolidated in the Permian Basin in the United States, where we developed a plan with our partner OXY to face the price situation, preserve capital and protect cash. Similarly, we are making progress with the preparations for Kalé, our Pilot Project for the Comprehensive Research of Unconventional Oil Reservoirs to be developed in Puerto Wilches, Santander.



In exploration, we began drilling our first exploratory well in Mexico, Moyote-1. As for production, we are in continuous search for efficiencies and operational excellence; in addition, we increased natural gas production by five percent as compared to 2019 – in line with our strategic purpose of turning natural gas into the engine of the energy transition, despite the impact on demand caused by the pandemic.

In September 2020, the refineries reached a historical monthly load, after being reduced by almost half in April given the demand contraction due to lockdowns. We also launched the Integrated Operations Center – CIO (from its original Spanish language initials: *Centro Integrado de Operaciones*) of our transportation subsidiary Cenit, which allows comprehensive control of transportation systems, optimizes the delivery of oil and gas and generates significant energy savings, among others.

Thanks to a successful commercial strategy, we executed a stage-based crude sales plan that minimized the negative impact on price differentials due to the effects of COVID-19. This – coupled with a rigorous cost and expense adjustment plan – allowed us to close the year with profits unlike most companies in the sector. We even prepaid loan commitments for the equivalent of approximately \$ 1.6 trillion and we maintained our investment grade.

As an organization, we collectively built our Declaration of Culture with the six principles that reflect our company behavior: Life First, Collaboration, Ethics & Transparency, Innovation, Excellence and Leadership. We took new steps to become consolidated as a more diverse and inclusive company, and we rank second atop the list of public companies in the ‘*Ranking Par*’ that measures good practices in gender equality.

The risks from the pandemic have not ceased; today more than ever, we must work together to take care of ourselves and continue complying strictly with biosafety measures and protocols.

Although this year 2021 has shown us a gradual recovery in oil prices and an increase in demand back to pre-pandemic levels, we shall closely follow the evolution of the markets to better adapt to the ‘new normal’.

Ecopetrol is committed to being the keystone of the country’s economic reactivation. For this reason, 80% of the resources of the 2021 investment plan – estimated between USD \$ 3.5 billion and USD \$ 4 billion – will be used for projects in Colombia.

Finally, I would like to express my deepest gratitude to our workers, contractors, partners, shareholders and investors, clients, communities, unions, local and national authorities, as well as to the members of our Board of Directors for all the support, trust and the successful guidance that they have given us to continue growing, to make Ecopetrol a much more solid and sustainable company for the benefit of our country and its future generations.

Throughout our history, as Colombians we have demonstrated that we are capable of overcoming the challenges we face, and the current situation is no exception. I am confident that with everyone’s support, with solidarity and empathy to those who need it most, we shall move forward to become stronger and more resilient.



FELIPE BAYÓN PARDO
President of Ecopetrol S.A.

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About ECOPETROL

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102-7, 102-9, 102-45

WHO WE ARE

Ecopetrol S.A. is a company organized under the form of a national, limited liability company, linked to the Ministry of Mines and Energy. Ecopetrol S.A. is a mixed economy company of an integrated commercial nature in the oil and gas sector, which participates in all links of the oil value chain: exploration, production, transportation, refining and commercialization.

In accordance with the law, Ecopetrol is also empowered to carry out research, development and commercialization of conventional and alternative sources of energy; production, mixing, storage, transportation and commercialization of oxygenating components and biofuels, port operation and related, supplementary or useful activities for the development of the above.

Storage Tanks
Castilla III Production Field

GRI 102-3, 102-4, 102-45

Ecopetrol has operations located at the center, south, east and north of Colombia, as well as abroad. It has two refineries one in Barrancabermeja and one in Cartagena. Through subsidiary company (specialized in oil transport and logistics), Ecopetrol owns three ports for the export and import of fuels and crude oil in Coveñas (Sucre) and Cartagena (Bolívar) with access to the Atlantic, and Tumaco (Nariño) in the Pacífico. Cenit also owns most of the country's oil and pipeline pipelines that connect production systems with large consumption centers and maritime terminals. In addition, Ecopetrol also has a stake in the petrochemical and biofuel business and is present in Brazil, Mexico and the United States (Gulf of Mexico and the Permian basin in Texas).

Ecopetrol S.A. shares are listed on the Colombian Stock Exchange – BVC (from its original Spanish language initials: Bolsa de Valores de Colombia) and the New York Stock Exchange – NYSE represented in ADR (American Depositary Receipt). The Republic of Colombia is Ecopetrol Group's majority shareholder with an 88.49% participation.

Ecopetrol's shareholding structure is presented in the Ecopetrol Group Special Report **below.**



GRI 102-13

Associations, unions and voluntary initiatives

The different associations, unions and voluntary initiatives that Ecopetrol supports are related to the business, and to activities that support its sustainability.

The organizations that Ecopetrol partook during 2020 are listed **below.**



INTERNATIONAL MARKET ENVIRONMENT

The year 2020 was atypical. The COVID-19 pandemic became known at the end of 2019, yet no one anticipated its effects on the world economy –especially in the oil and gas industry.

Its global spread forced several governments to implement lockdowns in the first and second quarters of the year, rapidly and profoundly destroying the global demand for refined oil products in the first part of the year (demand fell by 16 mmbd between the end of 2019 and the second quarter of 2020).

Demand level recovered as the spread of the virus was partially controlled, but has not been uniform and recovery levels have not reached previous figures yet. Platts estimates that demand for crude oil fell by 8.7 mmbd in 2020, and that it would have a partial recovery of 6.3 billion dollars in 2021.

Crude supply was slow to respond to the signs of lower prices. Even amid the pandemic, 2020 saw a temporary price war between Saudi Arabia and Russia that brought the price of Brent to a daily low of 23 usd/bl in March, with Saudi Arabia promising to increase its supply in the middle of a fairly affected demand.



ABOUT ECOPELROL

The price war was short-lived and in early April OPEC and its partners (OPEC+) agreed to reduce their supply by 10 mmbd from May. In August, the cuts decreased to 8 mmbd and remained that way for the rest of 2020. The OPEC+ cut was fundamental for the balance of the market, allowing the recovery in demand over the last months thanks to the partial decrease from the large inventories that accumulated in the first half of the year (1.580 million barrels according to Platts).

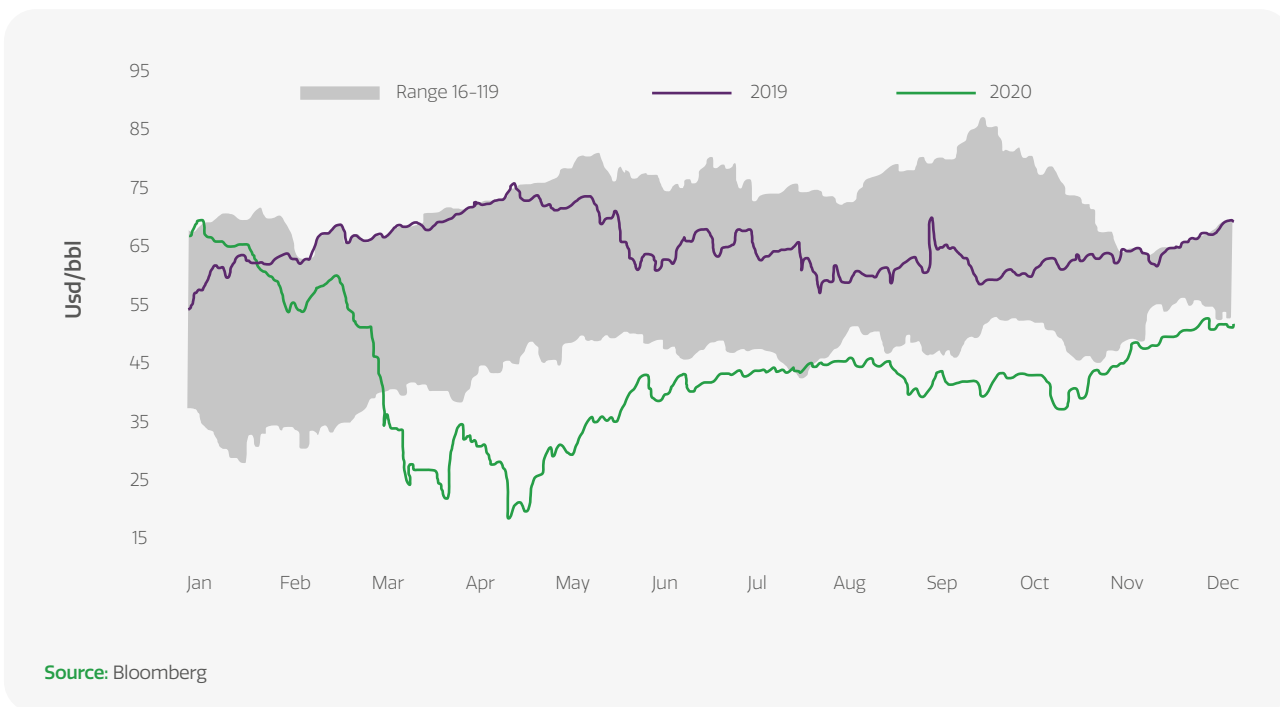
Brent prices began the year 2020 at \$64 USD/bbl and fell rapidly, reaching a monthly minimum of \$ 27 USD/bbl in April. Since then, Brent crude oil has gradually recovered, and in November, it received a definite boost when positive results were known from the first laboratories that disclosed the effectiveness of their vaccines for the coronavirus (Moderna, Pfizer and AstraZeneca).

These results increased market optimism, allowing Brent to close the year at 50 USD/bbl (see chart). For all 2020, Brent averaged 42.2 USD/bbl – the lowest value in the last 15 years and 33% below the 2019 value.

In this context, the products that were most affected by the lockdown measures were gasoline and jet fuel due to the mobility restrictions that were imposed in much of the world. Diesel, fuel oil and naphtha were affected to a lesser extent given that industrial activity was privileged from the beginning.

In addition, there was a change in the composition of household spending: the lower consumption of services opened space for the demand for goods, favoring manufacturing and in turn the demand for freight transport and the petrochemical industry. Thus, at the end of 2020 the demand for gasoline was still at 90% of 2019 figures, jet fuel at 54%, and that of diesel and fuel oil were at 96% and 97%, respectively (IHS Markit calculations).

Graph 01.
Evolution of the price of Brent



The year 2020 was difficult for refineries. In addition to facing low prices for refined products due to the sharp drop in demand, they had to operate on an expensive diet. Intermediate and heavy crude oil became more expensive in the second half due to lower OPEC production. The global refining margin calculated by Wood Mackenzie averaged 1.7 USD/bl in 2020, below the figure of 3.6 USD/bl in 2019 – a margin that was already among the lowest in recent history.

High volatility was also observed in the natural gas and LNG (liquified natural gas) market during 2020, due to the effects of COVID-19 on global supply and demand. Henry Hub – the reference price in the American market – went from just 1.4 USD/MMBtu in early April to **3.0 USD/MMBtu** at the end of October, driven by declines in large-scale production due to

the decrease in oil and gas drilling activity. Low price levels encouraged the substitution of natural gas for coal – especially during the summer.

Associated gas production losses generated a historical underutilization of infrastructure to export LNG from the United States, which dropped to **40%** in some months of the Summer, at a time of high floating LNG storage. Additionally, the numerous hurricanes on the Gulf Coast had an impact on the volumes exported from the United States.

The pandemic also had a significant impact on the growth of global demand for LNG in 2020; however, worldwide LNG trade increased above 2019 levels. The robust growth in Asian demand during the first and fourth quarters offset the losses of the middle of the year.

Environment of the national economy

The Colombian economy had a rapid slowdown in its activity in 2020, with the lockdown imposed in the country at the end of March. GDP growth went from growing 0.1 % annually in Q12020 to a 14,4% drop annually in the second quarter.

As restrictions were lifted, the economy began to recover in such a way that in the third and fourth quarters it had a contraction of 8.3% and 3.5% annually, respectively. Domestic demand was most affected; private consumption fell 5.8% on average

throughout the year (national unemployment rate rose to 20% midyear) at the time investment registered a strong contraction with an average 21.2% drop in this same period.

The services sectors have been most affected, although the sharp slowdown in mining is also noteworthy (-15.7% per year on average). In total, the economy for all of 2020 contracted by 6.8% - the steepest drop in recent history.

Ecopetrol drives its transformation

For several years Ecopetrol has worked in favor of economic, social and environmental development based on solid corporate governance and a business conduct based on values and ethical principles, with transparency as the central axis.

This work has been led hand in hand with our stakeholders through initiatives and strategies, based on a framework of corporate responsibility and sustainability. Today, the company has strengthened the measurement of its management in environmental, social and governance (ESG) issues, in line with the highest international standards.

The planet and, by extension, all of us, are faced with what are perhaps the greatest challenges for humanity in its modern history. As an active member of society, Ecopetrol is aware of the call to lead by example, leaving a legacy that lasts over time and that transcends financial surpluses.

Added to that horizon is the speed with which environments are changing today, and the urgency with which many challenges must be tackled. Although the world is rapidly moving to new frontiers in science, technology and innovation, the identification of new technologies takes time and these findings should not be used exclusively for business benefit.

For this reason, at Ecopetrol we defined Technology (T), leveraged on applied innovation and the revolution induced by digital transformation, as a key catalyst to accelerate and achieve the necessary changes to face ESG challenges in a timely manner. This is the new underlying imperative in our TESG Strategy.

The convergence between Sustainability and Ecopetrol's business strategy marks a milestone that will change the future of the company, showcasing its transformation into an energy company determined to leverage technology. With this, we validate our commitment to be a company *from us all to us all*, moving towards the creation of value in a sustainable future.

GRI 102 – 16, WEF 1

BUSINESS STRATEGY

As part of our mission, we work every day to build a better, profitable and sustainable future, with a healthy, clean and safe operation. Similarly, we ensure operational excellence and transparency in each of our actions through the construction of mutually beneficial relationships with stakeholders.

Ecopetrol Group's **2020+** strategy addresses the challenges of the environment, seeking to hold its competitiveness and sustainability in scenarios of greater volatility. Ecopetrol will continue to strategically lean towards creating value as an integrated business group. The pillars of this strategy are growth in reserves and production based on strict capital discipline, cost efficiency and cash protection.

To build resilience in the face of new energy transition scenarios, Ecopetrol continues to work on reviewing its portfolio in order to ensure its competitiveness and identify assets that could be stranded due to the effects of climate change.

Plans to avoid stranded assets, divest or develop assets in cleaner ways, are under construction and will allow EG to be more resilient in the face of climate change and the energy transition.

To learn more about the 2020+ strategy, enter [here](#).



WEF 1E

THE TESG STRATEGY

Ecopetrol has managed and reported its sustainable vision from more than 10 years as part of its strategy. During 2020, Ecopetrol revised the taxonomy of its ESG management, in view of the growing international trends. Thus, the organization worked on the development of this new strategy: TESG.

In a world of rapid and constant changes like this, sustainability must be approached from the application of technologies to implement innovative solutions to current and future challenges in a fast-paced and exponential manner. This is what TESG means for Ecopetrol.

The TESG strategy integrates technology with traditional processes of identification, prioritization and management of environmental, social, economic and governance issues, facilitating innovative solutions, accelerated implementations and timely scalability.

This strategy complements the business strategy by incorporating a framework that allows Ecopetrol to transcend from being a productive apparatus to being an actor within society, contributing to the construction of a future in which the economy, society and the environment sustainably coexist.

GRI 102-46, 102-47, 102-48, 102-49, WEF 3

Materiality

Ecopetrol has managed and reported on sustainability for more than 10 years. During 2020, Ecopetrol reviewed its ESG taxonomy, considering shifts in international trends. One of the main findings of the project was that sustainability needs to be addressed from a technology standpoint that allows for the implementation of innovative solutions to current and future challenges in an accelerated and exponential way. The technology, environmental, social, economic and governance (TESG) strategy integrates technology to ESG issues, allowing for innovative solutions to have accelerated implementations and timely scalability, and is one of the four lines of action of the Energy Transition Roadmap.

This strategy is based on a materiality analysis, which allowed the identification of 28 TEGS issues that have or could have a significant impact (positive or negative) on our ability to generate value in the short, medium and long term and/or a significant relevance to stakeholders. Based on this analysis, Ecopetrol identified materiality as a dynamic and recurring process that needs to be constantly reviewed. Moreover, although Ecopetrol manages all 28 TEGS issues using four distinct categories (Exceptional, Outstanding, Differentiated and Compliance), for this and other reports we shall consider material only those elements classified as Exceptional and Outstanding.



28 TEGS Issues: Materiality Analysis



Compliance

Elements circumscribing management merely within the current regulations and requirements in matters of information disclosure.

- Transparency and prevention of compliance risks
- Publicity of information
- Divestiture of wells and facilities
- Supply Chain Management
- Cultural (ethnic – archaeological heritage)
- Labor standards
- Real estate property rights management
- Land use
- Areas of conservation and environmental protection
- Public Policy
- Comprehensive management system
- Access to information and citizen participation



Differentiated

Elements that help Ecopetrol stand out among other companies with State participation in Colombia and globally.

- Corporate governance
- Diversity and inclusion
- Business ethics and risks culture
- Operational Continuity system



Outstanding

Implementing best-in-class practices to ensure Ecopetrol's competitiveness.

- Health and process safety
- Biodiversity and ecosystemic services
- Talent attraction, development and retention
- Circular Economy
- Air Quality
- Fuel Quality
- Use of energy and alternative sources
- Operation-related incident prevention and management
- Prevention and management of incidents caused by third parties



Exceptional

Elements through which Ecopetrol seeks to excel and be recognized worldwide for the creation of best practices.

- Climate change
- Integrated Water management
- Regional development

ABOUT ECOPETROL

In its disclosures, Ecopetrol will prioritize the following, based on their materiality.

Material elements: Ecopetrol

Click each icon to see the details of each issue

Climate change	Energy Use and Alternative Sources
Integrated Water Management	Fuel Quality
Regional development	Air quality
Biodiversity and Ecosystem Services	Health, safety, and environment
Circular Economy	Talent attraction, development and retention.

The TESG Strategy must be fueled by the work of our workers; for this reason, it is based on the Declaration of Culture.

To know more about the **Declaration of Culture** [click for further details.](#)



Exceptional material issues

At Ecopetrol Life is First; that is why “we take care of ourselves and we take care of the planet”.

Under its TESG Strategy, the Company must ensure a Responsible Operation with exceptional management in three issues: Climate Change, Integrated Water Management, and Regional Development, while working on the interrelationships that these have with other issues at outstanding, differentiated and compliance levels.

01

Climate change

Within the **Climate Change Strategy**, Ecopetrol seeks the decarbonization of the operation through a rigorous exercise that allows the company to adapt to the effects of global warming.

The company aims to reduce emissions using energy efficiency (use of alternative energy and sources), nature-based solutions (NBS) and natural climate solutions (biodiversity and economic services) among other mechanisms. In the latter, it is sought to take advantage of operating in one of the most biodiverse countries in the world to implement unrivaled NBS

as compensation mechanisms seeking to achieve the goal of carbon neutrality by 2050.

In addition, climate change will also be exceptional in management and strategic vision given its close relation with two elements: circular economy and Integrated Water Management.

To learn more about the Climate Change strategy and decarbonization plan, [click here.](#)



Roadmap of the Evolution of Climate Change

The Company worked on the construction of a carbon neutrality roadmap with a net-zero GHG emissions goal, to meet the 2030 and 2050 goals. This includes the incorporation of new opportunities in emissions compensation, as well as key milestones to include climate change criteria in the decision-making processes of different company areas such as:

1. Definition and incorporation of variables related to GHG in budget allocations (e.i. analysis of sensitivities related to carbon price and carbon intensity).
2. Identification of divestment criteria related to GHG.
3. Hedging alternatives for climate related risks.
4. Access to capital alternatives for green investors.

To learn more about the **Climate Change strategy and Decarbonization Plan**, [click here](#) or refer to the Environment chapter of this report.



02 Integrated Water Management

Another element where we must exceptionally lead is integrated water management, which is essential both for Ecopetrol's operation and for the communities where the Company operates.

From the operation viewpoint, Ecopetrol seeks to achieve excellence in the protection of water and operational risks of contamination reaching a ZERO Program, which includes zero spills, zero environmental liabilities and zero discharges outside the required specifications.

Additionally, we seek to develop – together with other public and private actors – robust mechanisms for water governance; this exceptionally contributes to strengthen relationships with local communities and their environments, around the use and availability of water resources.

Operating responsibly also impacts the communities in the areas where we are located. Our relationships must be based on trust and mutual benefit, supporting the viability and durability of operations in these areas.

To learn more about the Climate Change and Integrated Water Management strategy, go to the environmental chapter of this report.



03 Regional development

Regional Development is the third element where Ecopetrol will have outstanding management. Ecopetrol's current contribution to the territories is dynamic, and responds to the need to support the company's operations and projects with a vision of shared value. It identifies and contributes to bridging gaps and meeting priorities of the communities and territorial entities, also maintaining a solid relationship, aiming at teamwork and strengthening their capacities. Ecopetrol will assertively contribute to closing gaps in the communities through investments in infrastructure and access to public services.

In search of a more comprehensive development, we complement these investments with programs that create opportunities and strengthen productive vocations in these populations.

Diversification of the portfolio towards low-emission businesses

Steps have been defined under the current work on the evolution of the Corporate Strategy to strengthen Ecopetrol's portfolio. The first level ensures active participation in businesses in the Oil & Gas (O&G) sector – considered low in emissions. This is EG's commitment to consolidate a gas business, which led to the creation of the Gas Vice Presidency.

Secondly is the diversification towards businesses in the expanded energy value chain, which today represent an important creation of value. In this sense, the electricity value chain was considered a great opportunity – with transmission business being the most attractive.

In that sense, in January 2021 Ecopetrol announced its intention to acquire 51.4% of the Nation's shares in ISA through a non-binding offer. ISA is a leader in electricity transmission in Latin America, and this would represent an important step for the diversification of Ecopetrol's portfolio. It also brings great growth opportunities considering the electrification of energy demand.

Lastly, EG is building a portfolio for incubating future business opportunities (such as hydrogen) that could represent an important generation of value. All the options seek to ensure alignment with the post-COVID economic reactivation and would strengthen EG in the long term to withstand unexpected and fortuitous events.

New business

In line with EG's strategy and capital discipline criteria, efforts were focused on the evaluation and execution of businesses that would allow the rotation and optimization of the portfolio.

In this context, asset groups were identified for the strategies of total divestment and incorporation of partners, seeking, on the one hand, to fulfill the value promise of some of them and, on the other, a cash substitution through the incorporation of strategic partners with a carry in investments in favor of Ecopetrol.

GRI 103-1

A bidding was launched in 2020 to receive offers on nine minor GE production fields. These fields represented less than 1% of the Company's production and reserves potential. The process was carried out through an electronic auction based on an upward bidding, where the companies that met the accreditation requirements of the process and those established by the National Hydrocarbons Agency (ANH) for this type of assets participated. As a result, an offer was received for one of the assets and passed to the next stage of the process, which corresponds to the negotiation of the contractual documents, request for assignment before the ANH, and closing of the transaction.

Similarly, a successful competitive process was jointly carried out by Ecopetrol and its partner with a plural number of bidders for 100% of the capital stock of Offshore International Group (OIG), the parent company of Savia (Peru). As a result, De Jong Capital LLC. acquired the shares of the company (OIG), in which Ecopetrol had a participation equivalent to 50% of the capital stock. The decision to offer such participation in the OIG Group was due to strategic reasons, geographic focus, and as part of EG's adjustment plan.

Business opportunities were also realized that made it possible to leverage assets with partners (via carry in investments in favor of Ecopetrol). The CPI – Palagua Incremental Production contract was renegotiated, which enabled the drilling of 120 *infill* wells by the partner, Unión Temporal Ismocol, Joshi and Parko (IJP) during the next five years.



In December 2020, a transaction was closed whereby Ecopetrol and Shell – through its subsidiary *Shell EP Offshore Ventures Limited* – signed an agreement for Shell to acquire a 50% stake in the following blocks: Fuerte Sur, Purple Angel and COL-5, in deep waters of the Colombian Caribbean. Shell will be the operator. For more information, see chapter 3 – Value Chain, Exploration section.

Ecopetrol’s strategy in Brazil was consolidated with a focus on the Pre-salt play. The company’s participation was formalized with a 30% stake in the Gato do Mato discovery, located in two offshore areas in the Santos basin of Brazil. The fourth successful well (GdM-4) was drilled in Gato do Mato, and the technical and business case was updated, incorporating 111 mmbp of discovered resources to the portfolio. Similarly, the gas sales agreement from Ecopetrol to Shell was signed, as a commitment established in the agreement to purchase Shell’s stake in this asset.

Ecopetrol and OXY consolidated operations during 2020 as partners in the Joint Venture in the Permian basin in Texas. In March 2020, in the face of the abrupt fall of the WTI price and following the provisions of the contract regarding the protection of low prices, Ecopetrol and its partner designed a program to slow down activity, with the aim of preserving capital and protecting the cash position.

After a detailed review and adjustment of the 2020 development plan under the new perspectives of prices and optimizations, the partners reactivated operations at the end of July with a drilling campaign of 22 new wells. These wells will be completed and put into production in the first quarter of 2021.

Additionally, the knowledge transfer program was consolidated with the incorporation of 16 Ecopetrol employees as secondees of the JV operation. Seventeen knowledge workshops were also conducted on the development of unconventional assets with Ecopetrol officials in Colombia.

GRI 102-20, WEF 2

Organizational structure

The organizational structure corresponds to positions that respond directly to the President and the Executive Vice President, effective as of December the 31st, 2020.

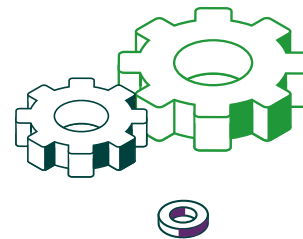
To know more about the **Organizational Structure**, [click here](#)



GRI 102-10

Changes in the organizational structure

The main changes made to the organizational structure during 2020 are listed below:



Creation of the Gas Vice Presidency

Creation of the Vice Presidency of *Piedemonte* due to the integration of the *Piedemonte* assets

Implementation and adjustment of the design of the Corporate Vice Presidency of Human Talent

Elimination of the Vice Presidency of Transformation and reorganization of its functions

Adjustment to the regional model and merger of the South Regional Vice Presidency and the East Regional Vice Presidency into the East Andean Vice Presidency

Update on the roles and responsibilities of the first and second lines in the Innovation and Technology Process



GRI 102-40, 102-42, 102-43, 102-44

Management with stakeholders

In order to meet the company’s effort to define our T ESG Strategy, we updated its stakeholders during 2020 considering that their perceptions and expectations are one of the inputs to rate material matters – under the materiality analysis.

Given the different approaches of the term *stakeholders*, we took the following considerations in the update exercise:

- An inclusive definition was adopted. At present, mere identification and management of stakeholders is not enough to achieve viability of operations; opinions, perceptions and expectations of stakeholders are paramount, and are taken into account in the strategic definitions of the Company – including its long-term vision.

- Include stakeholders with whom the company must manage the relationship, for instance, by undertaking concrete actions.
- Different Stakeholders may have shared interests.
- Interests are multidimensional and cannot be valued solely in economic terms.

The update of the methodology used by Ecopetrol for the identification of stakeholders and sub-stakeholders was based on the AA1000 standard. Based on this parameter, we carried out the following actions during 2020:

To know further details about the application of the AA1000 standard, [click here](#).



Purpose

The purpose of the stakeholder management was adjusted to “Develop a responsible business management with Stakeholders that leverages decision making and the Company’s strategic vision, in order to created value in the long term”.

This commitment was reaffirmed with the incorporation of “relevance for stakeholders”, as a criterion in the exercise of materiality and in the construction of the T ESG Strategy.

Validation survey

From the initial list of seven stakeholders, and the benchmarking² with other companies in the Oil & Gas sector and some Colombian companies, a stakeholder validation survey was applied to 1,084 leaders of the organization. It should be noted that EG has a steady relationship with these stakeholders; therefore we translated their perceptions and expectations and included them in the exercise proposed. The survey was answered by 380 leaders, with a 4.1% error margin a 95% confidence level.

With other companies in the O&G sector and some Colombian companies, a Stakeholder validation survey was applied to 1,084 leaders of the organization. It should be noted that EG has a steady relationship with these Stakeholders; therefore we translated their perceptions and expectations and included them in the exercise proposed. The survey was answered by 380 leaders, with a 4.1% error margin a 95% confidence level.

As a result of this initial exercise, the stakeholders identified were as follows:

Table 01: Stakeholder survey results

Stakeholders	Average (n=380)
Clients	97.61%
Shareholders and investors	96.29%
The National State	92.84%
Society and community	91.64%
Employees, retirees and their beneficiaries	91.07%
Associates and partners	89.29%
Suppliers	81.30%

Source: Ecopetrol, Office of the Secretary General and Support to the Presidency

² The following were included – inter alia: BP, Repsol, Petrobras, Cerrejón, Drummond, EPM, Bancolombia, SURA and Nutresa. It was found that most of the companies share the same seven Stakeholders as Ecopetrol (Shareholders and investors, Clients, Contractors and their employees, Partners, State, Employees and Society and Community) and that at least 40% of them included the media, opinion leaders, non-government organizations and cooperation organizations.


Relevance of Stakeholders and Substakeholders

The stakeholders were rated according to their relevance under the following attributes: dependency, responsibility, tension and influence³. The results were reaffirmed and substakeholders were identified. The result of this update is the definition of seven stakeholders and 35 sub-stakeholders, **as per the 2020 Ecopetrol General Stakeholder and Sub-Stakeholder Map.**


To know further details of the General Map of IG's and Sub IG's of Ecopetrol, [click here.](#)

Alignment with the TESG:


A company area responsible is assigned for each stakeholder identified, under the following element definitions:




Value Promise: Statement that encompasses the fundamental elements of the value proposition of the company for each stakeholder in the context of the exercise of corporate responsibility. It is built considering their expectations, possibilities, and the strategic interests of the Company.



Indicators: Verifiable measures of changes or results that allow to monitor goal achievement and the value promise established for each stakeholder.



Objectives under the TESG Strategy: Statements of goals that must be achieved to fulfill the value promise established for each stakeholder.



Sub-Stakeholder: These are the groups that can be formed within each group. Sub-stakeholders are built upon the basis of the identification of common characteristics that are relevant in matters of relationships.

GRI 102-21, 102-29, 102-31, 102-33

Consultation of perception and expectations of Stakeholders

Ecopetrol periodically conducts consultations on the perception and expectations of stakeholders. This consultation collects stakeholders' assessment on economic, social and environmental issues, and their results are presented annually to the Board of Directors' Corporate Governance and Sustainability Committee.

In addition to providing key inputs to build the Company's annual interaction plans with each group, this exercise helps to understand the needs and expectations of stakeholders, in line with established management systems (ISO 9001, ISO 14001, OSHAS 18000).



The details of the results of the perception survey can be consulted by clicking [here.](#)

³ Dependency: People or groups that depend directly or indirectly on the activities, products or services of the organization, or on whom the organization relies on to operate.
 Responsibility: groups or people with whom the organization has or may have legal, operational, commercial ethical and/or moral responsibilities in the future.
 Tension: Groups or individuals who need immediate attention from the organization regarding financial, environmental, social or economic matters in general.
 Influence: Groups or individuals that may have an impact on the organization or on other strategic Stakeholders for strategic or operational decision-making.

Dialogue with stakeholders

Ecopetrol has mechanisms to properly receive and manage requests, complaints, claims and suggestions (PQRS – from its original Spanish language initials: *Peticiones, Quejas, Reclamos y Sugerencias*), ensuring a timely response. Similarly, participation scenarios are created to report on company activities, seeking to build a close relationship between stakeholders and the organization.

The information from the PQRS and the participation scenarios allows us to identify opportunities for improvement in different processes, and to build alternative solutions in the face dissatisfaction situations.

This dialogue with the stakeholder at the national level is carried out in Ecopetrol through the Citizen Participation Offices - OPC (from its original Spanish language initials: *Oficinas de Participación Ciudadana*) that guarantee the right of the interested parties to express their positions and concerns, thus becoming a space for interrelation that strengthens citizen rights.

Click [here](#) to find out more about know the presence of the Citizen Participation Offices – OPC at the regional level and our communication channels.



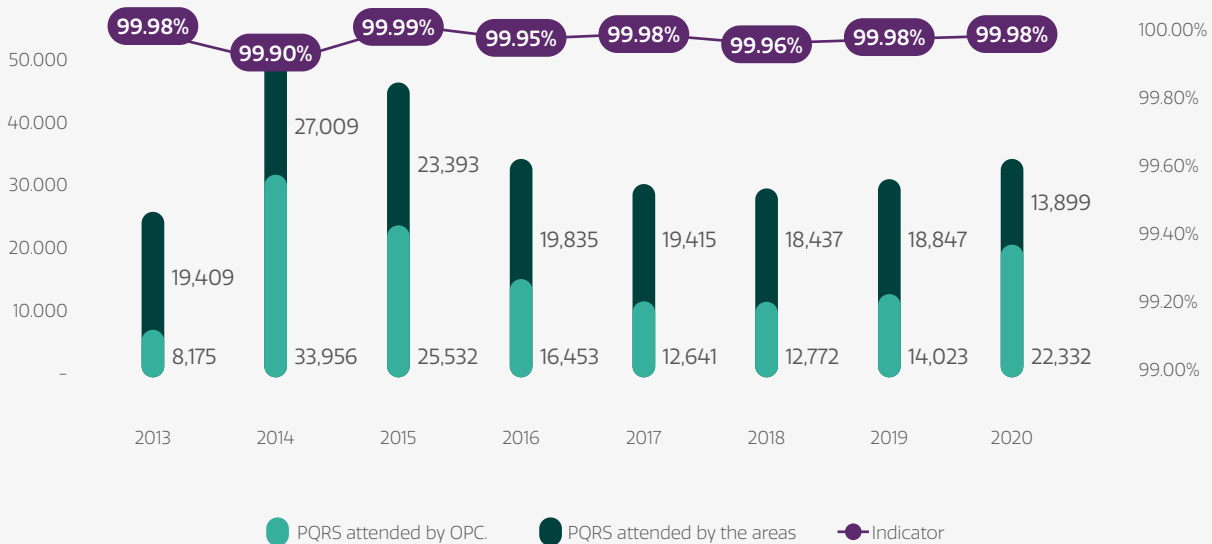
GRI 103-3, 413-1

Attention to citizen

To ensure the attention of PQRS, the Company has a process and a network of nearly 300 solution-providers distributed in all areas of the Company. The 2020 indicator of timely attention to citizens is 99.98%



Graph 02.
Timely attention to citizens



Source: Ecopetrol, Citizen Participation Office – OPC (from its original Spanish language initials: *Oficina de Participación Ciudadana*)

Table 02: Indicator of timely attention to citizens per interest group – 2020

Interest group	GENERAL INDICATOR
Suppliers	99.95%
Society, community and local state	99.96%
Employees, retirees and beneficiaries	100.00%
The National state	100.00%
Shareholders and investors	100.00%
Clients	100.00%
Associates and partners	100.00%
Total	99.98%

Source: Ecopetrol, Citizen Participation Office – OPC (from its original Spanish language initials: *Oficina de Participación Ciudadana*)

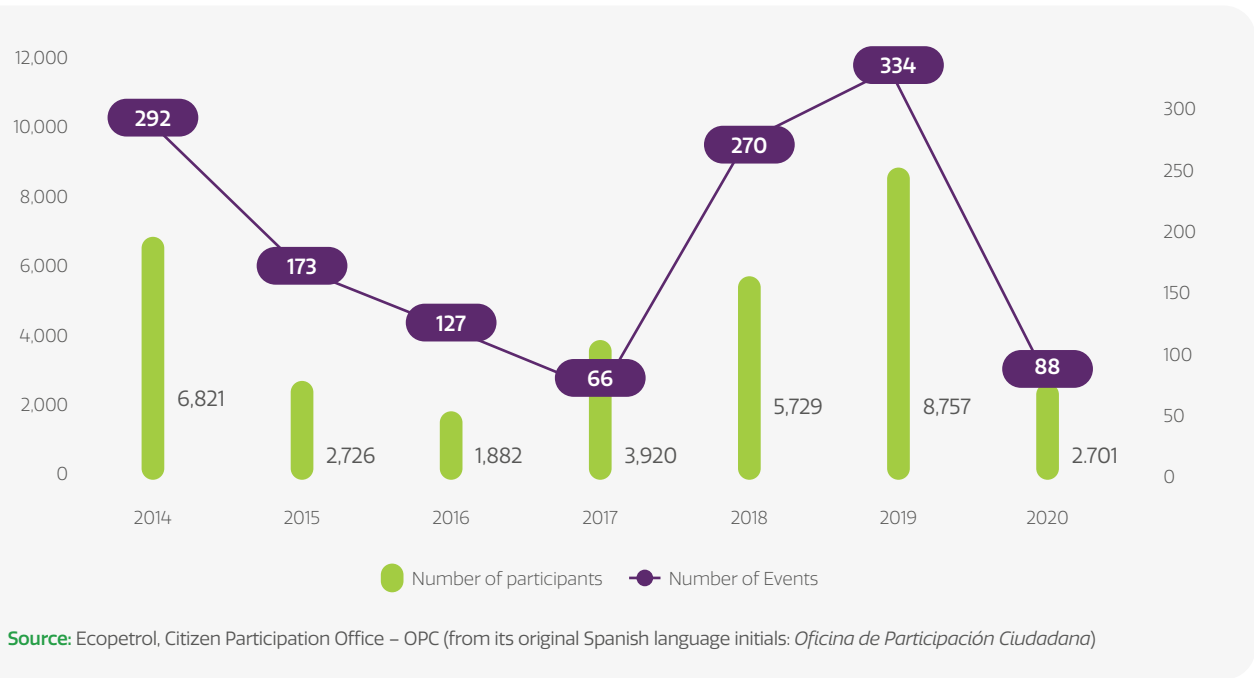
GRI 413-1

Spaces for participation and dialogue

Albeit there were fewer activities due to pandemic-related social isolation measures in 2020, events were held using technological tools.

Over 1,599 activities were carried out in the 2014-2020 period in the regions where Ecopetrol is present, with the participation of almost 40,000 people, as illustrated in the graph below:

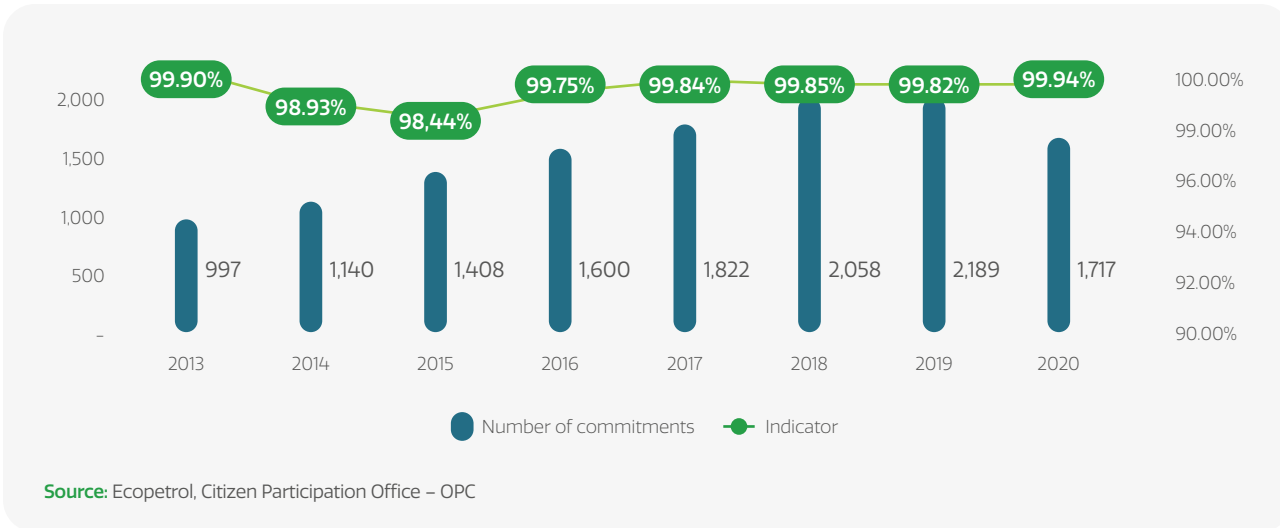
Graph 03. Participation scenarios



Management of commitments

Given stakeholder engagement under different participation scenarios, commitments are usually agreed between Ecopetrol and its stakeholders. Their fulfillment strengthen the relationship and builds confidence. The Management of Commitments indicator yielded a cumulative result of 99.94%.

Graph 04.
Management of Commitments with Stakeholders



Monitoring management with Stakeholders

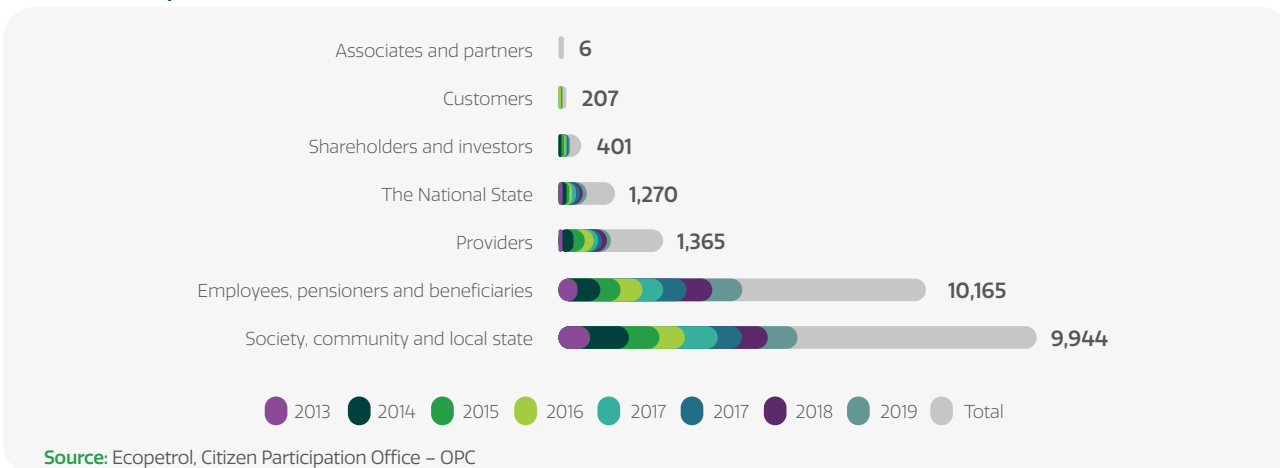
12 national reports and 36 regional reports were published in 2020, thus shedding light on the perceptions of different Stakeholders in regard to the relationship with the Company. Ecopetrol has more than 111 thematic line groups, and a total of 1,017 individual themes.

The analysis of the complaints and dissatisfactions presented shows that the Stakeholder that accumulates

the most dissatisfactions are Community and Society, Employees, Pensioners and their beneficiaries and Suppliers; and the region that concentrates the largest amount of PQRS is the Central Region

Below are the graphs that illustrate the abovementioned behavior:

Graph 05.
Behavior by Stakeholder



Accountability

In addition to the traditional mechanisms established by Law, Ecopetrol has several disclosure mechanisms that reaffirm its commitment to information transparency. Following are the mechanisms established to guarantee transparency and access to information:



General Shareholders' Meeting.

Held annually since 2008, this space is an opportunity to share this corporate body's management results and make decisions. On average, more than 10,000 shareholders participate in this meeting.



Participation scenarios.

Focused on specific topics such as discussions on matters of interest for communities, and meetings with suppliers, shareholders and clients.



Information on the website.

It features updated information on operations and results, as well as relevant information for each stakeholder.



Integrated sustainable management report.

This annual publication includes general Company information, its value chain and business processes, financial results, as well as economic, social and environmental aspects.



Attention to requests for information.

All citizens can access company information through information requests, which are addressed within the terms provided in the law that regulates the right to petition.

GOVERNANCE

Governance is the result of the operation and coordination between corporate governance, codes, policies and guidelines framed in responsibility, integrity, respect, and transparency, characteristic of good business conduct. This allows for a governance

structure leveraged by guidelines that ensure decision-making in favor of all shareholders and other stakeholders, with the goal of creating value and sustainability for the Company.

WEF 2

Governance Structure

Ecopetrol has a governance structure that ensures appropriate decision-making, control, accountability and value creation.



GRI 102-16

Good Governance Code

The Good Governance Code compiles the best corporate governance practices that create trust and confidence from stakeholders and the market in general. It is framed in the principles of governance, transparency, and control in business management, and is intended for managers, employees and other stakeholders.

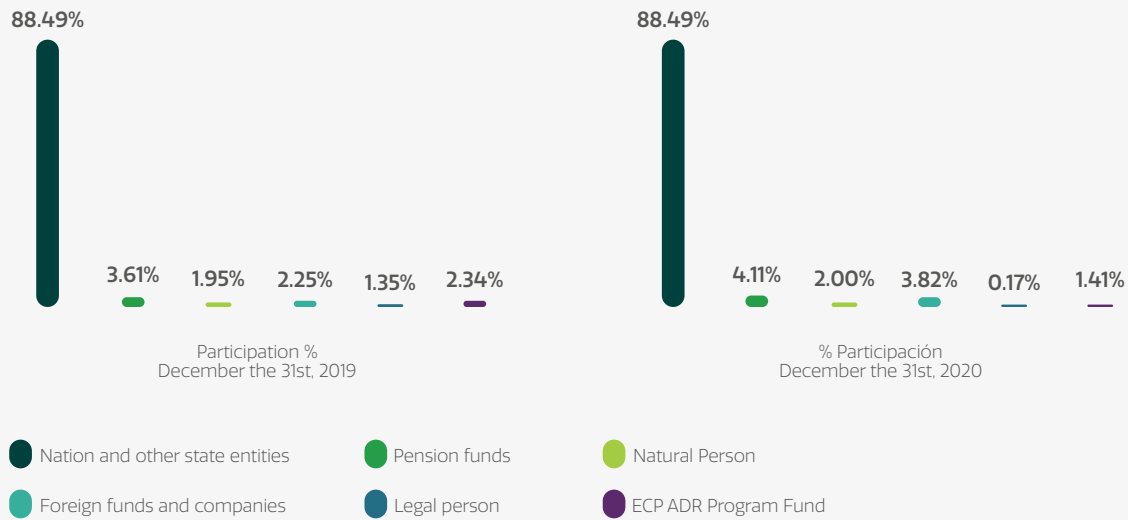
The Good Governance Code was not modified in 2020 and can be consulted [here](#).



**Ecopetrol S.A.
Ownership Structure**

Ecopetrol Shareholding Composition

Graph 06.
Ecopetrol Shareholding Composition



Source: Ecopetrol, Citizen Participation Office – OPC.



Major Shareholders

Below are the 25 shareholders with the highest number of Ecopetrol shares as of December the 31st, 2020:

Table 03. Ecopetrol Major Shareholders

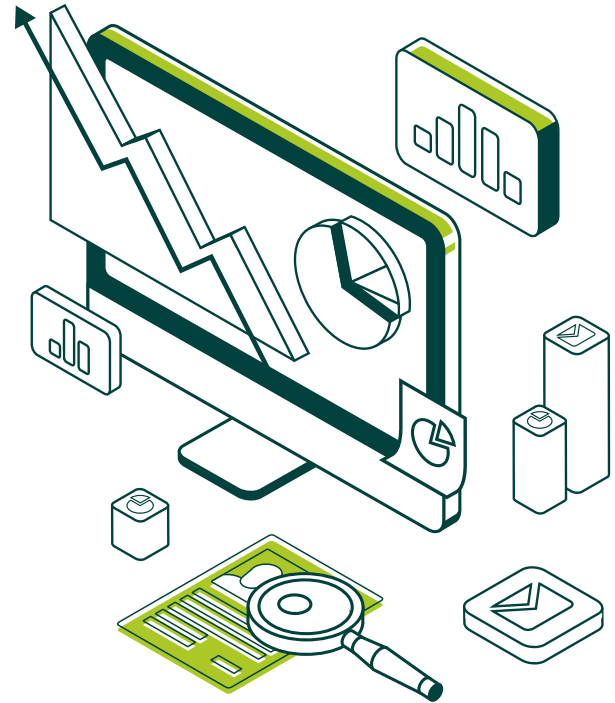
Investor	No. of Shares as of December, 2020	% of Shares as of December, 2020
MINISTRY OF FINANCE – COLOMBIA	36,384,788,817	88.49%
JPMORGAN CHASE BANK NA FBO HOLDERS OF DR ECOPET-ROL	579,313,120	1.41%
FONDO DE PENSIONES OBLIGATORIAS PORVENIR MODERA-DO	422,749,576	1.03%
FONDO BURSATIL ISHARES COLCAP	338,193,411	0.82%
FDO DE PENSIONES OBLIGATORIAS PROTECCION MODERA-DO	310,036,828	0.75%
FONDO DE PENSIONES OBLIGATORIAS COLFONDOS MODE-RADO	142,189,272	0.35%
FONDO PENSIONES OBLIGATOR. PORVENIR MAYOR RIESGO	140,706,559	0.34%
FONDO DE PENSIONES OBLIGATORIAS PROTECCION MAYOR R	114,539,545	0.28%
FONDO BURSATIL HORIZONS COLOMBIA SELECT DE S&P	107,756,364	0.26%
SKANDIA FONDO DE PENSIONES OBLIGATORIAS-MODERADO	82,208,942	0.20%
ABU DHABI INVESTMENT AUTHORITY J.P. MORGAN	75,792,740	0.18%
VANGUARD TOTAL INTERNATIONAL STOCK INDEX FUND	71,166,561	0.17%
FONDO DE CESANTIAS PORVENIR	52,122,636	0.13%
FONDO DE PENSIONES OBLIGATORIAS PROTECCION RETIRO	49,649,274	0.12%
FDO PENS OBLIGATORIAS COLFONDOS MAYOR RIESGO	47,587,269	0.12%
VANGUARD EMERGING MARKETS STOCK INDEX FUND	39,691,902	0.10%
FONDO DE CESANTIAS PROTECCION- LARGO PLAZO	39,220,171	0.10%
ISHARES CORE MSCI EMERGING MARKETS ETF	37,125,753	0.09%
SKANDIA FONDO DE PENSIONES VOLUNTARIAS	35,716,225	0.09%
FONDO ESPECIAL PORVENIR DE RETIRO PROGRAMADO	30,842,953	0.08%
FONDO PENSIONES OBLIGATORIAS PORVENIR CONSERVA-DOR	28,032,321	0.07%
MSCI EQUITY INDEX FUND B – COLOMBIA	22,272,541	0.05%
FONDO DE PENSIONES OBLIGATORIAS PROTECCION CON-SERV	21,877,330	0.05%
SKANDIA FONDO DE PENSIONES OBLIGATORIAS-MAYOR RIES	21,847,952	0.05%
THE BANK OF NOVA SCOTIA	20,809,305	0.05%

Source: Ecopetrol S.A., Corporate Vice Presidency of Finance.

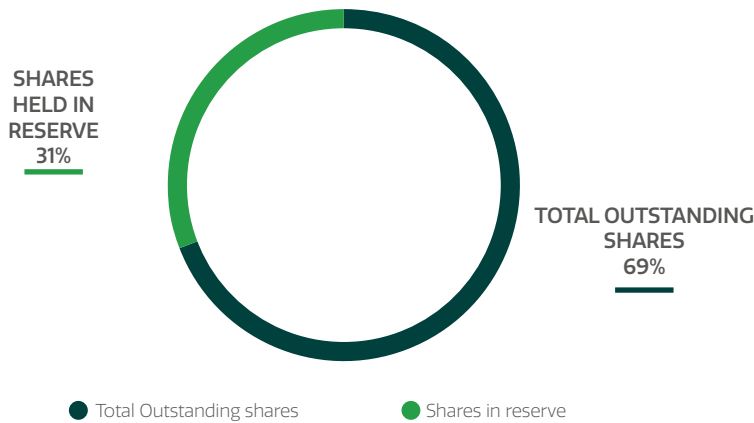
Table 04. Social Capital

ECOPETROL AUTHOR-IZED CAPITAL	COP 36,540,000,000,000 *
TOTAL SHARES	60,000,000,000
PAR VALUE	COP 609 **

Source: Ecopetrol S.A., Corporate Vice Presidency of Finance.
 * Equivalent to USD \$ 10,645,302,258
 ** Equivalent to USD \$ 0.18
 This information was calculated upon the basis of the following exchange rate as of December the 31st, 2020: 1 USD = COP \$ 3,432.50



Graph 07.
 Ecopetrol S.A. shares



Source: Ecopetrol S.A., Corporate Vice Presidency of Finance.

General Shareholders' Meeting (GSM)

Compliance with minimum standards and adoption of best corporate governance practices

As a demonstration of its commitment to transparency and the protection of our shareholders, Ecopetrol has implemented practices that go beyond the legal minimum required, and the GSM is an example of this commitment.

General Shareholders' Meeting session

Ecopetrol's ordinary GSM was held on March 27, 2020, for the first time remotely, given the particular situation caused by the COVID-19 pandemic. Ecopetrol guaranteed the protection of the rights of shareholders, who were able to learn about the development of the Assembly through the website and its transmission through the Institutional Channel.

Ecopetrol designed a representation strategy through digital tools to facilitate the adequate representation of shareholders – prior review and approval by the Financial Superintendence of Colombia and the Superintendence of Companies – where shareholders were represented by lawyers that the Company rendered available to them, and they gave their voting instructions. The instructions for the use of this system, the list of proxies, as well as the required formats were available on the website www.ecopetrol.com.co

GSM share in figures



GRI 102-22, WEF 2

Board of Directors and its Committees

Composition of the Board of Directors

In accordance with the provisions of the **Company Bylaws**, the Board of Directors at Ecopetrol S.A. is made up of nine main members, without substitutes, elected through the electoral quotient system by the GSM for periods of two years, which may be re-elected indefinitely.

This period responds to the need to provide greater stability to this social body. The members of the Board of Directors, during the exercise of their functions are able to acquire a greater knowledge of the industry and Ecopetrol’s corporate strategy in addition to their suitability and professional experience. This period is also consistent with the term of the President⁴ and the Statutory Auditor.

To know further details of the Company’s Bylaws, [click here](#).

Additionally, the composition of the Board of Directors meets the following legal and statutory criteria; as well as the best Corporate Governance practices:

Legal and Statutory Criteria

Profile	<p>Having knowledge and experience in the activities akin to the Company’s corporate object, and/or having knowledge and expertise in the field of industrial and/or commercial, financial, stock exchange, administrative, legal activities or similar sciences.</p> <p>Personal work experience beyond 15 years.</p> <p>Being highly reputed and renowned for his/her professional suitability and integrity.</p> <p>Belonging to no more than five (5) Boards of Directors of Limited Liability Companies in a concomitant fashion – including Ecopetrol.</p>
Designation	Designation can be made personally, or for a specific position.
Independent Candidates	The majority of candidates shall be independent.
Experts	At least one of the members shall be an expert in financial matters, in accordance with the applicable provisions in the United States security market.
Minority members, producing departments	People appointed by Hydrocarbon Producing Departments where Ecopetrol has exploitation operations and by the top 10 minority shareholders with the biggest shareholding position are elected in lines eighth and nine of the Board of Directors.
Gender, Diversity and Inclusion	Shareholders proposing their lists of Members to the Board of Directors shall consider criteria appertaining to diversity, gender and inclusion while doing so.

⁴ Bylaws. Article 30: “Whenever the Board does not elect the President in the appropriate times to do so, the previous President shall continue to hold office until a new appointment is made.”

GRI 102-24

Member appointment process

The current members of the Board of Directors were elected by the GSM on March 29, 2019 and their term runs until March 2021. The list of candidates for this election was presented by the Nation, represented by the Ministry of Finance and Public Credit, in its capacity as the majority shareholder of Ecopetrol. Notwithstanding the foregoing, the other shareholders have the same right to nominate alternative lists to the proposal presented by the majority shareholder. In any case, any list for consideration by the Assembly must meet the requirements established in the Bylaws.



Standing, left to right: Juan Emilio Posada Echeverri, Hernando Ramirez Plazas, Germán, Quintero Rojas, Esteban Piedrahita Uribe, Sergio Restrepo Isaza. Standing, left to right: Luis Santiago Perdomo Maldonado, Orlando Ayala Lozano, Luis Guillermo Echeverri Vélez, Carlos Gustavo Cano Sanz.

Independent members

The majority of the members of the Board of Directors must be independent, taking into account the independence criteria enshrined in the second paragraph of Article 44 - Act 964/2005.

None of the independent members of the Board of Directors lost such quality as of December the 31st, 2020, 89% of the members (8 out of 9) complied and comply with the independence requirements, exceeding the minimum requirement of the Colombian stock market (25% - i.e. 3 out of 9 members) and the statutory provisions (majority: 5 out of 9 members).

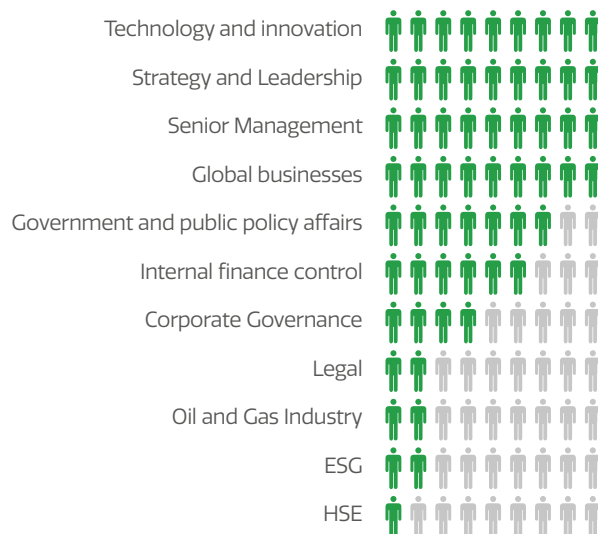
No member of the Board of Directors of Ecopetrol S.A. is part of the boards of directors of subordinate companies, nor do they hold executive positions therein.

If for any reason, any of the members of the Board of Directors loses their status as independent, they shall notify so to the Secretary of the Board of Directors in writing, who shall in turn inform the body about this situation. In the event that the minimum number of independent members required in the bylaws for the composition of the Board of Directors is affected, the President of the company shall summon an extraordinary GSM session for the recomposition of the Board of Directors.

Board member's profile

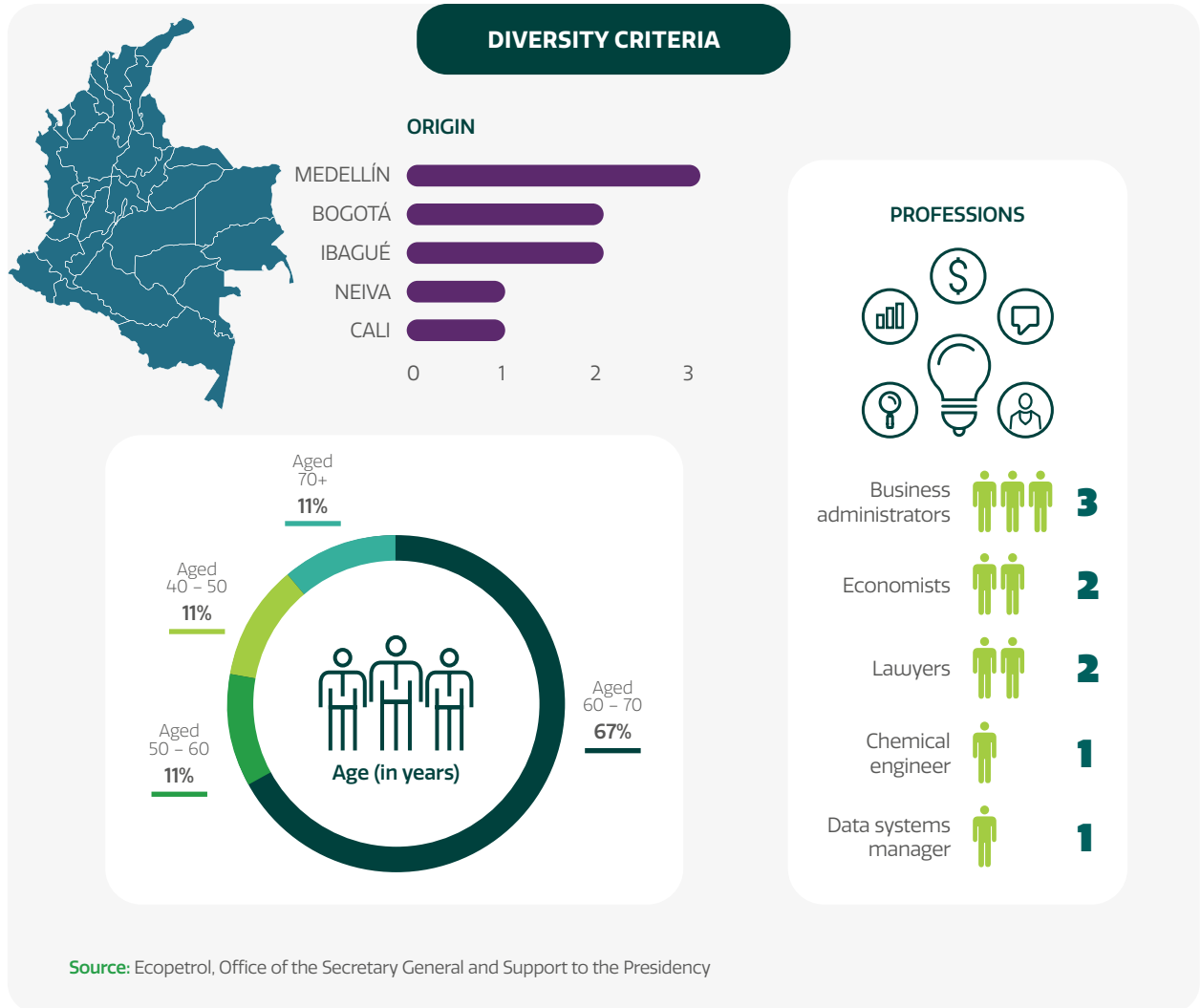
The profiles of the members of the Board of Directors are reviewed and updated by the Board of Directors and the Corporate Governance and Sustainability Committee in order to achieve the strategic business vision in the medium and long term, through the experience and diversity of its members.

The diversity in its composition enriches the discussions in the sessions of the Board and its supporting committees, thereby adding value from their professions, experience, origin and generation.



GRI 102-22

Membership of the Board of Directors



As of December the 31st, 2020 there were no changes in the composition of the Board of Directors.

The resumes of the members of the Board of Directors are published on Ecopetrol S.A. website. [Click here.](#)

GRI 102-26, WEF 6E

Roles and responsibilities of the Board of Directors

In accordance with the provisions of the Company Bylaws, the Board of Directors is Ecopetrol’s highest management body, which efficiently sets and implements the strategic direction of EG and acts based on the rights of the shareholders and the sustainability and growth of the Company in accordance with the provisions established in the internal regulations of the Board of Directors – updated during 2020.

GRI 102-35, 102-36, 102-37

Compensation for the Members of the Board

The value of the fees of each member of the Board of Directors corresponds to six (6) Current Monthly Legal Minimum Wages (SMLMV), which for 2020 corresponded to \$ 5,266,818 per session of the Board of Directors or of the Committees of the Board of Directors.*

The total value of the fees paid to the Board of Directors in 2020 was \$ 3,101,758,290. **

The Directors, as a way of contributing to the unusual situation experienced this year, waived the fees corresponding to the fifteen (15) extraordinary sessions held to address the crisis. The value of this resignation amounted to \$ 689,953,158.

Operation of the Board of Directors

A total of forty-three sessions of the Board of Directors were held during 2020, thus: **12** ordinary meetings, **24** extraordinary meetings, and in **7** sessions deliberation and decision-making were carried out by circulating votes. **15⁵** of the extraordinary meetings had the sole purpose of addressing the crisis resulting from the COVID-19 pandemic and the drop in international oil prices. Board sessions had 97% total participation of the Directors.

Of the **43** meetings held in 2020, **9%** were face-to-face. Of the **91%** remaining, **75 %** were non-face-to-face meetings, and **16%** circulation-based votes.

The deliberations were carried out with a number equal to or greater than five of its members and the decisions were made unanimously.

WEF 6E

Most relevant issues discussed by the Board of Directors

The year 2020 was marked by a different reality for the country and the Company. Therefore, the Board of Directors performed its tasks particularly in the analysis of matters related to the short, medium, and long term strategy, in order to ensure Ecopetrol's T ESG Strategy, as follows:



Strategy

- Energy transition and T ESG
- Decarbonization and fugitive emissions
- Ecopetrol Group integrated divestment program
- Divestment from non-strategic assets
- Technology and Innovation Plan and Digital Agenda
- Stakeholder management



Financial

- 2020-2022 Financial Plan
- Amendment to the 2020 Financial Plan
- 2020 Financing Policy
- Quarterly and yearly financial statements
- Profit distribution
- Coverage policy
- 20F Report
- Quarterly and annual Reserve Reports
- 2021-2023 Financial plan



Risk

- Corporate Risk Map
- Activities for the prevention of asset laundering and financing terrorism
- Cybersecurity
- Supply process update



Human Talent

- Declaration of Culture
- 2021-2023 TBG (Balanced Scorecard)
- 2021 Variable Compensation Plan
- Long-Term incentives and salary increase
- President's evaluation
- Talent Review
- Retirement Plan
- "New Normal" Offices Project



Corporate Government

- Policies to ensure the sustainability of Ecopetrol
- Support and interaction between committees and the Board of Directors to structure de-cision-making processes
- Corporate policies to face the 2020 Crisis
- Evaluation of the Board of Directors
- Policy for the succession of the President at Ecopetrol S.A. and the Board of Directors

GRI 102-32

- Integrated Sustainable Management Report
- Statutory reform
- Reform to the internal regulations of the General Shareholders' Meeting, the Board of Directors and supporting Committees.

⁵ All the members of the Board of Directors expressed their decision to waive the payment of the fees from these sessions.

* According to the decision contained in Minutes of the Meeting No. 026/2012 of the General Shareholders' Meeting.

** Of this amount, \$ COP 305,077,932 corresponds to the payment of fees corresponding to FY 2019.

Regarding Ecopetrol’s strategy, the Board of Directors reviewed and approved the 2020+ Strategy and the 2019-2021 Business Plan in the strategic sessions of January and February 2019. The potential scenarios for energy transition in Colombia and worldwide were analyzed together with the risks and opportunities for EG, in order to prepare it for this transition. Guidelines were also issued for the Administration to evaluate strategic businesses in addition to the business core (diversification) regarding the renewable energy market and/or affiliated businesses. This in addition to defining a position for new business development, in order to consolidate at the group level the energy, electrification, and decarbonization program within the energy transition process.

In August 2019, the Board of Directors discussed the implications of the global energy transition and the different strategies implemented by companies in the Oil and Gas industry, including the importance of diversifying by evaluating new businesses in addition to the business core.

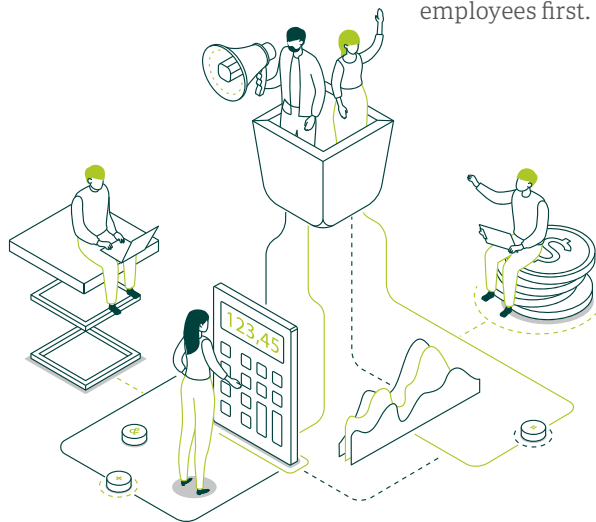
In January 2020, the Board of Directors held an exclusive session to continue with the analysis of future scenarios and Ecopetrol’s current plan; energy transition scenarios and the 2020 – 2030 Business Plan. Analysis was conducted on the strengths, challenges and alternatives of the business segments, the adaptive challenges of Ecopetrol for the future and the steps to guide the Company in the energy transition, the TESG Strategy, and the digital transformation.

In March 2020, the Board of Directors and Management prioritized the following strategic issues after analyzing the impact of the crisis: (i) energy transition based on the diversification of activities and risks, with a focus on electricity and *midstream*; (ii) an integrated vision of gas, since it is a product that is resilient to the volatility of crude prices; (iii) divestment opportunities in line with EG’s integrated divestment and cash generation program; (iv) growth options and opportunities derived from the drop in international prices; (v) cultural transformation; and (vi) Technology, Innovation and the Digital Agenda Plan.

The entire membership of the Board of Directors expressed their decision to waive the payment of fees caused by these sessions.

In this framework – and during the course of 2020 – the Board of Directors evaluated the matters below – inter alia:

- Opportunity to invest in energy infrastructure through the acquisition of 51.4% of ISA – owned by the Ministry of Finance and Public Credit.
- Decarbonization plan and fugitive emissions management strategy.
- Transformation of the Colombian Petroleum Institute (ICP – from its original Spanish language initials: *Instituto Colombiano de Petróleo*) to strengthen its leadership in energy transition related issues.
- Water management strategy.
- Technological perspective of hydrogen.
- Strategic Plan for Gas and Liquefied Petroleum Gas for EG.
- Adoption of ESG standards, adding the element of Innovation and Technology, in order to define and incorporate the TESG concept to the Corporate Strategy.
- Materiality assessment and company sustainability goals.
- Redefinition of the cultural principles that inspire the workers of Ecopetrol and its Group to adapt to a new reality, acting with excellence, working as a team, making the impossible possible and putting their lives, their family’s, and that of the rest of employees first.



Crisis Management

In addition to the activities of the ordinary course of the Board as detailed above, the Board of Directors adopted decisions in order to address Ecopetrol's crisis resulting from the coronavirus pandemic and falling international oil prices, and in a scenario of strict capital discipline to protect cash generation, while capturing new opportunities that create value and mitigate risks materialized during the 2020 crisis in a timely and expeditious manner. These decisions are listed below:



Activation of the financial Contingency Plan to ensure the survival and adaptation of the Group to the volatility of oil prices approved in 2019 and monitoring the execution of the optimizations proposed in its different phases in Opex and Capex. Updating the hedging policy to create an exceptional regime in the acquisition of strategic hedges, led by the Administration.



Approval of the resolution of the 2020 - 2022 Financial and Investment Plan and update of the Balanced Management Board (TBG), the Company's Balanced Scorecard.



Updating the risk retention and transfer strategy, and entry of Ecopetrol to Oil Insurance Limited (OIL).



Approval of the sale of the following assets in order to focus Ecopetrol's financial and operational efforts: (i) Ecopetrol's participation in the parent OIG Group of Savia Peru; (ii) divestment of nine assets included in the Antares Project - *Ronda de Campos Ecopetrol 2020*; inter alia.



Updating and approval of the 2040 portfolio, and the guidelines for capital allocation and portfolio rotation of the 2021 - 2023 planning cycle for the preparation of Ecopetrol Group's Investment Plan.

GRI 102-22, 102-23, WEF 2

Board Committees

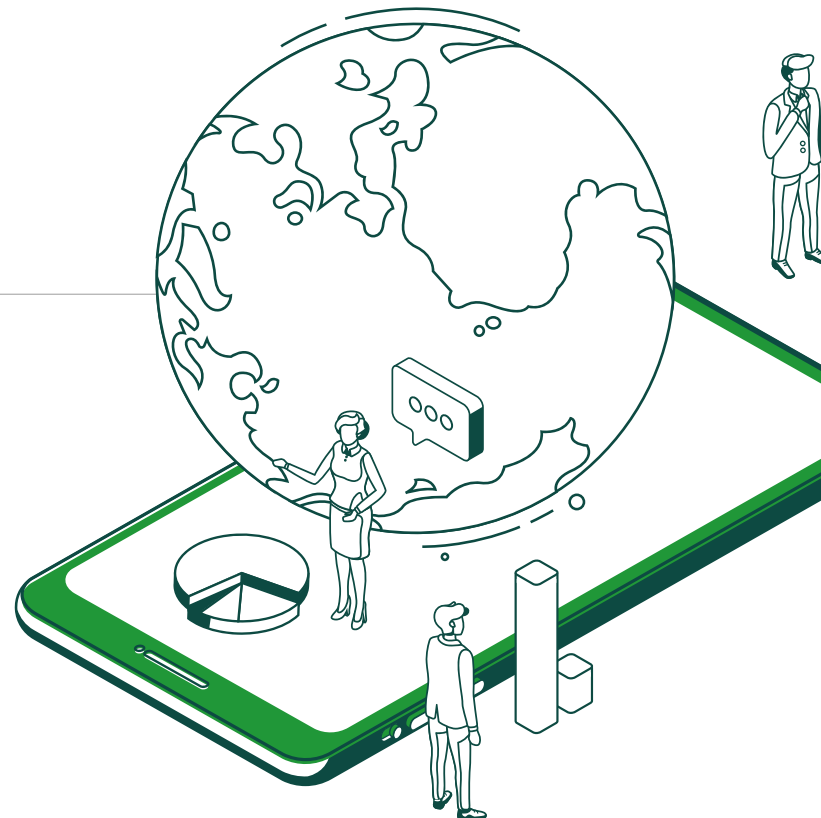
To directly address its responsibilities, the BD relies on six Committees. Each committee has a President, which is elected by its members taking into account the provisions of its rules of procedure as updated in 2020. All Presidents of the Committees are independent members of the Board.

GRI 102-29, 102-30, 102-31

Functions and Management of the Board of Directors Committees

The Committees are bodies that support the management carried out by the Board of Directors and are governed by the provisions of their internal regulations, without prejudice to the provisions of the Company Bylaws and applicable law, in the specific case of the Audit and Risk Committee. The Committees know and analyze - within the framework of their functions and previously - the matters that will be submitted to the Board for consideration.

Following is a presentation of the management of each of the Committees of the Board of Directors, as of December the 31st, 2020:



GRI 102-31, 102-34



AUDIT & RISK COMMITTEE

- Tax auditor review, internal auditor review and Committee review
- Approval of the General Audit Plan
- Corporate risk map
- Reserves
- Individual and Consolidated Financial Statements for the year and dividend distribution project
- Hedging policy
- 2020 variable compensation calculation
- Follow up on the actions carried out by Ecopetrol and the Group's companies regarding their internal control system, risk management system and ethical reports, anti-corruption and anti-fraud
- Follow up of legal proceedings

15
sessions



BUSINESS COMMITTEE

- Participation at Partner South
- Bioenergy
- Divestment of strategic assets
- Release of resources for the Rubiales Integrated Module
- Renegotiating the FOA (Farm Out Agreement) signed in 2018 to participate at Offshore Blocks Col 1, Col2, Col 6 and Col 7 (Grand Col)
- Follow up on investment at the Permian Basin and approval of release of resources for Rodeo 2021 drilling campaign
- Approval of amended 2020-2022 Financial and Investment Plan and updated TBG
- Budget addition of Opex for FY2020, for a total of \$ 840 billion
- 2021-2023 Financial Plan

14
sessions



COMPENSATION, APPOINTMENT AND CULTURE COMMITTEE

- Evaluation of the President
- Talent Review
- Long-Term incentives
- Salary increase
- 2021-2023 TBG
- 2021 Variable compensation plan
- Retirement plan
- Declaration of Culture
- "New Normal" Offices Project
- Analysis of the 1st-level organizational structure (areas directly reporting to Ecopetrol presidency)


9
sessions



CORPORATE GOVERNMENT AND SUSTAINABILITY COMMITTEE

- Evaluation of the Board of Directors
- Integrated Sustainable Development Report
- Yearly Corporate Government Report
- Statutory reform
- Amendment to the Internal Regulations of the General Shareholders' Assembly, the Board of Directors and all of its Committees
- Operation of the Board of Directors
- Phase I of the Policy of succession of the President and the Board of Directors at Ecopetrol S.A.
- Updated Stakeholders
- Human Rights and corporate management

4
sessions



HSE COMMITTEE

- Follow-up on measures adopted by Ecopetrol to address the emergency caused by the COVID-19 pandemic
- Analysis of environment and safety issues, in addition to the Company's processes
- Analysis of the decarbonization and fugitive emissions route
- HSE Management in Ecopetrol and the Group's contractors

2 sessions



TECHNOLOGY AND INNOVATION COMMITTEE

- Optimization of the Technology Plan on account of the crisis
- Cybersecurity
- Progress of the Technology and Innovation Program
- Progress of the Cybersecurity and Cyber defense Program
- Technological Perspective of Hydrogen
- Relevant progress in Digital Technology
- Comprehensive Water Management Strategy
- Progress of the following initiatives: *Misión de Sabios*, Ministry of Science, Technology and Innovation
- Progress of the Technology and Innovation Plan
- Follow-up on the Digital Agenda

5 sessions

Source: Ecopetrol S.A., Secretary General & Support to Presidency.

GRI 102-28

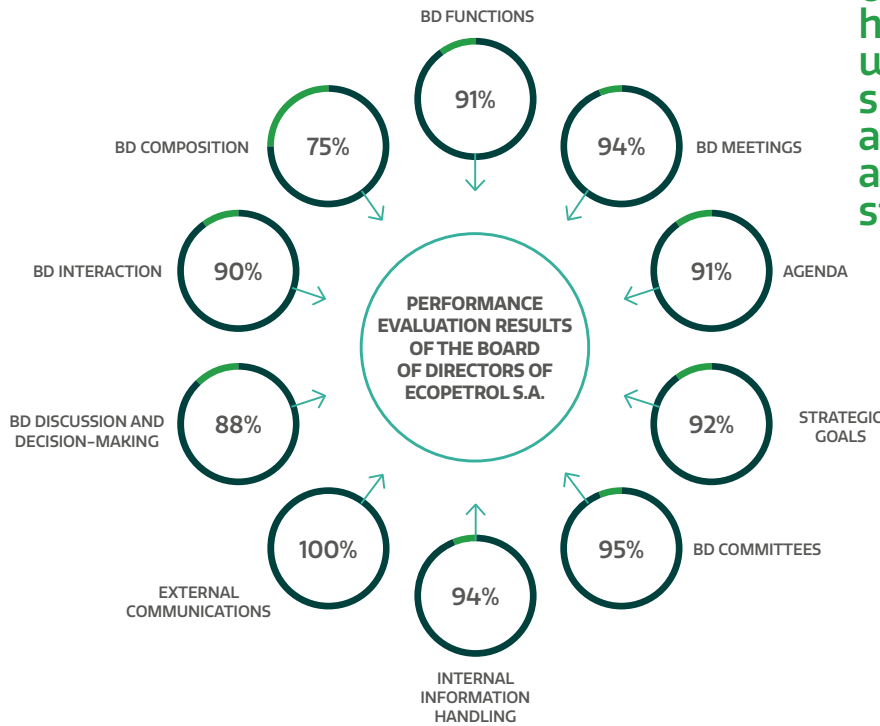
Evaluation of the Board of Directors

To ensure alignment between the interests of shareholders and the performance of the Board of Directors, and in pursuance of best corporate governance practices, Ecopetrol S.A. has implemented the following mechanisms for evaluating its Board of Directors:

<p>Self-assessment (qualitative)</p> <p>This evaluation annually measures, both at the individual level and at the level of the collegiate body, the desirable behaviors for the proper functioning of the Board of Directors, such as knowledge, quality of information, management re-sults, exercise of functions, leadership & relationship.</p>	<p>Quantitative assessment by management indicators</p> <p>Annually measures the management of the Board of Directors based on the result of the indicators defined for this Board of Directors in the balanced management board of Ecopetrol S.A.</p>
<p>Independent assessment (external)</p> <p>Evaluation of the management of the Board of Directors carried out by an independent third party every two or three years. It alternates with the annual evaluations carried out by the Board of Directors.</p>	<p>Peer assessment (qualitative)</p> <p>Annual evaluation made by each member of the Board of Directors on the management, knowledge and leadership of their peers, in order to visualize opportunities for improvement among the members of the Board in terms of the role they play.</p>

Results of the evaluation of the Board of Directors

The scores obtained in each of the components are presented below:



Nine of the ten components evaluated obtained a rating higher than 86, which translates into superior performance as compared to local and international standards.

NOTE: A score between 01% and 50% indicates that the Board is meeting local standards, best practices, and requirements for that component. A score between 51% and 85% indicates that the Board is meeting international standards, best practices and requirements for that component. A score between 86% and 100% indicates that the Board exceeds the international standards, best practices and requirements for that component, and that it is achieving the best practices as identified in the specialized literature and in the leading global case studies.

Following are the highlights of the results of the evaluation:

- A robust onboarding that allowed a successful transition to the change in the membership of the Board of Directors in 2019.
- The appropriate use of external advisers on specific technical issues of the industry or legal areas, facilitating the fulfillment of their functions.
- The definition of an annual theme-organized action plan that allows strategic issues to be addressed in a programmed and proactive fashion throughout the year.
- The relationships of the Board of Directors with the Steering Committee that are characterized by a high level of trust, transparency, counseling and mutual support.
- The management of Ecopetrol’s crisis caused by COVID-19 and the fall in the price of oil, and in spite of it the Board kept its long-term strategic agenda ongoing, updated, and under constant discussion.

The evaluation also evidenced behaviors in the Board of Directors, individually and as a collegiate body, which have a positive impact on value generation for Ecopetrol. Among others, these refer to values such as (i) independence and integrity; (ii) degree of openness; (iii) accountability; (iv) action orientation; and, (v) trust and mutual respect. These behaviors are reflected in the interaction with the Administration and among the Directors that make up the Board.

To know the details of the methodology and other outstanding aspects of the evaluation of the Board of Directors, consult the **Corporate Governance Report**.



External advice received by the Board of Directors

In 2020, the Board continued with the external support from experts for the analysis of Ecopetrol's 2020+ Strategy and its development, as well as for the design of the TESG Strategy and in general, for the analysis for the adoption of their decisions.

GRI 102-18, 102-19, 102-26

Senior Management

Ecopetrol's Corporate Governance defined the Senior Management Committees as the collegiate bodies that constitute a management tool to support the President of Ecopetrol in his work, within the framework of the proper fulfillment of its corporate purpose. Ecopetrol has 12 Senior Management Committees directed by the President and made up of senior executives of the company: Management, Executive (ExCo), Investments and Business, Operations, Legal Defense and Conciliation, Ethics, Internal Audit, Resources and Reserves, Segments: Upstream, Midstream, Downstream and Commercial.

Among the management and continuous improvement mechanisms of the Senior Management Committees are the following:

- Operating regulations: These regulations outline their competence or themes under its responsibility, participants, roles, voting mechanisms, type of documentation required prior to the sessions, processing times, and formalization of records, inter alia.
- Structure: Each Committee has a Chair, a Leader, and a previously appointed Secretary.



● Decisionmaking bodies

Note: There are four Segment Committees: (i) Upstream; (ii) Midstream; (iii) Downstream; and, (iv) Commercial.

Source: GOC-J-001 Ecopetrol Circular, Secretary General & Support to the Presidency / Corporate Governance Management.

Selection, development and remuneration of senior managers

Senior management selection policy

The selection policy for the President of Ecopetrol is under the power of the Board of Directors. In 2020, this corporate body revised the Succession Policy of the President of the Company in such a way as to guarantee continuity in implementation of corporate strategy, in order for Ecopetrol to have a plan that guarantees retention and continuity of senior managers.

For the selection of the other positions of senior managers – as well as for the officials of all levels at Ecopetrol – the corporate selection process defined by the Vice Presidency of Human Talent (VTH) is followed.

The Company’s Diversity and Inclusion Program has a metric that monitors the improvement in opportunities for women’s access to leadership positions. It aims to increase the chances of such access, promoting that these vacancies have at least one female candidate among the finalists.

The details of the Company’s selection policy – including Senior Executives – can be found in Chapter 4, Social Dimension, “Selection and Mobility” of this report.

GRI 102-35, 102-36

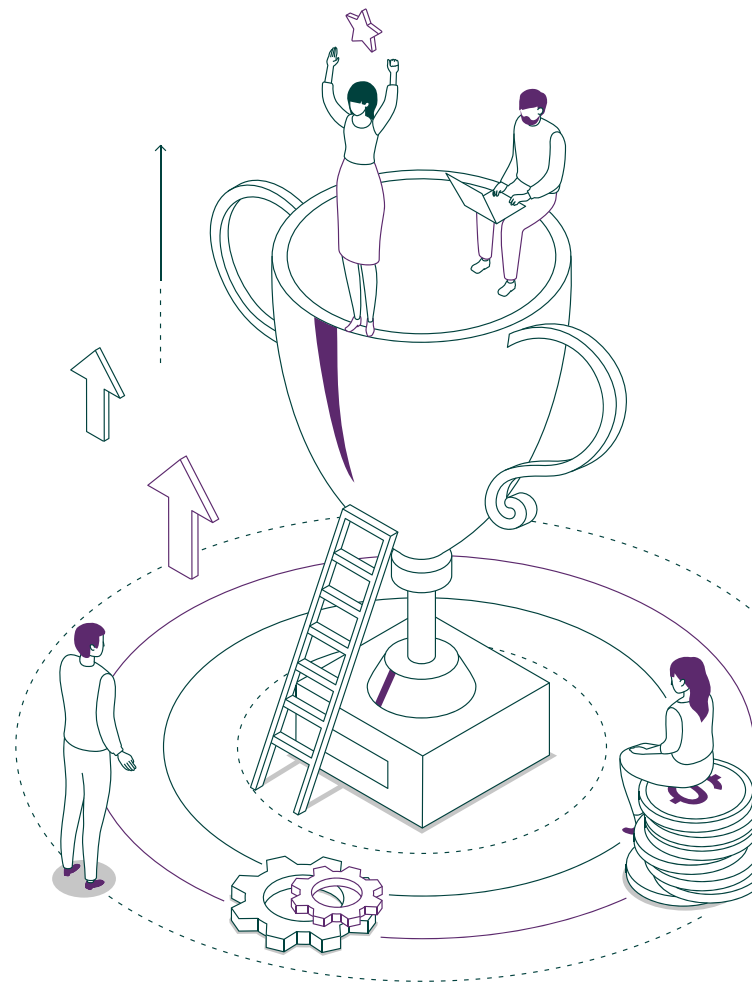
Senior management compensation policy

Ecopetrol’s compensation policy is approved by the Board of Directors and is framed under the following parameters:

- It seeks to guarantee competitive market compensation to attract and retain the best talent.
- To position the Company in the median of the Colombian mining / energy market.
- It is supported by a salary competitiveness study with a firm specialized in the management of quantitative methodologies for the valuation of positions, best compensation practices, and organizational issues, which allows to monitor Ecopetrol’s position in the market and to define the competitive compensation that allows for attraction and loyalty of the talent required according to the Strategy and needs of the organization.

GRI 102-38

In 2020, the President’s Fixed Compensation was 8.13 times the average Fixed Compensation of a company worker and a general salary increase of 5.5% was applied to all workers. The detail of the benefits applied to Ecopetrol employees, including senior managers, can be found in Chapter 4, Social Dimension, “Compensation” of this report.



Performance evaluation of senior managers

EG achieved 107% compliance with the business goals defined for the EG TBG this year – a fundamental input for the assessment of company executives.

The 2020 EG TBG integrates the relevant topics of the 2020-2022 Financial Plan and reflects the main focuses for the new reality prioritized as follows: Life First (15%), Cash Protection (40%), Sustainability (35%) and

adaptation (10%). These focuses associated with TESG, operational, financial, strategic, and security (HSE) goals and metrics.

More details regarding the performance of senior management and their teams can be consulted throughout this report or in the Corporate Governance Report.

Control environment

External controls

Tax Audit

Ecopetrol's GSM approved the appointment of the Statutory Auditor firm Ernst & Young Audit SAS, for the 2019 term in its session of March 29, 2019, in accordance with the provisions of the Bylaws, with use of the option for FY 2020, for a value of \$ 4,050,000,000 plus VAT and \$ 4,212,000,000 plus VAT, respectively.

During 2019 and 2020, this firm carried out the functions determined by law and the Bylaws,

including the evaluation and issuance of an independent technical report (Opinión) on the internal control system in general and in the areas of scope with an impact on the preparation of financial information, in accordance with the provisions of the Sarbanes Oxley Act and in accordance with standard No. 5 of the PCAOB (Public Company Accounting Oversight Board), whose results were periodically presented to the Audit and Risk Committee of the Board of Directors.

Inspection, surveillance and control bodies

The main regulatory authorities for activities related to the corporate purpose of Ecopetrol S.A. in Colombia are the Ministry of Mines and Energy, the National Hydrocarbons Agency (ANH) and the Energy and Gas Regulation Commission (CREG); the Ministry of Environment and Sustainable Development; the National Environmental Licensing Authority (ANLA); the Ministry of Interior, and the Regional Autonomous Corporations (CARs).

On the other hand, the Superintendence of Public Services exercises the functions of supervision and control over the activities of Ecopetrol, and concurrently the Financial Superintendence, the Superintendence of Ports and Transport, the Superintendence of Health, and the Superintendence of Industry and Commerce. The Superintendence of Companies exercises residual control.

Regarding the activity and responsibility of public servants, given the legal nature of Ecopetrol, Ecopetrol employees are subject to disciplinary control by the Attorney General's Office. Additionally, given the management of public resources, Ecopetrol is subject to the fiscal control of the Office of the Controller General of the Republic.

Finally, because Ecopetrol has its shares listed in the Colombian Stock Exchange and in the New York Stock Exchange (USA), it is subject to the regulation of the Colombian Stock Exchange and the SEC (Securities and Exchange Commission) respectively. The securities issuance activity in Colombia is subject to the control of the Financial Superintendence of Colombia; and this Superintendence supervises the securities intermediation activity in conjunction with the Securities Market Self-regulator (AMV).

Risk Rating Agencies

The main risk rating agencies highlighted Ecopetrol’s capacity and resilience to maintain a solid financial profile despite the sharp drop in international oil prices and the contraction in demand caused by the COVID-19 pandemic. They recognized the measures taken to respond to the crisis and protect the Company’s liquidity. Despite the downward trends in revisions of ratings and perspectives, Ecopetrol managed to maintain its investment grade in 2020 in the three (3) rating agencies as follows:

FitchRatings

- Fitch downgraded Ecopetrol's credit rating in April, in line with a downgrade of the Republic of Colombia's rating. Ecopetrol's rating was upgraded to BBB-, with a negative outlook, maintaining invest-ment grade.
- In December, the agency reaffirmed the investment grade of Ecopetrol S.A. at BBB- with a negative outlook and the individual credit rating (Stand-Alone without incorporating government sup-port) at bbb. Fitch highlighted the Company's strategic importance for the country, as well as its ability to maintain a solid financial pro-file.

MOODY'S

- Moody's maintained the Company's long-term international rating at Baa3, with a stable outlook and individual credit rating at ba1. Moody's highlighted the solid performance of the Company despite the drop in oil prices and contraction in demand caused by the pandemic. Likewise, it highlighted its adequate level of liquidity to navigate the situation.

STANDARD & POOR'S

- S&P changed Ecopetrol's outlook from Stable to Negative in March, as a consequence of the change in the outlook for the Republic of Colombia, and affirmed Ecopetrol's credit rating at BBB-, investment grade.
- The agency highlighted the adequate level of liquidity and the Company's strategic position for the country.

For more information related to internal controls, see the Transparency and Control section in this chapter.

Operations with related parties

The transfer pricing guide between Ecopetrol’s economic associates determines the parameters to define the compensation to be agreed in operations, whether it is of goods or services, carried out between Ecopetrol and its subsidiaries, in such a way that the conditions established in the operations are consistent with those agreed or between independent third parties, thus avoiding the impact of income statements by controlling or subordination relationships.

In this sense, the economic relations with the Nation and the subordinate companies became consolidated

during 2020 through agreements or contracts and were carried out under the previous parameters. Similarly, these economic relations are not intended to benefit the Nation or the subordinate companies, nor are they detrimental to the interests of minority shareholders.

Tax Consulting and Planning Management presents a report to the Company’s Board of Directors every semester on the operations, agreements, or contracts that the Company has entered into with its subordinates within the period, indicating that the conditions correspond to market conditions.

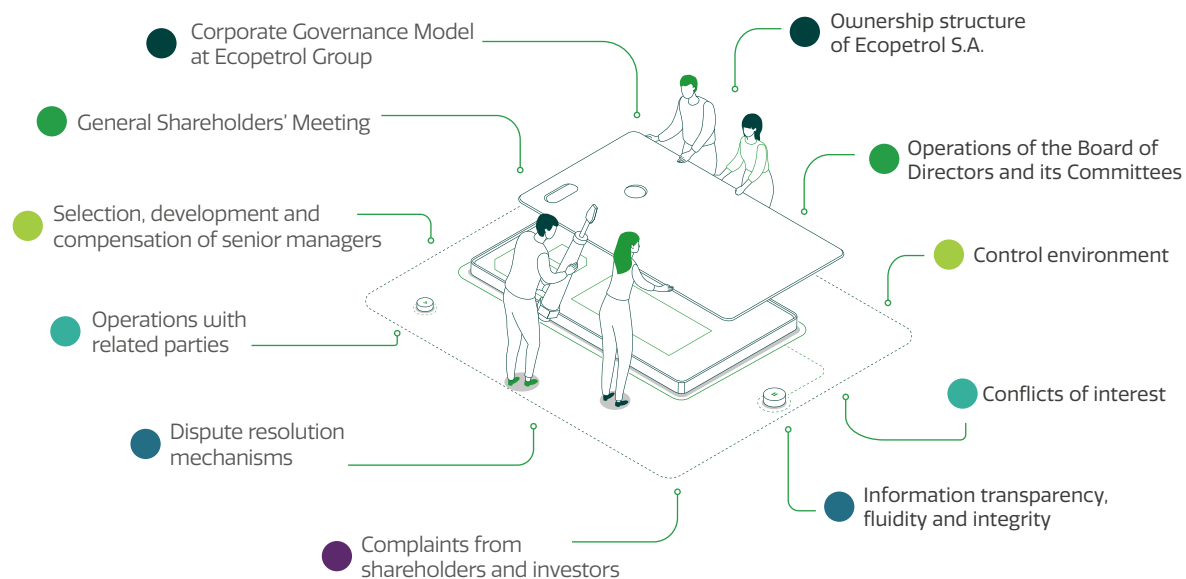
WEF 5

Dispute resolution mechanisms

The dispute resolution mechanisms contemplated by law apply to Ecopetrol, including mechanisms such as: direct settlement, conciliation and arbitration.

Based on Q42020 information, Ecopetrol was sued in 3,641 processes and plaintiff in 1,720 processes, for processes completed in favor of Ecopetrol, the rate was 83.42%.

For more details, please refer to the Corporate Governance Report, which includes:



TRANSPARENCY AND CONTROL ENVIRONMENT

GRI 102-17, 103-1

Integral policy: Zero Tolerance to corruption, bribery and other behaviors.

Ecopetrol and EG have a Comprehensive Policy that includes ethics and transparency within its fundamental pillars, thus: *"We frame our actions in ethics and transparency, therefore we have zero tolerance to the occurrence of acts constituting fraud, corruption, bribery, money laundering, the financing of terrorism and violations of the FCPA, in compliance with the national and international laws that are applicable to us"*. The same is mentioned in article 46 of the bylaws of Ecopetrol S.A.

In addition to the above, the **Declaration of Culture** launched by Ecopetrol includes the principle of being "Always Ethical" as one of its pillars, which involves – among others – having integrity in all actions and complying with the guidelines included the Code of Ethics and Conduct.

See the details of the commitments acquired in this matter in the **following link**.

To know further details about our **Declaration of Culture**, click [here](#).




GRI 102-16, 103-2, WEF 4

Program of Compliance and Ethical Guidelines for the prevention of acts of fraud, corruption and bribery in Ecopetrol.

Ecopetrol has a Compliance Program with the purpose of ensuring the comprehensive ethical behavior of Senior Management, workers, beneficiaries, contractors, suppliers, partners, and other related parties – understood as acting under the principles of integrity, responsibility, respect and commitment with life, assuming special responsibility with the internal control of the company.

The details of the objectives and focuses of this program can be consulted at the following [link](#).




GRI 102-16, 103-2 WEF 4

Code of Ethics – Guidelines

The **Code of Ethics and Conduct** is the cornerstone of the Compliance Program. The main elements of this standard are described below:

To know further details about our **Code of Ethics and Conduct**, click [here](#).



Definition

It is a compendium of rules that defines the standards of behavior expected by the organization and guides the way of proceeding of Ecopetrol S.A., of the companies that make up the Group and all the recipients of the Code, under the ethical principles of integrity, responsibility, respect and commitment to life.

Approval

Approved by the Board of Directors. It was updated in 2020, taking into account the applicable regulatory framework, national and international standards, references of companies in the Oil & Gas sector worldwide, good practice guides, and worker inputs.

GRI 406 –1

Scope


The recipients of this Code are the members of the Boards of Directors and employees of Ecopetrol S.A. and its Group, all natural or legal persons that have any relationship with it, including beneficiaries, shareholders, contractors, suppliers, agents, partners, clients, partners (including *joint ventures*), bidders, in addition to the personnel and firms hired by contractors for the execution of the activities agreed.

The Code contains an expressed rejection of acts of money laundering, terrorist financing, fraud, bribery, and corruption in all its forms (violations of the FCPA Act, transnational bribery, gifts, entertainment and hospitality, conflicts of interest, facilitation payments) lobbying, political contributions, antitrust and anticompetitive practices, among other statements. Unethical conduct is not tolerated.


The Code is of mandatory knowledge and observance for its recipients, who shall ensure that their actions always comply with the rules it contains. Group companies must adopt the rules of this Code and guarantee its dissemination and application.

The Code of Ethics and Conduct also contains higher mandatory guidelines that specifically include the rejection of any form of discrimination, social responsibility, and respect for human rights, and rejection of sexual harassment in the workplace.

For more detail on ethical principles [click here](#).



To learn more about the mandatory application guidelines, refer to the [Code of Ethics and Conduct](#).



ABOUT ECOPETROL

Facilitation payments, involvement in political activities through contributions and donations that do not meet the provisions of Article 355 of the Constitution are also prohibited at Ecopetrol and its Group, as activities and payments for lobbying services and diversion of monies from social investment activities or sponsorships for political activities or purposes other than those established by the Company.

In compliance with the provisions of article 110 of the Political Constitution and article 27 of Act 1475/2011, EG workers are forbidden – even in a personal capacity – to finance or make contributions or donations to political parties, movements or campaigns, nor induce others to do so.

WEF 4

Compliance with the Code

Ecopetrol guarantees knowledge and application of the Code of Ethics and Conduct with respect to its recipients by signing the following documents:

- The Declaration of Information and Responsibilities of the members of the Board of Directors, where they undertake to "know and apply (...) the Code of Ethics".
- Commitment to Transparency, wherethrough workers and senior management annually ratify their knowledge of the organization's ethical principles and standards and commit to act in an ethical and transparent manner and to reject acts of corruption, bribery, fraud and money laundering and financing of terrorism.
- Signing the ethical clause in contracts and agreements. Through it, contractors, suppliers – including security services – partners and Joint Ventures recognize:



Knowledge, commitment and application of the Code of Ethics and Conduct, ethical and anti-corruption guidelines, norms that govern the normal course of Ecopetrol's business.



Commitment to act with transparency and to report violations of ethical principles and guidelines through the report hotline.



Obligation to keep and report accounting records and standards.



No execution of cash transactions and no conflicts of interest.

Therefore, in 2020, the value for facilitation payments, political contributions or donations, and for lobbying services was \$ 0.

Ecopetrol rejects any practice that promotes monopoly and that threatens or limits free competition; puts the interests of consumers and markets at risk; practices that may undermine the reputation of the company in its activities and business; practices that go against the legal and internal provisions in this matter, or that may be seen as collusive practices. The protection of copyright and intellectual property is promoted.



Facilitation payments, gifts, promises or other benefits are prohibited, either directly or through any other person or entity, for the use or benefit of any public official.



Training third party personnel on the ethical provisions of Ecopetrol and adherence to the applicable ethical and anti-corruption clauses.



Right to audit Ecopetrol's counterparties compliance with anti-corruption regulations.



Contract Termination for breach of the aspects contained in the ethics and transparency clause.

Similarly, related parties must sign the following forms: i) prevention of money laundering and financing of terrorism; ii) commitment to contractual integrity.

It is noted that these clauses and formats are also signed by security service providers.

In 2020, the JVs business partners recognized and certified in writing their understanding and commitment to the Code of Ethics and Conduct and its compliance policies. 100% of contractors and suppliers committed to act based on the principles of the Code by subscribing to the abovementioned terms and forms.

Compliance with the Code is required from Ecopetrol employees through the Working Rules and the individual employment contract under penalty of termination.

Sanctions and incentives

Ecopetrol encourages an outstanding ethical behavior through the choice of Ethical Mentors in all areas. It is a recognition of the workers who comply with the principles contained in the Code of Ethics and Conduct to a greater degree. There is also a system for the recognition of the abovementioned organizational competencies.

For the management of human talent, the company has established the following rules and measures to prevent and sanction acts related to compliance risks:

- The Internal Work Regulations that contain the internal disciplinary regime.
- Labor Contracts, wherethrough workers undertake to act transparently and not to violate the Code of Ethics and Conduct.
- Procedure for Granting Variable Compensation: weighs the causes for non-payment of this benefit when the ethical guidelines of the company are violated due to issues associated with corruption, fraud, bribery (in all its forms), money laundering, and financing of terrorism, facing disciplinary sanction decisions or if incurring in internal control failures.

- Background check and integrity test for all employees of the organization.
- Training for new employees in ethical issues, training and communications.
- Employee performance evaluation system: includes organizational competencies that encourage acting under the mandates of the Code of Ethics and Conduct: passion for excellence, commitment to life, creativity - responsibility, collaboration, communication and integrity.
- Ecopetrol workers who have responsibilities in contractual processes must sign their commitment to transparency for each process.

Violations of the Code of Ethics and Conduct may lead to the termination of individual employment contracts, employment prevention letters, ethical talks, acts of commitment, termination of contracts and agreements or any business relationship.


In disciplinary proceedings, the sanctions are as established in Act 734/2002, i.e. dismissal and general inability to exercise public functions for up to 20 years, suspension, fine and admonition, constituting a disciplinary record.

GRI 103-2, WEF 4

Program Activities

The relevant activities of the Compliance Program to ensure the ethical standards of the company and prevent acts of fraud, corruption, bribery in all its forms, FCPA, money laundering, and financing of terrorism.

To know further details about our **Compliance Program**, click [here](#).



GRI 103-2, 103-3, 205-2

Internal and external assurance of the Compliance Program

As internal assurance mechanisms, the Vice Presidency of Compliance is responsible for reviewing the controls that mitigate process risks (including those of Compliance) through tests, which are performed annually by an independent auditing firm. Likewise, permanent monitoring is carried out in areas and activities of special risk and assurance and advisory practices are implemented.

The firm EY - in its capacity as external auditor - performs independent verification procedures, issuing a technical report on the reasonableness of the financial statements and an evaluation on the internal control system. Controls at the entity level are audited within its exercise - including those related to ethics and compliance. As of December 2020, the statutory auditor does not record control deficiencies, significant deficiencies or material weaknesses in Ecopetrol.

GRI 103-2, 205-2

Norms and references of the Program

The Compliance Program also complies with the laws, regulations, guidelines and best practice manuals for the fight against corruption, fraud, bribery, money laundering and terrorist financing.

The complete list can be verified in the following [link](#).



GRI 102-17, 205-1, 205-3, 406-1, WEF 5

Attention channels for dilemmas, consultations and complaints (*Ethical Hotline*)

Ecopetrol has a public access Ethical Hotline to provide advice to situations of dilemmas⁶ and for consultations⁷.

The Hotline is posted on the company's website. The results of the commitment to transparency survey indicate that 99,6% of workers are familiar with the ethical hotline. All complaints received were analyzed in accordance with the Ethical Issues Management Procedure (VEI-P-001), based the principles of the Code and other applicable regulations, as the case may be.

This channel is corporate and operated by an independent international company, providing total transparency in the process. This system guarantees: i) availability all year round, 24 hours a day, 7 days a week; ii) Reports in Spanish, English and Portuguese; iii) filing anonymous complaints; iv) confidentiality of information, in accordance with applicable international regulations.

The ethics hotline can be accessed at the following link: <http://lineaetica.ecopetrol.com.co>

An Ethics and Compliance Office has been open; the interested parties can also formulate their inquiries here.

At Ecopetrol and GE there is zero tolerance for retaliation actions against complainants. In addition, senior management supports all officials and representatives who refuse to make improper

payments, even if a business opportunity is lost as a result; for this purpose, Ecopetrol ensures:


- Anonymity.
- Confidentiality of the information and content of the complaint.
- The system records the information reported, guaranteeing data protection, in accordance with the applicable internal and external regulations.
- Retaliation is prohibited.
- Objective verification by the Corporate Vice Presidency of Compliance – an independent area of the company.
- The person who raises a complaint, query or dilemma can follow-up through codes generated by the technological tool, even if it was raised anonymously.
- Once the matter has been verified, the complainant or petitioner is always provided with the respective response.
- In the event that a person sees their physical security compromised, Ecopetrol has the Physical Security Management which establishes coordination and direct relationship strategy for immediate attention and support in these cases.

⁶ According to the Code of Ethics and Conduct of Ecopetrol, inquiries may arise regarding actions of the recipients of the Code of Ethics and Conduct on the principles of the Code and its guidelines regarding conflicts of interest or ethics, gifts, hospitality, corruption, bribery, fraud, money laundering, terrorist financing, FCPA, human rights, social responsibility, use of goods and information management, among others, that are intended to receive guidance not to incur in improper acts that violate the ethics of the organization.

⁷ These are requirements related to due diligence procedures, associated with prevention of acts of fraud, corruption, bribery, asset laundering, financing terrorism and violations against the FCPA. Through these consultations, potential alert signals are reviewed regarding contractors, vendors, partners, or workers, amongst others, and recommendations are issued to mitigate the alert signals detected.


Collective Initiatives

Ecopetrol is a member of external collective initiatives on business ethics, anti-corruption and anti-bribery, locally and internationally.

They can be verified on our website by [clicking here.](#) 

Compliance Program Evaluations

The Program was evaluated by different – both public and private external – entities: Global Compact, Icontec, the Financial Superintendence, the Attorney General’s Office, the Comptroller General of the Republic, People Voice, and KPMG.

To see the details of these evaluations, [click here.](#) 

GRI 205-1, 406-1, WEF 5E

Counseling, Detection and Response

519 inquiries were received in 2020 about restrictions from counterparties to have a commercial relationship with Ecopetrol and 307 dilemmas, whose main types are conflicts of interest and/or ethics, gifts, hospitality and negotiation of shares, evidencing a culture of Asking before Acting. 100% of the queries and dilemmas received were answered within the established internal term.

Regarding the complaints, 355 complaints were received, of which 81 correspond to compliance typologies and 274 to ethical typologies. The main ones refer to acts of disrespect, mistreatment and a hostile environment, and faults by third parties not associated with corruption. Of the total cases evacuated in 2020, 81% correspond to unsubstantiated (unsubstantiated) complaints. The remaining 19% (corroborated) is distributed as follows: 15% compliance typologies and 85% ethics.

41 concerns related to types of conflicts of interest, disrespect, mistreatment, hostile environment and regulations were addressed and resolved through the Ethics Office.

Of the matters registered in the ethical line, a corruption incident was corroborated – according to the typologies provided in the Procedure for the Management of Ethical Issues and Compliance – referring to workers who, taking advantage of their position, managed the payment of alleged work on rest days which had not been carried out. These individual actions do not involve the Company. As a result, one worker was fired and two were notified of the dismissal, which ongoing processes for the lifting of the union protection. Three cases were confirmed under this typology for the immediately preceding year.

In the framework of Act 734/2002 (Single Disciplinary Code) that governs Ecopetrol workers as they are public servants, no employment contracts were terminated on the occasion of matters related to corruption for the periods 2019 and 2020.

The cases corroborated by this typology are related to actions of workers or counterparts that do not affect the financial statements; therefore, the corresponding administrative measures have already been adopted.

No contracts were terminated, nor were any contracts or agreements with counterparties denied renewal, on account of events associated with corruption in 2020.

Regarding the Sexual Harassment typology, in 2020 three cases were corroborated, which is why two company workers were withdrawn and the contractual relationship with an outsider was terminated.

None of the matters verified was related to bribery, facilitation payments, violations of the FCPA Act, financial fraud, or events that affect the accounting or reasonableness of the company’s financial statements.

WEF 4

Investigations and external sanctions against Ecopetrol for issues related to corruption and bribery: In the last four years, there have been no investigations or sanctions against the company for matters related to acts of bribery or corruption.

GRI 102-25

Conflicts of interest

In Ecopetrol, the line on conflict of interest and duty to report and withdraw is at the highest level, and is regulating the bylaws, regulations of the Board of Directors, Code of Ethics and Conduct, and Code of Good Governance.

It has an instruction manual for the management and prevention of conflicts of interest and ethical conflicts, which can be consulted in the following [link](#).

To know further details about our **Commitment to Contractual Integrity**, [click here](#).



Ecopetrol extends the guidelines on conflicts of interest to its bidders, contractors, suppliers, clients, partners or partners through the **Commitment to Contractual Integrity**, with which they ratify the duty to act in accordance with Ecopetrol's ethical principles and not to incur in situations conflict of interest. Ethical clauses are incorporated in contracts or agreements related to the matter.

In 2020 225 reports were made about potential conflicts of interest, which resulted in workers withdrawing from the respective subject. In the particular case of situations of significant conflict of interest, one of the members of the Board of Directors and a Vice President manifested a potential conflict of interest, for which reason they withdrew from the matters related to these issues.

GRI 205-2, WEF 4

Training, education and communication

Faced with the challenges of the pandemic, virtuality was the most effective means for training and regular training, as well as permanent dissemination on ethical standards, guidelines for the prevention of bribery, corruption, and money laundering, among others. This training was aimed at senior management, employees, apprentices, business partners, contractors and their workforce, as well as subsidiaries of Ecopetrol Group.

Training and education activities were carried out through different means during 2020, including streaming, video / talks, virtual training, virtual courses, virtual meetings with suppliers and contractors, virtual talks with communities, radio soap operas, and ethical moments.

The results in training for members of the governing body, employees, business partners, contractors, and suppliers are highlighted below:



Virtual courses for workers

21,064



Streamings for workers

7,441

- Discipline Inspection **(497)**
- Integrity and Conflict of Interest **(1,055)**
- Money Laundering and Terrorism Financing **(710)**
- Corrupt Practices Abroad Law **(1,696)**
- Sexual Harassment **(1,145)**
- The new reality with ethics and commitment to life **(1,863)**
- Domestic violence, learn how to combat it **(475)**.



Video talks aimed at **9,819** direct workers and **494** apprentices

Topics:

- Corporate criminal risk in today's world;
- Money laundering and the anti-laundering system; and
- Fight against corruption in business areas.

Other Trainings:

GRI 102-27, 205-2

Board of Directors and Senior Management

- The Members of the Board received regular training on compliance, anti-corruption and anti-bribery issues.
- **16** sessions with Vice Presidents, Managers and senior management representatives (157) on the new Internal Order Guide and its powers in light of the CDU (Single Disciplinary Code).
- New Vice Presidents and Presidents of subsidiaries were trained in ethics and compliance.
- Eight (8) Ethical Moments with the Steering Committee and submittal of material for awareness in their areas.

Other special training for Workers:

- **866** workers received training on specific ethical issues. (Vice Presidency of Commercial and Marketing, Vice Presidency of Operations and Transportation Logistics, Vice Presidency of Gas and Vice Presidency of Exploration).
- **28** new Ethical Mentors were trained.
- **12** internal control trainings were carried out for 8 critical vice presidencies due to their impact on financial closure and preventative internal control alerts (527 workers).

Main activities with partners, contractors, suppliers, the sector and the community

- **7.190** contractors and suppliers took the Virtual Course on Ethics and Compliance.
- **100%** of the partners received training with the Virtual Ethics Course, and they acknowledged their commitment to the Ecopetrol Code of Ethics in writing (22).
- **1,500** suppliers were surveyed⁸ to encourage the adoption of compliance programs in line with the Pact with Transparency signed with the Vice Presidency of the Republic in 2019
- **15** virtual “Citizen Participation” workshops were held to train a total of **582** people, including pensioners, beneficiaries and the community.
- **2** training sessions were carried out in alliance with CAMPETROL for 69 representatives of companies in the sector: “Ecopetrol’s Ethical Principles and Guidelines” and “Compliance Program in Times of Crisis”.



⁸ A response was obtained from 1,065 (71%) of them, identifying that more than 75% state that they have a Code of Ethics, a Compliance Program, training activities on ethics and transparency for their workers, and attention channels for advice on ethical issues and report breaches of ethics, as well as an internal control and risk management system to prevent potential acts of corruption, fraud, bribery, and money laundering.

**Continuous training in risk management
(Total: 10,264 participants)**

As part of the prevention focus of Ecopetrol's Risk Management and Internal Control Systems, training is regularly carried out for members of the Board of Directors, Vice Presidents, Managers and other members of Senior Management, and Ecopetrol employees in general. Trainings were held on the following topics:

GRI 102-27, 205-2

Face-to-face training for the Board of Directors and Senior Management (81)



- Risk management, controls / Deloitte & Touche.
- "US Securities Laws and Regulations" / Shearman & Sterling.
- Risks of corruption and bribery in business environments / Corporación Transparencia por Colombia.
- Internal policies on risks and internal control for new Vice Presidents / VCU.
- Awareness raising on internal control issues, financial risks and regulations associated with the Boards of Directors / Ernst & Young.
- Induction of the Integrated Risk Management System / VCU.

On-site training for employees (559)



- Disaster risk management plan for public and private companies.
- Advanced Seminar: Money Laundering Risk Management System - SARLAFT.
- Cost Estimation Workshop and quantitative risk analysis.
- Risk Management Planning and Maintenance scheduling.
- Basic Hazard and Risk Management HSE.
- Process security oriented towards dynamic and comprehensive risk management.
- Oil exploration program (analysis of geological risk elements).



Virtual training for employees (9,624)



- Basic hazard and risk management – HSE.
- Risk management in projects.
- Risk management and internal control.
- Governance, risk management, and control of Internal Audit
- Risks in contracting.
- HRA Risk Management test.
- Psychosocial Risk test.

The main activities held with Subsidiaries include the following:



- Training for **86** control executors of the Group's companies on the concept of information integrity and accuracy (IPE) and its adequate documentation.
- **562** affiliate workers took the virtual course on Internal Control and Risks.
- Training was carried out for Compliance Officers of subsidiaries on the regulatory framework for the compliance program and its evaluation by the DOJ, FCPA, SEC sanctions, ML/FT prevention, SOX Law, internal control matters and risks, among the most relevant.
- **761** contractors and **2,652** employees underwent training in ethical issues and use of the ethical hotline, socialization of ethical moments with 100% of employees, and submitting the Compliance Program and Code of Ethics and Conduct to **13,296** counterparts.



ABOUT ECOPETROL

The following table lists the coverage of the Code of Ethics and Conduct, recognized in writing, as well as the training provided for 2020 to Ecopetrol employees, subsidiaries and affiliates, contractors, suppliers, service providers and partners of Ecopetrol business:

Table 05. Coverage of the Ecopetrol Code of Ethics and Conduct

% in relation to the total number of:	Coverage	Written / digital recognition	Training provided
Ecopetrol employees	100	38,818	38,818
Contractors / Suppliers / Service Providers of Ecopetrol	100	7,190	7,190
Employees of Subsidiaries / affiliates	100	4,075	4,075
Business partners (Joint ventures) of Ecopetrol	100	22	22

Source: Ecopetrol. Corporate Vice Presidency of Compliance

As for communications, the following actions and results are highlighted:

- Dissemination of newsletters, *mailings* and communication pieces to 100% of Ecopetrol workers, contractors, clients, suppliers and partners.
- “Ethics and Compliance Kit”.
- Material was disseminated on FCPA compliance risks, LAFT, prevention of bribery and conflict of interest on a website for consultation by workers.
- 24 ethical moments with socialization were disseminated to 1,487 workers through the 71 ethical mentors.

GRI 102-15, WEF 6

**Risk management system
– 2020 business risk map**

Ecopetrol’s integrated risk management and internal control complies with the ISO 31000, COSO 2013 and COSO ERM 2017 (*Committee of Sponsoring Organizations of the Treadway Commission*) and COBIT (Control Objectives for Information and related Technology) standards), as well as SOX (Sarbanes Oxley Act) and FCPA (Foreign Corrupt and Practices Act), and is governed by the provisions of internal regulations, incorporated in the bylaws, comprehensive policy, code of good governance, manuals, guides and internal instructions determined for this purpose.

These normative references establish the elements and general guidelines for risk management, administration and internal control for making informed decisions.

In relation to EG’s companies, the Corporate Compliance Vice Presidency exercises governance, guides, issues guidelines, defines practices and monitors risk management and internal control.



Risk culture

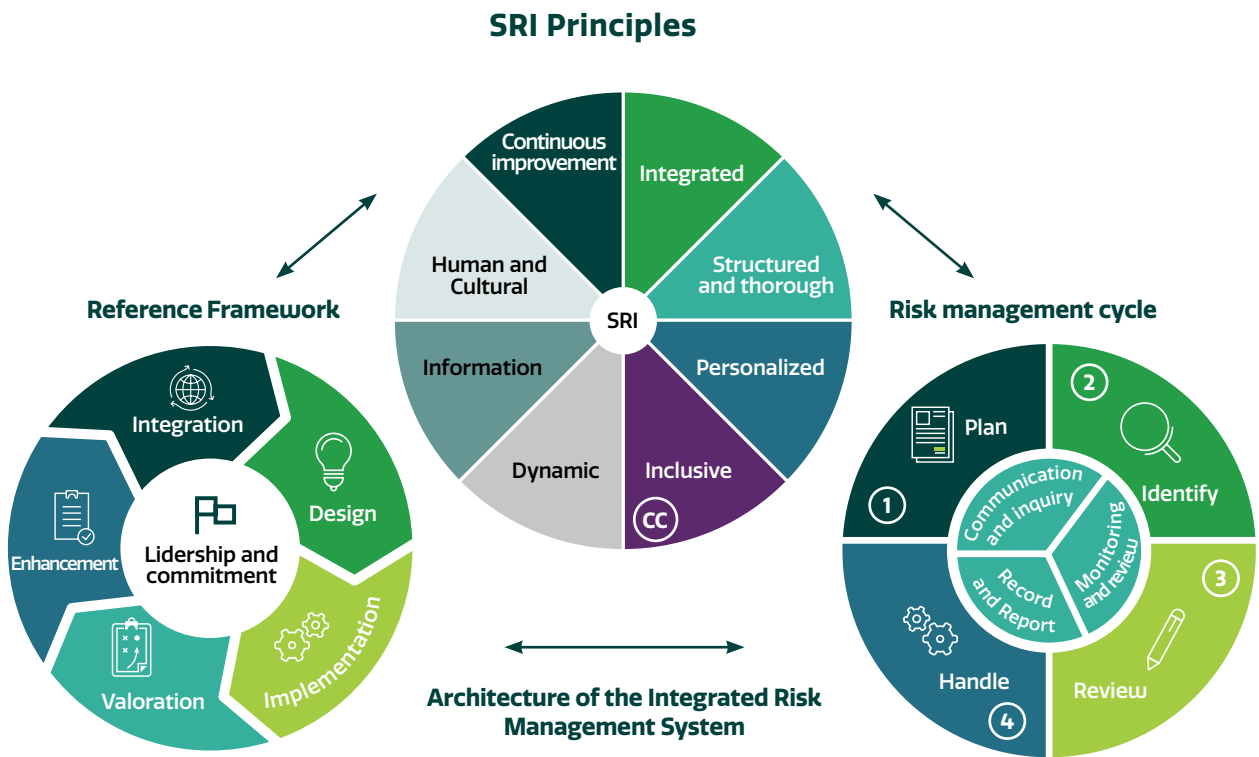
Ecopetrol is aware that culture has a considerable influence on all aspects of risk management and on all levels and instances of the organization. For this reason, Ecopetrol promotes a set of desired behaviors and attitudes on risk management, aligned with the **Declaration of Culture**.

To reinforce the risk culture of Ecopetrol S.A., the organization considered indicators that affect variable compensation on an annual basis within the performance evaluation at all hierarchical levels: i) HSE: Fatalities or environmental incidents (5% to 10 %); ii) Internal control failures reported by the external auditor (2.5% to 100%); and iii) Ethical incidents and disciplinary sanctions (100%). It has a self-evaluation exercise and quarterly report of the process owners, which is detailed in the section “Internal Control System (ICS)”.

To know further details about our **Declaration of Culture**, click [here](#).

Integrated Risk Management System

The Integrated Risk Management System (SRI) establishes a set of principles, framework and process or cycle that allow the organization to manage the effects of uncertainty on compliance with its objectives. There is a Risk Management Guide, which determines the guidelines for their integrated management in Ecopetrol and in the Group’s companies.

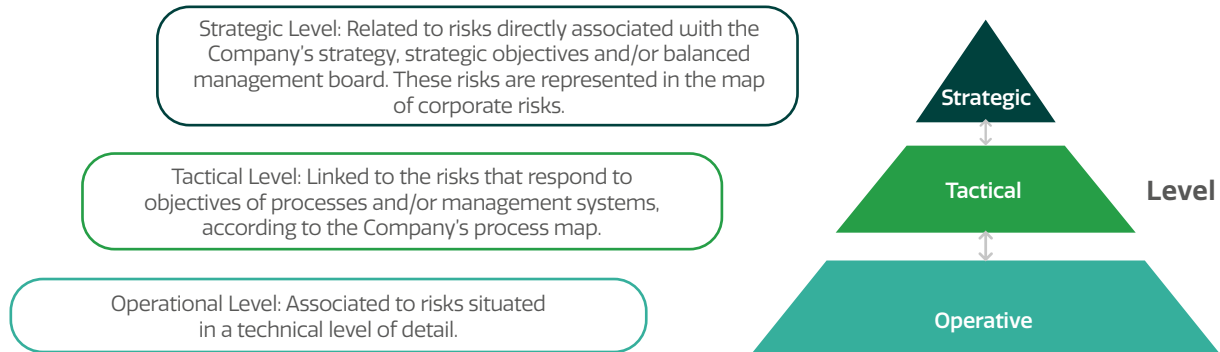


SRI assurance is led by the Corporate Vice President of Compliance and monitored by the Board of Directors’ Audit and Risk Committee, which verifies the establishment of the system, analyzes and makes recommendation to the Board for the approval of business risks.

ABOUT ECOPETROL

All company employees are responsible for knowing the risks to which they are exposed in the exercise of their functions and within the processes in which they participate and for managing them properly.

The risk levels at Ecopetrol S.A. which are managed under the SRI are detailed below:



A digital tool was launched that contains the identification of the company's risk universe and their correlation for the strategic, tactical and operational levels, as well as the identification of typologies and subtypes that make up the operational risk layer.

This tool allows the Company to make decisions based on risk, considering the impacts that can be generated against compliance with the organizational

strategy (Vertical correlation) and the effect on other areas and business risk when any risk materializes (Horizontal correlation).

Risk management monitoring and assurance are carried out permanently in order to keep the risks within the defined tolerance and acceptance levels⁹. The report made is submitted to the Executive Committee (Exco) and to the Board of Directors' Audit Committee.

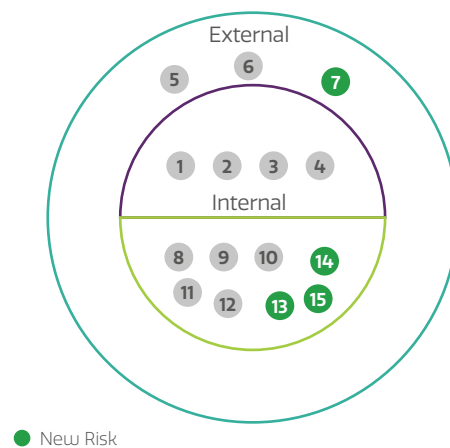
GRI 102-30

Business Risks Map

Business risks are those that can divert the company from fulfilling its strategy and strategic objectives.

Below is Ecopetrol's current business risk map:

1. Protection and incorporation of unsuccessful resources and reserves
2. Unsuccessful energy transition strategy
3. Affection to financial sustainability and value generation
4. Subordinate companies not complying with their value promise
5. Operational interruption incidents
6. Changes in the regulatory framework
7. Propagation of epidemics that affect the operation
8. HSE accidents with to an operational cause
9. Projects which do not meet their value expectation
10. Faults against ethics and compliance
11. Cyber-attacks, data leaks or loss and technological obsolescence
12. Organizational culture which fails to support the strategy
13. Failure to comply with commitments by third parties
14. Affection of operation by control bodies and the State
15. Inadequate management regarding climate change and water



⁹ These levels are established in the RAM - Risk Assessment Matrix as approved by the Board of Directors and is used to carry out the inherent and residual assessment of business risks

The construction and updating of the business risk map is carried out collectively based on the permanent analysis of the environment and emerging risks.

The business risks proposed are constructed and validated by the company’s management level, they are confirmed by the Executive Committee of Senior Management (ExCo), and are presented to the Audit and Risks Committee of the Board of Directors, which reviews and recommends their approval to the Board of Directors.

As a result of the analysis of trends and emerging risks, the Business Risk Map was updated in 2020, linking four

(4) new risks: i) spread of epidemics that impact the operation; ii) failure to comply with commitments by third parties; iii) impact on operations by control bodies and the state; and iv) inadequate management of climate change and water.

To manage the 15 Business Risks, Ecopetrol has defined 84 treatment actions and 41 key risk indicators (KRIs).

From the Business Risk Map, medium-term management (3 to 5 years) is maintained for the following:

Table 06. Risk management in the medium term

Risk name	Risk sources / components
1. Protection and incorporation of unsuccessful resources and reserves	<ul style="list-style-type: none"> · Addition and progression of resources discovered by de-limiting exploration oil and gas. · Protection and incorporation of resources and reserves by current assets and unconventional oil and gas fields.
2. Unsuccessful energy transition strategy *	<ul style="list-style-type: none"> · Fuel quality goals. · Asset competitiveness and avoiding stranded assets. · Gas vision to increase its participation in the GE portfolio and production. · Taking advantage of the market in the energy transition (Crudes in Asia and Refined products in Colombia). · Petrochemical position.
7. Propagation of epidemics affecting the operation	<ul style="list-style-type: none"> · Containment of the virus, health protocols. · Operation continuity. · Relationship with contractors and suppliers. · Support to communities and government entities.
15. Inadequate management regarding climate change and water	<ul style="list-style-type: none"> · Decarbonization, renewable energy, energy efficiency, nature-based solutions. · Climate change: El Niño and La Niña phenomena of climatic variability and times of extreme drought. · Integrated Water management: water required to operate and water discharge management.

Source: Ecopetrol. Corporate Vice Presidency of compliance

For emerging risks, you can check [this link](#) appertaining to Ecopetrol.



Ecopetrol has internal guidelines associated with the maintenance of records and approval procedures.

see the following [link](#) for more information.



Internal Control System (SCI)

Ecopetrol’s SCI pillar is self-control¹⁰, with the objective of verifying that the controls operate according to their design.

This is a process performed by everyone in the organization, and supervised by the Board of Directors through the Audit Committee and Risk Control as the highest body responsible for supervising the management and effectiveness of the SCI. The Corporate Vice Presidency for Compliance issues guidelines and monitors their implementation and execution.

This system seeks to provide reasonable security in the achievement of strategic, operational, information reporting and regulatory compliance objectives, through timely management of risks and the effectiveness of controls, ensuring individual and consolidated financial statements in compliance with the laws and applicable international standards. It works under the three (3) lines of defense model, to provide a monitoring scheme for the elements of internal control, thus:



As part of the activities of the first line, Ecopetrol performs internal control self-assessments¹¹ on the status of risks and controls, the existence of additional risks, relevant risk issues, mitigation measures, and monitoring of Key Risk Indicators (KRI) and events that could potentially occur.

In the second line of defense, prevention and continuous monitoring schemes are implemented to verify the elements of internal control in the processes, together with the monitoring of risk management and controls of business processes and risks.

In addition, as part of the assurance activities of the System, an audit firm is hired periodically to ensure the design and operational effectiveness of the risks and controls and the main companies of

the Group. The firm Deloitte & Touche was hired for the 2020 period; and their results show no significant deficiencies.

In relation to the third line of defense, the tax and external audit firm Ernst & Young Audit S.A.¹² performed the functions determined by law and the Bylaws during 2019 and 2020 – including the evaluation and subsequent issuance of an independent technical report on the System and in the scope areas with an impact on the preparation of financial information, in accordance with the provisions of the SOX Law and the in accordance with standard No. 5 of the Public Company Accounting Oversight Board (PCAOB). The relevant results were periodically presented to the Audit and Risks Committee of the Board of Directors.

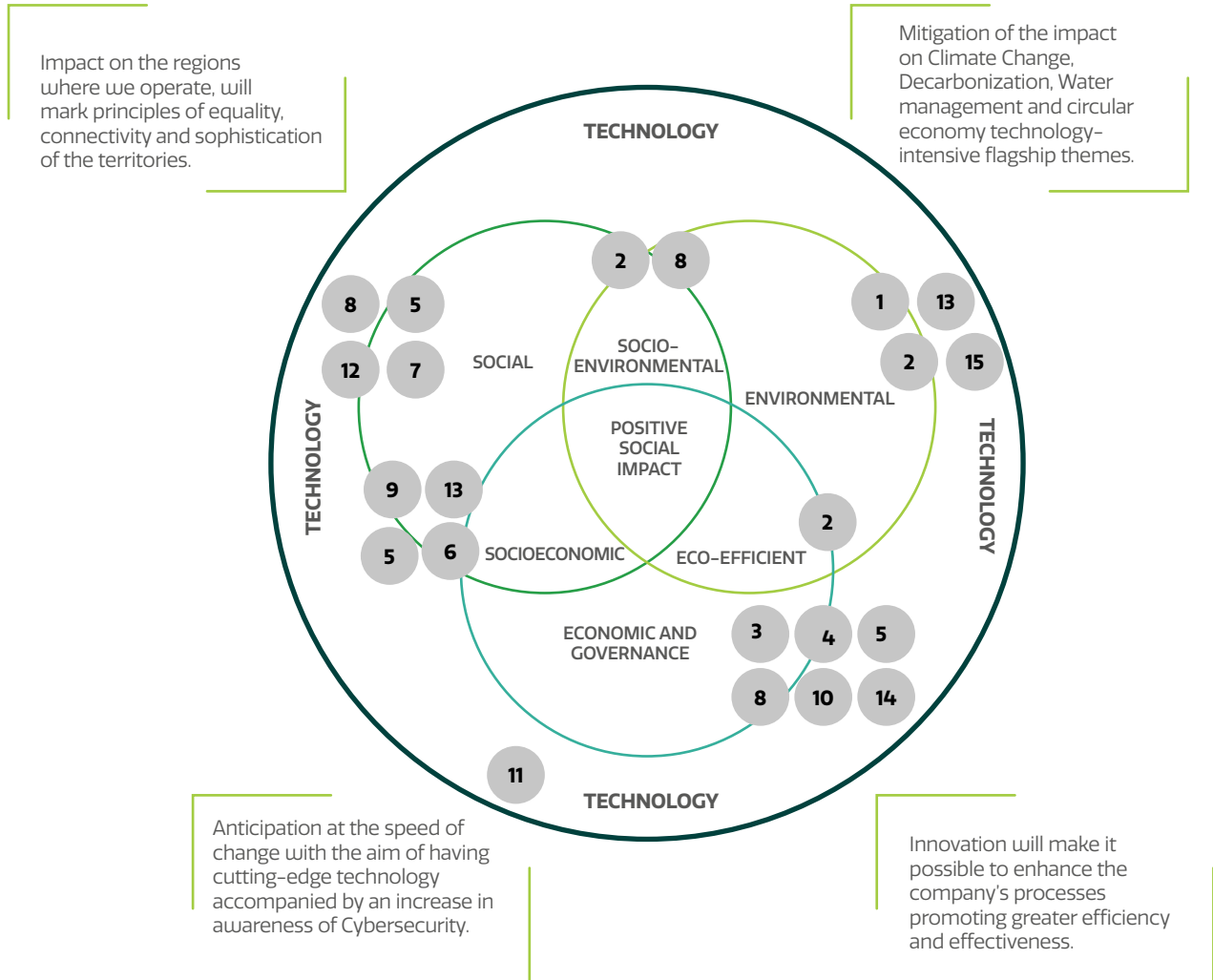
¹⁰ It is understood as the attitude of carrying out daily work with self-criticism and self-management, promoting transparent and effective performance that facilitates the achievement of organizational goals.

¹¹ Through the 'B Wise' information system tool.

¹² Ecopetrol General Meeting of Shareholders, at its March 29, 2019 meeting, in accordance with the Company Bylaws, approved the appointment of Ernst & Young Audit S.A.S. as an External Statutory Auditor and Audit firm, for the term 2019, with option for the term 2020. The payment for those services was COP \$4,050'000.000 plus taxes (IVA) and COP \$4,212'000.000 plus taxes (IVA), respectively.

Business Risk Alignment with ESG and the TESG Strategy

In terms of sustainability, the business risks of Ecopetrol S.A. are directly related to the social, socio-environmental, environmental, eco-efficient, economic and governance, and socio-economic (TESG) dimensions, as shown below:



The numbers correspond to business risks as listed in the published Map

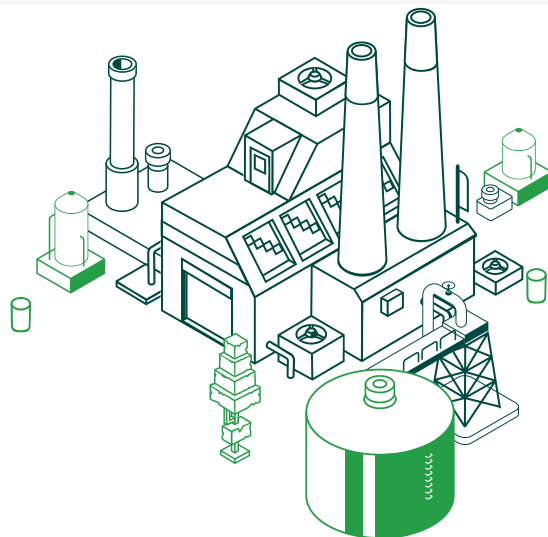
In line with the above review result of the TESG Strategy themes, risks associated with climate change and water required to operate, were included in the Corporate Risk Map of the year 2020.

Compliance risks

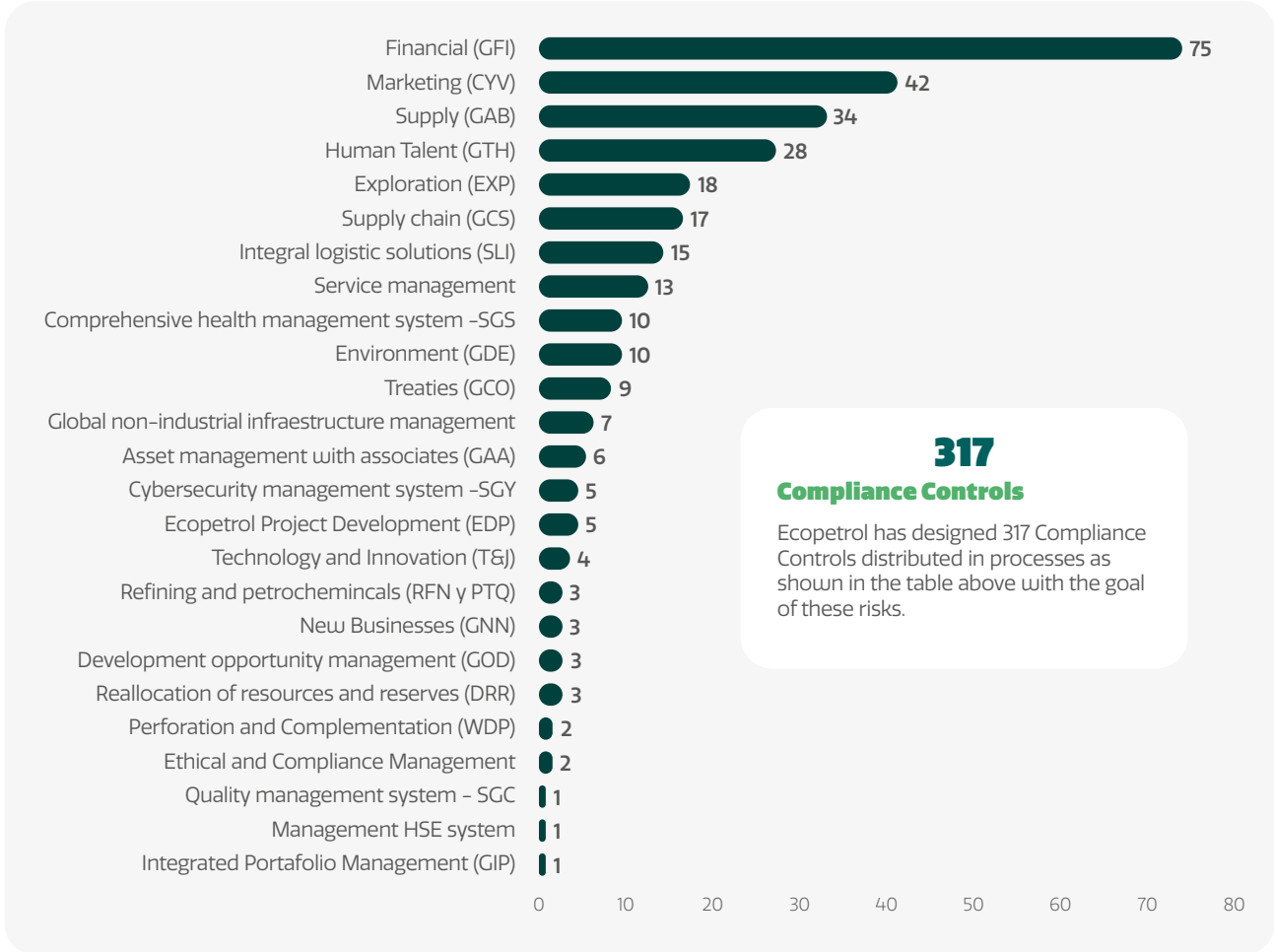
Compliance risks (corruption, fraud, bribery, money laundering, and terrorism financing) were determined and evaluated during the 2020 process risk management cycle, including 100% of the processes executed in all locations and physical facilities where Ecopetrol’s operations are carried out. Their results are detailed below:



144
Compliance Risks
 Ecopetrol has 144 compliance risks identified in the matrix of risks and process controls at closing of FY2020.



Similarly, the controls created for these risks in order to prevent and detect situations related to compliance with regulations, standards, and principles, are as follows:



GRI 103-1, 103-2, 103-3, 415-1, WEF 4E

Transparency in relations with the Congress of the Republic

Ecopetrol did not make any kind of donations to political parties in 2020 or in previous years.

Similarly, due to its legal nature, Ecopetrol does not perform any lobbying activities. The company formalizes its observations on the different legislative and regulatory initiatives that may affect the oil and gas sector in Colombia before the Ministry of Mines and Energy as the head entity of the sector and before other governmental instances.

The company has a procedure for engagement with Congress, describing step-by-step guidelines for the following actions:

- Attending meetings requested by Congressmen, and to follow up on the commitments that arise from them.
- Attending summons to political control debates.
- Responding to requests for information and questionnaires for summons to political control debates presented by congressmen timely and with high quality.
- Following up and monitoring draft bills of interest to Ecopetrol.

KF_33
KF_76
KF_92



02

ATK - 7511



CAP. 14000 BBLs
CRUDO



Object_43H1

Economic DIMENSION



Barrels of Oil
Castilla III Production Field

GROWTH AND CONTRIBUTION OF ECOPETROL TO THE NATIONAL GDP

A heterogeneous behavior was observed in the mining sector. While the sector as a whole contracted by 15.7% in the year, metallic minerals grew in average 22.1%, whilst coal mining contracted in average by 6.6%.

On the other hand, oil and gas extraction contracted by 11.3%. This is explained by the downward adjustment

in crude production, which brought the scenario of low prices in 2020. According to the ANH, the country’s crude production contracted to 732 kbd in May, as compared to 884 kbd at the beginning of the year. There was a slight recovery since then, reaching a production of 759 kbd in the month of December.

Contribution of the oil sector to the Gross Domestic Product (GDP)

According to preliminary growth figures, Ecopetrol’s contribution to the national GDP was 2.4 %. This lower share of Ecopetrol as compared to 2019 is explained by the general crisis of the economies derived from the effect of COVID-19, whereby the production of oil and gas reached a yearly average of 697 Kbed against 725 Kbed of 2019. (See table 7).

Table 07. Contribution of the oil sector to the GDP (Billions of constant pesos in 2015)

	2019 (pr)	2020 (pr)
National GDP	882,029	821,634
GDP oil extraction	29,827	26,462
GDP contribution from oil	3.4%	3.2%
GDP contribution from Ecopetrol	2.8%	2.4 %

Sources: National Department of Statistics – DANE, Ministry of Mines and Ecopetrol – Corporate Vice Presidency of Finance

GRI 103-1, 103-2

Financial strategy and results

Despite the unprecedented market conditions due to COVID-19 in 2020, the Business Group achieved accumulated net income as of December for \$ 1.7 trillion and an EBITDA of \$ 16.8 trillion. The lower costs of operational activity, new businesses integrated into the Group such as Invercolsa, Permian, additional participation in Guajira and the margins of subsidiaries not sensitive to the Brent indicator (such as Esenttia and Cenit) partially offset the drastic 33% drop in Brent price and lower demand for crude oil and products.

Revenues accumulated at the end of 2020 showed a decrease as compared to 2019, as a combined result of a lower weighted average sale price of crude oil, gas and products, lower sales volume and lower revenues from transportation services.



ECONOMIC DIMENSION

Costs of variable and fixed sales for 2020 showed a decrease as compared to 2019, as a result of lower cost in purchases of crude oil, gas and products, inventory fluctuations, the implementation of strategies aimed at optimizing costs, and decreasing activity.

Operating expenses increased due to higher labor expenses by associates, in part due to the recognition of the voluntary retirement plan of 421 people in 2020 – which will represent future savings in cash close to \$ 400.000 billion, and salary increase compared to the previous year.

Financial expenses increased mainly due to the increase financial cost of the debt associated with: i) increase in the Group's financing obtained in 2020; and ii) the effect of the devaluation of COP against USD on foreign currency debt.

During 2020, the Company permanently monitored its costs and expenses to achieve financial flexibility that would allow, on the one hand, to attain optimizations and overcome the most critical moments of the year and, on the other, to guarantee the availability of resources that would allow a safe and profitable reactivation of the operation given the recovery of prices presented in the last quarter of the year.

Investment analysis

EG's accumulated investment in 2020 amounted to USD \$2,674 million, of which 78% was executed in Colombia and 22% internationally – mainly in the United States and Brazil. Of the total investment, 76% corresponds to the exploration and production segment; the remaining 24% to the transportation, refining and corporate segments. 66% was allocated to opportunities for growth in reserves and production and 34% to operational continuity and efficiency projects.

Of the total investments, more than USD 150 million was allocated to energy transition projects such as the Chichimene Generation Center, the Barrancabermeja Wastewater Treatment Plant and the Construction of the Casabe Field Production Water Treatment Plant, and USD 81 million to continue the digital transformation and innovation of EG.

Execution in the year 2020 presented impacts mainly due to: i) the restrictions implemented to contain the spread of COVID-19 (under the concept of minimum operational vital), affecting to a greater extent the assets of Rubiales, Caño Sur, Casabe, Sur, Recetor and the Cartagena Refinery; ii) administrative procedures, such as the pending approval of the agreement with the ANH for the development of Piedemonte, due to the change of operator caused by the reversion of Floreña and Pauto fields to Ecopetrol; and iii) blockades in the Rubiales, Apiay and Tibú fields.

Despite the above, savings in the amount of USD \$207 million were achieved in drilling, completion, well conversion and cost optimization activities during the maturation process, among others, thanks to efficient management and capital discipline.

Table 08. Investments by segment – Ecopetrol Group

Millions (USD)	Ecopetrol S.A.	Branches and subsidiaries	Total	% Participation
Production	1,209	279	1,488	55.6%
Refining, petrochemicals and fuels.	181	154	335	12.5%
Exploration	115	428	543	20.3%
Transport*	-	218	218	8.2%
Corporate	90	-	90	3.4%
Total	1,595	1,079	2,674	100.0%

Source: Ecopetrol, Corporate Vice Presidency of Finance.

* Includes the total investment amount for each Ecopetrol Group's company (Ecopetrol S.A. Participation and not-controlling interests).

WEF 6E**2020–2023 business plan update**

EG updated its business plan for the 2021-2023 period. It aimed at restoring the growth path while continuing to prioritize cash-generating opportunities, with better equilibrium prices and a focus on executing development plans of strategic assets, as well as the preservation of the value of assets through investments that provide reliability, integrity and continuity to the Group's value chain.

The plan envisions organic investments for an estimated amount between USD \$ 3,500 and USD \$ 4,000 million for 2021. 80% of these investments will focus on projects in Colombia and the remainder will be invested mainly in the United States and Brazil.

The plan keeps its strategic goal of growing the exploration and production segment (to which 77% of total investments will be allocated), with a focus on accelerating the progression of resources and reserves estimated at 3.7 trillion barrels, through exploration, drilling and improved recovery.

Regarding unconventional oil reservoirs (UCR), investments of more than USD \$ 600 million are foreseen for the increase of development activities in the *Permian* basin in Texas, United States, and the continuity of investments for the maturation of the initiatives associated with Pilot Projects for Comprehensive Research of Unconventional Reservoirs (PPII) in the Magdalena Medio Valley basin, in Colombia.

The plan ensures the allocation of capital to incorporate the most competitive resources and reserves in the new price environment, profitable progress in the energy transition (gas, decarbonization, short-cycle oils, incorporation of renewable energies),

reliable investments necessary for a responsible and sustainable operation, and to the technologies and strategic social investments for the future of EG.

The most relevant operational and financial goals of the 2021-2023 plan include:

- Reaching production levels in 2021 between 700 and 710 kbed, with a growth path that allows to reach production levels close to 750,000 kbed in 2023.
- Joint loading of the Barranca and Cartagena refineries between 340,000 and 365,000 bpd, and reaching 420,000 bpd in 2023, in an expected scenario of recovery of demand and refining margins, and interconnection of the original crude unit of the Cartagena refinery.
- Volumes transported above one million bpd, in line with the behavior of production and demand for liquid fuels in the country.
- Emission reduction target to three million tons of CO₂ by 2023, in addition to the 8.4 million tons reduced between 2010 and 2020.
- Goal of incorporation of 400 MW from renewable energies by 2023.

The plan ratifies resources announced for socio-environmental investment close to \$ 1.7 trillion for the 2020-2024 period, aimed at bridging social gaps and promoting the development and well-being of the communities where Ecopetrol operates, with strategic projects in infrastructure, public services, education, sports and health, inclusive rural development, and entrepreneurship and business development.

The organic investment plan shall be financed mainly with the generation of internal cash, materialization of efficiencies and cash surpluses existing at the beginning of the year. It is expected to reach a gross debt/ebitda ratio of less than 2.5 times by 2021 and less than 2.0 times in 2023, thereby reversing the trend of the leverage indicator seen in 2020. The plan generates positive free cash flow, a sustained growth of the Ebitda (hand in hand with the expected trend of price recovery), and a positive Ebitda margin of between 35% and 38% in the three years of the plan.



GRI 102-7, 201-1

FINANCIAL STATEMENTS

Balance sheet

At the end of December 2020, assets in EG's statement of financial position increased by 3% (\$ 3.9 trillion), reaching \$ 139.4 trillion.

This increase was caused by the combined effect of the increase in natural resources, property, plant and equipment, and taxes, mainly represented by higher Capex investments.

Liabilities represented 60% of the total assets. Compared to the previous year, there was an increase of \$ 8.5 trillion, mainly due to the issuance and placement of external public debt bonds for USD \$ 2 billion in April 2020.

Total equity amounted to \$ 55.8 trillion, of which \$ 52.1 trillion are attributable to Ecopetrol shareholders and \$ 3.7 trillion to non-controlling shareholders.

Detailed information on Ecopetrol's financial statements (consolidated and unconsolidated) can be found on [Ecopetrol's website](#).



GRI 103-3, 201-1

Financial indicators

The results of the financial indicators in 2020 were as follows:

- **Liquidity Indicators.** Liquidity indicators correspond to the resources required by EG to operate in the short term, maintaining a margin to cover cash fluctuations as a result of current asset and liability operations.

At the end of 2020, current assets decreased by 2% compared to the previous year, mainly due to lower balances of cash, accounts receivable and inventories, partially offset by an increase in tax assets and other financial assets.

The 16% decrease in the current portion of liabilities is due to lower accounts payable to suppliers of crude oil and products and less income tax given the results of the period.

- **Indebtedness indicators.** Indebtedness indicators represent the proportion of the company's investment that has been financed with debt, i.e. with third-party resources.

The total asset-supported third-party liabilities was 60% in 2020 and 55% in 2019. In addition, the concentration of short-term indebtedness was 22%, and 78% for long-term indebtedness.

Total assets increased \$ 4 trillion – mainly due to increased investments in natural resources and property, plant and equipment.

- **Profitability indicators.** The 2020 Ebitda margin stood at 33.7% as compared to 43.9% in 2019, as a result of unprecedented market conditions due to COVID-19 in 2020.

EG's return on assets in 2020 was 2%, which reflects a decrease compared to 2019. This was mainly due to lower results (\$ 2.8 trillion) compared to the net income of the previous year (\$ 14.5 trillion).

- **Activity indicator.** As a result of the above, the company's activity index was 0.36 (as compared to 0.52 in 2019).

GRI 201-1

Economic value generated and distributed

Economic value generated and distributed illustrates the basic manner in which an organization generates wealth for its stakeholders. The economic value generated corresponds to the company’s income.

In turn, the distributed economic value includes: operational costs, salaries and benefits to employees, payments to capital providers, payments to the government, and social investment (see table 9).

Table 09. Economic Value generated and distributed – GE (COP Million)

Concept	2019	2020
Economic value generated		
Income	70,846,769	50,026,561
Economic value distributed		
Operational Costs (Cost of Sales and Expense of Operation)	50,431,637	43,014,343
Salaries and employee benefits (expense) *	1,161,855	1,968,585*
Payments to capital providers	1,711,133	2,828,361
Payments to the Government	26,336,534	19,389,423
Investments in the community	245,462	226,295
Total economic value distributed	79,886,621	67,427,007

Source: Ecopetrol, Corporate Vice Presidency of Finance

*The 2020 figures include recognition of the new voluntary retirement plan for 421 workers.

GRI 201-3

Pension liabilities

Ecopetrol belonged to the special pension regime. After the enactment of Act 797 of January 29, 2003 and Legislative Act 001 of 2005, Ecopetrol ceased to belong to said regime and henceforth its employees would be affiliated with the General Pension System. Consequently, employees who retired with Ecopetrol until July 31, 2010 continue to receive allowances and social benefits (health services for the employee and their enrolled family members) from the company.

As for the other workers hired under Act 50/1990, Ecopetrol makes periodic contributions for severance pay, pensions and professional risks to the respective funds that fully assume these obligations. Health and education matters remain within the labor liability of Ecopetrol.

GRI 201-4

Financial assistance received from the government

The current tax regulations do not contemplate tax deductions that can be used by the Company. On the other hand, the regulations contemplate tax credits that can be used by the Company in determining income tax. As of December the 31st, 2020, Ecopetrol has \$ 401 billion in tax credits, of which \$ 16.3 billion will be used to determine the income tax to be paid in 2020.

On the other hand, no financial assistance was received in 2020 from Export Credit Agencies (ECAs)

The amount of provisions for employee benefits is presented in the notes to Ecopetrol's financial statements (consolidated and unconsolidated), which can be found at the following [link](#).



GRI 201-1, WEF 21

Contribution to the National Treasure

Ecopetrol is one of the most important taxpayers of national and territorial taxes in Colombia. Its tax policy aims at complying with its legal obligations within the current regulations and obtaining the greatest amount of tax benefits for the company. Taxes payable by Ecopetrol are summarized in table 10.

Table 10. Detail of taxes payable by Ecopetrol

Tax type	Tax
National	<ul style="list-style-type: none"> Income tax and supplementary tax VAT - common regime Income withholding agent, VAT National diesel surcharge National tax on gasoline and diesel Carbon tax Tax on financial transactions
Territorial	<ul style="list-style-type: none"> Industry and commerce tax, notices and boards Industry and trade withholding agents Public lighting Vehicles Property Gasoline surcharge Transportation tax

Source: Ecopetrol. Corporate Vice Presidency of Finance

The amount paid by Ecopetrol includes the taxes assumed by the company and withholdings or collections of taxes made from third parties and paid to the different tax authorities in its capacity as withholding agent. The individual and consolidated effective tax rate for the year for Ecopetrol in 2020 was 28.5% and 38.47%, respectively.

EG's contribution to the Nation in 2020 translated into transfers effectively paid for \$ 19.4 trillion, represented as dividends (\$ 6.6 trillion), and total taxes (\$ 9 trillion) – includes taxes assumed by the company and withholdings or collections of taxes made from third parties and paid to the different tax authorities in its capacity as withholding agent, and royalties and purchases of crude oil and gas from the ANH (\$ 3.9 trillion).

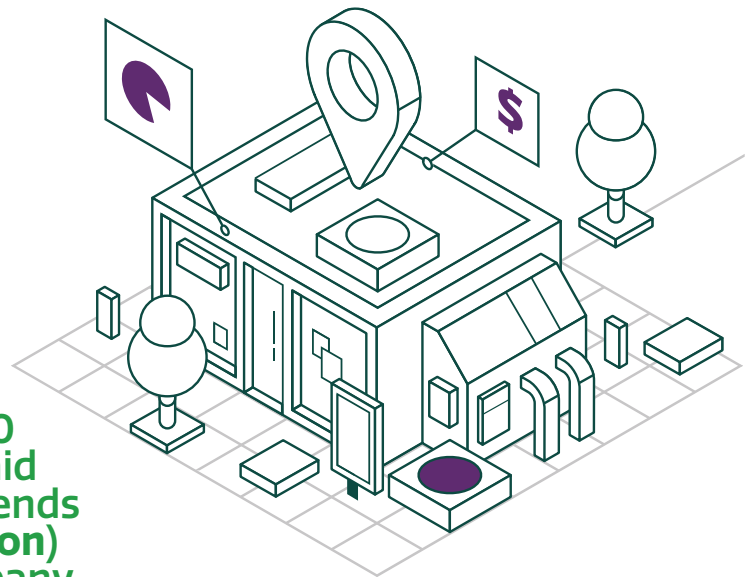


Table 11. Value for taxes and transfers paid at the national and territorial level by Ecopetrol S.A. (COP million)

TYPE OF TAX	2016	2017	2018	2019	2020	DESTINATION
OWN TAXES						
Income tax	-	372,438	272,763	-	446,316	NATION
Self-withholding: Withholding for equity – CREE tax	634,400	75,130	-	-	-	NATION
Self-withholding for income tax	548,792	1,407,033	5,094,734	2,172,632	1,728,724	NATION
Wealth Tax (Effective until 2017)	368,844	147,168	-	-	-	NATION
National tax on gasoline and diesel	304,193	2,706	45	45	31	NATION
Carbon Tax (Effective as of 2017)	-	556	619	1,128	446	NATION
National surcharge on diesel	934	40	29	26	18	NATION
Sales Tax	2,525	865,288	765,949	756,350	-	NATION
Tax of industry and commerce	136,758	136,819	136,012	167,124	165,289	MUNICIPALITIES
Property tax	18,538	22,801	22,641	22,439	20,763	MUNICIPALITIES
Transportation tax	103,875	113,412	73,786	77,267	163,553	MUNICIPALITIES
Tax on financial transactions	84,672	95,579	137,975	142,312	128,230	NATION
Vehicle tax	795	182	239	173	92	MUNICIPALITIES
Lighting tax	12,367	13,775	10,590	11,646	19,374	MUNICIPALITIES
Gasoline surcharge	-	5	6	5	2	DEPARTMENTS / MUNICIPALITIES
Subtotal own taxes	2,216,693	3,252,932	6,515,387	3,351,145	2,672,838	
Collection from third parties						
National tax on gasoline and diesel	2,737,738	1,181,870	983,425	1,188,018	954,854	NATION
Withholding at source for income / VAT / stamp	580,003	639,167	985,174	1,060,373	1,175,564	NATION
Universidad Nacional Stamp (*)	-	-	-	3,132	675	MINISTRY OF EDUCATION- NATION
Work contribution (effective from 2020)	-	-	-	-	688	MINISTRY OF INTERIOR
Withholdings for solidarity tax – due to COVID-19	-	-	-	-	45,216	NATION
National surcharge on diesel	36,986	44,278	49,658	50,870	31,594	NATION
Carbon Tax (Effective as of 2017)	-	345,762	224,730	363,930	235,123	NATION
Withholding at source for industry and commerce	45,509	35,495	46,791	68,940	77,870	MUNICIPALITIES
Subtotal taxes collected from third parties	3,400,236	2,246,571	2,289,778	2,735,263	2,521,583	
Totals	5,616,929	5,499,503	8,805,165	6,086,408	5,194,421	

Source: Ecopetrol. Corporate Vice Presidency of Finance

SHARE'S EVOLUTION

In Colombia

The Colombian Stock Exchange (BVC) had a devaluation during 2020, in line with the lower price of crude oil. Brent decreased 22% in the past year, going from levels of USD 66 / bbl at the beginning of 2020 to USD 52 / bbl at the end of the year, while the COLCAP index – the main reference of BVC – had a 14% devaluation during 2020.

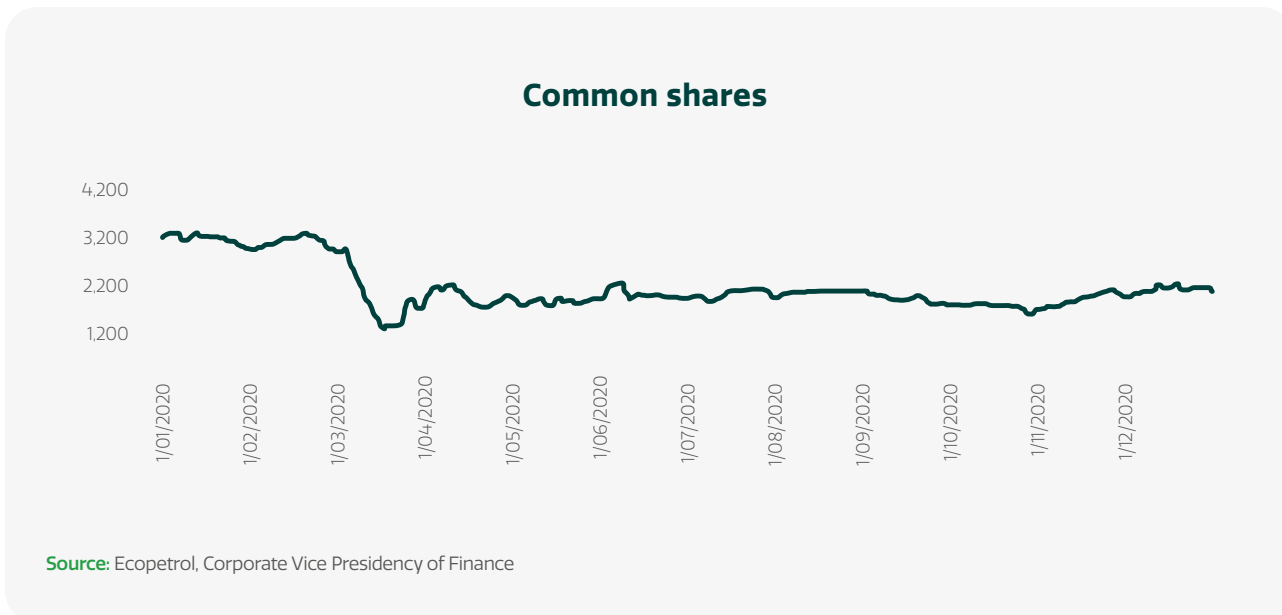
Ecopetrol's share price closed the year at \$ 2,245, with a 32% devaluation. The share reached a 2020 high of \$ 3,460 on February 19, and a low of \$ 1,380 on March 18.

Table 12. Behavior of Ecopetrol's share at BVC (figures in COP)

Description	Value
Price at January 1, 2020	3,315
Price at December the 31st, 2020	2,245
Average price	2,291
Minimal price	1,380
Maximum price	3,460
Ecopetrol valuation	-32%
COLCAP valuation	-14%

Source: Ecopetrol, Corporate Vice Presidency of Finance

Graph 08. Ecopetrol share price in BVC (Colombian Pesos)



Source: Ecopetrol, Corporate Vice Presidency of Finance

Evolution of ADR on the New York Stock Exchange

Ecopetrol's ADR (*American Depository Receipts*) closed 2020 with a price of USD \$ 12.91, which is equivalent to a 35% devaluation as compared to the end of 2019. This behavior was in line with the performance of O&G companies during the year 2020.

The ADR reached a maximum of USD \$ 20.95 on January 13 and a minimum of USD \$ 6.68 on March 18 (table 13 and graph 9).

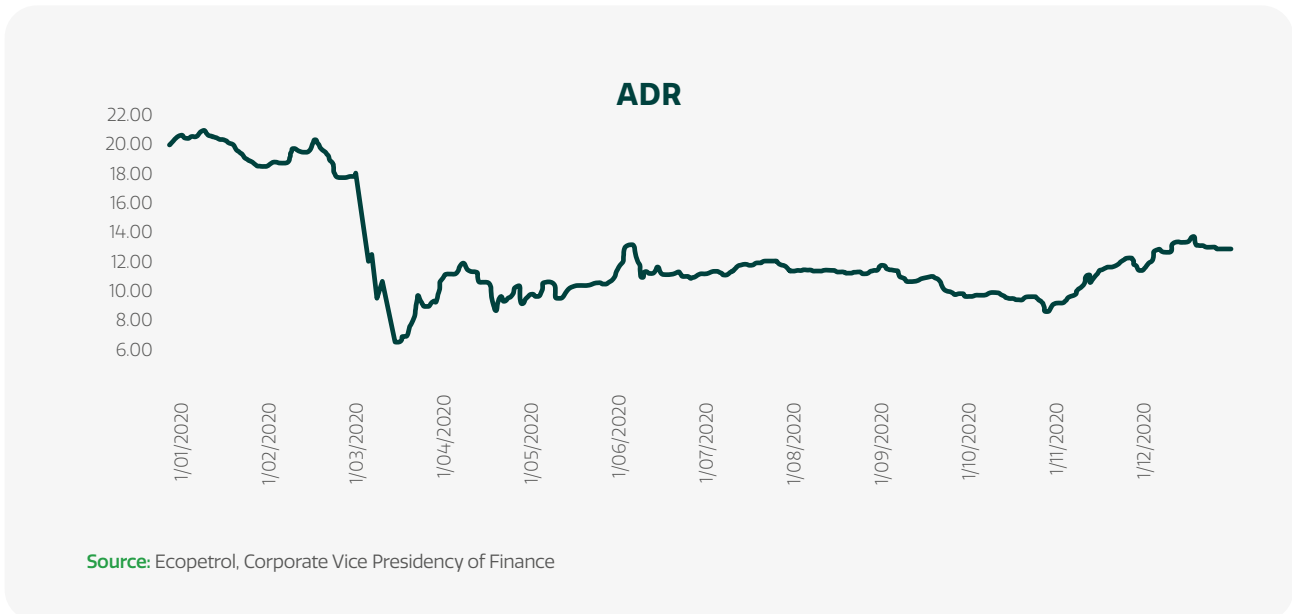


Table 13. Behavior of Ecopetrol's ADR on the NYSE

Description	Value
Price at January 1, 2020	19.96
Price at December the 31st, 2020	12.91
Average price	12.56
Minimal price	6.68
Maximum price	20.95
ADR valuation	-35%
S & P500 Oil & Gas Valuation	-37%

Source: Ecopetrol, Corporate Vice Presidency of Finance

Graph 09. Ecopetrol ADR price on the NYSE (Dollars)



GRI 103-1, 103-2, 103-3, 419-1

Compliance

During 2020, Ecopetrol fulfilled all its obligations to publish relevant information under the SOX Law, as a securities issuer before the BVC, and the New York Stock Exchange (NYSE).

Relevant information

All relevant information disclosure obligations in Colombia and abroad were met. The summary of the management is as follows:

- 51 relevant information releases were published in Colombia, before the Financial Superintendence and 365 press releases were made.
- 31 documents were published under the different formats required by the *Securities and Exchange Commission* (SEC) in the United States.

All communications were released to the market in a timely manner and are available at:

- Website of the Financial Superintendence of Colombia: **www.superfinanciera.gov.co**, “Relevant Information” section.
- SEC page **www.sec.gov**, “Filings” section, “Search for Company Filings”, “Company or fund name, ticker symbol, CIK (Central Index Key), file number, state, country, or SIC (Standard Industrial Classification)”.
- Ecopetrol website: **www.ecopetrol.com.co**

Total capitalization

Table 14 below shows the value of Ecopetrol’s market capitalization, as of December 31st, 2020.

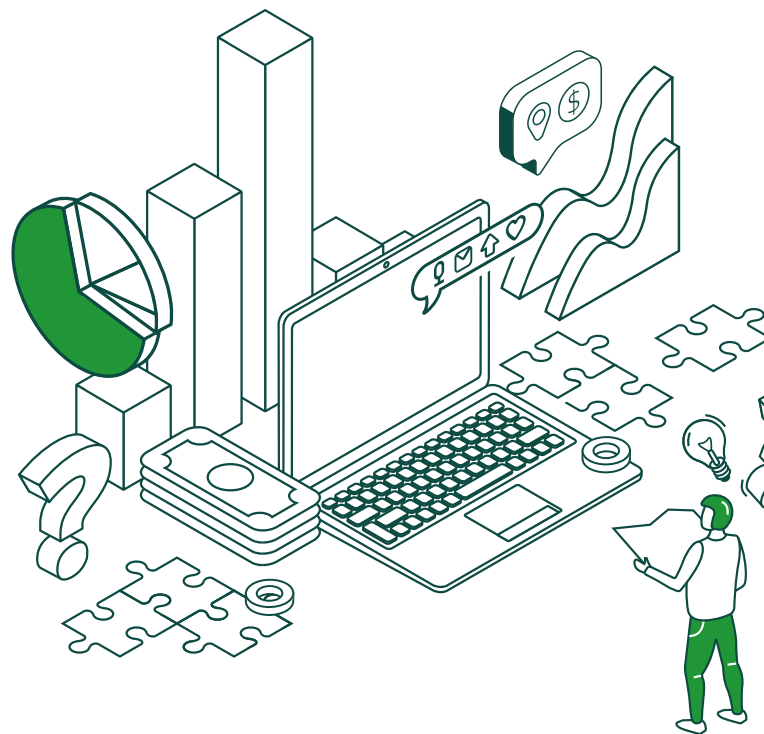
Table 14. Total capitalization

Number of shares	41,116,694,690
Share Price (December the 31st, 2020)	\$ 2,245
Market Capitalization (Colombian Pesos)	\$ 92,306,979,579,050

Source: Ecopetrol, Corporate Vice Presidency of Finance

Tax matters

The document containing EG’s Fiscal Policy is published on the website of Ecopetrol and can be consulted at the following [link](#).



The main aspects it contains are as follows:

- Compliance with all national and international tax obligations will be carried out in a timely manner and based on current legislation.
- EG's strategy is not to make tax decisions with aggressive or risky positions that could put its tax returns in question.
- The Board of Directors of Ecopetrol S.A. and of the different companies of the Group will be informed about the main tax implications of their operations or matters subject to their approval, particularly when they constitute a relevant factor in decision-making.
- In order to optimize the tax treatment of the different operations, the rules of the agreements are applied to avoid double taxation, whenever applicable.

- There is a transfer pricing guide that guarantees that the operations, agreements, and/or contracts signed between EG's affiliates and subsidiaries are carried out under market conditions, avoiding the erosion of tax bases.
- Not using structures or filing of instrumental companies through tax havens or territories not cooperating with the tax authorities, without a real or valid business reason.

Good Tax Practices

- Documentation and standardization of the group's tax planning.

Monitoring and Control

- Update, publish and socialize the tax planning memorandum with all the companies of the Group, each time the National Government promulgates a regulation that affects Company guidelines.
- Carry out quarterly committees with EG to review the application of benefits and update tax issues.
- Report relevant aspects such as the behavior of the effective tax rate, relevant transactions that had an impact thereon, a comparative table with the immediately previous period, the effect of the last tax reform on the group rate, amongst other aspects.

GRI 103-2

Main aspects of Ecopetrol's tax planning

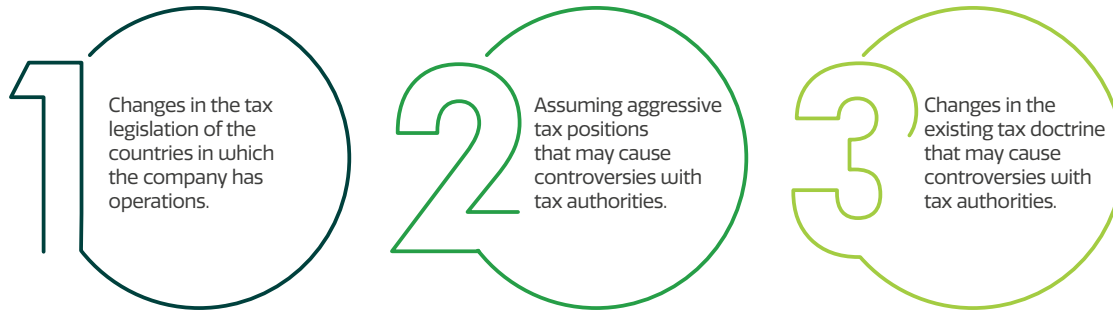
- Use of tax benefits contemplated in current regulations:
 - ▶ Decrease in the nominal rate of income tax.
 - ▶ Decrease in the presumptive income rate.
 - ▶ VAT discount on the acquisition, construction, etc., of Real Productive Fixed Assets.
 - ▶ Discount of 50% of the ICA effectivelly paid in the year.
 - ▶ Tax benefits for the use of alternative energies.
- ▶ Optimizing the benefit of carbon credits.
- ▶ Others.
- Active participation in the structuring and tax definitions of the Group's new businesses.
- Communication to the areas of the Company and Subsidiaries as to changes in tax legislation.
- Close work with the Ministry of Finance and Public Credit (MHCP), Ministry of Mines and Energy (ME) and DIAN – National Tax Administration
- EG's Tax Committee sessions



Tax liability

Ecopetrol has identified several tax liabilities that could lead to business losses if they were to materialize, as well as the payment of penalties and default interest to the tax authority.

The main liabilities are:



For more information, please refer the document containing the **Company's risk matrix** and the procedure for evaluating the economic impact associated with the occurrence of risks.



Relationship with shareholders

Ecopetrol's commitment to its shareholders is to ensure the sustainability of the business through ethical, transparent, and responsible management. To this effect, Ecopetrol must maintain a relationship that allows its 257,412 shareholders (figure as of December 31st, 2020), to stay abreast of the economic, operational, social and environmental management that the company develops, in addition to maximizing the value of the shares.

During 2020, Ecopetrol offered attention to shareholders through different activities summarized below:

- Ordinary Session of the General Shareholders' Meeting (GSM)
- Informative bulletin for shareholders.
- Attendance at twelve international conferences with analysts and institutional investors.

- An *Investor Day* in New York and Boston in March and a virtual *Investor Day* in August with analysts and institutional investors.
- Quarterly disclosure of GE results.

In 2020, a total of 50,774 requests from shareholders were received through all service channels, of which 96.79% were responded in a timely manner - vis-à-vis the 90% goal. The main types of requests were related to: change in secondary data, information on dividends, negotiation of shares (purchase, sale, and price of the share), requests for certificates for income statement, and general information on the stock broker.

5,728 satisfaction surveys were conducted on the service received from shareholders and investors. The level of satisfaction reached 93.53%, above a 90% goal.

Additionally, the perception survey with Stakeholders was carried out during 2020, the results of which can be consulted [here](#).



Legal matters

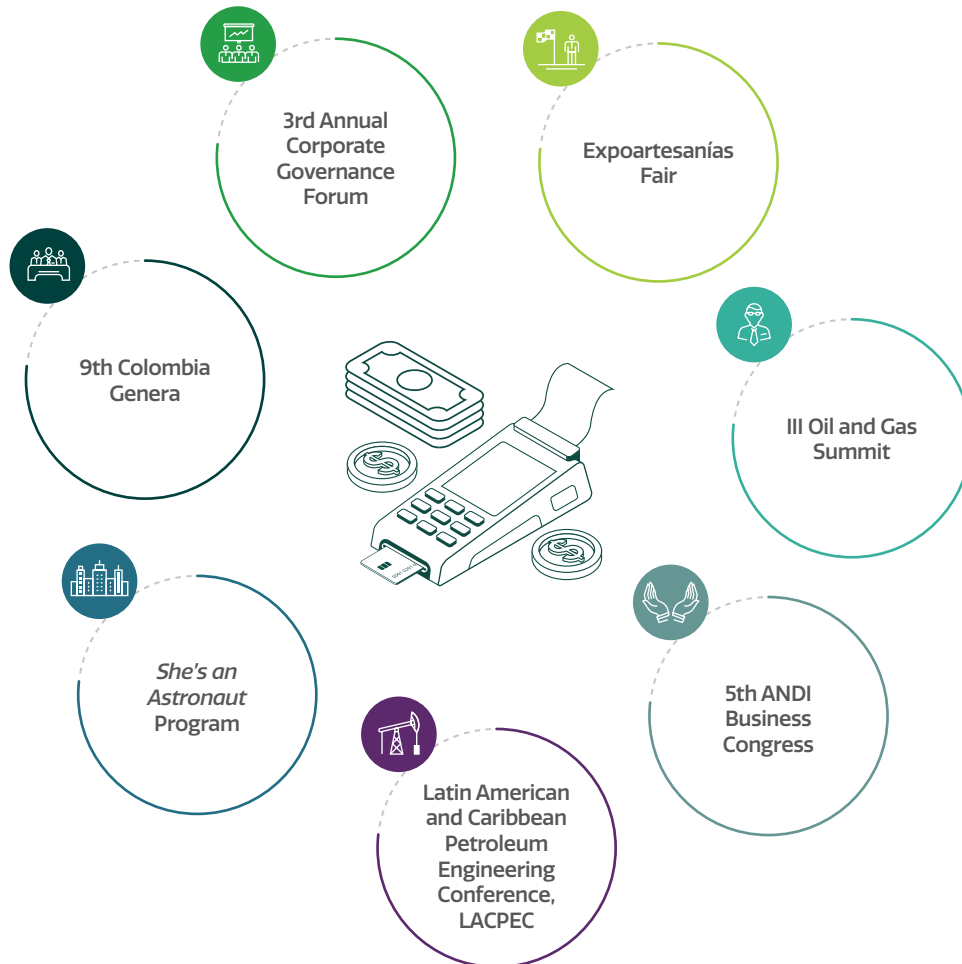
In compliance with the provisions of Act 1231/2008, as amended by Act 1676/2013, the company has not hindered the free circulation of invoices issued by vendors or suppliers.

Market matters

No lawsuits for unfair competition, monopolistic practices and against free competition are reported in 2020. Similarly, no fines or sanctions were imposed as a result of non-compliance with the regulations in relation to the supply, use of products, labeling and services of the organization, nor were there any breaches of regulations on intellectual property and copyright by Ecopetrol.

Sponsorships

In compliance with the procedure established for the planning, subscription, execution and monitoring of sponsorships - which strengthen the company's brand positioning - Ecopetrol signed sponsorships on an exceptional basis in 2020 for a total amount of \$ 862,128,300 in events such as:



KF_33

KF_76

KF_92

03

Value CHAIN

Each of these steps implies risks and opportunities for the Company, for the regions where these activities take place, and for the Country that, owing to the presence of Ecopetrol, is empowered to undertake new social initiatives aimed at improving the quality of life of Colombians.

Ecopetrol's worker
Barrancabermeja Refinery

GRI 102-2, 102-9

EXPLORATION

Exploration is the first link in Ecopetrol’s value chain. Its main objective is to discover and commercially delimit viable oil accumulations, seeking to ensure the replacement of reserves required for the sustainability of EG. Additionally, exploration intends to maintain high standards of technical assurance, optimize the management of the portfolio of prospects and discoveries, orient efforts towards the fulfillment of

the exploration strategy and speed up the process of maturing opportunities and their conversion to discovered resources, contingents and reserves.

Ecopetrol centralizes and manages a process applicable to itself and to all subsidiaries that carry out exploration activities (*Hocol, Ecopetrol America, Ecopetrol Hidrocarburos México, and Ecopetrol Brasil*).

GRI 102-9, SASB EM-EP-000.b, EM-EP-000.c

Exploratory strategy

The exploration strategy of Ecopetrol Group is aligned with the challenges imposed by the energy transition and global market conditions. Its activities are focused on areas with high potential for incorporating resources and generating value.

In addition, the strategy is leveraged on the implementation of digital and technological initiatives, on the goals of the Sustainability strategy, and on the operational competitiveness plan. The latter aims to accelerate exploration activity and advance the entry into production of the assets.

Short Term (2021-2023)	Medium Term (2024-2026)	Long term (2027-2030)
<ul style="list-style-type: none"> Colombia Onshore: <ul style="list-style-type: none"> Near Field Exploration Magdalena mid-valley Putumayo South eastern plains Eastern plains piedmont Gas – North of Colombia (Hocol) International: <ul style="list-style-type: none"> Gulf of Mexico (USA) Miocene and Jurassic plays (EAL) 	<ul style="list-style-type: none"> Colombia Onshore: <ul style="list-style-type: none"> Eastern plains piedmont Magdalena mid-valley North Eastern plains Central plains and Magdalena upper valley (Hocol) International: <ul style="list-style-type: none"> Brazil: Farm-ins and rounds Mexico: Blocks 6 and 8 	<ul style="list-style-type: none"> Caribbean Offshore: <ul style="list-style-type: none"> Gorgon and Kronos Discoveries, Gas portfolio Plays with liquid oil options Colombia Onshore: <ul style="list-style-type: none"> Eastern plains piedmont Magdalena mid-valley Border plays: Paleozoic (plains) International: <ul style="list-style-type: none"> Brazil

Exploratory Area Distribution

Ecopetrol Group has access to 5.51 million hectares distributed in the different subsidiaries and areas of exploration interest in Colombia, Brazil, the United States and Mexico (see graph 10).

Graph 10. Distribution of exploratory areas (Ha) of Ecopetrol and Subsidiaries



Onshore Colombia

During 2020, the *Near Field Exploration* program (NFE) was strengthened, which includes an accelerated plan for the maturation and execution of integrated projects with an emphasis on synergies, high probability of success, and capacity to generate value in the field in the short term. In this sense, entry into production was completed for discoveries such as Andina (*Piedemonte*), Cosecha (*Llanos*), Bullerengue, Arrecife and Merecumbre (*Valle inferior del Magdalena*), and Esox in the Gulf of Mexico (United States).

Piedemonte

The *Piedemonte Llanero* is the largest source of gas production in the country, and still has great exploratory potential. In 2020, the drilling of the Liria YW-12 (100% Ecopetrol) well located in the Recetor block began in this area. The environmental impact study (EIS) for the Farallones opportunity located in the former Cónдор Block was filed with the National Environmental Licensing Agency (ANLA). Additionally, commerciality was presented to the ANH for the Andina and Andina Norte discoveries in the Capachos block (Parex 50% - operator, Ecopetrol 50%).

Llanos

Progress has been made in the *Llanos Orientales* on two fronts:

- Maturation and drilling opportunities in the northern area of Arauca, where light crude oils are sought in high-productivity fields, and
- Exploration and delimitation of heavy crude opportunities in close proximity to the Castilla-Chichimene producing trains, whose development will be leveraged on the existing infrastructure and on Ecopetrol’s experience in this type of field.



Exploration Drill.

The operations carried out during 2020 correspond to the completion of Lorito Este-1 well and Lorito A-1 well, delimiting the Lorito discovery in the CPO -09 block (Ecopetrol 55% operator, Repsol 45%). The tests of Lorito A-1 and Lorito Este-1 exploration well were postponed to 2021 due to the pandemic.

Valle inferior del Magdalena

Se ha hecho especial énfasis en objetivos exploratorios emergentes como el piedemonte occidental de la *Cordillera Oriental* y los reservorios naturalmente fracturados (RNF) en rocas del cretácico tardío. Igualmente se ha intensificado la exploración de plays estratigráficos; en ese sentido se avanza en la delimitación del descubrimiento Boranda y Flamencos.

Hocol

Hocol’s exploratory strategy is focused on *Llanos Orientales* basins - Central sector, *Valle Superior del Magdalena* and the basins of the north of Colombia, *Valle Inferior del Magdalena*, Sinú-San Jacinto and La Guajira.

A new gas discovery was incorporated during 2020, located in the SSJN1 block (Merecumbé) and three delimitation wells were drilled: two in the Bullerengue Porquero discovery and one in the Arrecife discovery. In addition, the drilling of a stratigraphic well began in contract SN8. All this activity is part of Hocol’s gas strategy, which contributes to Ecopetrol Group’s gas strategy.

In the *Llanos Orientales* basin, the strategy is focused on maximizing the potential in current assets and in capturing new exploration blocks via competitive processes of the ANH or via farm-in in well-positioned assets of other operators. During 2020 the preliminary phase activities were developed in the six blocks incorporated in 2019 and phase 1 exploratory activities have already begun in four of them.

As for the *Valle superior del Magdalena* basin, there is a focus on exploratory opportunities in the exploration and production blocks (NFE exploration). COR9 block – incorporated in 2019 – continues in its preliminary phase.

Colombia Offshore

Efforts were concentrated during 2020 on the maturation of projects that leverage Ecopetrol’s gas strategy to incorporate gas into the Colombian market by 2025. To achieve this goal, a work plan was defined that seeks to accelerate projects by optimizing licensing and permits processes, and to expedite the geological subsoil studies.

Different development options are being evaluated alongside Petrobras (operator) for the Orca discovery and the remaining exploration potential of the Tayrona block.

Ecopetrol became the operator of GUAOFF-1 block and increased its stake from 50% to 100% due to the resignation of Repsol. Technical evaluation and maturation of all the opportunities identified in this block continue.

At GUAOFF-10 block (100% Ecopetrol stake), 3D seismic interpretation works are progressing with a focus on the maturation of exploratory opportunities, which are strategically located thanks to the proximity to the Chuchupa-Ballena production facilities. Similarly, socio-environmental diagnosis activities have started.

In December, the ANH approved the transfer to Shell of a 50% stake in the Fuerte Sur, Purple Angel and COL-5 blocks, thereby consolidating the strategic partnership between Shell and Ecopetrol to delimit the Kronos and Gorgon discoveries. Similarly, progress was made with socio-environmental studies for the drilling and testing of the Gorgon-2 delimiting well.

International Portfolio



Brazil

For *Ecopetrol Óleo e Gás do Brasil Ltda*, 2020 represented a year of consolidation of the Company’s strategy in this country, with a focus on Pre-salt play. At the end of the year, this subsidiary had four exploration assets in the Santos Basin and one more in the Ceará Basin. Ecopetrol drilled its first exploratory well in the Santos Basin Pre-salt – in Saturno block (1-SHEL-33-RJS) together with its partners Shell (operator) and Chevron-CVX.

In June 2020, the Brazilian subsidiary officially entered the Gato do Mato discovery, as mentioned in chapter one of this document.

In parallel, technical and commercial evaluations were carried out, which concluded with the maturation of the exploratory opportunities identified in the current assets, allowing the incorporation of prospective resources. On the other hand, during the first quarter, the FZA-M-320 Block located in the Foz do Amazonas Basin was returned to the National Petroleum, Natural Gas and Biofuels Agency (ANP) of Brazil.



The United States

The exploration strategy in deep waters of the Gulf of Mexico of the United States (USGOM) is focused on the search and development of opportunities in the Miocene and Jurassic reservoirs, prioritizing opportunities with low exploration risk and close to existing infrastructure.

During 2020, Ecopetrol América LLC signed a strategic partnership with Chevron that allows participation exchange in several blocks between the two companies,. For EG, this diversifies the exploratory risk and the capital exposure, through the incorporation of a recognized operator in the area.

Similarly, Esox-1 well was put into production, discovered in 2019 and which has shown excellent results in terms of production and reservoir performance. This opportunity is located in Block MC-726, where the operator is the company Hess and Ecopetrol America owns a 21.43% stake.



Mexico

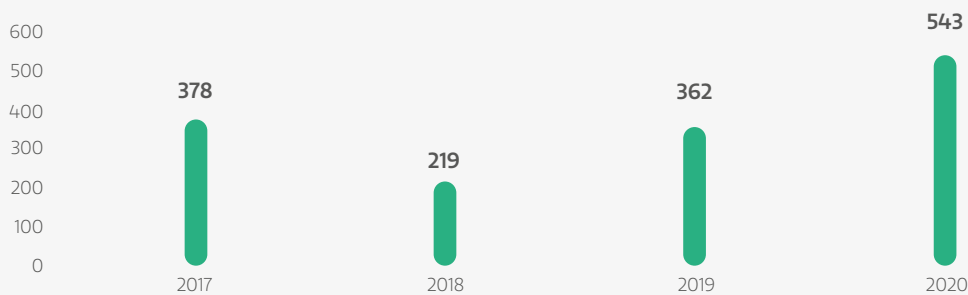
Moyote-1 well was being drilled in Block-6 at the end of 2020. The Company has a 50% stake in this area. The operator is Petronas, which has the remaining 50%. Similarly, the opportunities

located in Block-8 continue to mature, where Ecopetrol also has a 50% stake and the operating partner Pemex has the remaining percentage.

EXPLORATORY INVESTMENTS

Exploratory investments have increased steadily in the last three years. The *onshore* activity in Colombia has considerable relevance within the investment portfolio, but new investments accompanied by strategic partnerships have allowed the establishment of operations in the *offshore* field – particularly in countries such as Brazil, the United States, and Mexico.

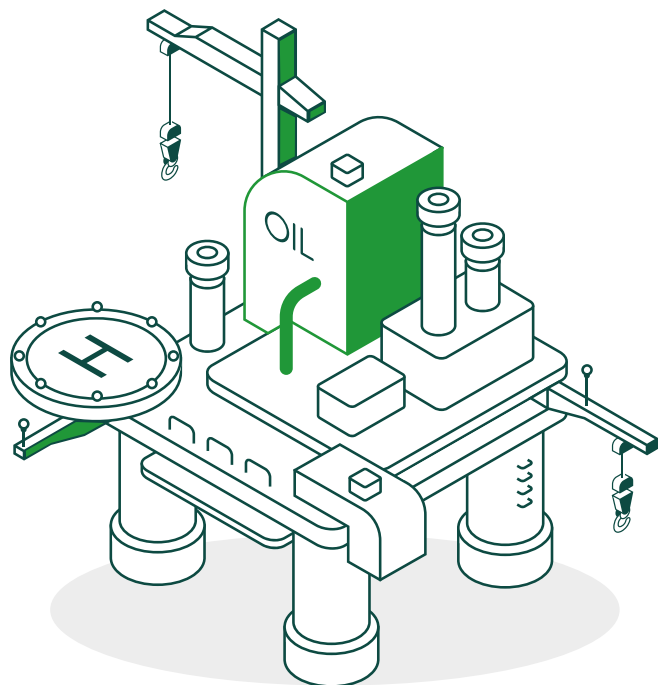
Graph 11.
GE Exploratory Investments (USD Million)



Source: Ecopetrol, Vice Presidency of Exploration.

GE investments in exploration reached USD \$ 543.3 million in 2020 (see graph 8). Most of it was allocated to the drilling of exploratory and delimiting wells, and a significant budget to the acquisition of new exploration opportunities – mainly in Brazil.

Albeit 2020 was an atypical year due to the COVID-19 pandemic, the exploratory investments made by Ecopetrol and its subsidiaries increased 50% as compared to 2019, as a result of the payment of the entry bonus in the Gato do Mato discovery and drilling of two offshore wells in Brazil. There was also an investment for the purchase of seismic information in offshore – Gulf of Mexico



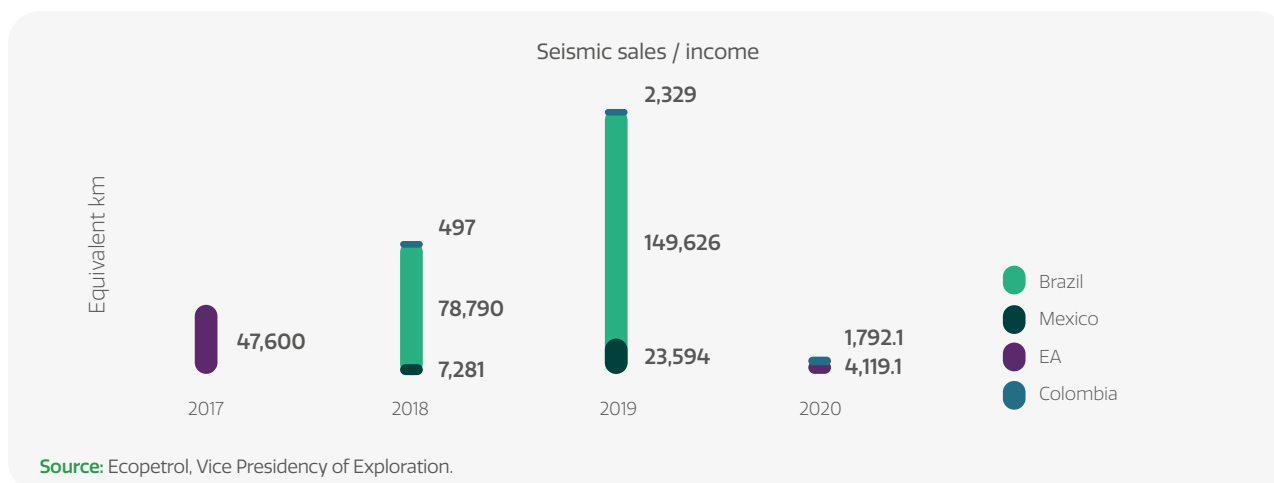
Main Exploration Results

Seismic

During 2020, Ecopetrol Group purchased seismic information to evaluate the prospectivity of the basins of the *Piedemonte Llanero* (Colombian Eastern Plains Piedemonte), the Upper Magdalena Valley and the Gulf of Mexico.

The subsidiary Ecopetrol América purchased 2,423 km² of 3D seismic in order to evaluate information from 77 blocks in the Gulf of Mexico and improve the subsurface model of the Esox-1 discovery. At the national level, Ecopetrol purchased 1,328 km of 2D seismic and 273 km² of 3D seismic in the Piedemonte, the Upper Magdalena Valley and the Middle Magdalena Valley (See Graph 12).

Graph 12.
Ecopetrol Group's seismic purchase (equivalent kilometers)



GRI 102-7

Exploratory Drilling

GE and its partners completed the drilling of 18 wells, of which three have been declared successful, six were dry, six are under evaluation and three are temporarily suspended (see details in Table 15).

Table 15. Exploratory Wells: 2020

Well	Lahee Classification	Operator / Partner	Contract / Block	Condition
Nafta-1	A3	ECP 100%	VMM-6	Dry
Lorito Este-1	A3	ECP 55% (Operator) Repsol 45%	CPO-9	Temporarily suspended
Olini Oeste-1	A3	HOCOL 100%	Tolima	Dry
Aguas Blancas 24	A1	PAREX 60% (Operator) ECP 40%	Aguas Blancas	Temporarily suspended
Lorito A1	A1	ECP 55% (Operator) Repsol 45%	CPO-9	Temporarily suspended
Obiwan-1	A3	HOCOL 100%	YDSN-1	Dry

Table 15. Exploratory Wells: 2020 (Follow-up)

Well	Lahee Classification	Operator / Partner	Contract / Block	Condition
Gato do Mato-4	A1	Shell 50% (Operator) Total 20% ECP BRL 30%	BM-S-54 / Sul de Gato do Mato	Successful
Saturno-1	A3	Shell 45% -Op, Chevron 45% ECP BRL 10%	Saturno PSC	Dry
Alqamari-1	A3	ECP 100%	Putumayo Occidental	Dry
Flamencos-2	A1	ECP 100%	VMM-6	In evaluation
Chacha-2	A1	Lewis 50% (Operator) HOCOL 50%	SSJN-1	In evaluation
Chacha-3	A1	Lewis 50% (Operator) HOCOL 50%	SSJN-1	In evaluation
Arrecife-3	A1	HOCOL 100%	VIM-8	Successful
Antillas-1	A3	Perenco 30% (Operator) NEXEN 20% ECP 50% Risk Only	Boquerón	In evaluation
Cayena-1 ST1	A3	Parex 80% (operator) ECP 20% Risk Only	Fortuna	Successful
El Niño-1	A3	Perenco 30% (Operator) NEXEN 30% ECP 50% Risk Only	Boquerón	In evaluation
Santa Barbara-1 ST2	A3	Petrosantander 70% (operator) ECP 30% Risk Only	Las Monas	In evaluation
Caipal Noreste B	A3	UT IJP (Ismocol, Joshi and Parko) 50% (Operator) ECP 50% Risk Only	Palagua	Dry

Source: Ecopetrol, Vice Presidency of Exploration

The Liria YW-12 exploratory wells were being drilled as of the end of the year. These wells are located in the *Piedemonte Llanero* (Colombian Eastern Plains Piedmont) and operated 100% by Ecopetrol, the Boranda Sur-1 well operated by Parex (50%), and the stratigraphic well SN-8, 100% operated by Hocol.

At the international level, Ecopetrol Hidrocarburos México began drilling the Moyote-1 well, operated by the partner Petronas (50%), as previously described.

The Mereumbé-1 well was tested and declared successful by showing gas production in the Chengue Formation and is currently in commercial production. This well was drilled by Lewis in 2019.

Volume and discoveries

The accumulated production of the exploratory assets at the end of the year reached 1.56 million barrels of oil equivalent (4.26 barrels of oil per day on average). This production comes from extensive testing of the Boranda, Andina, Esox, Arrecife and Bullerengue discoveries, as well as the “El Tobo” formation, a new exploration target in the Gigante-2 well.

During 2020, more than 138 million barrels of oil equivalent were incorporated as resources discovered to be delimited.

GRI 102-43

Our relationship with exploration partners

As part of the implementation of the exploratory strategy, Ecopetrol Group has been developing strategic partnerships with partners to jointly contribute to the sustainability of the business and proper management of the environment.

At the end of 2020, Ecopetrol had 27 exploration assets in force in Colombia, of which 12 are with partners. Three of these are operated by Ecopetrol and the other nine are operated by our partners. The list of contracts is described in table 8.

Hocol has 19 active exploration blocks, of which it operates 13. The other six are operated by Geopark and Lewis Energy.

At the international level, Ecopetrol Brasil has four exploration assets in association with companies such as Shell, Chevron, Total, CNOOC and BP.

Ecopetrol America has a stake in 60 blocks under exploration, where it has partners such as Shell, Chevron, Repsol, Murphy, Hess, Oxy and Talos, among others.

Ecopetrol Hidrocarburos México has two exploratory blocks in operation, operated by Petronas and Pemex.

GRI 102-2, 102-9, OG-1, SASB EM-EP-000.a

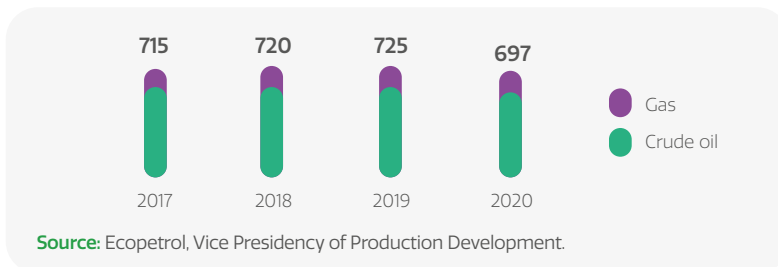
PRODUCTION

Ecopetrol Group's production in 2020 was 697 kboed, which represented a 4% reduction as compared to 2019. This is a reflection of the impact of the situation that led to a contraction in demand and a reduction in crude oil prices due to increase in inventories, as a result of lockdown measures.

Graph 13.
Production by Ecopetrol Group Company 2020 (kbped).



Graph 14.
Ecopetrol Group's Equivalent crude and gas production



The operation of the Pauto and Floreña fields was received during 2020, which had been being developed in association with Equión. Thus, Ecopetrol consolidated its presence in the department of Casanare.

Well drilling

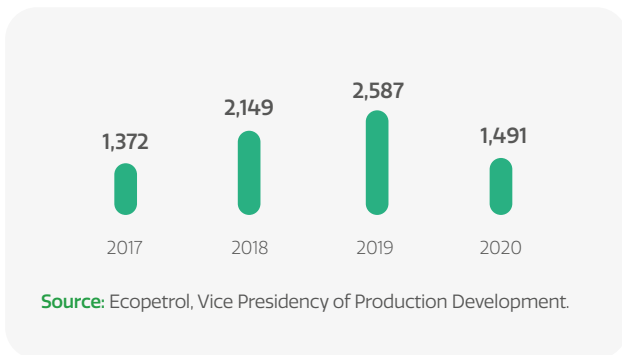
244 development wells were drilled and completed during 2020. Of the total of wells drilled and completed, 157 are 100% operated by Ecopetrol, 45 were executed jointly with associates, 24 by Hocol, and 18 by the joint venture in the Permian Basin.

Table 16. Development wells drilled and completed

	No. of WELLS DRILLED AND COMPLETED - BUSINESS GROUP, 2020	2019	2020
ECOPETROL	CENTRAL HUB	85	51
	SOUTH EAST HUB	124	73
	PLAIN HUB	89	33
	Total - Direct Operation	298	157
ASSOCIATES	GLC	12	2
	GAN	33	16
	GAO	97	16
	GAR	16	11
	GCT	98	
	GTA	17	
	Total VAS	273	45
SUBSIDIARIES	HOCOL	25	24
	PERMIAN	6	18
	ECOPETROL AMERICA	2	-
	Total Subsidiaries	33	42
TOTAL BUSINESS GROUP DEVELOPMENT		604	244

Source: Ecopetrol, Vice Presidency of Production Development.

Graph 15. Development investments



GRI 102-43

Our relationship with production partners

Current associates or partners participate with Ecopetrol in joint ventures and/or projects in the exploitation phase (development and production), with the purpose of generating value for the achievement of common objectives.

Table 17. Production Contracts Effective as of December the 31st, 2020

Type of contract	Total
Association Contract (includes risk only and ORRI)	40 ¹
Incremental Production Contract (Palagua, Surorientado, Neiva and Orito)	4
JOA (CPO-09, Capachos and Aguas Blancas)	3
Shared Risk Contract (CRC Guariquies)	1
Business Collaboration Agreement (La Cira Infantas and Teca-Cocorná)	two

Source: Ecopetrol, Vice Presidency of Production Development.

GRI 201-1

The investment made in partnership contracts in Colombia in 2020 was USD \$ 79,3 million.

Table 18. Investments with partners for the years 2016 to 2020.

CAPEX executed (MUSD)	2016	2017	2018	2019	2020
	162.9	252.6	409.5	430.96	79,3

Source: Ecopetrol, Vice Presidency of Production Development.

To see the results of the perception survey with Stakeholders, partners and associates, go to the following [link](#).



Unconventional Oil Reservoirs (UCR)

In terms of UCRs Ecopetrol was awarded and signed the first Special Contract for Research Projects – CEPI (from its original Spanish language initials: *Contrato Especial de Proyectos de Investigación*) with the ANH on the area called Kalé, in the municipality of Puerto Wilches (Santander).

The purpose of the CEPI Contract is to carry out scientific research activities in the project area, inherent to the characterization of the formations of interest and their potential for oil production, through the drilling of wells and the use of the Multistage Hydraulic Fracturing with Horizontal Drilling technique (FH-PH). This technique is expected to provide scientific information that will allow the Colombian State to formulate public policy on the development of UCRs.

1. Includes 5 association contracts transferred to Hocol as of July 1, 2018, in which Ecopetrol has the allocation of the area.

CEPI is the legal contract under which the Pilot Projects for Comprehensive Research of Unconventional Reservoirs (PPII) can be developed. The latter is estimated to be carried out in two stages:



01 Preliminary Stage

From the effective date of the contract (December 24, 2020) until the date the environmental permit is granted to the research project.

The relevant milestones of this stage are:

- Identify the need for Free Prior and Informed Consent (FPIC).
- Environmental Impact Assessment.
- Regional dialogues.
- Environmental licensing process with the ANLA.



02 Execution Stage

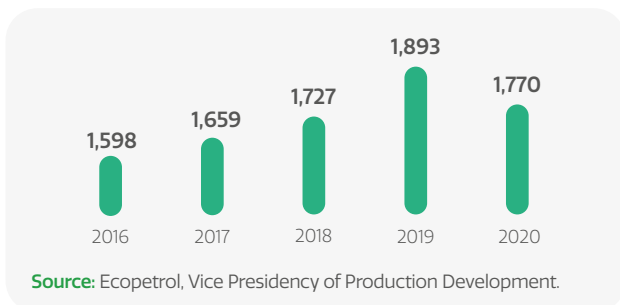
It ranges from the end of the Preliminary Stage to the notification to Ecopetrol of the decision adopted by the National Government regarding the development of hydrocarbon exploration and production activities in UNRs. The main milestone estimated in this phase is the drilling and completion of a well using the FH-PH technique.

GRI 103-2, 103-3, OG-1

Balance of reserves

Following are the proven reserves (1P) of oil owned by EG at the end of 2020: 1,770 mboe, which represents a 6.5% decrease as compared to the end of 2019: 1,893 mboe with a production of 236 mboe. With these numbers, the Reserves Replacement Ratio (RRR) was 48% and the average life of the reserves is 7.5 years (crude 6.8 years and gas 10.1 years). Graph 17 below shows the evolution of 1P reserves in recent years.

Graph 16.
Proven reserves balance per year - Ecopetrol Group (MBOE)



The total incorporation of reserves was +113 MBOE, the most relevant component of growth was improved recovery (113 mboe), which is mainly associated with the injection of water from the following fields: Chichimene, Castilla, La Cira-Infantas, Apiay-Suria y Yarigui – Cantagallo. This also the Cupiagua and Cusiana gas injection operations. Another component

of growth in proven reserves is given by the extensions and discoveries with 43 mboe, where reclassifications contribute +39 mboe (the field with the greatest impact was Rubiales) and the exploratory component +4 mboe. There was also a growth of +30 mboe corresponding to the purchase of Chevron's stake in the Guajira asset by Hocol. Additionally, there was a divestiture of -72 mboe associated with reviews of existing fields and sales.

Regarding gas reserves during 2020, 105% of the reserves were replaced. The gas contribution from the acquisition of La Guajira represented 56% (30 mboe), while the Piedemonte asset (17 mboe) achieved 32% of the result.

Of the reserves, 85% belong to Ecopetrol S.A., with an average life of 7 years. Subsidiaries such as Hocol, Ecopetrol América Inc. and Ecopetrol Permian contribute the remaining 15%.

Ecopetrol Group reserves were 99.72%, as certified by 5 specialized certification companies, following international standards for the estimation, categorization and reporting of reserves, framed in the definitions of the SEC. The reference price used to estimate the reserves was 43.41 USD/BL compared to 2019, which was 63.03 USD/BL (31% lower). It is important to highlight that the reduction in company's reserves was mitigated by the contribution of the recovery program, the agile decision-making for the implementation of optimizations in the business plan, and the efforts made in the commercialization of heavy crude oil.

GRI 103-3, OG-11

Technical abandonment of wells

Technical abandonment of wells consists of ensuring the closure of the well by means of the definitive plugging of the formations or producing zones once the productive stage is finished, in order to ensure permanent isolation so as to avoid: i) the flow of possible fluids to the surface, ii) cross-flow between formations and iii) contamination of aquifers.

This activity is carried out under Ecopetrol’s WIMS – Well Integrity Management Guide, which is part of the

following process: Interventions and Divestiture of Production Assets.

Complementary activities to the abandonment of the well include the dismantling of facilities and environmental recoveries.

During 2020 there were 252 technical abandonments of wells, 150 dismantling of facilities and 173 environmental recoveries.

GRI 102-2, 102-9

TRANSPORT

The transportation business is carried out through the systems of oil pipelines, multiple pipelines and multimodal transportation (river fleet and tank cars) that carry crude oil from production fields to refineries or export ports. Since 2013, Ecopetrol Group’s transportation business has been led by Cenit, a 100% subsidiary of Ecopetrol.

Volumes transported

During the year 2020 an average of 786 kbd were transported by oil pipelines and 231 kbd by poliducts, for a total volume transported of 1,017 kbd – an 11.8% decrease compared to 2019 due to low international prices and lower crude production. Of the volumes evacuated in 2020, 82.3% of crude oil and 35.7% of refined products were owned by Ecopetrol.

Volumes transported by pipelines (Kbpd)

There was a 10.48% reduction (-92 kbd) in the transportation of crude oil due to the decrease in the production of crude oil in the country and the variation in international prices, which mostly affected the fields of the *Llanos Orientales* – eastern plains. This situation caused a significant reduction in the arrival of these crude oils to the Port of Coveñas through the *Oleoducto de Colombia* and Segment III of Ocesa.

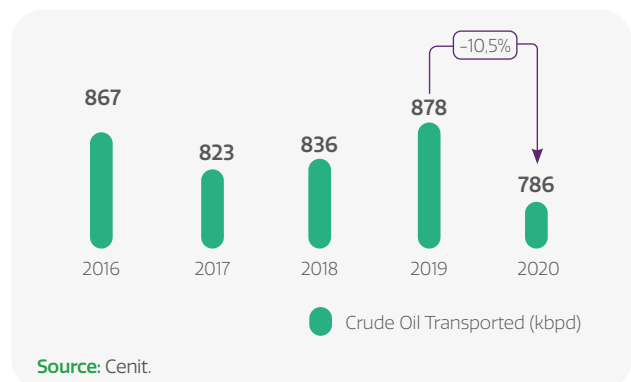
On the other hand, oil transport in the northern corridor increased in 2020 as compared to 2019, due to the greater availability of the Caño Limón - Coveñas Pipeline and the failure to carry out contingent reversal cycles to the Bicentenario Pipeline, thus increasing the transportation of the systems related to the Ayacucho transport station.

For the 2020 budget, oil transport in the country had a compliance of 100.4% (+ 3kbd). Cenit transported 268 kbd of the total.



Valves Tello production field, Huila Department

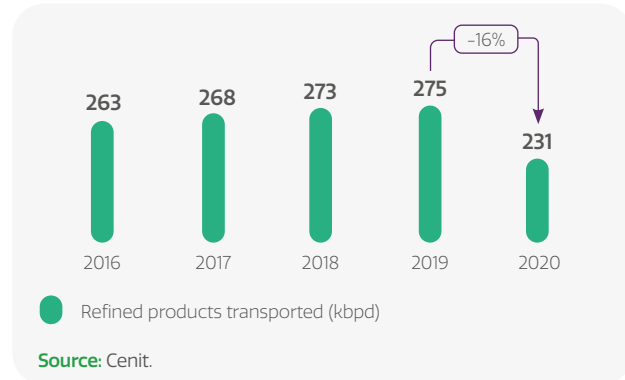
Graph 17.
Crude Oil Transported



Volumes transported by multiple pipelines (Kbpd)

There was a 16% decrease in the transport of refined products as compared to 2019, mainly due to the impact on demand given the measures implemented to face the pandemic. In the 2020 budget there was 98% compliance (-5kbpd) as a result of a recovery in demand which was lower than expected.

Graph 18.
Refined products transported



Cenit’s new businesses and projects

Operational continuity and integrity projects were carried out in 2020 to ensure infrastructure risk reduction. Below are the main projects:

Plain Node Optimization

The segment of the San Fernando - Apiay Pipeline located between PK30-PK50 was put into operation during the first half of the year, which causing an immediate reduction in operating costs by changing the operating mode of the Apiay station from a reinforcement station to a pass-through injection station. This decreased energy and DRA consumption demand by approximately 30% and avoided emissions of more than 13,430 tons of CO₂ per year in the San Fernando-Apiay-Monterrey system.

The foregoing will benefit producers in the area, since it positively impacts the reliability of the oil evacuation system in the region, allows greater availability, and reduces possible electrical failures. It also allows the transport of higher viscosity crude oil with lower cost of operations for Cenit.

Codilution in Apiay

Project feasibility was approved in 2019. Due to the difficult environmental conditions and the measures derived from the pandemic, the project moved its date of entry into operation from November 2020 to April 2021. Critical activities have been carried out, such as the construction of a PHD between the production facilities and Apiay station, and the purchase and installation of LPG injection equipment at the Apiay Cenit plant, where this oil will be injected to reduce viscosity and monetize LPG production by diluting it in the crude oil flow stream.

Apiay fuel delivery

Due to the closures of the Bogotá - Villavicencio road, Cenit started up the refined fuel supply project (diesel and motor gasoline) in Apiay, which implies making modifications to the reception and storage facilities of the Apiay station, the control systems of the pipeline (originally built for the exclusive use of naphtha) in order to handle refined products in a segregated manner, and the construction of a gasoline and diesel loading dock at the Apiay station. The project is underway and is expected to be completed in mid-2021.

50 solar – 50 MVA solar park in San Fernando

The solar project that will use an area adjacent to the San Fernando station, in Meta was made viable during 2020. The energy produced there will feed the energy needs for pumping and the surpluses will be commercialized in the national interconnected system by Ecopetrol. For more information, please refer to chapter five: Environmental Dimension.

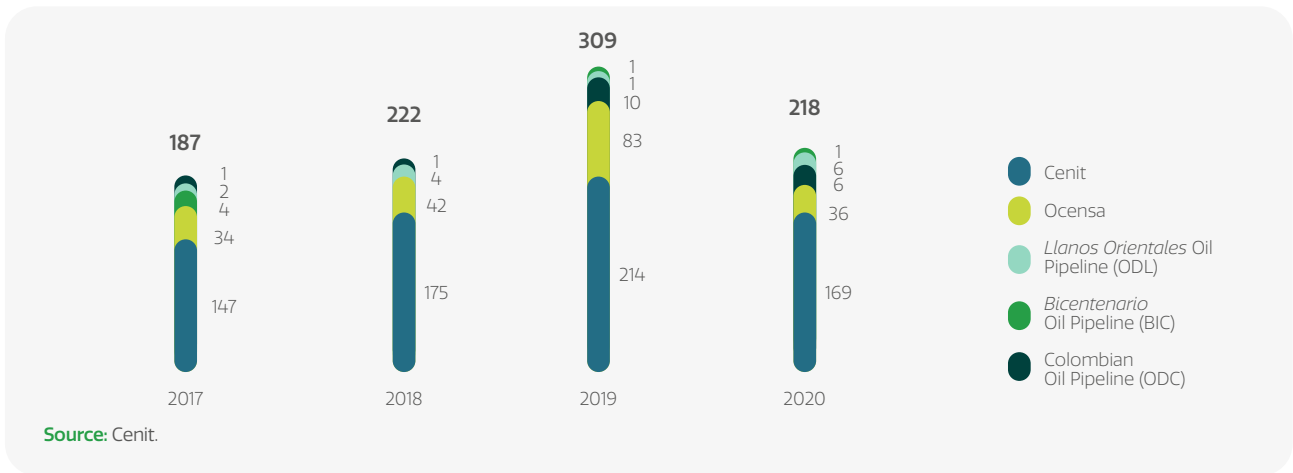


Investments

A USD \$405 million investment plan was budgeted for the year 2020, which had a USD \$160 million cut following the guidelines of strict capital discipline, with which investments in the transportation business were reduced to USD \$245 million.

Despite this situation, 2020 closed with an execution level of USD \$218 million for an 89% fulfillment rate of the investment plan compared to the adjusted amount.

Graph 19.
2020 Investment plan



GRI OG-13, SASB EM-EP-540a.2, EM-EP-540a.1

Oil containment loss events

Of the 126 incidents recorded, 110 were caused by third parties (terrorist attacks and installation of illegal valves). One incident was generated by a third party in a non-voluntary manner (damage to the pipe

with a tractor), 13 had an operative cause and two corresponded to natural events.

The following table shows the significant loss of containment events²:

Table 19. Containment loss events

Transport system	Date	Cause	Spilled barrels	Environmental impact
Caño Limón - Coveñas Oil Pipeline	01/30/2020	Terrorist attack	1,210	Soil
Caño Limón - Coveñas Oil Pipeline	02/01/2020	Terrorist attack	650	Soil
Caño Limón - Coveñas Oil Pipeline	03/16/2020	Terrorist attack	300	Soil
Caño Limón - Coveñas Oil Pipeline	05/10/2020	Terrorist attack	521	Soil
Transandino Pipeline	05/31/2020	Terrorist attack	56.23	Soil and water resources
Galán Pipeline - Salgar 12"	06/03/2020	Illicit valve	134.6	Soil and water resources
Puerto Salgar - Bogotá Poliduct	07/10/2020	Illicit valve	1,380	Soil

Source: Cenit

2 (*) Incidents in which there was a spill of more than 50 barrels are considered significant.

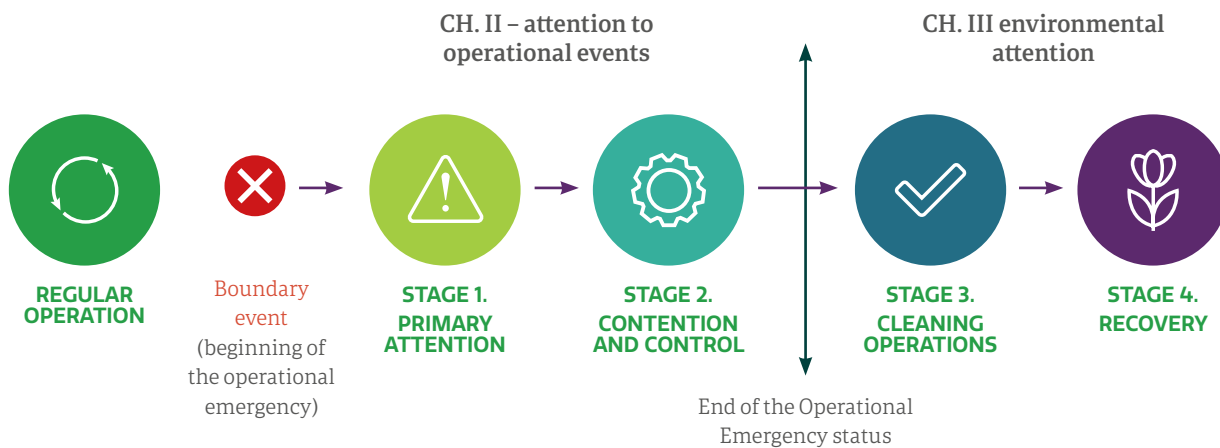
Attacks against the infrastructure

During 2020, there were 49 attacks on the transport infrastructure of the Ecopetrol group. The most affected transportation systems were the Caño Limón - Coveñas Pipeline and the Transandino Pipeline. Compared to the previous year, there was a 28% decrease in the number of attacks.

Management of impacts generated by third parties - contingency plans

Faced with the materialization of an operational emergency, four stages are implemented (as shown below) to mitigate the derived impacts and recover natural resources, considering the consequences of each particular case. This is done within the framework of the Emergency and Contingency Plan for each facility.

STAGES OF RESPONSE TO OPERATIONAL EMERGENCIES



Source. Cenit

In emergencies originated by operational causes, it is necessary to respond in accordance with the provisions of the Environmental Management Plan or the transportation's system Environmental License, the Disaster Risk Management Plan, the Emergency and Contingency Plan (PEC) and implement Stage 1. Primary care; Stage 2. Containment and control; Stage 3. Cleaning, and Stage 4. Environmental recovery, as previously described.

Based on the applicable legal framework for emergencies generated as a result of an unforeseeable force majeure, Act of God, or third party, the company is not obliged to compensate third parties for the damages generated, nor to carry out monitoring activities, remediation or repair of the affected area, unless the Environmental Management Plan (PMA) and its respective Emergency and Contingency Plan (PEC) provide that these activities must be carried out and/or an environmental or judicial authority so decrees. In other words, Cenit is not obligated to implement Stage 4. Recovery.

Table 20 summarizes the actions for the attention of operational emergencies, taking into account the cause that originates them.

Table 20. Actions for the attention of operational emergencies according to the cause that originates the event

CAUSE	ACTIONS
Operational origin	<ul style="list-style-type: none"> • Primary care • Containment and control of the spill • Cleaning areas impregnated with oil • Recovery or replacement of areas impregnated with oil • Recovery or replacement of third party damages • Monitoring and control after attention to the spill • Coordination with entities and authorities • Activation of cooperation agreements and mutual aid plans
Events of third parties, force majeure or Act of God	<ul style="list-style-type: none"> • Primary care • Containment and control of the spill • Cleaning of areas impregnated with oil • Coordination with entities and authorities • Activation of cooperation agreements and mutual aid plans • Report in case of having knowledge of an activity or an illicit act

Source: Cenit.

The general objective of each stage is described below:

- **Stage 1 Primary Care:** Once an operational emergency situation is known, whoever assumes the Incident Command proceeds with the activation of the PEC and the implementation of primary care actions in order to mitigate impacts on people, the environment and infrastructure.
- **Stage 2 Containment and Control:** It refers to the set of containment, control and mitigation actions on the eventual impacts caused to the environment in the area affected, in the event of an emergency.
- **Stage 3 Environmental Cleaning:** It begins once the collection of the thick layer or free oil spilled is finished, and seeks to reduce the presence of product remaining from the containment and control stage (includes collection) by means of cleaning techniques other than the remediation or recovery of the affected natural resources, according to the evaluation of each case.
- **Stage 4 Environmental Recovery:** It is carried out considering the activities to which Cenit is obliged in the framework of emergency care due to events derived from third party actions. Thus, the person in charge of the facility where the event originates assesses the condition of the environment with the support of the cross-functional areas of the company after the implementation of the necessary activities within the Containment and Control, and Cleaning stages.



GRI 102-2, 102-9

**REFINING AND
PETROCHEMICALS**

The 2020-2030 strategy proposed and approved at the end of 2017 continues to be in force, with the acceleration in the execution of some initiatives and some studies on issues that could materialize in advance, in accordance with the evolution of the environment (mainly in Energy Transition), adjusting the premises of analysis in line with the short, medium and long term impacts from the COVID-19.

The refining strategy is focused and developed in three stages:

- Short term (2018-2021): optimization and capture of efficiencies with current infrastructure.
- Medium term (2022-2025) regulatory transition and adjustment in fuel quality, new infrastructure initiatives with low or average investment portfolio of decarbonization and circular economy.
- Long term (2026-2030): infrastructure growth.

Fuel Quality

- Diesel for Medellin: There was sustained supply of diesel with a maximum of 25 parts per million sulfur (ppm) for the city of Medellin and its area of influence of the Aburrá Valley in 2020, reaching average values of around 10 ppm throughout the year.
- Diesel for Transmilenio: Ecopetrol started the delivery of diesel with a maximum of 10 ppm for the new Transmilenio fleet. Deliveries continued in June 2019 and during 2020.
- CONPES (public policy document) on Air Quality: Phase 1 of the initiative that would bring diesel and gasoline down to 10 ppm in the Barrancabermeja refinery – and phase 0 to bring gasoline down to 10 ppm in the Cartagena refinery – reached maturity stage in 2020. In terms of pricing policy, progress was made with the Ministry of Mines and Energy and the Ministry of the Environment and Sustainable Development, in the analysis of alternatives to find prices that reward the improvement in quality and competitive market conditions. For more details, visit the environmental chapter of this report.
- MARPOL Impact - Annex VI: The entry into force of the new Marpol regulation in January 2020 seeks to reduce sulfur content allowed in marine fuels from 3.5% w to 0.5% w, which opened a great opportunity for deep conversion refineries such as Cartagena, and entails a challenge for medium-conversion companies such as Barrancabermeja, in the implementation of initiatives that optimize fuel oil production and generate higher value products, with less exposure to the impact of Marpol.
- These opportunities will be captured in Cartagena with the interconnection project of the new refinery with the original crude oil unit, which will come into operation during Q1 2022. This initiative will also reduce the gap between national demand and supply in middle distillates. The expected effects in 2020 – mainly due to the high spreads projected in middle distillates – did not materialize as a consequence of the distortions generated by the COVID-19 pandemic.
- The Barrancabermeja refinery continues with the reduction in the production of fuel oil, reaching averages of 25 thousand barrels calendar day (kbcd) in 2020 and is making progress in the implementation of the initiatives identified to achieve additional optimizations in diets, new blends of crude and positioning of new products such as export asphalt and arotar. Similarly, the expected effects of this regulation did not materialize in 2020, showing sustained and even strengthened fuel oil prices in some periods of the year (crack vs Brent: -USD \$ 8.0 per barrel).

Petrochemistry

The petrochemicals strategy revised in 2017 is still in force without significant changes. The situation of the pandemic has generated positive changes in the demand for products derived from polypropylene (such as medical supplies), leveraging the results of Esenttia.

The attractiveness of large-scale petrochemicals for Ecopetrol will depend on access to four sources of competitive advantage: raw materials, markets, scale, and integration with refining.

Main results of Refining

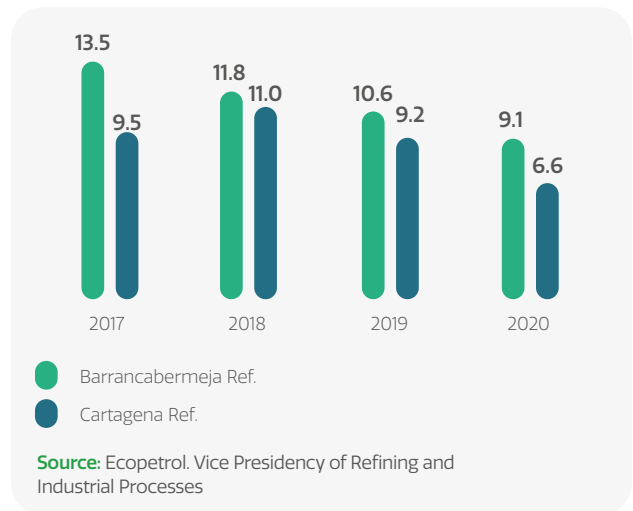
The refineries maintained their operation during 2020, ensuring the national supply and the quality of the fuels delivered.

A monthly historical record of means production was obtained in the Cartagena refinery, reaching a 65% yield in the month of July. As for the Barrancabermeja refinery, it was possible to lower sulfur contents in gasoline from 100 ppm to 50 ppm, and there was a further 0.6% reduction in fuel oil production performance with the implementation of initiatives such as the export of asphalt.

The financial results of refineries had a negative impact in 2020 due to the pandemic. This led to a deterioration in international refining margins and a decrease in demand for products in the first half of the year, with a slight recovery in the last quarter. Operating stability, discipline, and cost efficiency in both refineries – as well as the recovery of product demands in the second half – contributed positively to improvement in these results.

The year 2020 was characterized by an unfavorable behavior of the international price differentials of products such as jet fuel, gasoline and diesel against Brent, because of the contraction in demand. Compared to 2019, these differentials closed at -USD \$ 11.5 per USGC Jet barrel, -USD \$ 2.9 per UNLD 87 barrel (gasoline) and -USD \$ 7.9 per ULSD No.2 barrel (diesel).

Graph 20.
Refining margin



The gross refining margin at the Barrancabermeja refinery decreased from USD \$ 10.6 per barrel in 2019 to USD \$ 9.1 per barrel in 2020. This impact (-USD \$ 1.5 per barrel) is explained by a weakened product basket in -USD \$ 2.4 per barrel, which was not mitigated by the cheapest diet at -USD \$ 0.9 per barrel as compared to 2019.

The margin at the Cartagena refinery decreased from USD \$ 9.2 per barrel in 2019 to USD \$ 6.6 per barrel in 2020, as in Barrancabermeja. Although there was a cheaper diet at -USD \$ 1.4 per barrel, the basket was affected by -USD \$ 3.9 per barrel as compared to 2019.



Paraffin unit,
Barrancabermeja refinery

Refinery loads

The lowest integrated load in 2020 (226 kbcd) was registered in April, and as of May there was a sustained recovery to reach an average annual integrated load of 320 kbcd, 14.4% less compared to the integrated load of 2019.

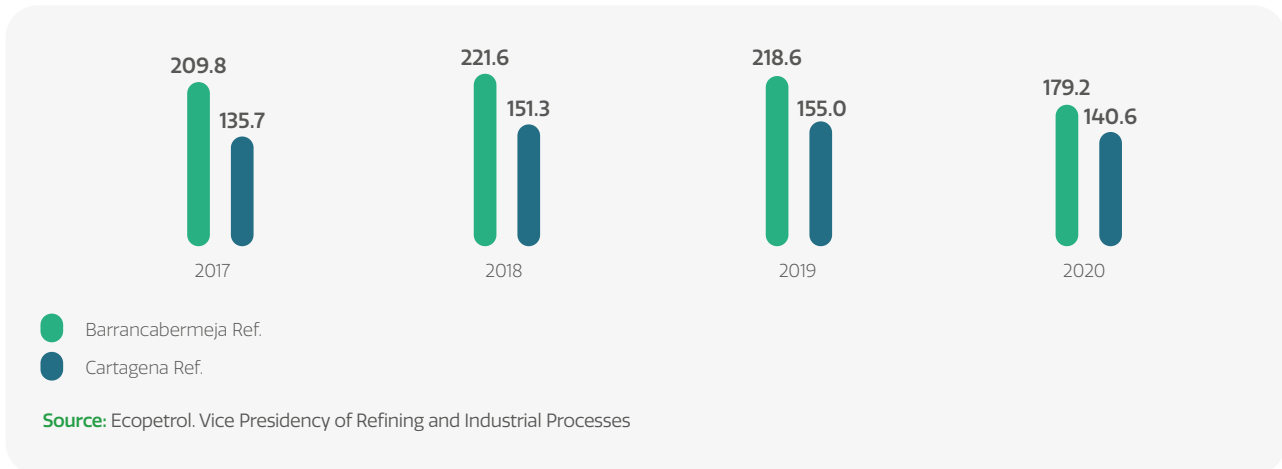
The crude load of the Barrancabermeja refinery decreased 39.4 kbcd in 2020 as compared to 2019, with an average annual load of 179.2 kbcd. The impact, as explained above, is the result of the low demand for finished products.

The Cartagena refinery had a similar impact; this situation was mitigated by a greater recovery in

international demand compared to the national one, reducing the load by 14.4 kbcd compared to 2019 and with an average annual load of 140.6 kbcd in 2020.

The refinery operation was impacted by an operational event in the hydrogen unit that occurred in January 2020. This unit had to be taken out of service and the operating scheme of other plants had to be adapted as a result. A historical monthly load of 157.5 kbcd was observed in the third quarter (September 2020) with 100% of domestic crude. The highest load of the year was reached in the fourth quarter (December 2020) with 259.9 kbcd, in line with the recovery of national and world demand.

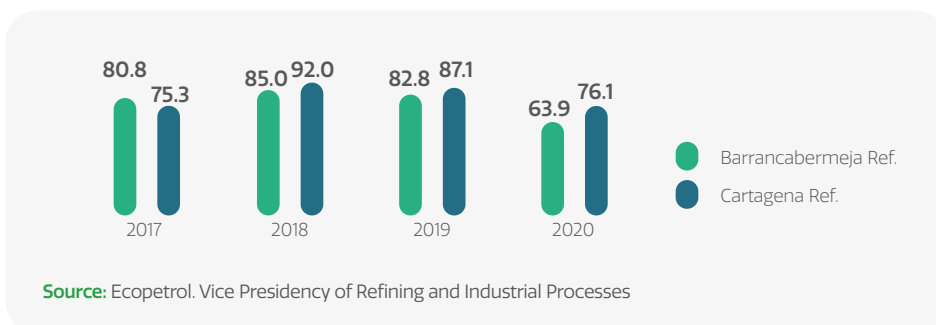
Graph 21.
Crude oil load



Utilization factor

The utilization factor of the refineries decreased, mainly due to the low demand for the finished product and to a lesser extent due to problems associated with the reliability of the hydrogen and alkylation units at the Cartagena refinery.

Graph 22.
Utilization factor %



Investments

Barrancabermeja Refinery

During 2020 USD \$ 181 million were invested as follows: USD \$ 100 million in reliability initiatives and projects, USD \$ 58 million in environmental regulatory compliance, USD \$ 12 million in fuel quality, and USD \$ 11 million in HSE³.

The Cartagena refinery

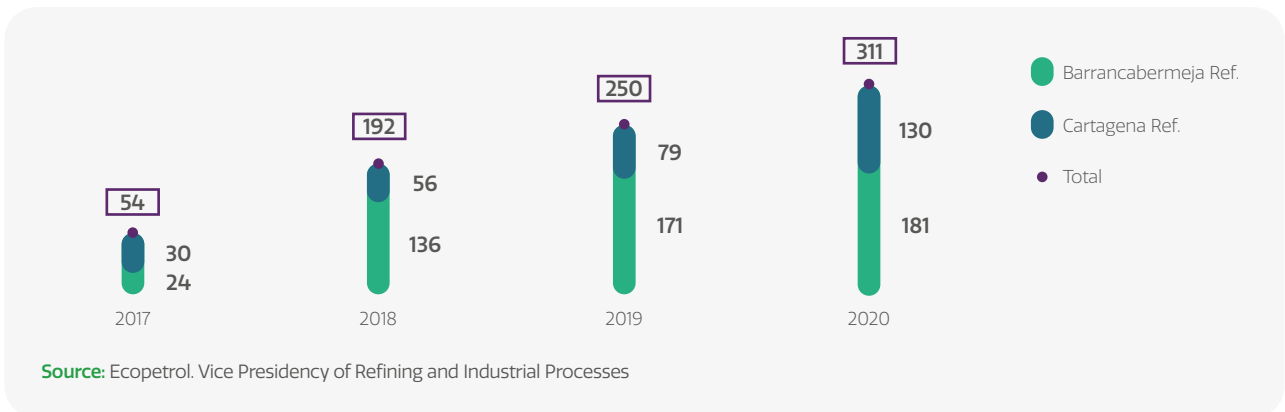
The Cartagena refinery invested USD \$ 130 million as follows:

- USD \$ 46 million in growth and profitability projects,
- USD \$ 66 million in reliability initiatives,

- USD \$ 17 million in regulatory compliance and USD \$ 1 million in HSE.

The project for the Interconnection of the Cartagena Crude Plants - IPCC is being executed, with the date of entry into operation in Q2 2022.

Graph 23.
Investments in refining (Current US\$ millions)

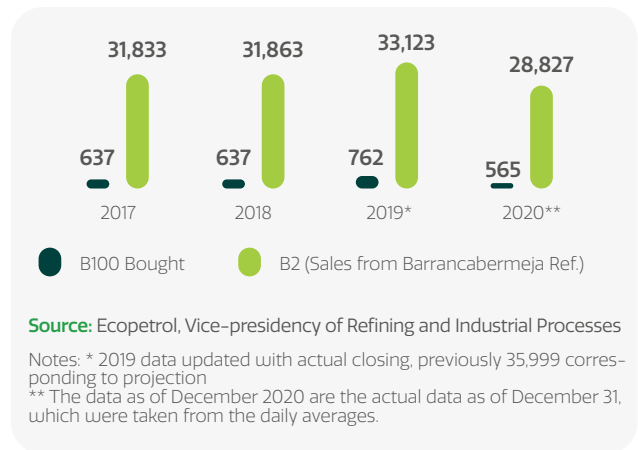


GRI OG-14

Volume of biofuels produced and purchased

The purchase and production of diesel in its blends with biodiesel (B100) is presented below. The mixes are delivered with 2% in volume (B2) in both refineries. Thus below we present the purchases of biodiesel (B100) and sales of diesel B2 by Ecopetrol.

Graph 24.
Volume of Biofuels (Thousand of barrels)

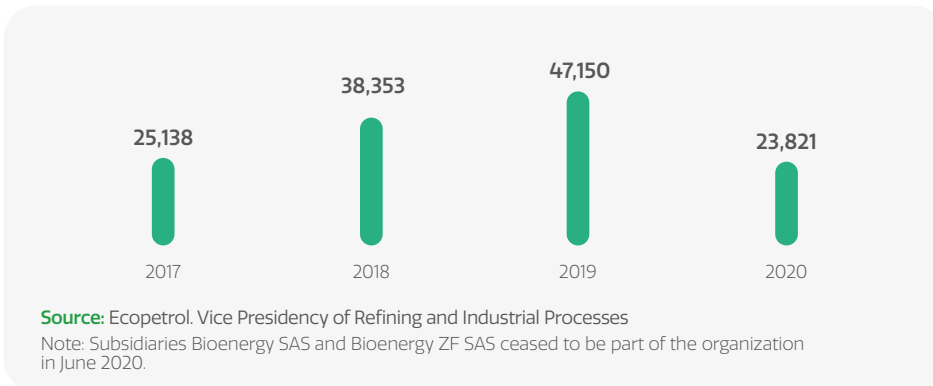


³ Projected closure of Barrancabermeja and Cartagena investments

VALUE CHAIN

As of July 2017, the operation of Bioenergy (former Ecopetrol subsidiary now in the process of liquidation) became firm, which was dedicated to the production of ethanol as an oxygenated component of gasoline in Colombia. The following shows ethanol sales for the year 2017 and the accumulated sales of this biofuel to wholesalers as of March 31, 2020.

Graph 25.
Ethanol Sales (Thousand of litres)



GRI 102-2, 102-9

COMMERCIAL AND MARKETING

The commercial function is the last link in the value chain; it connects Ecopetrol with markets in Colombia and worldwide.

Ecopetrol's commercial strategy

In the commercialization segment Ecopetrol has proposed:

01

To be the best option for the commercialization of heavy crude oil in Latin America for its clients and Ecopetrol Group, with a commitment to quality, reliability and flexibility, oriented towards the generation of supported value in its assets.

02

Provide environmentally friendly fuels and petrochemical products that contribute to the development of the country, oriented towards international markets.

03

Expand the energy generation park and energy sales, adding value through the optimization of the Ecopetrol Group's assets, in an environment of energy transition.

GRI 102-2
Product Portfolio

1. Crude oil.
2. Crude derived fuels:
 - Regular and extra engine gasoline.
 - Diesel.
 - Marine diesel and heavy base for ifos.
 - Fuel oil.
 - Jet A1, aviation gasoline and kerosene.
 - Petrochemicals and industrials.



Loading oil tankers, Ecopetrol

Main marketing results

In 2019 Ecopetrol established the transformation process as an area, which began in 2018 with the purpose of achieving commercial excellence and internal optimization to create greater value for the Ecopetrol Group.

This transformation entailed an adjustment in the structure and processes, in search of functional and product specialization, which allowed to face the great challenges of the market in the year 2020 with a greater focus on the client, as well as the construction of a culture based on four pillars: external focus, proactivity, collaborative work and risk management.

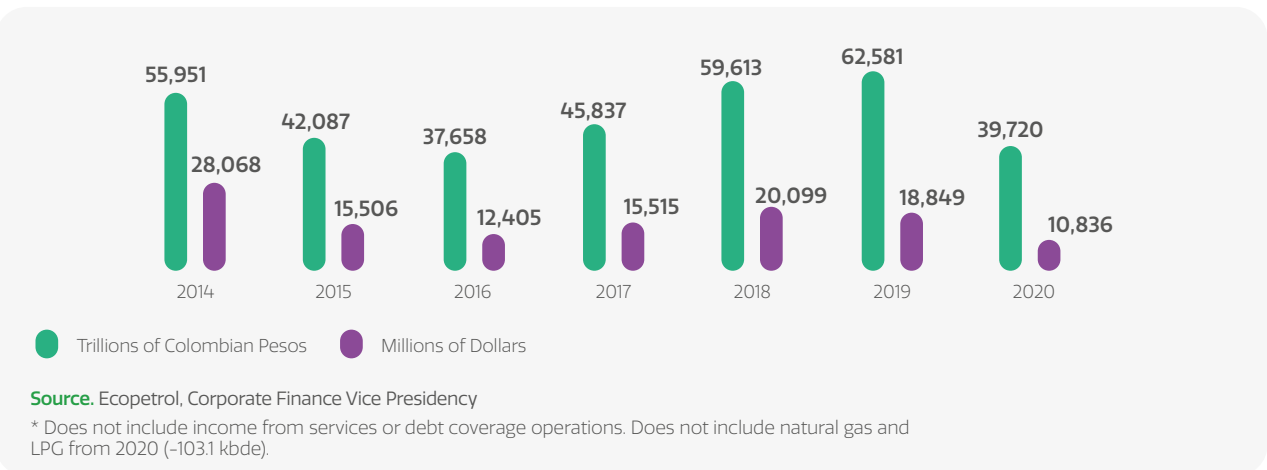
Sales revenue in 2020 amounted to \$ 39.7 trillion (see graph 26). The figure above represents a 37% decrease

as compared to 2019 due to a lower price (-37%), in line with the reduction of the indicator for Brent oil (33%), and the reduction in crude oil and product spreads.

The Brent reference for export crude oil was quoted on average at USD \$ 43.2 per barrel in 2020, which represented a USD \$ 21 decrease per barrel as compared to 2019 due to the increase in inventories which resulted from the lower demand generated by the pandemic.

In volumetric terms, crude oil exports increased by 3% between 2019 and 2020, reaching 408 kbd (+13.1 kbde). This was mainly due to the increase in purchases from third parties (+13.1 kbde) and lower charges in refineries (-54 kbde) in 2020.

Graph 26.
Sales revenue*



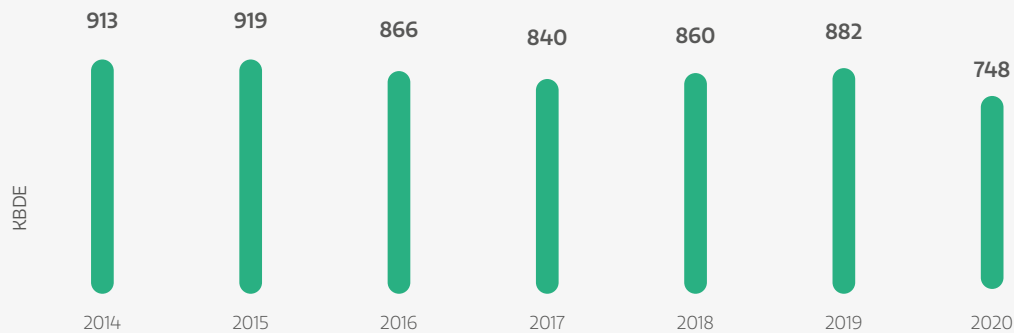
VALUE CHAIN

748 kbd were sold (see graph 27) distributed as follows:

- 528 kbd of crude oil.
- 220 kbd of products (fuels and petrochemicals).

As for the total volume sold, exports represented 52% and national sales 48% considering sales to the free trade zone. On the other hand, crude oil sales increased by 1% (+7 kbd) because of lower loads at the refineries.

Graph 27.
Sales volume (kbd) *



Source. Ecopetrol, Commercial and Marketing Vice Presidency

*Only considers Ecopetrol sales (does not include Reficar). Does not include natural gas and LPG from 2020.

Exports

Below is the information on crude oil, fuel oil and asphalt exports.

Crude exports

The Castilla mix remains the main export crude with 372 kbd in 2020. This level represents a 1% increase (+5.3 kbd) compared to the previous year, due to a decrease in loads at the refineries.

The Vasconia blend was the second most representative crude in the basket, with exports of 24 kbd, presenting a 472% increase (+19 kbd) compared to the previous year as a consequence of a lower load at the refineries.

Crude export earnings fell due to the weakening of international prices.



GRI 102-6

MARKET DIVERSIFICATION STRATEGY

Ecopetrol continued to focus on market efficiency and diversification of destinations to reach those regions that best value crude oil. Particularly this year, in which there was an oversupply of crude, the Company managed to place all its barrels in the target markets in a sustainable and profitable manner.

The main crude export destination in 2020 was Asia, with 52% of the total volume sold and a 4% growth as compared to 2019, which was 48%. The presence of India is noteworthy as an important and recurring export destination, as well as the direct arrival in South Korea with 1 million barrels.

The second destination for crude oil exports was the United States – specifically the Gulf Coast – with 40% and a 2% decrease as compared to what was achieved in 2019 (42%).

Spain was the third export destination, with 2%. The rest of the percentage was destined for Europe, specifically Germany (new market for this year 2020), as well as Central America and the Caribbean, which became intermediate storage points used by customers for subsequent shipment to the United States and Asia, mainly.



Fuel oil exports

Ecopetrol exported fuel oil, reaching a volume of 25 kbd in 2020, a decrease of 17% as compared to 2019 (-5.1 kbd). This was caused by a reduction in production due to the lower load at the Barrancabermeja refinery, as a consequence of the effects of the decrease in fuel demand.

Fuel oil exports were mainly to Central America and the Caribbean with a 55% share. As we have already pointed out, this is an intermediate storage point used by clients for subsequent shipment to other places. The second destination was the United States, with a 17% share and the third was Europe, with a 13% share.

The average differential of exported fuel oil in 2020 was -USD \$ 13.8 per barrel compared to *Brent*, which represented a decrease of -USD \$ 0.3 per barrel compared to 2019. This was a result of the weakening of prices of funds with a high content of sulfur, due to the impact of the regulation of the International Maritime Organization IMO, in which the content in fuels used by ships is restricted from 3.5% to 0.5%.

Asphalt Exports

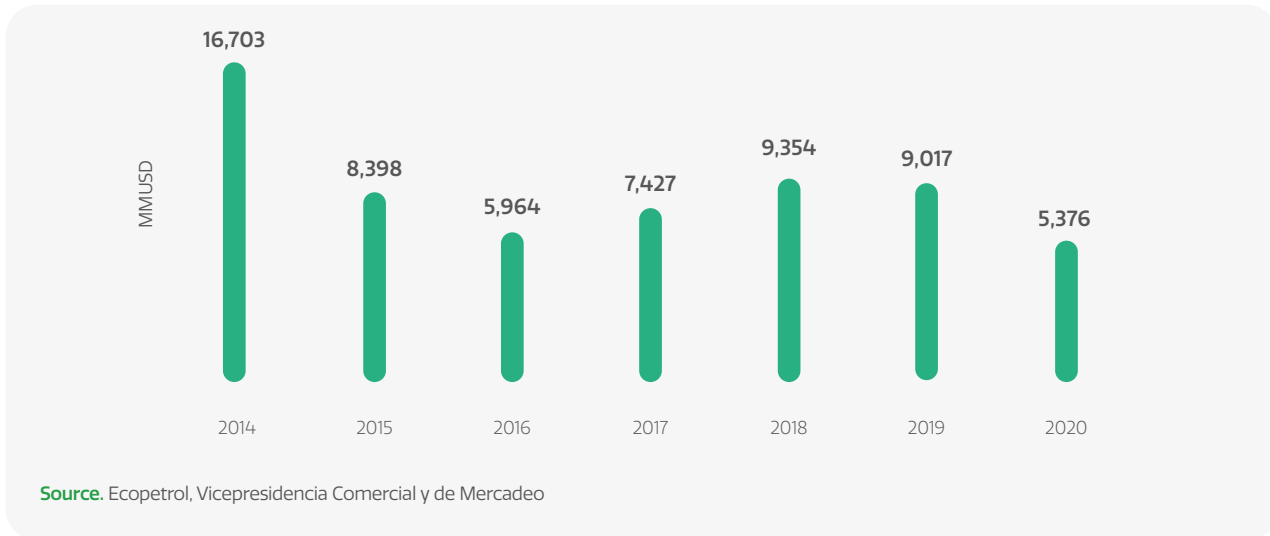
In 2020 145,000 tons (Kton) of asphalt were exported, which represented a 42% growth as compared to the previous year. The main destinations were the United States, Mexico, Bolivia, and some Caribbean islands such as the Bahamas and Bermuda.

The negotiation spread was improved by going from selling to the indicator *Poten & Partners minus* (-) 105 USD / ST to *Poten & Partners minus* (-) 83 USD / ST for Ex Work sales, and *Porten & Partners minus* (-) 57 USD / ST for FOB sales. Asphalt sales revenue for export in 2020 was \$ 91.6 billion.

The first FOB export of asphalt was made to the Gulf of the United States and Puerto Rico for 7.7 Kton in December 2020, fulfilling one of the most relevant milestones which will allow a greater value capture compared to Ex Works sales.

The total value of Ecopetrol's exports reached USD \$ 5,376 million in 2020, with a 40% decrease as compared to 2019 – especially due to price behavior. (See graph 28).

Graph 28.
Value of exports (Millions of dollars)



Imports

Imports reached USD \$ 1,548 million in 2020, which represented a decrease of 49% as compared to 2019 in line with the lower demand for fuels and the greater purchase of naphtha from Reficar. This reduced the total volume of imports by 30% (-37 kbde), added to a lower purchase price (-28%) in line with the decrease in Brent price.

Reduction of dilution costs

The strategy implemented by Ecopetrol in the cost reduction and efficiency improvement program identified that it is important to reduce dilution costs in order to make the heavy crude production projects marketed by Ecopetrol Group viable. Therefore, efforts continued to be focused on increasing dilution savings during 2020 through the marketing of Castilla crude at viscosities above 400 centistokes (at 30 °C). Thus, average viscosities of 442 centistokes were reached, allowing for incremental savings due to a lower diluent requirement of USD \$ 64 million.

Fuels, petrochemicals and industrial products

Below is the information on the sales volumes of fuels and petrochemicals.

Fuels – National Sales

Ecopetrol’s fuel portfolio is mainly made up of gasoline, diesel, jet and marine fuels. The behavior in 2020 of the sales volume for each of these products is presented in table 21.

Table 21. Behavior of fuel sales

Fuel	2020 Behavior
Gasoline	The sales volume of gasoline marketed by Ecopetrol during 2020 was 82.5 kbd. This figure reflects a 14% decrease – equivalent to 13 kbd as compared to 2019, as a result of the impact on demand due to preventative isolation measures during the pandemic (see Graph 29).
Diesel	Diesel sales volume marketed by Ecopetrol during 2020 was 85.6 kbd, a figure that reflects a 16% decrease, by 16 kbd, also as a result of the impact on demand due to lockdown measures during the pandemic (see graph 30).
Jet Fuel	There was a 53% decrease in sales equivalent to 12.5 kbd, as a result of the impact on demand due to lockdown measures during the pandemic.
Marine fuels	Ecopetrol continued to provide the marine fuels market the products required for the production of IFOS (Intermediate Fuel Oils). Sales of these residual streams from the Barrancabermeja refinery – the base for IFOS and fuel oil – decreased by one kbd per destination to other more valuable streams.

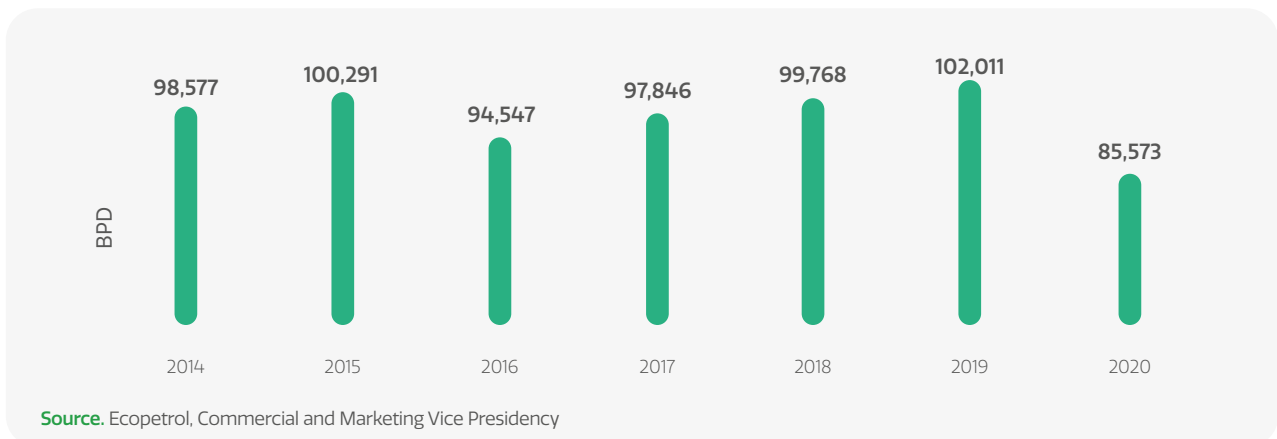
Source: Ecopetrol, Commercial and Marketing Vice Presidency

Graph 29. Gasoline sales volume



Source: Ecopetrol, Commercial and Marketing Vice Presidency

Graph 30. Diesel sales volume



Source: Ecopetrol, Commercial and Marketing Vice Presidency

Petrochemicals and industrial products

The total income from the sale of petrochemical and industrial products was \$ 1 trillion in 2020. This figure represents a 16% decrease as compared to the immediately preceding year, due to a 19% price drop.

Natural gas

Revenues from Gas and LPG sales in 2020 amounted to \$ 3.1 trillion. This figure represents a 16% growth as compared to 2019, and it is equivalent to 7% of Ecopetrol’s total revenues.

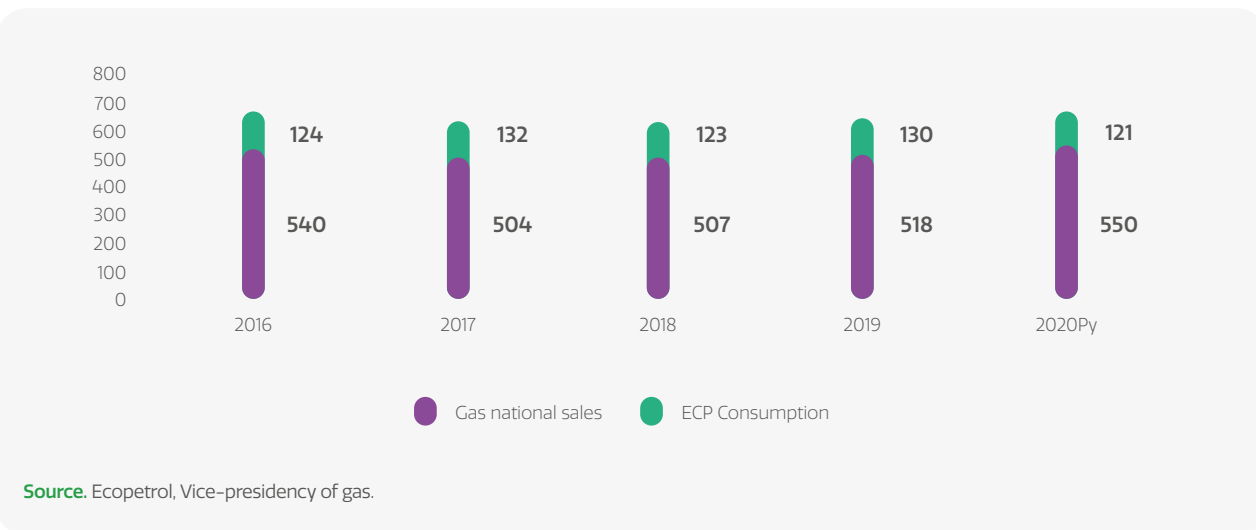
In volumetric terms, gas sales showed a 3% increase between 2019 and 2020, reaching 86 kbed. This increase is leveraged by the transfer of assets from Equión to Ecopetrol.

Additionally, given the situation in 2020 – and covered by CREG Resolution 042 – it was possible to offer customers commercial options that mitigated the impact of the rise in the Currency Exchange Rate (TRM) for the months of April, May, and June. This benefit was passed on to end users. Along the same lines, Ecopetrol offered financing with 24-month deferred payments to its clients, thus alleviating the financial situation derived from the pandemic.

Gas sales and consumption (Gbtud)



Graph 31.
Gas Sales and Consumption (GBTU)



LNG liquefaction capacity.

Ecopetrol Group does not have a stake in liquefaction terminals.

GRI 102-43

Clients

Ecopetrol aims to build long-term and trusting relationships with its 273 clients to become a partner in their business and add value to them through reliable, close and transparent relationships.



CRUDE OIL

Ecopetrol’s portfolio of international crude oil clients includes **26** active companies.



LIQUID FUELS

Ecopetrol has **96** clients nationwide who buy gasoline, diesel, jet fuel, marine diesel, fuel oil, wellhead crude, kerosene, and avgas.



PETROCHEMICALS AND INDUSTRIALS

Ecopetrol has **130** clients between transformers and traders.



GAS AND LPG

Ecopetrol has **55** natural gas and **38** LPG customers.

GRI 102-43

Relationship with clients and service channels

Ecopetrol’s client relationship model is based on personalized attention through business developers, traders and logistics professionals in charge of meeting client requirements and concerns. They constitute the main contact channel with the company. Additionally, the following communication channels have been established to meet their requests:

- *Contact Center.*
- *Electronic client service mailbox.*
- *Website, on the Clients and Suppliers minisite.*
- *Citizen Participation Office (OPC)*

GRI 102-2

Responsibility in handling products

Ecopetrol has specific processes and procedures, complies with national regulations and applies the best practices of the international oil industry. To learn more about the applicable regulations in relation to the transportation of fuels, sale of controlled products, labeling/delivery of the product, and claims for violation of privacy and leakage of customer data.

There were no complaints about violation of privacy and leakage of customer data in 2020. [click here.](#)

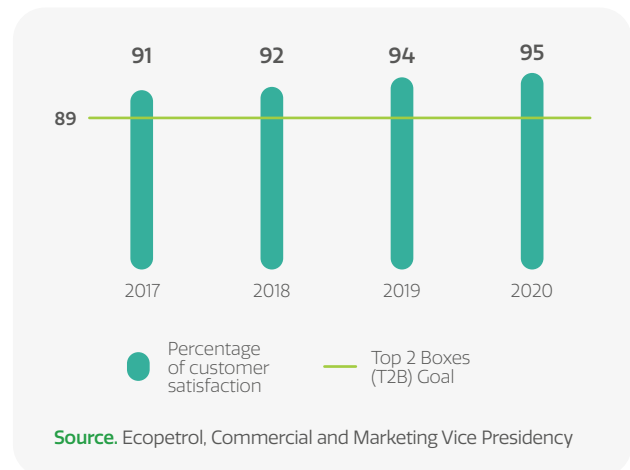
Clients satisfaction

Ecopetrol measures client service every year through a third party expert.

Of the clients surveyed in 2020, 95% rated their satisfaction in a range between 7 and 10 on the general quality of their experience with Ecopetrol (according to the Top Two Boxes methodology). This was a 1% improvement compared to 2019 and once again achieving a result higher than the minimum level of excellence established for this type of study (89%).

To see the results of the 2020 perception survey to the Client Stakeholder, [click here.](#)

Graph 32.
Customer satisfaction level (%)





Material Issue: Energy use and alternative sources

Standard	<u>GRI 103-1</u> Why is the issue material?	<u>GRI 103-2</u> How is the issue managed?	<u>GRI 103-3</u> How is the issue evaluated?
<p><u>GRI 302</u> Energy</p> <p><u>GRI OG-2</u> Total value of spending on Research and Development of renewable energies</p> <p><u>GRI OG-3</u> Renewable energy generated by source</p>	<p>Adequate energy management allows the identification of alternatives for the continuous optimization of sources and uses. Energy is Ecopetrol's second highest cost, after dilution. The comprehensive energy efficiency plan, in addition to reducing the environmental impact associated with the consumption of this resource, represents potential benefits of \$ 30 billion for the 2017-2020 period.</p>	<p>It is aimed at achieving energy self-sufficiency and considers different possibilities for diversification. It supposes the progressive incursion in unconventional sources of renewable energy.</p>	<p>The energy strategy is evaluated through indicators such as: energy consumption, energy intensity, reduction of energy consumption and renewable energy generated, among others.</p>
	<p>Ecopetrol process where the greatest impact is generated</p>	<p>Stakeholders where the greatest impacts are generated</p>	<p>Area that manages impacts</p>
<p><u>GRI 103-1</u> Impact coverage</p>	<p>Value chain (exploration, production, transportation, refining, marketing, petrochemicals and support areas).</p>	<p>All stakeholders.</p>	<p>Commercial and Marketing Vice Presidency</p>

Energy

GRI 302-1, 302-2

Description of the energy strategy

In the current context of Ecopetrol's Energy Transition strategy and the incorporation of technological, environmental, social and governance elements TESG Strategy, the main objective of the 2021 - 2023 energy strategy is to expand the energy generation park and

sales, creating value through the optimization of EG's assets and consumption.

To see the energy strategy, please [**click here.**](#)



Awarding of the new San Fernando mega solar park in Meta

It will have a 59 MWp capacity and will be led by AES Colombia. It will be made up of more than 113,000 530W panels with bifacial technology to capture energy on both sides, and trackers that will allow them to move according to the orientation of the sun, being one of the most innovative solar plants in Colombia. Approximately 150 women will be hired for this initiative at the peak of construction.

Comparto mi Energía: "I share my energy" Voluntary contribution

Ecopetrol voluntarily joined the "I Share my Energy" Initiative established by the Decree 517/2020. The total contribution of \$ 3,660 million was disbursed in the months of July and August. A total of 19 departments were covered, benefiting 30,000 users from social stratum 1 and 2 impacted by the COVID-19 emergency.

Energy purchase for EG

The purchase of energy by Esentia was awarded to Ecopetrol Energía through a competitive process. Thus, this aforesaid trading company will be in charge of supplying energy to the EG subsidiary for the 2021 - 2025 period. Purchases were also made of Long-term electrical energy (valid for 2023-2036) and 69 frontiers were served with an average monthly energy of 183.42 GWh through Ecopetrol Energía S.A.S. ESP.

During 2020, Ecopetrol Energía began activity as a demand aggregator to offer support to generators through the Voluntary Disconnectable Demand (VDD) mechanism, registering the availability of a frontier

for 288,000 kWh-day. The connection contract for the Cartagena refinery to the National Interconnected System – SIN (from its original Spanish language initials: *Sistema Interconectado Nacional*) was also signed with *Grupo Energía de Bogotá*. This contract will be valid for 20 years and will bring revenues for USD \$ 22.3 million.

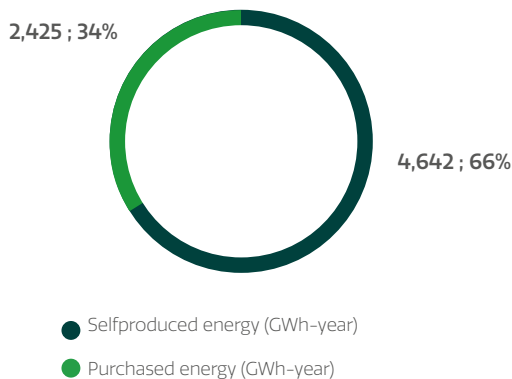
Finally, a renegotiation was carried out in regards to the charge for use of the connection asset PEL. This allowed a \$ 7 / kWh reduction in the rate for use of the transmission line, from \$ 62 to \$ 55 kWh. Similarly, the contract was extended until 2030, going from 50 MW to 70MW.

Energy demand of Ecopetrol and its EG (GWH / year)

Description of Ecopetrol's energy matrix

In 2020, Ecopetrol Group supplied 34% (2,425 GWh) of its power demand from purchases to the National Interconnected System – SIN and 66% (4642 GWh) by self-generation, as shown in Graph 33 below.

Graph 33.
Ecopetrol and EG Energy Demand (GWH / year)



Source. Ecopetrol. Commercial and Marketing Vice Presidency



GRI 302-1, 302-2

Energy consumption

Ecopetrol centralizes all the electrical energy information, and the figures below include Ecopetrol and its *Midstream* subsidiaries (Cenit, ODC, Ocesa, ODL and Bicentenario) and *Downstream* subsidiaries (Reficar, Esentia and Bioenergy, the latter reported at the end of July 2020).

Ecopetrol’s electric power balance is the result of the intersection of supply and demand. This includes self-generation, purchase and sale of energy carried out by the Company in the production, transportation, and refining segments. A synthesis of Ecopetrol’s energy balance is presented in Table 22.

In the production segment, self-generation was carried out using natural gas, liquid fuels, LPG, crude oil, and photovoltaic solar energy, for a total of 2,998 GWh-year

in 2020. The *Granja Solar Castilla* photovoltaic solar energy park located in the Castilla field generated 27.9 GWh in 2020. The energy purchased was 1,678 GWh-year.

In the refining segment, self-generation in Bioenergy was carried out with renewable fuel, i.e. biomass (sugarcane bagasse), for 37.5 GWh. On the other hand, self-generation was 1,480 GWh-year from natural gas in the Barrancabermeja and Cartagena refineries. In this operation, surplus energy was generated in Reficar and Bioenergy for 94.5 GWh-year, which were sold.

Total steam consumption was 23,962,888 klb - year, which corresponds to the production of both refineries and was used for the generation of electrical energy, industrial purposes, and processing plants. In addition to the above, the Cartagena refinery sells a total of 17,520 klb-year.

Table 22. EG's energy consumption in detail

Energy consumption within the organization		Energy (GWh) 2020	Steam (klb) 2020
(+)	Renewable fuel consumption	65.4	
(+)	Non-renewable fuel consumption	3,030	
(+)	Electricity, heating, cooling and steam purchased for consumption	2,425	
(+)	Electricity, heating, cooling and self-generated steam in refineries and consumed within EG Companies	1,612	23,962,888
(-)	Electricity, heating, cooling and steam sold	94	17,520
(=)	Total energy consumption	7,038	23,945,368

Source: Ecopetrol. Vicepresidencia Comercial y Mercadeo

GRI 302-1

Energy Demand

As can be seen in Graph 34 and Table 23, energy demand in 2020 had a 5% decrease as compared to 2019.

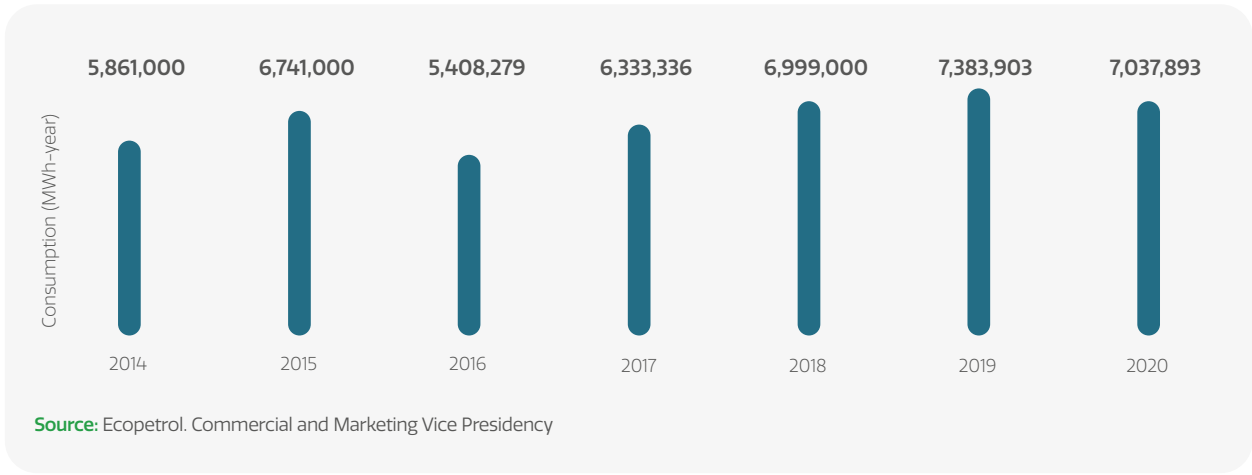
Table 23. Demand for Ecopetrol and its EG Companies in the last 7 years

Year	2014	2015	2016	2017	2018	2019	2020
Consumption (MWh / year)	5,861,000	6,741,000	5,408,279	6,333,336	6,999,000	7,383,903	7,037,893

Source: Ecopetrol. Commercial and Marketing Vice Presidency

The 2020 figures above include the Vice Presidency of Production, Barrancabermeja Refinery, Cartagena Refinery (Reficar), Cenit, ODL, Ocesa, ODC, Bicentenario, Bioenergy and Esentia.

Graph 34. Historical energy consumption of Ecopetrol and its GE



GRI 302-3, 302-4

Energy intensity

The Company has an energy efficiency program that aims to optimize consumption of EG, leading to a reduction in energy consumption and consequently a decrease in greenhouse gas (GHG) emissions as part of the objectives of the decarbonization program (for more information, please refer to Chapter 5: Environmental Dimension).

During 2020, the implementation and preservation of energy efficiency initiatives generated benefits in the amount of \$ 12.8 billion, equivalent to the optimization of 3.1 MW and 684 GBTU, and a reduction of 51,518 tCO₂e.

Energy intensity – Production

The 2020 energy intensity indicator⁴ of the production process was 1.07 kWh / barrel, decreasing 8% as compared to last year, mainly due to the decrease in the barrels produced as observed in Table 24 below:



Table 24. Energy Intensity Production and Development

Año	2016	2017	2018	2019	2020
Energy Intensity (kWh / bbl) ₍₁₎	1.0	1.18	1.04	1.16	1.07

Source: Ecopetrol. Commercial and Marketing Vice Presidency

⁴ This indicator covers total production fluids (oil, water and gas).

Energy Intensity – Transport

At Cenit, the energy intensity indicator was 1.17 kWh / barrel, decreasing -8.6% as compared to last year, as shown in Table 25. The abovementioned change was due to the following:

- A 27% reduction in energy consumption due to the Llanos Node Optimization project (San Fernando-Apiay), which went from 144 GWh / year to 105 GWh / year.
- Implementation of an operational and productive control with energy efficiency criteria in 15 stations of the following systems: Pozos Colorados-Galán, Galán-Sebastopol 1”, Galán Sebastopol 16”, San Fernando-Altos de Porvenir, Coveñas - Cartagena 18”, Vasconia - ODC and Salgar-Mansilla 10”, with a profit of -9.4 GWh / year.

There is an increase in electricity consumption due to the total electrification of the Copey plant. The increase in consumption in 2020 as compared to the previous year was 233% (6.3 vs 21 GWh / year).

Table 25. Electric energy intensity

Year	2019	2020
Energy intensity (kWh / bbl)	1.28	1.17

Source: Ecopetrol. Commercial and Marketing Vice Presidency

Regarding Cenit, the 2020 thermal energy intensity indicator was 1.56 kWh / barrel, increasing 3.0% compared to 2019, as shown in Table 26. This increase was due to:

01

Greater operation of the Caño Limón-Coveñas Pipeline in 2020 compared to the previous year, where its main energy source was fuel oil. The increase in crude oil consumption was 68% (112 vs 187 GWh / year).

02

A reduction in natural gas consumption of -29% due to the total electrification of the Copey plant, going from 472 GWh / year to 336 GWh / year.

Table 26. Thermal energy intensity

Year	2019	2020
Energy intensity (kWh / bbl)	1.51	1.56

Source: Ecopetrol. Commercial and Marketing Vice Presidency



Energy intensity- Refining

By the end of 2020 there were savings in the amount of \$ 9.2 billion and the initiatives in Table 27 stand out.

Table 27. Initiatives developed in the refining segment

Initiative	Management	Savings [MMCOP]	Energy Savings [MW]	Energy Savings [GBTU]	Emissions Reduction [TonCO ₂ e]
Energy intensity index optimization	GRB	3.84	0	385	22,546
CO Process plants	GRC	5.23	0.46	285	18,274
CO Process plants	Bioenergy	0.18	0	14	1,685

Source: Ecopetrol. Commercial and Marketing Vice Presidency

Notes: Real Savings as of December 2020.

In 2020, the Barrancabermeja refinery closes with a 102 Energy Intensity Index (EII) fulfilling expectations, leveraging on the dispatch strategy with more efficient machines in the contingency due to the pandemic (fulfilling a global IGV of 1.12 and Heat Rate of 11.9) keeping average loads of crude oil during the year at 179 kbd and cracking at 48.62 kbd, and sustained sales of asphalt and crude.

In turn, the Cartagena refinery ended the year with an EII of 105 vs. the level expected (103), due to the greater energy recovery in TEX FCC (5.5 MW average), improvement in the efficiency in steam consumption in process units, and optimization of the overall combustion efficiency of the furnaces in process units.

Non-industrial facilities

The implementation of the energy efficiency program in non-industrial facilities began in 2020. The premises that were considered for a building to be audited were, first, to be owned by Ecopetrol and, second having an energy consumption measurement.

The Main Building (Bogotá), the regional archive (Barrancabermeja), Redoma San Mateo (Cúcuta), HUB

CARIBE and ECO CARIBE were audited to establish and identify energy saving objectives and opportunities, and thus comply with the requirements of Act 1955 2019 - Art. 30. As a result of these energy audits, potential savings were identified in operational improvement initiatives of \$ 118.3 million per year, and in investment initiatives of \$ 754 million per year.



Material Issue: Health and Safety

Standard	<u>GRI 103-1</u> Why is the issue material?	<u>GRI 103-2</u> How is the issue managed?	<u>GRI 103-3</u> How is the issue evaluated?
<p><u>GRI 403</u> Health and Safety at Work</p> <p><u>GRI OG-13</u> Process safety</p> <p><u>GRI 201-1</u> Direct economic value generated and distributed.</p> <p><u>GRI 413-1</u> Operations where development programs, impact assessments and participation of the local community have been implemented.</p>	<p>Ecopetrol takes care of people, communities, the environment, and infrastructure by managing operational risk to avoid catastrophic accidents.</p> <p>A weak performance in terms of occupational health and safety and processes has a negative impact on labor costs and business productivity.</p>	<p>Ecopetrol has a risk-based HSE management system; its pillars of organizational process analysis are leadership and planning, evaluation and improvement, support and operation. The latter focuses on reversing the fatalities associated with the electrical issue, physical impacts, or water bodies.</p>	<p>Axes of intervention: The management system, behaviors of leaders, the perception of risk by workers, and the organization's HSE culture.</p> <p>Reduce process safety indicators: Number of process safety incidents, and process safety frequency index.</p>
	Ecopetrol process where the greatest impact is generated	Stakeholders where the greatest impacts are generated	Area that manages impacts
<p><u>GRI 103-1</u> Impact coverage</p>	Value chain (exploration, production, transportation, refining, marketing, petrochemicals and support areas).	Contractors and their employees; Employees, pensioners and their beneficiaries, and Society and Community.	HSE Committee of the Board of Directors of Ecopetrol and Vice Presidency of HSE.

GRI 103-1, 103-2, 103-3

OCCUPATIONAL HEALTH, INDUSTRIAL AND PROCESS

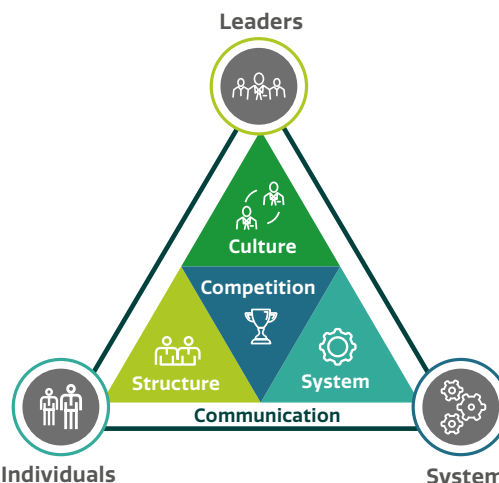
Occupational Health and Industrial Safety

Main indicators on occupational health and industrial safety management

Comprehensive management of occupational health and industrial safety of employees and contractors is a fundamental enabler in all links of the business value chain.

The year 2020 began with a great challenge in terms of safety: reversing the occurrence of fatalities in Ecopetrol's operations, since in the first half of 2019 there were three fatalities.

HSE strategy and its axes



Source. Ecopetrol Vice Presidency of HSE

The HSE strategy is monitored by the HSE Committee of the Board of Directors at Ecopetrol. In 2020, the Board held three sessions in order to guarantee its alignment with the statements made by the Company regarding safe, healthy operations, and a responsible environment.

There are four main indicators on occupational health and industrial safety management at Ecopetrol: frequency of total recordable injuries, high potential incidents, vehicle accident rate, and occupational disease rate.

Ecopetrol has been implementing standards for occupational health, environmental management, and industrial and process safety in all operations, in order to guarantee operational excellence and, therefore, safe, healthy and environmentally responsible operations.

The detail can be consulted [here](#).

Management for the prevention and attention of risks

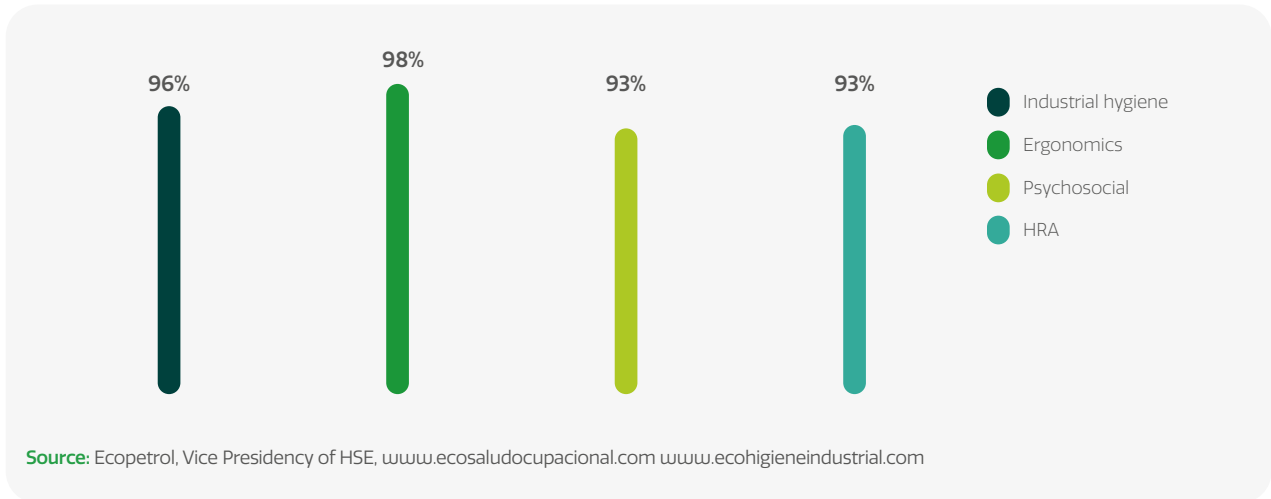
The management of occupational health and safety risks are part of the responsibilities of management and constitute an integral element of all the organization's decision-making processes. Similarly, it is dynamic, repetitive and receptive to change, according to the operational context of the organization.

To learn more about Risk Prevention and Care Management, click [here](#).

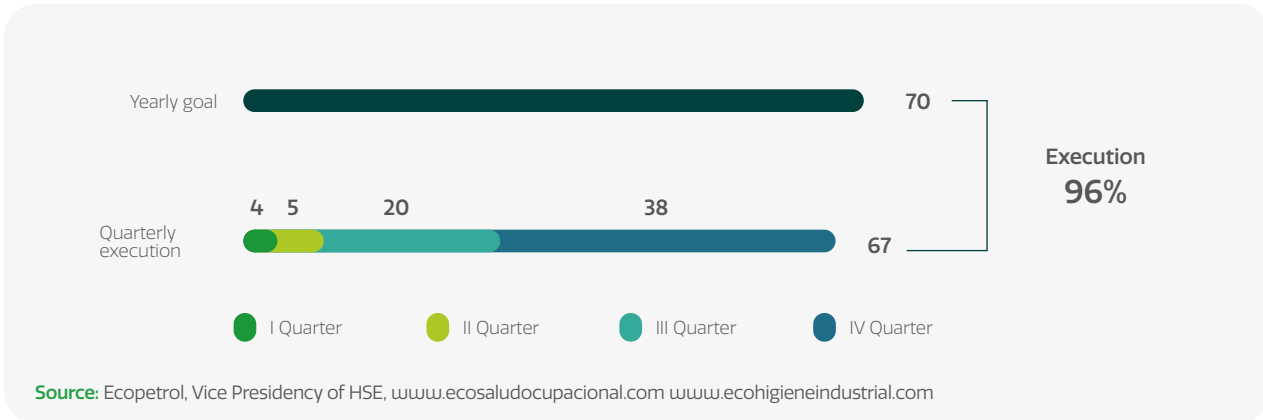
Occupational Health Management

The following indicators have been established for the management of occupational health in Ecopetrol:

Graph 35. Compliance with intervention plans in 2020 in industrial hygiene, ergonomics, psychosocial, and Health Risk Assessment – HRA



Graph 36.
Risk level control



Risk level control: Proactively manages risk in work environments; allows to evaluate the impact of the intervention plans established for chemical and ergonomic agents in order to prevent occupational disease in the trades that the Organization defines as critical.

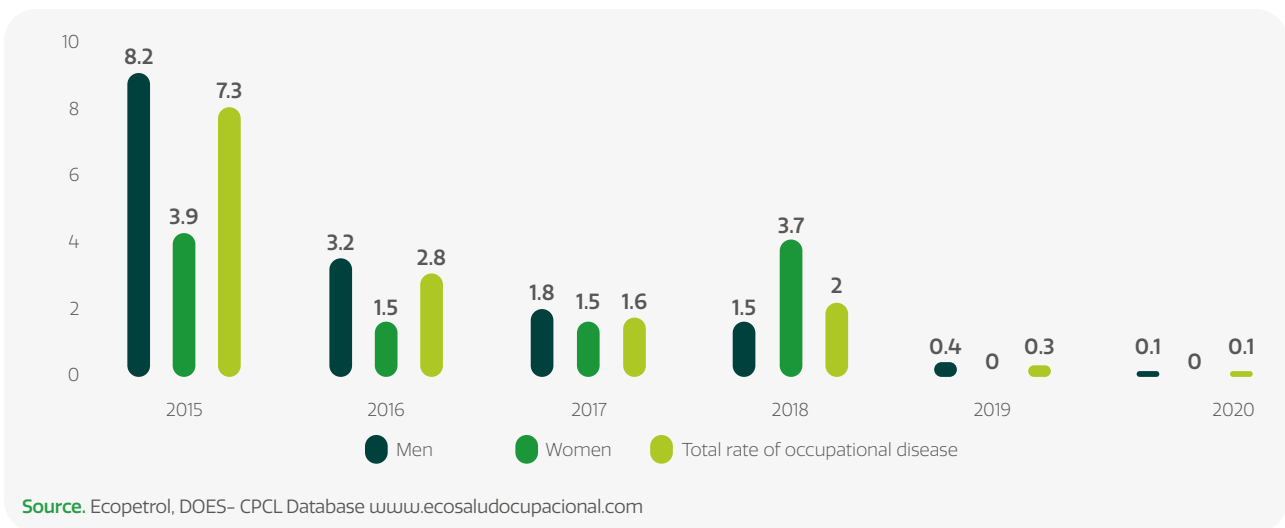
To see more details of the occupational health program at Ecopetrol, click [here](#).

WEF 15, WEF 25E

Occupational diseases

Occupational disease is understood to be any disease contracted as a result of exposure to risk factors inherent to the work activity or the environment in which the worker has been forced to work according to Act 1562 of 2012.

Graph 37.
Behavior of the rate of occupational disease in active Ecopetrol workers per 1000 workers, by gender



The behavior of occupational disease maintains a downward trend.

Table 28. Behavior of the causes of occupational disease in active workers of ECOPETROL S.A. 2020

Causes	Do not	%
Síndrome del manguito rotatorio	1	100
Total	1	100

Source, Ecopetrol, DOES-CPCL Database, www.ecosaludocupacional.com

The causes of occupational disease in 2020 were musculoskeletal (100%), related to ergonomic risk.

GRI 403-2

Frequency Index of Occupational Interest Diseases

A disease of occupational interest is a permanent or temporary pathological state that has been diagnosed by the health professional and that is of interest because it may be related to the kind of function that the worker performs, but that has not yet been classified as an occupational disease, i.e. it is considered a disease of common origin.

The EIO frequency rate for 2020 is 0.92 events per million hours worked. There is evidence of a decrease in the indicator related to the timely management of the cases identified.

Graph 38. Comparison of the Absenteeism Frequency Index by Occupational Interest Diseases 2015 – 2020



Table 29. Comparison of the Absenteeism Frequency Index by distributed by sex 2015 – 2020 (No. of events * 1000000 HH)

Frequency Rate of Absenteeism due to Occupational Interest Illness	2015	2016	2017	2018	2019	2020
Men	1.1	1	1.1	1.1	1.8	0.77
Women	1.7	1.9	1.7	1.6	1.3	0.14
Total FI of occupational interest absenteeism	1.75	1.62	1.5	1.5	1.7	0.92

Source, Ecopetrol, Vice Presidency of HSE, www.ecosaludocupacional.com

Occupational Interest Diseases – severity index

The severity index for 2020 corresponds to 11.5 days per million hours worked for Ecopetrol. A downward trend is evident when comparing recent years.

Graph 39. Comparison of the Occupational Interest Disease–Related Absenteeism Severity Index 2015 – 2020



Table 30. Comparison of the Occupational Interest Disease–Related Absenteeism Severity Index distributed by sex 2015 – 2020

Severity Index of Absenteeism due to Occupational Interest Illness	2015	2016	2017	2018	2019	2020
Men	20.4	38.2	32.6	37.9	17.9	10.03
Women	12.4	10.2	1	5.9	7.6	1.53
Total Severity Index of Occupational Interest Disease–Related Absenteeism	18.8	37	25	29.98	15.36	11.58

Source: Ecopetrol – Vice Presidency of HSE, www.ecosaludocupacional.co

GRI 102–48, 403–2, WEF 15, SASB EM–EP–320a.1

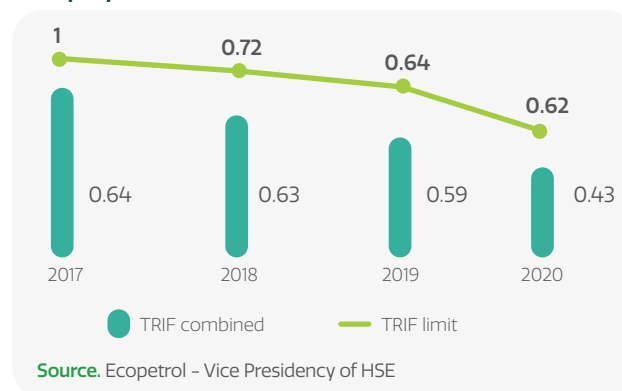
Accidents

Accidents and frequency rates

Accident rate at Ecopetrol is measured through the recordable injury frequency index, which corresponds to the number of injuries caused by or on the occasion of the work of direct personnel and contractors, subcontractors, and apprentices. The accident rate includes fatalities, disabling injuries, restricted jobs and medical treatments for every million hours worked. The criteria provided in OSHA 29 CFR 1904.4 - 7 are used in order to determine the accident record, regardless of the determination of work accident according to the Colombian legal framework, which has effect for all labor and legal aspects of the country.

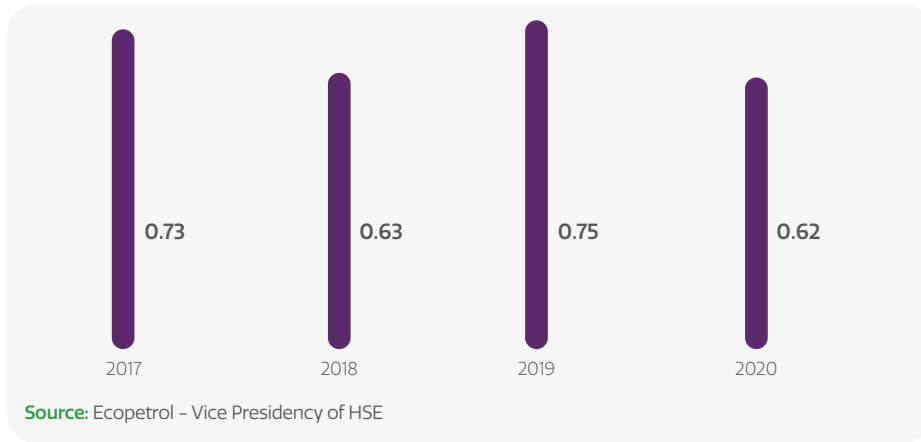
Frequency Index of total recordable injuries

Graph 40. Total Recordable Injury Frequency Rate – Employees and Contractors

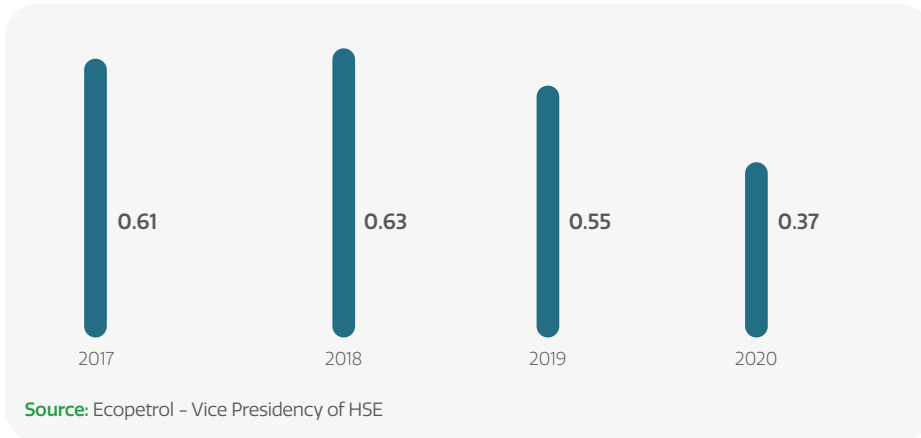


The behavior shows an improvement and the results have been below the established limits.

Graph 41. Frequency rate of total recordable injuries – Direct employees

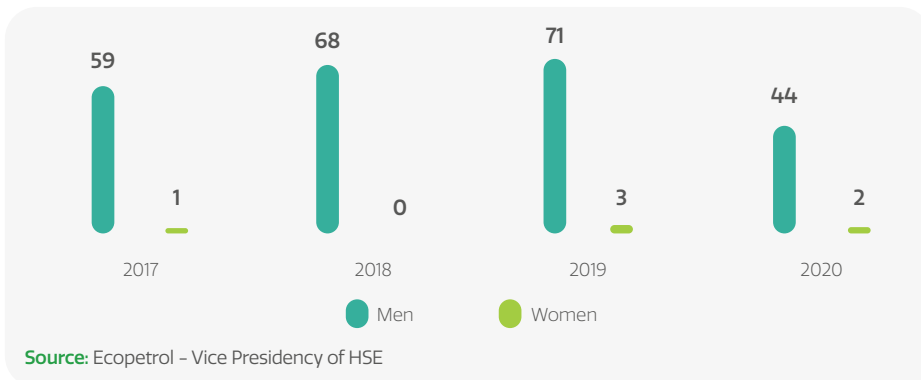


Graph 42. Total Recordable Injury Frequency Rate – Contractor Employees



Distribution of the number of accidents

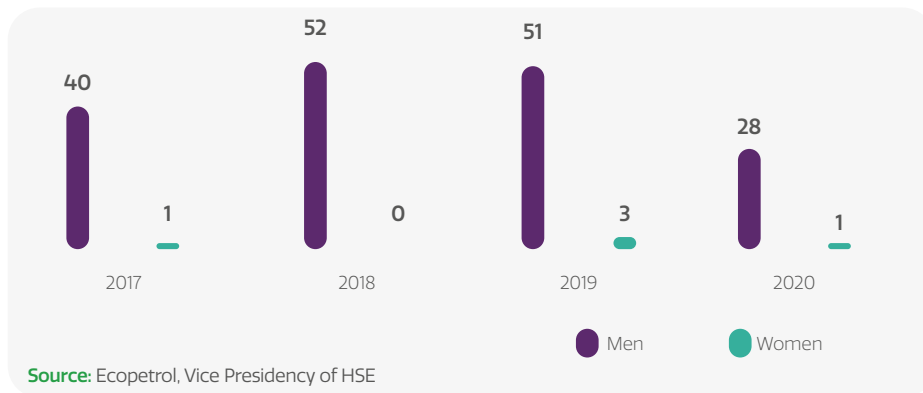
Graph 43. Distribution of the number of accidents broken down by gender – employees and contractors



Graph 44.
Distribution of the number of accidents by gender – employees



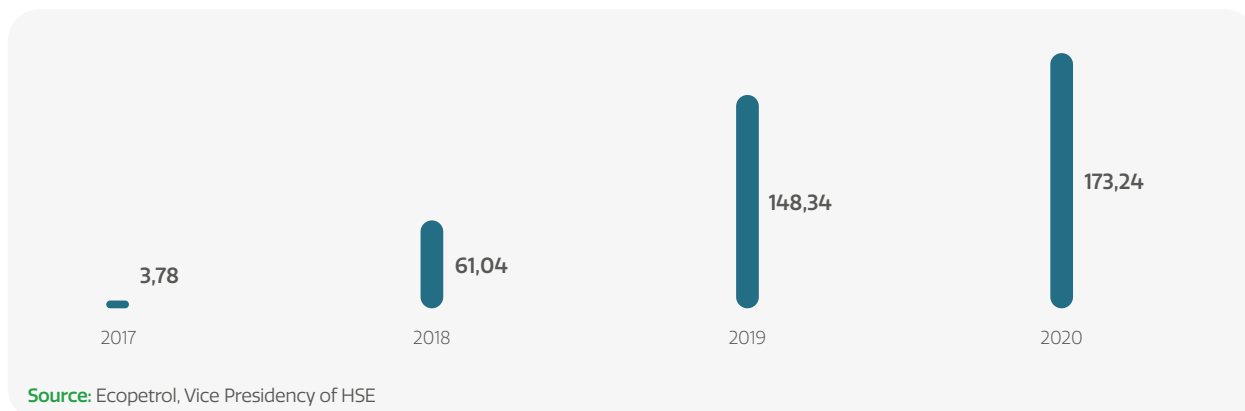
Graph 45.
Distribution of the number of accidents broken down by gender – contractors



While the frequency of recordable accidents decreased for 2020, the severity of the events unfortunately had a significant increase as there were three fatalities. This situation is evidenced in the behavior of the Severity Index during 2020.

Graph 46 represents the severity index of recordable cases including fatalities, which corresponds to the number of days lost for every million hours worked, where a fatality adds 6,000 days lost.

Graph 46. Behavior of the severity index of recordable cases



GRI 403-1, 413-1, WEF 25E

Occupational Health Committees

As stated in article 78 of the current Collective Bargaining Agreement (2018-2022) “Occupational health in Ecopetrol S.A. contributes to developing the human potential of the workforce; promotes, improves and maintains the physical, mental, and social health of workers; prevents occupational diseases and accidents. Similarly, it promotes the placement of the worker in work environments in accordance with their physical and psychological conditions” and ensures the functioning of the regional and local Joint Committees for Occupational Health.

There are 12 Joint Occupational Health Committees - COPASOS and 34 Local Occupational Health Committees - COLOSOS at the level of the entire organization (representatives of the administration and workers).

The percentage of workers represented in COPASOS and COLOSOS is 100% of the population.

WEF 25E

Absenteeism

Rate of Absenteeism due to Occupational Illness by events per 1,000 workers.

Absenteeism rate corresponds to events that have been determined to be of labor origin, and in which absenteeism occurred due to that cause in 2020.

Table 31. Rate of Absenteeism due to Occupational Illness by events per 1,000 workers

Rate of absenteeism due to work-related illness (employees) by events	2015	2016	2017	2018	2019	2020
Men	1.7	2.3	2	2.7	3	2.45
Women	3.9	3	8.3	6.9	8.2	0.71
Total absenteeism rate	2.2	2.5	3.4	3.7	4.2	3.17

Source. Ecopetrol, Vice Presidency of HSE, www.ecosaludocupacional.com

Table 32. Absenteeism rate due to work-related illness for days lost per 1000 workers.

Rate of absenteeism due to work-related illness (employees) for days lost	2015	2016	2017	2018	2019	2020
Men	35.9	59.9	23.3	13.7	13	10.5
Women	91.2	32.9	23.4	14.7	47.8	10
Total absenteeism rate	48.5	53.9	23.3	13.9	21	20.5

Source. Ecopetrol, Vice Presidency of HSE, www.ecosaludocupacional.com

Fatalities of direct workers and contractors

Table 33. Fatalities of direct workers and contractors due to operational and non-operational causes.

Fatalities	2017	2018	2019	2020
For operational reasons	0	1	3	3
For non-operational cause	0	0	0	0

Source: Ecopetrol - Vice Presidency of HSE

GRI 403-3

Workers at high risk or incidence of diseases related to their activity

Ecopetrol has identified activities related to high temperatures above the permissible limit values, proven carcinogenic substances, and workers of the fire brigade with action in extinguishing fires.

Regarding the incidence of diseases, there were no cases of occupational diseases associated with them in 2020.

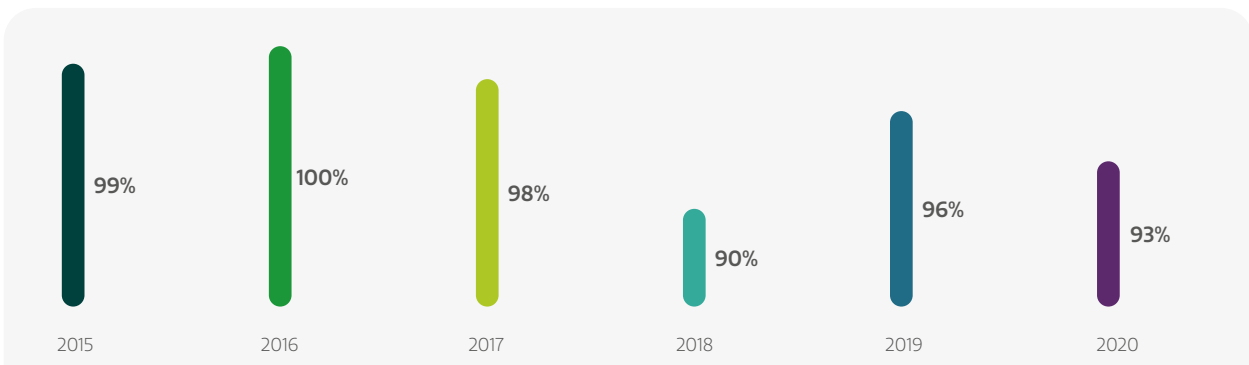
For further details of the areas of the company in which high-risk activities are carried out, according to current regulations, click [here](#).



High-risk activities identified in Psychosocial Risk

Various actions were developed in 2020 to control and mitigate impacts on mental health, and psychosocial and ergonomic conditions specifically associated with isolation and the health emergency caused by COVID-19. These are specifically mentioned in Chapter 6.

Graph 47. Comparison of the percentage of compliance with the psychosocial intervention plans



Source: Ecopetrol, Vice Presidency of HSE, tool: www.ecosaludocupacional.com

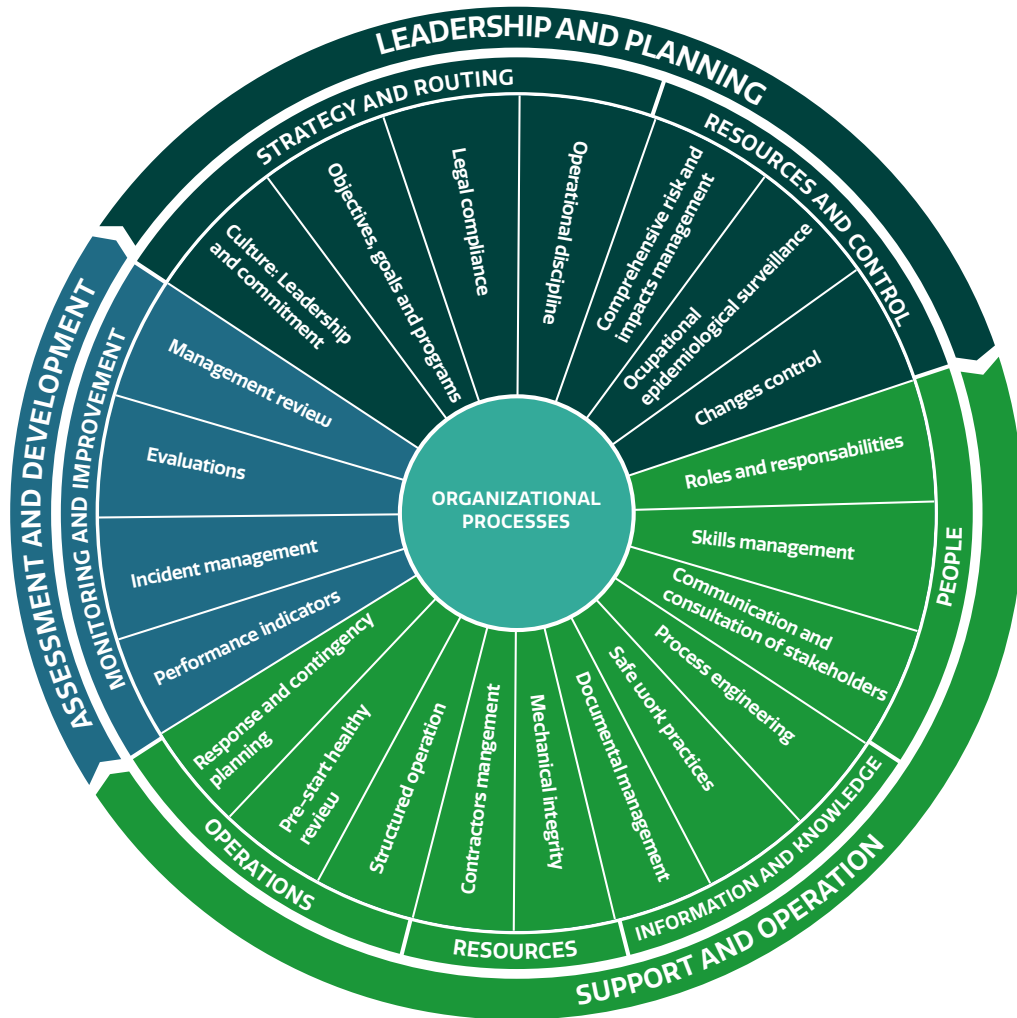
GRI 103-1, 103-2, 103-3, WEF 25E, SASB EM-EP-320a.2

Process Safety

Ecopetrol has a risk-based HSE management system to manage operational / technological risk and avoid catastrophic accidents that may impact people, communities, the environment, and infrastructure.

This HSE management system has over 10 years, and incorporates the components and best industry practices on this issue, focused on the prevention of major industrial accidents and disaster risk management.

HSE management system



Source. Ecopetrol, Vice Presidency of HSE

The elements associated with process safety have proactive and reactive indicators for each of the practices, which allows to preventatively manage risk in the organization.

GRI OG-13, SASB EM-RM-540a.1.

Process safety indicators

Table 34. Number of process safety incidents classified by TIERS

No. Incidents	2017	2018	2019	2020
TIER 1	5	5	4	5
TIER 2	12	14	15	5

Source: Ecopetrol - Vice Presidency of HSE

Table 35. Description of events in 2020

Date Idea	Description of the event
12/20/2020	During activities of preparation of the head for the abandonment of Petrolea 104 well, a gas leak was recorded that generated an explosion and fire, which affected five workers from Fepeco company who were in the area.
09/17/2020	During the removal of the SAS (Flange Adjustment) in-line from the Yaguá Battery discharge gas torch, a fluid release occurred affecting two workers from the production crew. They were immediately transferred to the nearest medical center for their respective evaluation.
08/28/2020	A strong odor of naphtha is reported in the vicinity of CL5 and on-site validation is carried out. Evidence of a naphtha leak in the south duct naphtha branch between CL5 and CL38. The San Francisco pipe is affected. There are no people affected.
07/24/2020	In the development of the replacement work for the Tello - Dina pipeline, after the installation of the drainage nozzle, while drilling the pipe with the tapping machine and installing a 2" ball valve, a failure is occurs causing fluid to escape from the pipeline, which is contained in its entirety in the excavation carried out for the development of the works in the corridor of the tube. The operation was immediately informed to activate the contingency plan. There is no impact on people or water sources.
02/21/2020	There is loss of communication and control of the ASEP-7420 separator, causing a flood of the separator and producing liquids to drag towards the KO Drum, causing loss of containment in the form of aspersión and causing the torch to stop.

Source: Ecopetrol - Vice Presidency of HSE

Graph 48. Process Safety Frequency Index - TIER 1 and TIER 2



GRI 102-9, 103-1, 103-2

PROCUREMENT

Sourcing model and strategy

Procurement for goods and services in Ecopetrol is executed through a strategic model of transversal and enabling supply, with the aim of ensuring the effective, responsible, and sustainable long-term supply of goods and services in a segmented way in terms of cost, opportunity, quality, and risk level. The effectiveness of the model is measured by the provision of critical goods and services and by the generation of reduced and avoided savings.

Since 2017

Accumulated savings of more than **\$ 6.2 trillion** have been achieved since 2017. In 2020, **\$ 2.5 trillion in savings** was generated, as compared to **\$ 12.9 trillion** allocated, **60% of the savings (\$ 1.5 trillion)** impacted CAPEX and **40.1% (\$1 trillion)** corresponded to OPEX. Of these savings, **\$ 472.2** is due to new selection methods, **\$ 278.1** billion for renegotiation of contracts and dispatch orders, **\$ 174.6** billion for austerity, **\$ 111.3** billion in optimizations, added to **\$ 1,391** billion achieved in previous terms with capitalization in 2020. The savings generation figure includes management across the board in procurement.

Mechanisms for hiring and selection of contractors

Ecopetrol invites those people who have the capacity to cater to Ecopetrol’s needs – according to magnitude or complexity – to participate in its contractual procedures and contractor selection methods. Participants are chosen through different sources of information, such as market intelligence and Ecopetrol’s Supplier Information System (SIPROE).

The main aspects analyzed in the supplier enlistment stage correspond to legal capacity, experience, financial capacity, HSE conditions, performance, compliance with previous contracts, and commitment to ethics and transparency.

Table 36. Number of contracts managed by Ecopetrol in the last four years

Year	2017	2018	2019	2020
Number of contracts	12,218	12,213	10,488	8,521

Source. Ecopetrol, Vice Presidency of Procurement and Services

Note: Managed contracts correspond to contracts for goods and services in force each year (concluded, executed or in the closing stage).

Table 37. Number of contractors at the end of each year for contracts managed

Source	2017	2018	2019	2020
National	3,628	3,575	3,660	3,264
Foreign	184	242	266	216
Total	3,812	3,817	3,926	3,480

Source. Ecopetrol, Vice Presidency of Procurement and Services

Promotion of contracting mechanisms

Ecopetrol promotes the contracting of goods and services through:



Website: Special section for suppliers and contractors who report on the regulations and the main changes in the Supply Process.



Suppliers Portal in SAP: Composed of the SIPROE-SLC, SRM and SUS modules, where suppliers and contractors present their portfolio of goods and services, electronic offers are received and the documents of the contractual execution are stored.

Obligations of ethics, transparency and compliance in contracting

Ecopetrol requires the contractors, workers, and firms hired to observe strict compliance with ethical principles and regulations on the prevention of conflicts of interest, fraud, corruption, bribery, money laundering, financing terrorism, and practices that restrict free competition.

All Ecopetrol contractors declare to know and comply with the obligations of ethics, transparency, and compliance in contracting, which are an essential part of the contract minutes and include, among others: Code of Good Governance, Code of Ethics and Conduct, anti-bribery laws, regulations accounting, and implementation of internal control mechanisms.

In this regard, more information can be found in the section on the Code of Ethics of this report.

GRI 204-1

Total contract value of Ecopetrol

We faced challenging market conditions in 2020 due to the fall in oil prices and the health emergency caused by the COVID-19 pandemic. This reflected in a decrease in the contracting of goods and services, which closed at \$ 12.9 trillion.

Table 38. Total value of procurement at Ecopetrol - Figures in COP

Source	2017	2018	2019	2020
National	\$ 9,003,743,520,566	\$ 10,102,266,315,612	\$ 12,882,710,288,371	\$ 12,213,041,342,863
Foreign	\$ 560,312,191,574	\$ 338,376,995,881	\$ 486,974,439,366	\$ 756,651,341,559
Total	\$ 9,564,055,712,140	\$ 10,440,643,311,493	\$ 13,369,684,727,737	\$ 12,969,692,684,422

Source: Ecopetrol, Vice Presidency of Procurement and Services

Note: Figures include Reficar's procurement.

In terms of procurement of goods and services, the year 2020 closes with 3,480 suppliers represented in 8,521 contracts, of which 94% correspond to contracts with national suppliers and the remaining 6% to contracts with foreign suppliers.

For more information click [here](#).



The criteria of the **Pact for Legality and Transparency in the promotion of local hiring** were built in 2020 seeking to:

01

Boost local hiring by promoting sustainable growth and competitiveness under a framework of legality and transparency.

02

Strengthen the relationship with the chambers of commerce in Ecopetrol's areas of influence to reinforce our value promise "Transparency and clear rules in a mutually beneficial relationship."

03

Position the cultural principle "Always ethical: We are transparent and consistent with our principles".

This Pact will be signed in 2021 with the chambers of commerce of the areas of influence of Ecopetrol

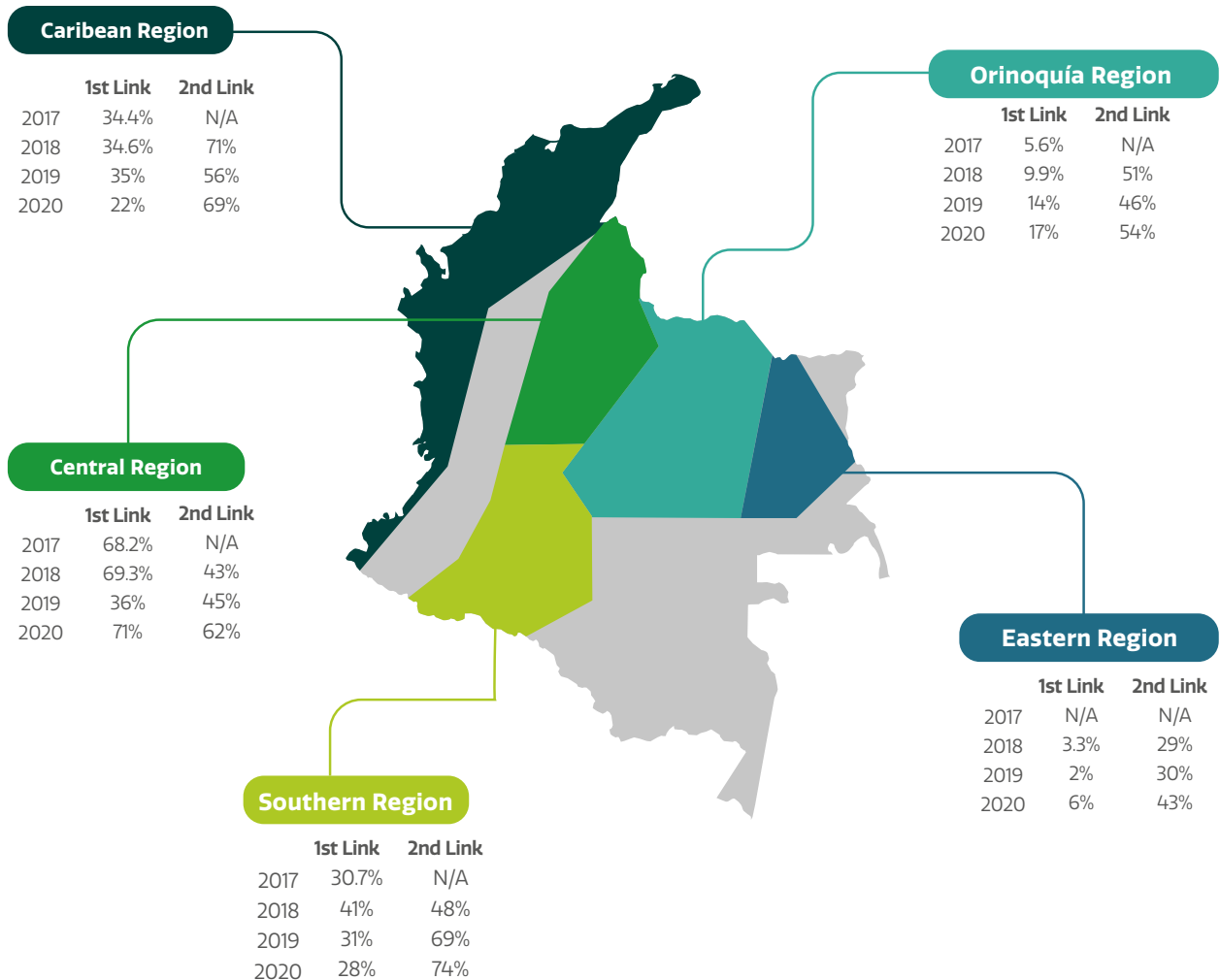
GRI 103-1

Local hiring

Ecopetrol promotes the acquisition of local goods and services. It also encourages its suppliers to contract locally for the required goods and services, and to incorporate various productive ventures in different industrial sectors. It aims to positively impact regional economies, based on the reality of the territory and its capacities, both in terms of labor force and in the local business community, responding to the main problems that generate conflict in the areas of influence of Ecopetrol.

In 2020, Ecopetrol contracted local goods and services for an approximate value of **\$ 6.2 trillion** with suppliers domiciled in the municipality or department where the contract was executed. This represented **51%** of Ecopetrol’s total contracting - including contracts executed in Bogota.

Below is the evolution of the percentage of local contracting generated by Ecopetrol and its partners in the different regions of the country since 2017:



Source: Ecopetrol, Vice Presidency of Procurement and Services

Notas:

- The figures of the First Link with cut-off at December the 31st, 2020, corresponds to the direct contracting of Ecopetrol. Figures in the Second Link with cut-off as of November 30, 2020 correspond to the contracting executed by Ecopetrol’s contractor partners with other companies.
- The figures exclude reimbursable expenses, agreements and sponsorships. The figures above include Reficar’s procurement. Includes contracts executed in Bogotá.

Table 39. Distribution of Ecopetrol's national contracting (Figures in Pesos)

Local Hiring and Business Environment	2018	2019	2020
(A) Local Hiring and Business Environment	\$ 5,106,717,402,056	\$ 7,299,754,112,650	\$ 6,209,468,442,326
(B) Recruitment of the rest of the Country	\$ 4,995,548,913,555	\$ 5,582,956,175,721	\$ 6,003,572,900,536
A + B Procurement	\$ 10,102,266,315,611	\$ 12,882,710,288,371	\$ 12,213,041,342,863
Percentage of Local Hiring	51%	57%	51%

Source: Ecopetrol, Vice Presidency of Procurement and Services.

Nota: The figures above include Reficar hiring. Includes contracts executed in Bogotá.

GRI 102-16, 103-2

Local recruitment and selection mechanisms

Ecopetrol has a Strategic Plan for Goods and Services and Workforce wherethrough it has contributed to the strengthening of local economies by promoting sustainable growth and competitiveness of suppliers, and seeking to obtain products and/or services from the local market under criteria of legality, transparency, plurality, competitiveness, reasonable prices, free and fair contest, and equitable inclusion.

In 2020, Ecopetrol updated the **Strategic Plan for the Local Procurement of Goods and Services and Workforce** which has the following objectives:

- To give continuity to the operation and investment viability,
- To promote transformation and development of the country and
- Contribute to the improvement of the economy in the territories, and the proactive management of the environment.

This plan includes the initiatives to be implemented in local goods and services, inclusive labor relations, and diverse productive ventures with which it seeks to leverage the socio-economic reactivation of the country.

Development of local suppliers

In 2020, Ecopetrol contributed to the development of local suppliers through training in e-commerce principles, participation and inclusion in digital issues, security in online transactions, teleworking, development of innovation strategies and prototyping, among others. This was achieved through the generation of synergies with Propaís, the chambers of commerce, the National Planning Department (DNP), the National Apprenticeship Service (SENA), *Fondo Emprender*, Digital Citizenship, Regulatory Consulting, and Digital Entrepreneur.

In 2020 Ecopetrol developed its own online methodology, which made it possible to strengthen business capacities in the use of technological platforms for holding outreach meetings and business rounds that contribute to the economic reactivation of the regions (72 local MSMEs closed business deals worth \$ 6.4 billion).

Coordination of Actors to Mitigate Regional Conflict

Ecopetrol integrates efforts with State agencies and business associations at the national and local level associated with the contracting of local goods and services, seeking to mitigate the conflict taking place in the regions.

In 2020, we moved forward with the Ministry of Labor, the Ministry of Interior, the Colombian Chamber of Oil, Gas, and Energy (Campetrol), the National Association of Industrial Organizations (ANDI) and chambers of commerce, to strengthen local entrepreneurship and promote the procurement of goods and services in the localities where Ecopetrol operates.

Hiring local labor

At the end of 2020, Ecopetrol’s suppliers hired **34,284 workers**, of which **84% (28,918 workers)** are local labor in Ecopetrol’s operating regions.

Table 40. Number of employees of Ecopetrol contractor companies

Number of workers distributed according to origin	2017	2018	2019	2020
Local*	20,169	29,202	29,462	28,918
Not local **	4,112	5,603	6,249	5,366
Total Contractor workers	24,281	34,805	35,711	34,284
Percentage of hiring of local workers	83%	84%	83%	84%

Source. Ecopetrol, Vice Presidency of Procurement and Services

Notes:

* Local workforce: person who accredits their residence with the certificate issued by the municipal mayor’s office /

** Non-local workforce: worker whose residence is in other regions of the country. In the event that the required Manpower is not found in the municipality of the area where the projects are being developed, it will be sought in the neighboring municipalities.

During 2020, 20% of the indirect jobs generated by Ecopetrol benefited **women**, of which 20% are single women. A large part of the employability covered the **young population** aged 18 to 28 (5,979 jobs), and people **aged 45+** (7,393 people).



Contractor from Independence Drilling

GRI 103-3

Local Contracting Indicator

The objective of the Local Contracting Indicator is to measure the impact of both Ecopetrol and the contracting Allies in the contracting of goods and services in the territories where they operate, seeking to increase the participation of local suppliers in the supply chain.

The **evolution of the Local Hiring Indicator** is detailed below in terms of the goals set per year, the fulfillment of these from 2018 to 2020 and the calculations for each of the periods:

Table 41. Evolution of the Local Contracting Indicator

	2018	2019	2020
Ecopetrol			
Local contracting goal	38%	38%	25%
Result	51% (\$5.107mM)	57% (\$4.299 mM)	34% (\$1.549 mM)
Compliance Percentage	134%	150%	136%
Partners			
Local contracting goal	3% Increase	15%	46%
Result	27% Increase (\$1.871 mM)	47% (\$2.422 mM)	54% (\$1.508 mM)
Compliance Percentage	900%	313%	117%
Notes regarding the evolution and calculation premises of the Indicator (if applicable):	<p>The goal does not include contract relations with foreigners, Ecopetrol Group, and reimbursable expenses.</p> <p>For partners, the goal was established in terms of an increase in the contracting of goods and services as compared to 2017.</p>	<p>The goal does not include contract relations with foreigners, Ecopetrol Group and reimbursable expenses.</p>	<p>The goal does not include contract relations with foreigners, Ecopetrol Group and reimbursable expenses, or contracts with execution in Bogotá.</p> <p>For Ecopetrol, categories and subcategories without available local supply were excluded from the denominator.</p>

Source: Ecopetrol, Vice Presidency of Procurement and Services

Notas:

- Figures of the First Link with cut-off as of December the 31st, 2020, correspond to direct procurement of Ecopetrol. Figures of the Second Link with cut-off as of November 30, 2020, correspond to the contracting executed by Ecopetrol's contractor partners with other companies.
- In the period between 2018 and 2020, the premises for calculating the Local Hiring Indicator have been evolving and adjusted to more accurately measure the impact that Ecopetrol has on the contracting of local goods and services in the regions where it has operations.
- The measurement of local hiring by the Partners begins in 2018; for this reason, a goal was set in terms of increase versus the previous term and with the purpose of establishing a baseline for 2019. Thus, local hiring goals as of 2019 are set in percentage terms for both Ecopetrol and the partners.
- The amount of local contracting in the First Link in 2020 – excluding contracts executed in Bogotá and excluding the categories of goods and services in which it was identified that there is no local supply available from the denominator of the indicator – corresponds to the sum of \$ 1,549mM, which represents a 34% local participation at the national level.

GRI 413-1**Local recruitment of ethnic communities**

Hiring members of ethnic groups is based on the respect for the right to non-discrimination for employment based on ethnicity, and it is regulated by the provisions of Colombia's Political Constitution and, in particular, the ILO 169 Convention, that in Article 20 provides as follows:

“Governments shall adopt, within the framework of their national legislation and in cooperation with the peoples concerned, special measures to guarantee workers belonging to these peoples effective protection in terms of hiring and conditions of employment, insofar as they are not effectively protected by the legislation applicable to workers in general”.

The Company avoids any discrimination to workers belonging to ethnic groups, promotes the application of the principle of bilingualism and that the cultural differences of each community and its representative authorities are considered.

Regarding the “prioritization of Local Workforce”, Ecopetrol acts in accordance with the provisions of Colombian national legislation as per Decree 1668/2016 when developing oil exploration and production projects.

Table 42. Number of employees of Ecopetrol contractor companies distributed by sex

Regional	2017	2018	2019	2020
Caribbean – Pacific	1,558	1,316	1,208	3,992
Female	190	161	169	377
Male	1,368	1,155	1,039	3,615
Central	10,724	15,281	15,205	15,175
Female	2,356	3,443	3,787	3,712
Male	8,368	11,838	11,418	11,463
East	2,735	3,686	4,614	3,813
Female	361	526	640	533
Male	2,374	3,160	3,974	3,280
Orinoco region	6,816	11,262	11,401	8,628
Female	1,327	1,973	2,104	1,717
Male	5,489	9,289	9,297	6,911
South	2,448	3,260	3,283	2,676
Female	377	499	554	469
Male	2,071	2,761	2,729	2,207
Total	24,281	34,805	35,711	34,284

Source: Ecopetrol, Vice Presidency of Procurement and Services

Supplier management

Vendor segmentation

Ecopetrol segments its suppliers according to the cost of contracting and the risks and impacts on the development of the business strategy (Strategic Suppliers, Core, Leverage and Routines).

In the year 2020, 3,285 Ecopetrol suppliers were segmented with contracts in force as of December 31, 2019, establishing the interaction and relationship mechanisms in accordance to the results obtained.

GRI 102-43

Relationship with suppliers

In 2020, the special conditions generated by the health emergency of the COVID-19 pandemic challenged the relationship with suppliers. Therefore, a **100% virtual**

relationship plan was creatively established which allowed our suppliers to be informed, listened to, trained, to co-create, and to actively engage with Ecopetrol.

Table 43. Main activities developed with suppliers in 2020

Activity	Aim	# Sessions	# Assistants
Meetings with Suppliers	Expand knowledge of the business market knowing service portfolios.	556	1,200
Showrooms	To disseminate the technical components of the business market at a regional, national and international level.	30	250
Business Strengthening Workshops, Co-creation	To strengthen the knowledge of suppliers, to co-create with them, and to contribute to bridging gaps.	20	350
Sectorial Events	To present the business strategy and to learn opinions and contributions from suppliers.	2	155
Somos Colombia business rounds	To promote commercial relations between Ecopetrol suppliers and other business sectors. As a result of these rounds, 72 local MSMEs closed business deals worth \$ 6.4 billion.	12	702
Performance Review Meetings (PRM)	To carry out a strategic relationship with Suppliers to review their performance, value projects, visualization of relevant issues, amongst others.	19	76
Total		639	2,733

Source: Ecopetrol, Vice Presidency of Procurement and Services.

Nota: These figures do not include Supplier Summits.

There was a **201% participant increase in supplier relationship building activities** in 2020, despite the restrictions generated by the pandemic.

Ecopetrol started **co-creation workshops** in 2020 to build the best practices in **human rights management in the supply chain** alongside suppliers.

Supplier evaluation

Ecopetrol has a methodology for evaluating the performance of suppliers, which ensures the execution of contracts and objectively establishes long-term business relationships. The criteria of operational efficiency, compliance with deadlines, administrative aspects, and environmental management, are evaluated to identify potential social impacts and HSE

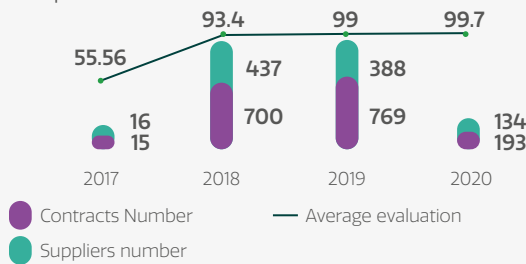
indicators to measure aspects of occupational health, environment, and safety.

In 2020, the contractor performance evaluation model was strengthened and standardized for the categories of suppliers with the greatest impact and risk in Ecopetrol's operations.

Gráficos 49.

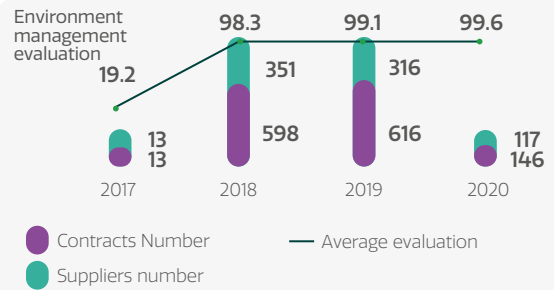
Results of the Contractor (Supplier) Performance Evaluation for vendors with the greatest impact for Ecopetrol

HSE aspects



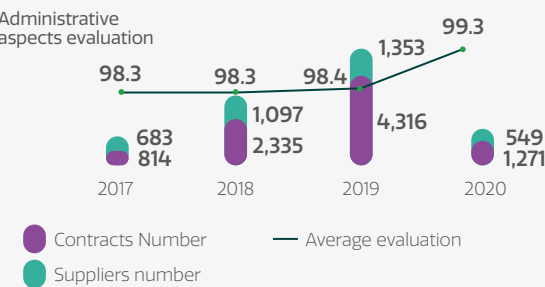
Source. Ecopetrol, Vice Presidency of Procurement and Services.

Environment management evaluation



Source. Ecopetrol, Vice Presidency of Procurement and Services.

Administrative aspects evaluation



Source. Ecopetrol, Vice Presidency of Procurement and Services.



Perception of the stakeholder supplier

Ecopetrol conducts a perception survey with suppliers, contractors and their workers annually, seeking to identify improvement opportunities and to strengthen the relationship both ways.

See the results of the perception survey by clicking [here](#).



INNOVATION, TECHNOLOGY AND DIGITAL TRANSFORMATION

Technology and business innovation process

Its objective is to incorporate and exploit technology – whether our own or available in the market – in a timely and efficient manner, in order to improve operational performance, create competitive advantages, and make the T ESG Strategy viable.

In order to ensure the governance of the process and clarify roles and responsibilities, Ecopetrol made progress during 2020 in the following:

- The first version of the T&I process decision and authority matrix.
- The update of the RACI (*Responsible, Accountable, Consulted, Informed*) high - level matrix with roles and responsibilities of those involved for each of the segments, corporate areas and some of the companies of the group associated with the mission processes of Ecopetrol.

- Updating roles and responsibilities in the job descriptions for the different areas and levels of the organization.
- The risk and control matrix proposal.
- The definition of a taxonomy for prioritizing initiatives and allocating capital.

Alongside, a review and update was carried out in the Technology Route maps in all segments and in the following cross-cutting issues: water, energy transition, and decarbonization, as part of the technology planning systematic process - and in combination with 2020 context.

ICP Innovation and Technology Center

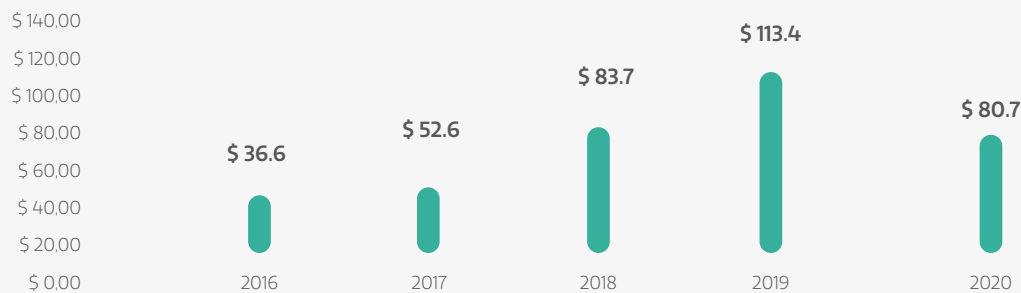
GRI 201-1, WEF 20

Investments and Expenditures of the Innovation and Technology Center (ICP)

The main research, technological development and demonstration activities of emerging technologies of Ecopetrol and third parties are carried out through the ICP *Innovation and Technology Center*, in partnership

with the business segments and corporate areas as part of the company’s technology plan. In 2020, Ecopetrol invested \$ 80.7 billion in the ICP, which represents a 29% decrease compared to 2019.

Graph 50. Investments and Expenses of the Innovation and Technology Center



Source. Ecopetrol, ICP Innovation and Technology Center

Technology licensing

In 2020, Ecopetrol licensed 11 technologies, generating nearly USD \$ 380,000 in royalty benefits, contract value, and savings in implementation. Thus, a portfolio reached maturity which can generate more than USD \$ 1.2 million in royalties in 2021. Below are the most relevant technologies licensed in 2020:

- EGOS technology package: five technologies to control illicit losses.
- BSR and ECOCOR: technology for the detection of sulphate reducing and water quality substances.
- ECOFLOCS: technology for water treatment.
- GOEGIS: technology for remote well core viewing.
- ECO-Diluye: technology for codilution with LPG (closing minutes for signing licensing to Genit and ODL).

Key technology differentiators

Intellectual property

The Intellectual Property inventory related to technological products registered between 2017 and 2020 is as follows:

Table 44. Intellectual Property Registry

Intellectual property registration	2017	2018	2019	2020
Patents Granted	5	15	8	8
New patent applications filed	12	17	19	17
Copyright registrations obtained	39	25	41	46

Source. Ecopetrol, Center for Innovation and Technology ICP



Digital agenda

During 2020, Ecopetrol advanced on the path of transformation through the implementation of the first wave of the digital agenda. There were 91 digital solutions deployed in operation that have made possible to monitor the transformation processes of the business areas, and capture and certify benefits derived from their positive impact within the business processes and activities.

Similarly, Ecopetrol maximized the promise of value capture of the first wave of the digital agenda, going from USD \$ 315 million to USD \$ 405 million in Ebitda and a NPV of USD \$ 118 million to USD \$ 154 million, consolidating benefits from 2019 to 2025. The results obtained by measurements and certifications of the solutions put into operation in the first wave secured revenue capture in the amount of USD \$ 42,750,000 (2019-2020).

The most relevant products deployed in the operation are:

- Integrated Fields Program:** modernization of the infrastructure and distributed control solutions for monitoring wells. The processing infrastructure of the Rubiales, Castilla, Apiay, Chichimene, Casabe fields and the fields in Huila were also modernized; State-of-the-art infrastructure based on the Internet of Things (IoT) was implemented for the acquisition of data from the control systems, which makes it possible to consolidate the information from the different fields in a data lake stored in the cloud.
- Volumetric Management Project:** Application of technology to monitor quantity and quality measurement variables of crude oil and products, with 802 measurement points. ROOMS implementation in the Cartagena refinery for greater accuracy of inventories of crude, raw materials and finished products. Solution of quantity balances with ownership in the different segments and at the supply chain level (TRUE).
- The Integrated Fields and Volumetric Management program** was classified as an innovation project by Colciencias as per Resolution 2642 of December 20, 2019, obtaining a rating of 99 out of 100.
- Digital Petrotechnics:** *The Digital Petrotechnics* post was launched. Through cloud computing, the Digital Petrotechnics post allows to work collaboratively and quickly from anywhere in the world. This technology was deployed to more than 600 officials from the Vice Presidencies of Exploration, Development and Unconventional Oil Reservoirs and for the subsidiaries in America, Brazil and Mexico. Similarly, we deployed the smart search digital solution. Colciencias classified this project as an innovation with 86 points out of 100, as per Resolution 2636 of December 20, 2019.
- Integrated Transportation Management (GREAT):** application of solutions for the programming of crude and refined products, allowing the planning of the provision of the oil transportation service through pipelines.
- EKONS:** set of panels to view the main operational variables that have an economic impact on the refining margin in real time, increasing it by USD \$ 0.10 per barrel.
- Integrated Business Cycle:** digital solution that unifies and automates the nomination process for Natural Gas, Liquid Fuel and Petrochemicals, through the use of advanced analytics and using Cloup-supported technologies.
- Digital Financial Management:** the life cycle of Ecopetrol's investments was digitized and automated from classification, through maturation and follow-up to project execution. The planning and rolling functionality enables the burden of financial planning for each of the subsidiaries. Similarly, a digital solution was implemented that allows for online consolidation of the P&L, balance sheet, cash flow and the generation of reports at different levels of Ecopetrol Group.



- **Digital Supply Management:** automation of the process of reception, registration and accounting of supplier invoices. The analytical optimization model for subsoil and drilling service order scenarios was launched, as well as the analytical model for logistics and inventories, and 35 improvements were applied to the procurement, contract management and inventory logistics processes.
- **Digital Human Talent:** The Success Factors digital solution was implemented through the modules of onboarding, personnel management, recruitment, organization, objectives and performance, succession, time management, compensation, transfers and separation.
- **Digital Legal Management:** portal of the Vice Presidency of Legal Affairs. It allows access to

content and tools to centralize, facilitate and promote collaborative work on legal issues. Similarly, the POLAR relevant matters manager was put into operation; this is a solution for the visibility and monitoring of relevant legal matters. LUCAS is a virtual assistant that gives immediate response to the user and creates draft minutes online.

Campo Digital has established itself as a key player in transformation through innovation and business agility, with eight manufacturing lines for digital solutions. This has represented an exponential increase in product portfolio, notably increasing the number of applications delivered to Ecopetrol Group, with 195 operation digital solutions as of 2020. These solutions will allow savings in the amount of 150,000 man-hours, achieving certified benefits of USD \$ 5.2 million.

Digital capabilities

Digital transformation is more than implementing digital products. It is converting traditional core companies into technology companies, changing the mindset about digital technology, to stop thinking about it as a property that generates costs, and to see it as a continuous driver of innovation and change. For this reason, Ecopetrol Group enabled new digital capabilities that allow the exchange of information between people, businesses and devices. Following are the digital capabilities implemented during 2020:

- Cloud Computing: Artificial Intelligence
- Advanced Analytics: Big Data
- Robotics: Internet of Things
- Blockchain

Digital ecosystem

With the positioning of the Digital Innovation Study as an accelerator vehicle for national entrepreneurship in *Cemprende* – hand in hand with *Innpulsa* – in 2020, Ecopetrol executed the open innovation model in its first exploratory phase through the 100 X 100 program, which seeks to move forward in 100 industry challenges to be solved by 100 Colombian innovators.

In this sense, the Company made progress on different fronts that allowed the model to be tested, looking for ideas with high potential by launching open innovation challenges to turn them into initiatives that aim to achieve efficiencies as the main focus of the program.

In terms of the international ecosystem, a subscription was perfected with Plug and Play and seven searches were launched in their Ecosystem in Silicon-Valley and Houston. As a result, Ecopetrol is in the execution of two proofs of concept to test the predictability of NPTs (Non-productive Times in Drilling).

Through the Digital Innovation Study, Ecopetrol obtained the BPI Good Innovation Practices Seal, which is a shared brand certificate between the Bogotá Chamber of Commerce and ICONTEC. This seal is granted to companies that have implemented an Innovation Management System (SGI) and that are in compliance with at least 76% of the benchmark created by both institutions, based on the NTC 5801:2018 Standard “Management of research, development and innovation”.

Vision 2020–2030 + for Science, Technology and Innovation at Ecopetrol

Ecopetrol has decided to strengthen its portfolio considering the new normal and the energy transition through a sustainability agenda, and the coordination with science, technology and innovation ecosystems that ensure the competitiveness of EG.

KF_33
KF_76
KF_92



-04-

Social DIMENSION

Product of the materiality analysis conducted in 2020, Ecopetrol began building the T ESG Strategy (see Chapter 1), in which the issue of Regional Development remained categorized as an exceptional item, and attraction, development and retention of talent, as a prominent element. Within the framework of the strategy, during 2021 the roadmaps for these issues will be defined with the respective short, medium, and long-term goals.

Uber Hernández Torres
Ecopetrol worker

Object_4341

Material Issue: Talent attraction, development and retention.			
Standard	GRI 103-1	GRI 103-2	GRI 103-3
	Why is the issue material?	How is the issue managed?	How is the issue evaluated?
GRI 401 Employment GRI 402 Worker-Company relationship GRI 404 Training and teaching	Employees represent one of the most valuable assets for a company. Maintaining good relationships is critical to achieving business goals. Similarly, having satisfied, qualified, and highly competent employees is a determining factor to ensure business competitiveness.	Ecopetrol continued selecting the best Human Talent, promoting the principles of meritocracy and equity. Additionally, during 2020, eight digital programs were designed in alignment with strategic company projects. The updating of the Declaration of Culture contains the principles that allow us to have the best human talent in the country.	Monitoring of the indices of: employee turnover, worker mobility, proportion of hiring, offering attractive and competitive benefits, comprehensive well-being of workers and training for employees. 99% (9,677) of employees received training during 2020. EG's cultural transformation index and level of worker satisfaction with the work environment.
GRI 103-1	Ecopetrol processes where the greatest impact is generated	Stakeholders where the greatest impacts are generated	Area that manages impacts
Impact coverage	Management of human talent and management of contractor workers.	Employees, retirees and their beneficiaries, and suppliers.	Vice Presidency of Human Talent

LABOR PRACTICES

Declaration of Culture

One of the most important achievements of 2020 was the updating of the Declaration of Culture, which contains the principles that guide our way of acting and relating. More than 10,000 EG workers participated in this process and contributed their ideas in more than

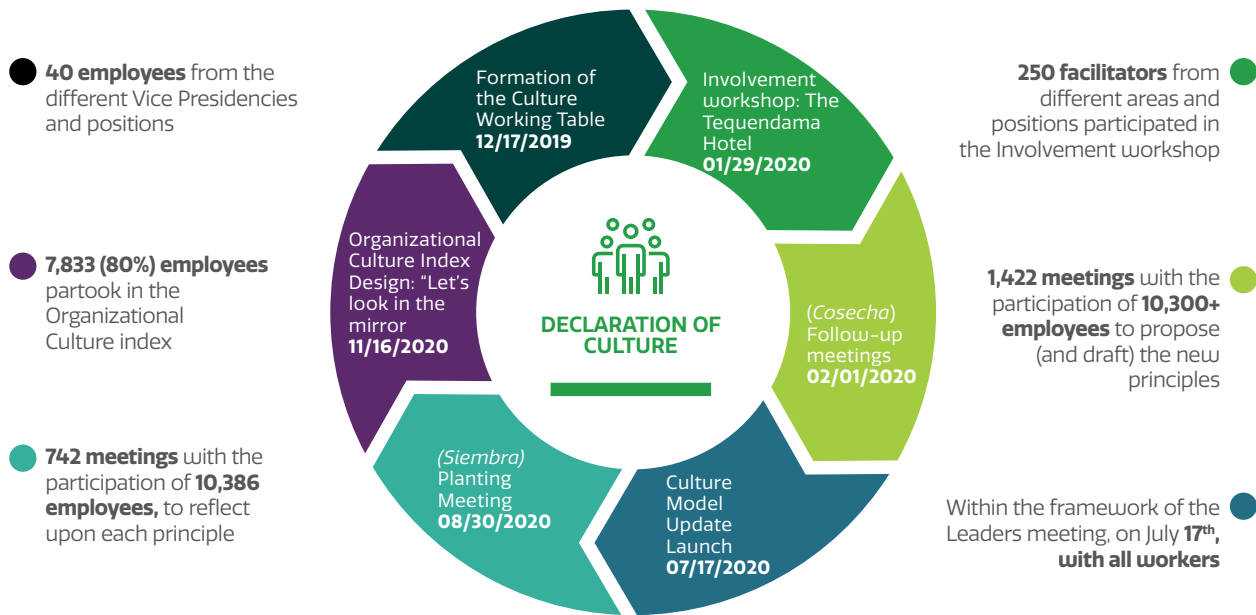
1,200 meetings. The Board of Directors and the Steering Committee were also an active part.

The Declaration of Culture contains six Principles on which our actions are based:



SOCIAL DIMENSION

This Declaration is the result of a broad collaborative exercise, which took place in several stages:

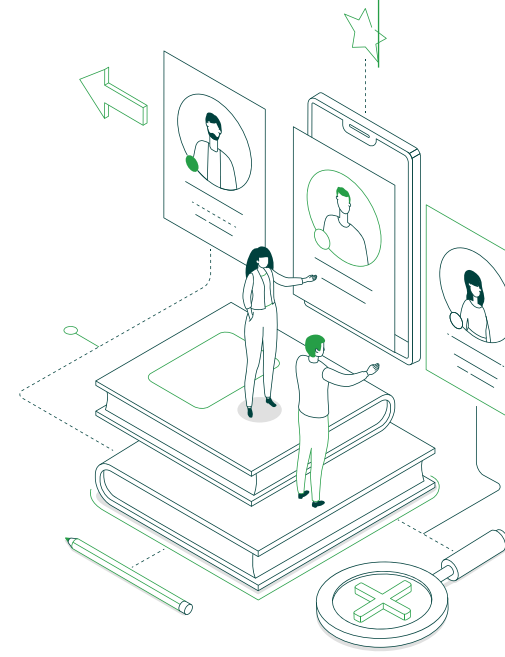


The Cultural Transformation Index of Ecopetrol Corporate Group (EG) is made up of three elements: Culture, Leadership, and Work Environment.

In addition to updating the Declaration, we obtained important results in 2020 in terms of human talent, which allow us to continue contributing to the Company's transformation process. The following initiatives stand out:

Environment. To see the results obtained in 2020, click [here](#)

EG Cultural Transformation Index 88%	Definition of the new Culture Model 1,422 meetings with the participation of more than 10,300 employees	Level of worker satisfaction with the work environment and their well-being in the new work schemes: 4.47% for EG.
82% Results of the Par Ranking: Higher than the 73% planned	Retirement plan implementation 421 Accepted	Strengthening the digital skills of more than 23,000 workers and retirees , in more than 400 digital products
99% (9677) of workers were trained during 2020, with an average of 62 hours of training per worker	Promote knowledge transfer and leverage culture +43 E+ talks with +37,430 attendees and +2,345 connections	Strengthening the dialogue with Trade Unions through 425 formal meetings



Our talent in numbers

GRI 102-7, 102-8, 401-1, 405-1, WEF 11

Plant

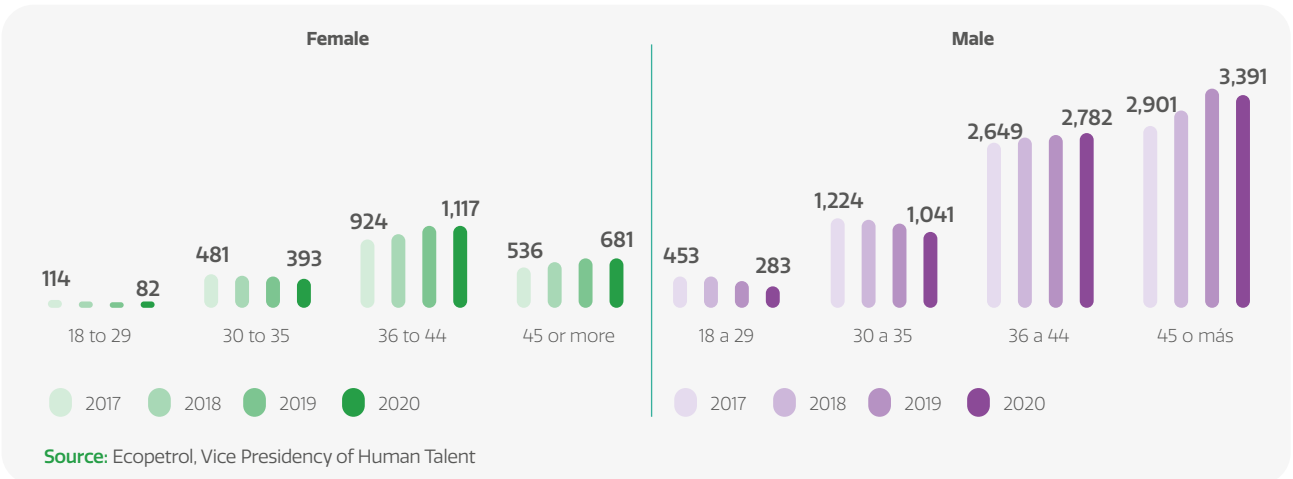
Number of direct employees

As of December the 31st, 2020, our staff was 9,770 direct employees strong – distributed throughout the national territory in more than 90 work bases. Full-time is the only contract modality at Ecopetrol.

To learn more about these figures, you can visit [Our Human Talent in Figures](#), to see the number of employees by gender, type of employment contract, seniority and number of employees by type of position and gender.



Graph 51:
Number of employees by age and gender 2017 – 2020



Graph 52:
Number of employees by type of position and gender



Staff distribution by regions

Ecopetrol has a wide geographic dispersion of its operations. The Central region has the largest population (36% of total workers). Santander and the Barrancabermeja refinery concentrate production operations. They are followed in percentage by Bogotá (33%), the Caribbean (12%), Orinoco (10%), South (6%), and East (3%).

To see the detail of the distribution of our workforce, disaggregated by gender, visit the following link: [Distribution by region](#).



GRI 103-1, 103-2, 103-3, 401-1, 406-1, WEF 17

Selection and Mobility

In 2020 we continue to select the top human talent, promoting the principles of meritocracy and equity. The relevant processes were managed with strategic partnerships that allowed to cover a total of 614 positions, 296 (48%) with internal and 318 (52%) with external employees (contracting anew), and we improved the selection times going from 38 to 36 days per process.

Nine employees residing abroad were hired thus: six Colombian nationals and three foreign citizens.

In addition, the training module for inclusive selection and recruitment, and unbiased interview guidelines was designed during 2020. The recruitment team was trained in diversity issues, and the use of inclusive language in the calls for aspirants was ensured.

To know more details, [enter here](#).



Gender Metrics

Table 45: Proportion of direct hiring by gender

Género	2018		2019		2020	
	#	%	#	%	#	%
Female	222	29%	223	37%	77	24%
Male	545	71%	380	63%	241	76%

Source: Ecopetrol, Vice Presidency of Human Talent

Mobility between EG companies

At Ecopetrol we facilitate the mobility of our workers within the company, between EG companies, and to external entities through cooperation agreements.

- Internal mobility in Ecopetrol S.A.: **278 workers changed their workplace through geographical mobility mechanisms within the company: 233 men (84%) and 45 women (16%)**
- External mobility between GE companies: **59 Ecopetrol workers were transferred to other Group companies: 47 men (80%) and 12 women (20%)**
- External mobility to companies other than EG: **Two workers (women) were transferred to state agencies through cooperation agreements.**

GRI 401-1, WEF 17

Human Talent Turnover in Ecopetrol

The turnover rate of human talent at Ecopetrol was maintained during the previous year. The turnover rate is determined by the number of employees joining and leaving in relation to the average total number of staff in the organization over a period of time. Below is the evolution of the turnover rate at Ecopetrol between 2017 and 2020:

Table 46: Staff turnover rate

2017	2018	2019	2020
4.7%	3.5%	4.2%	4.8%

Source: Ecopetrol, Vice Presidency of Human Talent

GRI 102-35, 102-39, WEF 3E, WEF 18

Compensation

At Ecopetrol we have a Compensation Policy that ensures working conditions that encourage our workers to give the Company their maximum commitment and potential; aiming for the attraction and loyalty of the human resource required for the development of the strategy.

The main components of total compensation at Ecopetrol are:

- **Fixed Compensation:** It provides monetary considerations for the performance of the functions associated with the position of each worker and is made up of salaries, legal, and extra-legal benefits.
- **Benefits:** have the goal of contributing to the quality of life of our workers, and are mainly oriented to the areas of health, education, loans, savings, and insurance.
- **Variable compensation:** It is recognized based on short-term business results (one year) according to the objectives defined in the company Balanced Scored Card (TBG), the segments, and the areas. The individual performance of the workers is considered when calculating the variable compensation.
- **Long-term incentives:** Long-Term Incentives are recognized based on long-term business results (three years) that guarantee the sustainability of the Company. The first plan was approved for the 2020-2022 term.

A salary competitiveness study is carried out every year with a firm specialized in the management

of quantitative methodologies for the valuation of positions, best compensation practices, and organizational issues. The purpose of this study is to monitor the Company's position in the market.

Following is an overview of the components of the compensation scheme.

Fixed Compensation

At Ecopetrol we manage a salary band between 80% and 120% of the reference market, which allows a progressive salary growth of our employees, according to performance requirements, experience, skills, among other criteria, and according to the defined labor expense budget for each term.

Taking the fixed pay as a reference, an equality analysis is systematically carried out, seeking for our employees who occupy equivalent positions to receive a fixed compensation within the established ranges according to the level of the position held.

WEF 13, WEF 23E

Difference between legal minimum wage and Ecopetrol's

The legal monthly minimum wage in force in Colombia was \$ 877,802 in 2020. In Ecopetrol, according to the salary structure in force as of January 1, 2020, the lowest defined monthly salary is \$ 2,092,680, which is equivalent to 2.4 current legal monthly minimum salaries (SMMLV) and represents 138% more than the Colombian minimum wage. Table 47 below shows data from 2016 to 2020.

Table 47: Difference between the legal minimum wage and that of Ecopetrol

Year	Minimum wage Colombia (SM)	Ecopetrol minimum salary	No. SM equivalent to Ecopetrol's minimum wage	Percentage difference (%)
2016	\$ 689,455	\$ 1,721,850	2.5	150%
2017	\$ 737,717	\$ 1,811,400	2.5	146%
2018	\$ 781,242	\$ 1,891,290	2.4	142%
2019	\$ 828,116	\$ 1,983,570	2.4	140%
2020	\$ 877,802	\$ 2,092,680	2.4	138%

Source: Ecopetrol, Vice Presidency of Human Talent

The starting salary for a position without experience is the same, regardless of gender.

GRI 102-38

General salary increase

The general increase in salaries in 2020 was 5.5%, which is 0.62% higher than the adjustment in 2019 (4.88%). Table 48 shows the general increase in wages as granted between 2016 and 2020:

Table 48: General Salary Increase

Año	% General Increase
2016	9.81%
2017	5.20%
2018	4.41%
2019	4.88%
2020	5.50%

Source: Ecopetrol, Vice Presidency of Human Talent



WEF 19E, WEF 13

Average fixed pay of the best paid employee

In 2020, the fixed compensation of the highest paid person equals 8.1 times the average monetary income of other employees. Table 49 specifies this information for the years 2016 to 2020:

Table 49: Average fixed pay of the highest paid employee

Years	No. Average Fixed Pay Relative to the Highest Paid Employee
2016	8.6
2017	8.4
2018	8.2
2019	8.1
2020	8.1

Source: Ecopetrol, Vice Presidency of Human Talent

Ecopetrol is committed with its work towards the achievement of the SDG 10 "Reduced inequalities"



GRI 102-8, 103-1, 103-2, 103-3, 405-2, WEF12, WEF 19E, WEF 23E

Average salary difference between men and women (Male 100%)

At Ecopetrol, we guarantee equal compensation between men and women, considering that the reference compensation that applies is associated with the position, regardless of whether it is occupied by a man or a woman. The averages of monthly monetary income between women and men present some percentage differences, which are explained by the proportion between genders (one woman for every 3.29 men).

Next, the compensation ratio of women compared to men according to position level is presented. Percentage points above 100% mean that on average women earn that proportion more than men do. Percentage points below 100% mean that on average women earn that proportion less than men.

Table 50: Average fixed pay difference between men and women (male: 100%)

Map of charges	Level	Ratio
Woman Vs Man		
Professional Technician and Leadership	23	102%
	22	108%
	21	91%
	20	93%
	19	98%
	18	99%
	17	99%
	16	101%
	15	98%
	14	97%
	13	97%
	12	88%
Operative	11	92%
	13	99%
	12	103%
	11	115%
	A	82%

Source: Ecopetrol, Vice Presidency of Human Talent



Variable compensation

Variable compensation is paid based on Company’s results and individual performance, and serves to align employees with annual business objectives which are measured by the Balanced Score Card (TBG). This variable element of compensation is determined and assigned considering factors such as the result of financial and management indicators, HSE effects, environmental, ethical and disciplinary events,

internal control failures, and individual performance of each of the employees.

Payment of this item is subject to the approval of the Board of Directors. It seeks to recognize and encourage the achievement of business results, all the while aligning individual efforts to achieve the common goal through the individual contribution of all employees.

Table 51: No. of employees eligible for variable compensation and % paid vs. budgeted

Year	No. of eligible employees	% paid vs. Budgeted (Company Global %)
2016	8,706	90.10%
2017	9,057	108.40%
2018	9,311	92.50%
2019*	9,889	76.4%

The variable compensation for 2020 results is reviewed between January and April of the following year, once corporate results are published, and at the end of the evaluation process for individual performance for the previous period.

Source: Ecopetrol, Vice Presidency of Human Talent

* The amount authorized by the Board of Directors in February 2020 was 87.05%. The effective payment rate was 76.4% due to the application of savings as a result of the COVID-19 pandemic and the fall in oil and fuel prices in the international market.

Long-Term Incentives (LTIs)

LTIs are associated with the achievement of strategic objectives, to guarantee the sustainability of the Company and encourage cohesion of the management team. In January 2020, the Board of Directors approved the first Long-Term Incentive Plan (three years) for the 2020 – 2022 period.

The objectives set for 2020 - 2022 LTIs are associated with cash generation, reducing the carbon footprint, and reserves replenishment – strategic objectives for Ecopetrol’s sustainability.

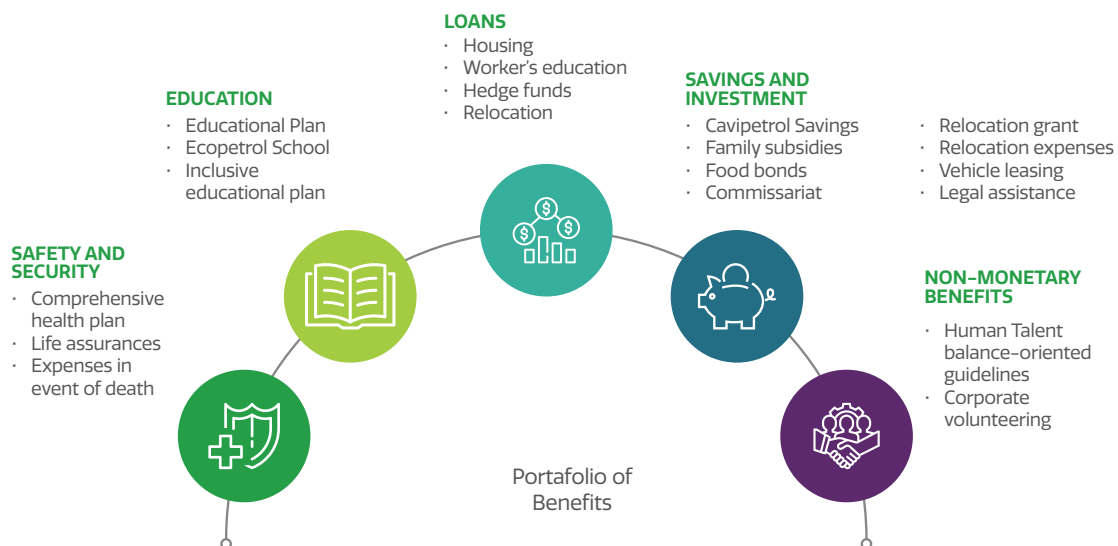
GRI 401-2

Portfolio of benefits

At Ecopetrol we have an attractive and competitive benefits portfolio for our employees and their families, focused on five main aspects:

Graph 53:

Portfolio of Benefits



Source: Ecopetrol, Vice Presidency of Human Talent

Coverage of benefited workers

Graph 54 shows the coverage of benefits and their application as of December the 31st, 2020.

Graph 54:
Coverage of benefits



Healthcare

Regarding healthcare services within the framework of the excepted regime of the General System of Social Security in Health as provided for in Act 100/1993, Ecopetrol acts as insurer and provider of the health service, and as administrator of the occupational risk of its employees.

Education

In 2020 we invested \$ 186.481 billion in education benefit for our employees and their families. Table 52 lists the investment in education from 2016 to 2020.

Investment in education

Table 52: Investment in education (COP Million)

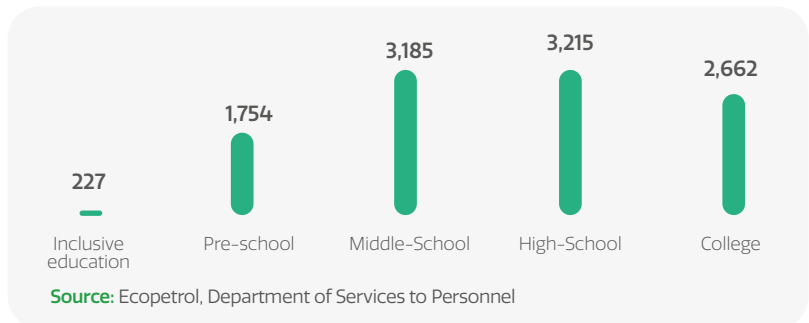
2016	2017	2018	2019	2020
\$ 112,689	\$ 131,517	\$ 163,807	\$ 171,748	\$ 186.481

Source: Ecopetrol, Department of Services to Personnel

Graph 55:
Beneficiaries of the 2020 Educational Plan

2020 Educational Plan Beneficiaries

Graph 55 shows the distribution of beneficiaries of the 2020 education plan.

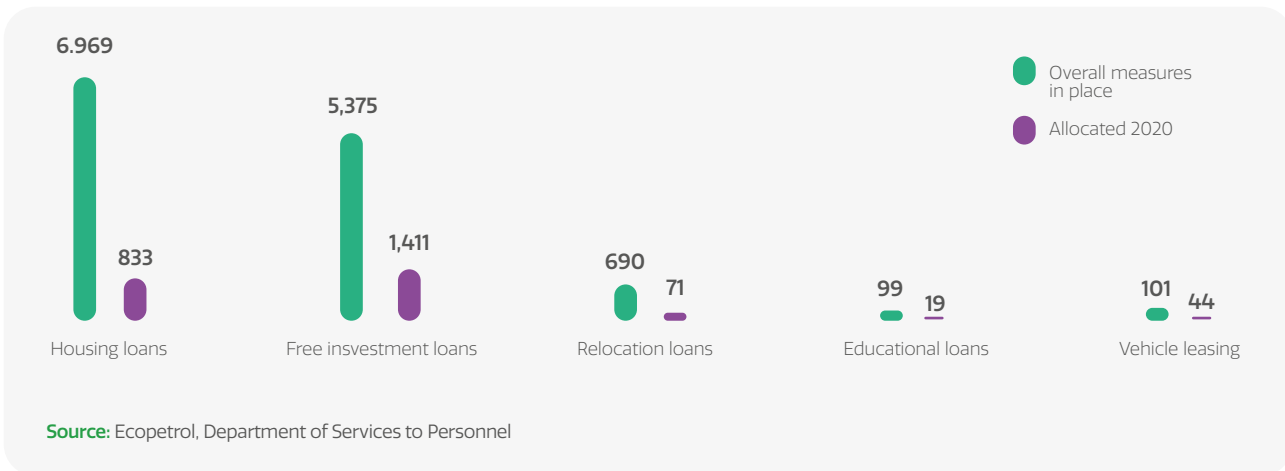


SOCIAL DIMENSION

Loans

Graph 56 shows the total number of loans and allocations made in 2020.

Graph 56:
Total number of loans and allocations in 2020



In accordance with restrictions established by the SEC in relation to the awarding of personal loans to Executive Officers, officials in the following positions: President, Executive Vice President for Operations, and Corporate Vice President for Finance cannot access these benefits.

Non-monetary benefits

Table 53 shows non-monetary benefits or incentives that Ecopetrol provides to its employees and the number of employees who benefited from them in 2020.

GRI 401-3

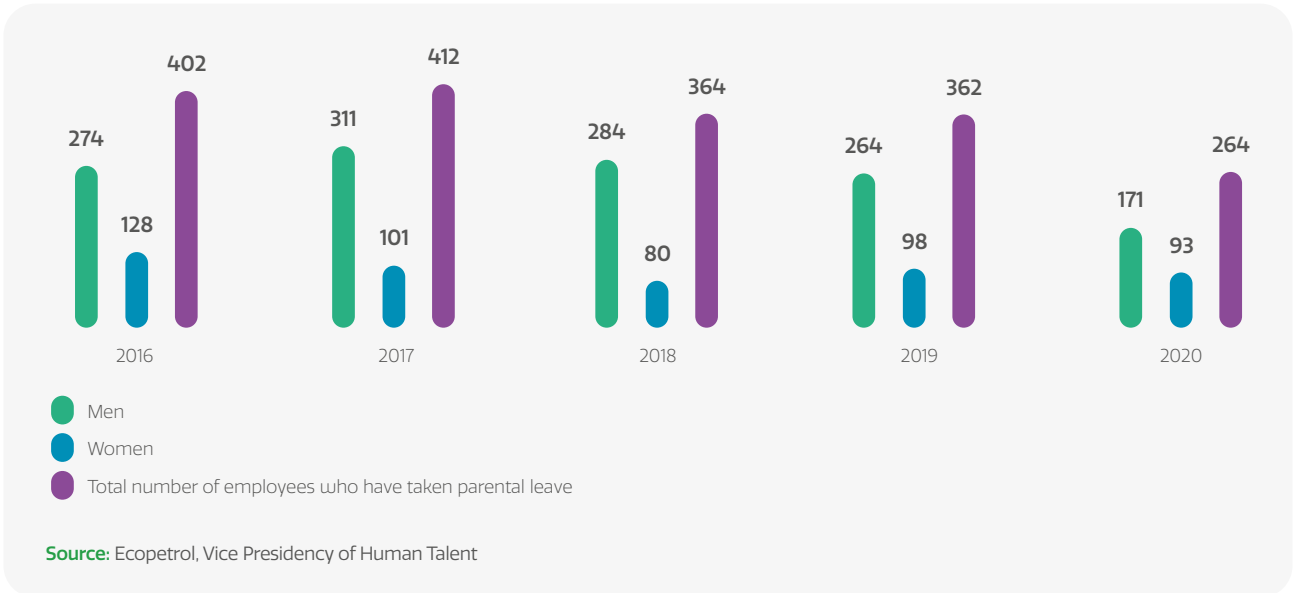
Extended maternity and paternity leave are paid leaves that provide an additional a period of time beyond leave under the law, allowing the gradual return of working mothers, and providing fathers the possibility of sharing three more days with their children.

Table 53: Coverage of non-monetary benefits

Benefit	# employees
Birthday leave	3,933
Home purchase leave	120
Leave for moving	15
Marriage leave	49
Extended paternity leave	137
Extended maternity leave	39
Volunteering	5
Fractioned holidays	2,443

Source: Ecopetrol, Department of Services to Personnel

Graph 57:
Total number of employees who have taken parental leave, by gender 2016–2020

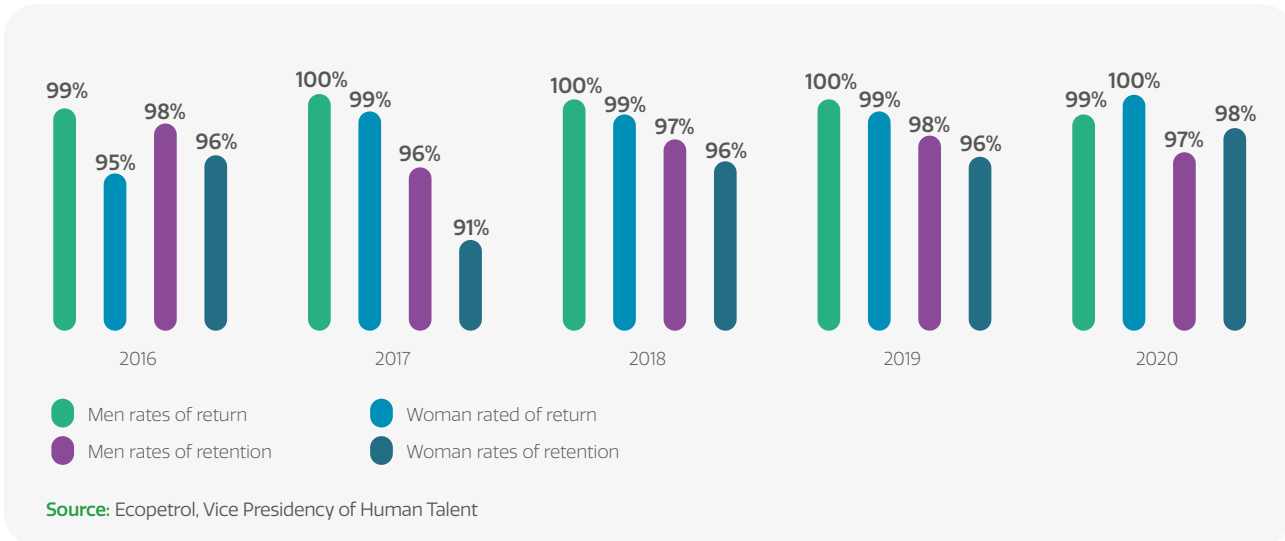


Graph 58:
Total employees returning to work after their parental leave and are still employed, by gender 2016–2020



As of December the 31st, 2020, 99% of our employees who took paternity and maternity leave continue to work in the organization.

Graph 59:
Rates of return to work and retention of employees who took parental leave, by gender 2016–2020



Pension obligations and retirement programs

Structuring the Retirement Plan

Within the framework of the human talent planning process, we structured a Retirement Plan to facilitate retirement from the Company by mutual agreement for workers who had more than 20 years of seniority and less than 12 years left to retire. 421 workers were accepted into the Retirement Plan in 2020; this plan was designed and agreed with the *Union Sindical Obrera* Union.

Table 54: Number of Ecopetrol 2020 Retirees Distributed by Region

Regional Branch	Number of retirees
BOGOTA	2,934
CARIBBEAN	1,199
CENTRAL	6,784
ORINOQUÍA	84
SOUTH	1,239
Grand Total	12,391

Source: Ecopetrol, Vice Presidency of Human Talent

The number of pensioners in 2020 was 12,391. Table 54 shows their distribution by region.

The life cycle of the retiree or substitute at Ecopetrol was ensured from the time they retire, with management thereof until the termination of their pension. The relationship strategy with stakeholders was executed as shown in table 55.

Table 55: Associations or Committees of Retirees 2016–2020 distributed by Regional Branches

Regional Branch	2016	2017	2018	2020
Bogota	9	8	2	5
CARIBBEAN	1	1	3	6
CENTRAL	3	3	5	8
SOUTH	3	1	1	3
Total	16	13	11	22

Source: Ecopetrol, Vice Presidency of Human Talent

GRI 404-1

The Comprehensive Welfare program for workers and their families was strengthened to cater to their physical and emotional health

We promote work-life balance and care for the physical and emotional health of our workers and their families, amid remote work and the circumstances of the pandemic. Various activities were offered in 2020 around three interrelated pillars:

- **Take care of yourself:** 16,477 exercise, dance and yoga classes were offered, in which more than 11,200 people participated.
- **Share:** Weekly training talks were given, with 2,500 average connections per talk.
- **Have fun:** Various virtual activities were promoted to encourage well-being, such as cooking sessions, art workshops, care, cinema forums, family bingo halls, concerts, magic sessions, recreational vacations, talent shows and more, for a total of 571 activities carried out.

When consulted in three surveys, the workers expressed a satisfaction level of 4.45 in April, 4.23 in July, and 4.47 in October (on a scale of 1-5). In particular our workers recognized the closeness of the leaders of Ecopetrol.

SASB HC 101-15, WEF 13

Learning management

The remote work modality of the year 2020 brought changes in the management of learning and knowledge. This allowed Ecopetrol University to accelerate the implementation of new ways of learning and to advance in the development of the capacities required for the strategy.

- Learning programs were developed with a focus on the 2020+ strategy
- “Genius” – The new self-managed learning and development platform – was enabled.
- Knowledge management was advanced, virtually connecting the Group’s companies and workers.

Targeted learning programs

Focused programs were defined and designed in 2020, in alignment with the company’s strategic projects: Unconventional Oil Reservoirs, Offshore, Recovery, Associated Operations, HSE Leadership, Digital, Energy Transition, and Innovation and Technology.

The execution of these programs has a target population of 1,523 workers. As of December 31st of 2020, 25% of them were covered.

GRI 404-1, WEF 16

Execution of training plans

Digital training during 2020 increased by 54% as compared to 2019, offering more virtual content and synchronous and asynchronous training sessions with access from the corporate learning platform and mobile devices.

During 2020, 99% (9,677) of workers received training, with an average of 62 hours of training per person, as compared to the reference 35.5 man-hours of training of the Association for Talent Development - ATD.

Graph 60:
Training hours for men and women (in thousands of hours)

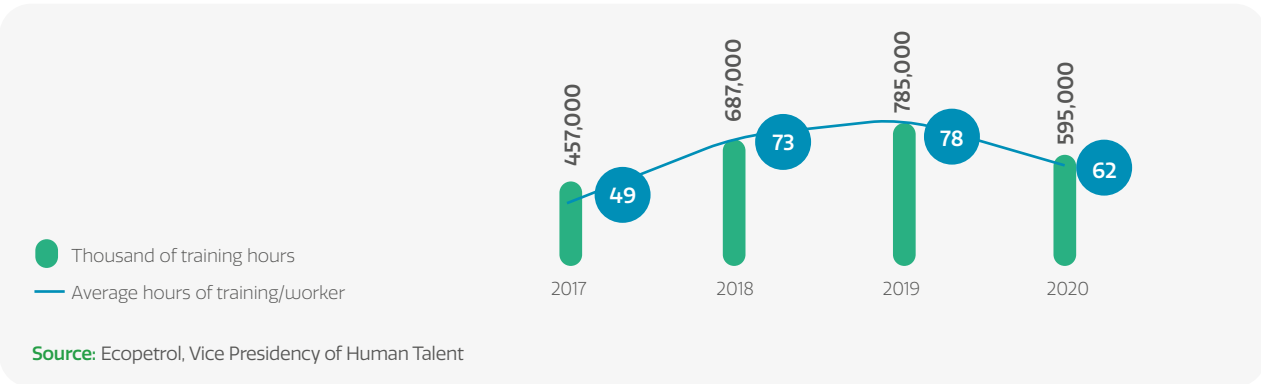


Table 56: Average hours of training per employee by gender

	2017		2018		2019		2020	
	Men	Women	Men	Women	Men	Women	Men	Women
Average hours of training per employee, per year	49		73		78		62	
Average hours of training per employee, by gender	54	31	79	52	85	58	64	54

Source: Ecopetrol, Vice Presidency of Human Talent

Table 57: Average hours of training per employee by levels

	2017	2018	2019	2020
Average hours of training per employee per year - By level	49	73	78	62
Senior Management (Extended Steering Committee - President, Vice Presidents and Managers who are on the extended committee)	23	53	51	83
Management Level (All other Managers)	25	66	62	266
Middle management level (Heads of Department, Coordinators and leaders A, B, C and D)	42	77	72	163
Supervision Level (Supervisors)	68	108	124	104
Professional Technical Level (Map of Professional technical positions)	40	69	71	54
Operational Level (Map of operational positions)	70	77	94	66

Source: Ecopetrol, Vice Presidency of Human Talent

Table 58: Distribution of training hours by segment (%)

	2017	2018	2019	2020
Average hours of training per employee per year – By area (according to 20F classification)	49	73	78	62
Upstream	44	73	78	47
Exploration	32	68	84	63
Production	48	76	75	47
Other Upstream	36	63	88	40
Downstream	65	96	109	74
Refinement	67	99	111	76
Sales	35	61	76	53
Other Downstream	48	81	118	56
Transportation	90	74	86	46
Corporate	25	38	38	53
Others (Rest of the community)	27	118	91	84

Source: Ecopetrol, Vice Presidency of Human Talent

Continuity was given to the Advanced Operations Program – PAO (from its original Spanish language initials: *Programa Avanzado en Operaciones*). The second cohort ended with the participation of 30 officials; 37 supervisors and technicians from the Barrancabermeja Refinery. The Undergraduate Degree in Refining and Petrochemical Process Engineering continued – now

at the end of the 6th Semester – and 33 officials of the Commercial and Marketing Vice Presidency were trained in the special program for traders, which seeks to leverage the commercial transformation, and the vision of commercial excellence of the business with the goal of performing Asset Back Trading operations (USD \$ 3 million net profit).

Assessment of competencies

During 2020, the process of assessing and developing the skills of our direct workers (petrotechnical population and general population) continued to consolidate, which allows us to prepare to respond to the challenges in the 2020+ Strategy.

Compliance of 74% of the population verified (6,290 employees on a total base of 8,533 employees). During the last four years, there is evidence of an increase in the valued population base.

- **100%** Petrotechnicians assessed (1,175 employees)
- **83%** the general population assessed (6,125 employees valorated over a total of 7,361 employees).



Ecopetrol's President, Felipe Bayón and the group of "Jovenes Potenciales".

Higher education scholarship program

During 2020, 14 workers continued their master’s or doctoral studies abroad, within the framework of the Scholarship Program that began in 2017. More than 600 candidates have applied and 60 scholarships have been awarded since the beginning of the program.

Of the students, 82% have completed master’s programs and 18% have completed PhD programs, leveraging Ecopetrol’s specialized training in topics of high impact for the organization and its business plan.

“Genius”, the New Learning Platform

“Genius” is the new learning and development platform of Ecopetrol University, which allows workers to develop their best self, experiencing new ways of learning, connecting their skills with new knowledge options,




with information of interest, easy consultation, and diversity of content aligned with individual needs and organizational challenges.

“Genius” offers a portfolio of curated (organized, filtered and relevant) content, in different formats: Podcasts, infographics, videos, articles, books, talks and digital courses, for consumption according to the preferences of each user.

Knowledge management

The year 2020 brought new challenges; under the digital transformation it was possible to continue to consolidate knowledge management remotely, mobilizing the following mechanisms:

- **Practice Communities**
Development of new sites focused on strategic lines with the participation of the leaders of these initiatives.

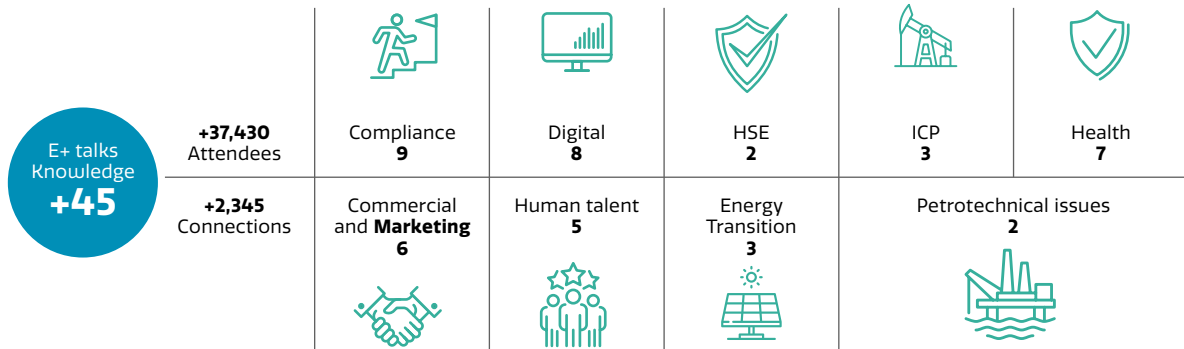
		Communities of Practice
<p><i>Conexión Diversa</i> Community of Practice promoted and strengthened the development of diversity through participation in Forums.</p>	<p>Through the HSE Community of Practice, it was possible to integrate the themes of Comprehensive Health, Occupational Health, Process Safety, Industrial Safety and the Environment.</p>	 <p>+ 5,000 Registered people</p>
<p>The launch of the Energy Transition Network integrated the Energy, Decarbonization and Circular Economy Communities of Practice.</p>		 <p>+ 350,433 Visits to the sites</p>
<p>The Subsoil Knowledge Network was the primary outreach channel for Schlumberger, Halliburton, and Rice University courses.</p>		 <p>+ 6,500 Published Documents</p>

The building process began for the Communities of Practice, in focus topics such as Leadership, Unconventional, and Offshore. The Recovery Community of Practice was restructured with the focus topics for the year 2021

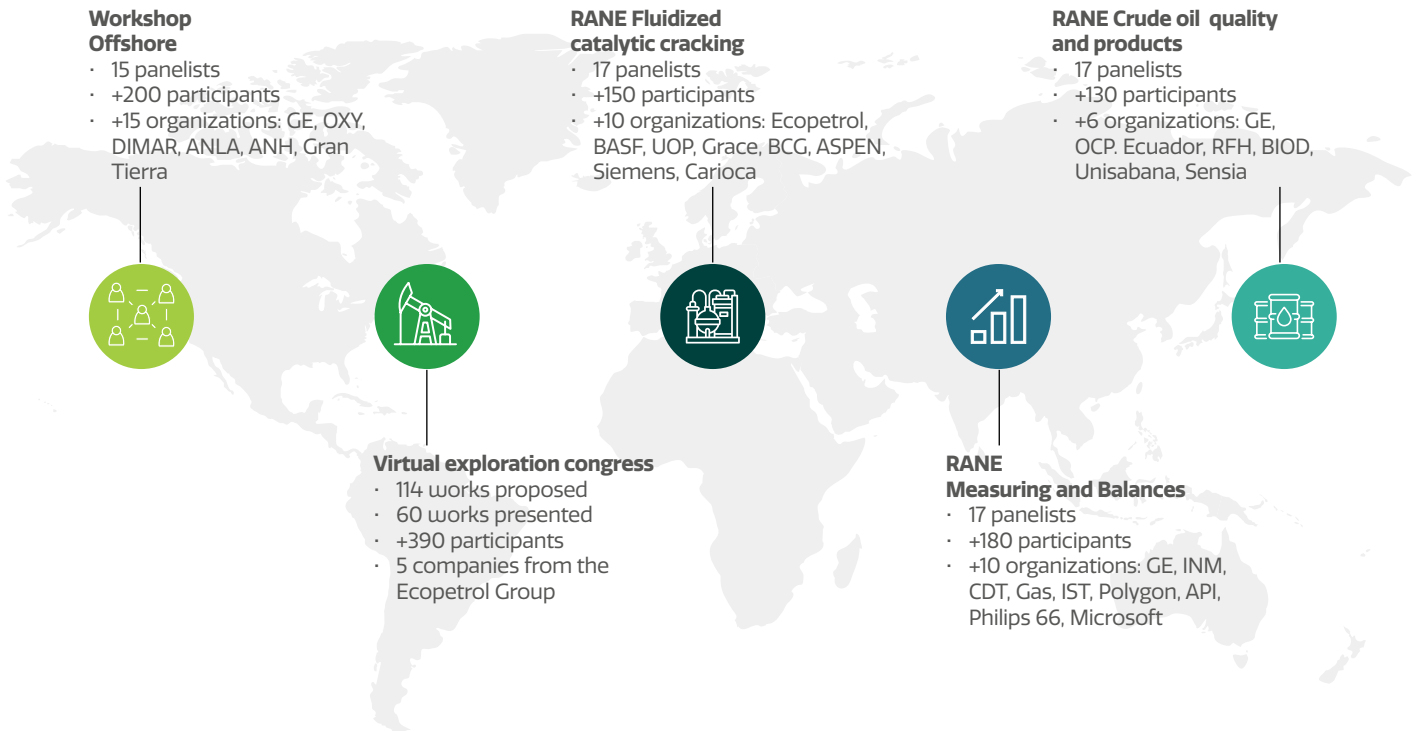
Ecopetrol expanded the focus of employees and their communities' training on issues of diversity and environment. In order to strengthen its commitment to SDG 4 "Quality Education" and 13 Climate Action "



- **E+ Knowledge Talks**
E+ Talks promote the transfer of knowledge, organizational learning and leverage the culture of collaboration and creativity in Ecopetrol and its Corporate Group.



- **Meeting at the Expert Level – RANE (from its original Spanish language initials: *Reunión a Nivel de Expertos*) and technology conferences:** RANEs aim at solving specific problems, standardizing or sharing best practices. Five virtual events focused on strategic organizational issues were held, with the participation of various organizations and EG.



Ecopetrol University was present in ten educational events in the months of September and November, impacting a population of approximately 600 people, including graduates, students, and teaching staff from various educational institutions in the country.

GRI 404-1

Ecopetrol School of Culture and Leadership

The Leadership School was a fundamental driver in 2020 that helped leaders improve their skills to manage and inspire their teams through the following activities:

Table 59: Activities carried out at the Leadership School

Leadership Academy Development Action	Coverage (# People)
How To Strengthen Communication Skills With The Work Team	53
Workshop: The Leader as an Engine of Cultural Transformation	508
Confidence and Emotional Security Workshop	587
General Aspects of Individual Labor Law	105
General Aspects of Labor Law in Contracted Activities	49
The power of diversity	501
Communication Tools in Times of Crisis	970
Individual Performance Planning	294
Leadership - Coaching for Executives	93
Team Alignment - Confidence and Emotional Security	1,944
Team Alignment - The Leader as an Engine of Cultural Transformation	336

Source: Ecopetrol, Vice Presidency of Human Talent

The use of tools for autonomous learning was promoted as part of the development strategy. *GetAbstract* and *World of Business Ideas* (WOBI) among others were used and enabled for all Ecopetrol and EG collaborators and leaders. To date, there are more than 12,000 active users and an approximate of 13,555 downloaded summaries in *GetAbstract*, of which the most representative topic is Leadership and Management. In turn, at WOBI we have more than 1,042 active leaders.

Additionally, more than 100 *webinars* were published on topics associated with leadership in the 'new normal', organized by recognized institutions such as MIT, Harvard University, Inalde Business School, Tecnológico de Monterrey, and Universidad de los Andes, among others. An average of four *webinars* a week were shared seeking to promote new knowledge to guide leaders in the correct management of their roles.

GRI 404-2

Succession Plan

Ecopetrol has an EG wide succession program where we continuously assess leaders and candidates for succession, to define development plans that prepare them in advance. This is a cyclical process for which new critical leadership positions and new candidates are reviewed annually and included as potential successors. This process is one of the key resources that the company has to ensure the filling of vacancies in leadership-level positions.

At the end of 2020, 290 critical leadership positions were defined for succession, of which 27 correspond to Director levels, 103 to Manager levels and 160 Head of Department levels. For the above, we have a total base of 800 successor candidates. The results of the process are consolidated at the end of 2020 in 25 talent maps.

360 Assessments

The 360 evaluation process has been carried out since 2017 as input in the evaluation of leaders for selection processes and at the corporate level, to identify the level of development of leadership competencies in the first three levels of the organization. The results have supported the comprehensive development of the workforce, identifying strengths and elements on which it is possible to improve performance in line with expectations, needs, and Ecopetrol’s leadership model. Albeit 360 assessments were not carried out on a massive scale during 2020 due to the pandemic, such an assessment was carried out for some leaders. This process is scheduled to continue in 2021, expanding its scope and updating the behaviors for assessment in light of the new challenges of the new labor reality.

Development of new generations

With the aim of promoting the development of new generations that allow growth and generational change in Ecopetrol, in 2020 we consolidated the development of new talents in the organization for the fourth consecutive year through the following programs:

- **Semilleros (seedbeds) Program – Young, recent university graduates to whom we offer their first work experience**
Year 2 of the development stage was concluded in 2020, with 21 seedbeds distributed in the different areas according to the growth strategy.

The members of these cohorts completed their learning and development program in partnership with Ecopetrol University and *Tecnológico de Monterrey*.

- **Jovenes Potenciales - Young people with several years of experience in Ecopetrol, selected to strengthen their leadership skills**
Twenty Potential Youths graduated in 2020 – several of whom began to have leadership roles in different areas. This has built the foundation for the next generation of company leaders.

GRI 404-3

Performance Evaluation

Since 2012, 100% of the employees at Ecopetrol have been subject to performance evaluation, following current regulations. The following aspects were emphasized in 2020 to strengthen the process:

- Launch and promote a tool for more than 1,000 leaders to deliver and request feedback from their teams in a timely manner.
- Training to 325 leaders in the role of Supervisor to strengthen feedback skills.



SOCIETY AND COMMUNITY



Material Issue: Regional development

Standard	<u>GRI 103-1</u> Why is the issue material?	<u>GRI 103-2</u> How is the issue managed?	<u>GRI 103-3</u> How is the issue evaluated?
<p><u>GRI 413</u> Local communities</p> <p><u>GRI OG-12</u> Resettlements</p>	<p>The design, implementation and monitoring of effective social management strategies are of great value both in terms of relationships and in terms of their contribution to local development. An adequate relationship with the community, from the first stages in the development of projects and activities, becomes a key factor to avoid future conflicts.</p>	<p>Ecopetrol carries out voluntary and compulsory social investment projects in different country regions, ranging from access to public services and infrastructure to education, sports and health (focused on the 2020 health emergency).</p>	<p>Identify the impacts of social projects, establishing files that allow for monitoring and evaluation of the social impacts caused by the company.</p>
<p><u>GRI 103-1</u> Impact coverage</p>	<p>Ecopetrol process where the greatest impact is generated</p> <p>Value chain (exploration, production, transportation, refining, marketing, petrochemicals and support areas).</p>	<p>Stakeholders where the greatest impacts are generated</p> <p>Society and community</p>	<p>Area that manages impacts</p> <p>Vice Presidency of Sustainable Development</p>

GRI 103-2 Regional development

Ecopetrol’s contribution to the sustainable development of the territories in which it operates is dynamic and responds both to the need to support the Company’s operations and projects with a vision of shared value, and to the purpose of identifying and contributing to closing gaps and priorities in the communities and territorial entities. With them, a constant relationship is maintained, strengthening teamwork and local capacities.

In this sense, Ecopetrol continued with its Environment Management Strategy, which aims to contribute to the growth of the economic value of Ecopetrol and EG through the creation of sustainable development conditions that allow the consolidation of operations and business viability.

This strategy is measured through indicators that are monitored in the TBG of the Vice Presidency of Sustainable Development. Graph 61 and Table 60 show 2020 results of two key social indicators, as well as goals for 2021.

To know more about the Environment Management Strategy, click [here](#).



Results of the level of perception for the following stakeholders: society, community and local government

The Perception Level indicator for Society, Community and Local Government as Stakeholders reached 79% in 2020. This means that the perception of these stakeholders towards the company remained “robust”. This result is the best of the last five years (10% increase as compared to 2019). A strengthening is observed in the stakeholder Society, Community and Local Government on the perception of Ecopetrol’s corporate responsibility and employment. Regional development and economic resources are highlighted as the main benefits that Ecopetrol’s presence provides in the territories.

For further details on survey results, see **Results of the 2020 Annual Stakeholder Perception Survey.**



Results in the Achievement of Socio-environmental Investment Goals

The indicator *Compliance with socio-environmental Investment Goals* reached a value of 103% in 2020, equivalent to fulfilling 77 goals of Ecopetrol’s socio-environmental investment projects planned for the term (21% more than in 2019). Three projects delivered a partial goal).



Enzo's Food SAS, Cartagena Colombia

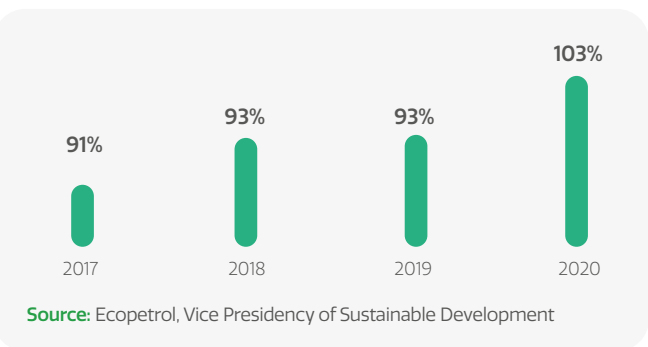
The main results delivered in 2020 include the following:

- 168,455 beneficiaries for the Education, Sports and Health line;
- 509 small and medium producers benefited from the Inclusive Rural Development line;
- 728 beneficiaries through the Entrepreneurship and Business Development line;
- 6,004 people with access to water and basic sanitation;
- 805 users connected to gas networks and 225 users connected to energy networks under the Access to Public Services line;
- 230 kilometers of road intervened on the Road Infrastructure and Community Social Infrastructure line; and
- 39,622 beneficiaries of the Institutional and Community Strengthening line.

Additionally, the results within the framework of the Public Works for Taxes program were as follows:

- 70,427 beneficiaries for the Education, Sports and Health line.
- 347 people with access to basic sanitation from the Access to Public Services line.
- 7.01 kms of road intervened on the Road Infrastructure and Community Social Infrastructure line.

Graph 61: Results of the fulfillment of socio-environmental investment goals from 2017 to 2020



GRI 203-1, 203-2, 413-1, WEF 18, WEF 19E, WEF 28E

Social investment lines

Social investment has been strategically focused on the education, sports and health sectors; revitalization of local economies through inclusive rural development and entrepreneurship; public infrastructure; access to public services and institutional strengthening. In order to prioritize investments, compliance is ensured with criteria of relevance, opportunity, and impact in the areas where Ecopetrol operates and with a vision of investment sustainability.

In Education, the contribution has been constant over time with investments that favor quality in education, school retention, and coverage. In health – particularly during 2020 – focus has been on contributing to the increase of institutional capacity for health emergency care. Ecopetrol

made investments to strengthen the health system with equipment and implements, and technological developments such as the web platform for reporting and monitoring and humanitarian aid.

For the revitalization of local economies, Ecopetrol has sought capacity building of the productive sector by contributing to inclusive rural development. This, by linking rural communities to productive chains and the incubation and strengthening of enterprises, for the system to resume (in the short term) the development path it was on before the pandemic.

In the lines of infrastructure and public services, based on our prioritization criteria and in alliance with municipal and departmental administrations, we have contributed to the consolidation of structural projects in local development plans that promote regional development and improve the quality of life of local populations.

Ecopetrol in 2020 executed a voluntary strategic investment of \$ 206,357 trillion, demonstrating its commitment to SDG 3 “Health and Well-being”



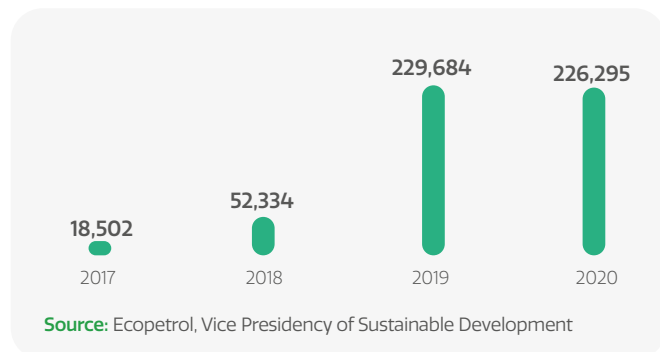
GRI 201-1 WEF 28E, WEF 32E

Our contribution in social investment

Projects and (strategic / voluntary and mandatory) social investment initiatives were executed for \$ 226,295 million in 2020. This represents a 1% decrease in investment compared to 2019.

Graph 62 shows the behavior of the execution of social investment in the past four years.

Graph 62:
Ecopetrol's Social Investment from 2017 to 2020
(Figures in COP million)



According to the origin of social investment projects and initiatives in 2020, investments are classified as follows:

- **\$ 206,357** million allocated to (voluntary) strategic investment projects and initiatives. Of this total, \$ 18,774 million was allocated to projects and initiatives in support of the health emergency caused by COVID-19. Also, \$ 2,660 million was part of these investments to attend to the emergency caused by the effects of tropical storm Iota.
- **\$ 16,287** million allocated to projects and initiatives to comply with social legal obligations. Of this total, \$ 12,969 million was allocated to projects and initiatives into support the health emergency caused by COVID-19.
- **\$ 2,509** million allocated to fulfill prior consultation agreements.
- **\$ 1,142** million allocated to projects and initiatives to comply with Community Benefit Programs (PBC).

Of this total, \$ 244 million was allocated to projects and initiatives in support of the health emergency caused by COVID-19.

Additionally, projects were executed within the framework of the Public Works for Taxes mechanism in 2020, for \$ 118,231 million corresponding to projects proposed and approved for the 2017, 2018, and 2019 rounds.

Similarly, there were indirect administrative costs during 2020 associated with social investment for \$ 17.6 billion.

GRI 203-2 WEF 28E

Voluntary social investment projects

The projects and initiatives under voluntary strategic investment were executed within the following lines, as shown in Table 60.

Table 60: Voluntary social investment: 2020

Investment Lines	Amount Invested (COP\$ Million) *	2020 Results *
Access to public services.	\$69,616	Water No. of People: 5,792 Energy No. Of Users Connected: 225 Gas No. of LPG refills: 3,658 No. Of Users Connected: 937 Basic sanitation No. of People: 559
Infrastructure (road and community).	\$69,047	Km. Of Road Intervened: 237 No. Of Beneficiaries: 700 No. of Infrastructure Works: 3
Education, Sports and Health.	\$32,026	Sport No. Of Beneficiaries: 10,364 No. Constructed Structures: 4 No. of Intervened Infrastructures: 2 Education No. Of Beneficiaries: 192,343 No. Constructed Structures: 1 No. of Intervened Infrastructures: 8 Health No. Of Beneficiaries: 36,175 No. of Intervened Infrastructures: 2 No. Institutions strengthened: 2
Institutional and Community Strengthening.	\$24,483	Humanitarian Aid - No. Grocery Kits: 1,958 No. Of Beneficiaries: 40,573 No. Of Meetings: 3 No. species donated for planting: 5,000
Inclusive Rural Development.	\$7,563	No. of Small and Medium Producers: 209
Entrepreneurship and Business Development.	\$3,622	No. Of Beneficiaries: 728

Source: Ecopetrol, Vice Presidency of Sustainable Development

* Note: Includes information on Public Works for Taxes ("O x I") for goals. Investments do not count as O x I.

GRI 203-2**Mandatory social investment projects**

The projects and initiatives made under mandatory investment were executed as shown in Table 61:

Table 61: Mandatory social investment: 2020

Investment Lines	Amount Invested (COP Million)	% of total investment
Institutional and Community Strengthening	\$ 16,153	81%
Infrastructure (road and community).	\$ 1,644	8%
Inclusive Rural Development.	\$ 959	5%
Education, Sports and Health.	\$ 725	4%
Entrepreneurship and Business Development	\$ 293	1%
Access to public services.	\$ 165	1%

Source: Ecopetrol, Vice Presidency of Sustainable Development

GRI 203-2**Regional view of voluntary and mandatory investment**

The social investment carried out in 2020 focused on the regions where the Company has a greater presence to ensure viability of investment projects and

operations. The distribution of investment by region is presented in Table 62.

Table 62: Voluntary and mandatory social investment 2020 by region

Region	Strategic Investment (COP Million)	Mandatory Investment (COP Million)	Total investment (COP Million)	%
Central	\$ 66,403	\$ 4,840	\$ 71,243	31%
Catatumbo-Arauca	\$ 65,188	\$ 633	\$ 65,821	29%
Orinoquia	\$ 21,428	\$ 8,922	\$ 30,349	13%
Corporate	\$ 19,103	\$ 0	\$ 19,103	8%
South	\$ 9,448	\$ 1,731	\$ 11,179	5%
Piedemonte	\$ 9,273	\$ 788	\$ 10,061	4%
Caribbean	\$ 8,818	\$ 424	\$ 9,242	4%
East	\$ 4,306	\$ 2,601	\$ 6,907	3%
Andean	\$ 2,390	\$ 0	\$ 2,390	1%
Total	\$ 206,357	\$ 19,938	\$ 226,295	100%

Source: Ecopetrol, Vice Presidency of Sustainable Development

Free transfers

Ecopetrol contributed to quality of life improvement by assigning “Free Transfers” of materials in surplus from the operation, prioritizing requests from entities located in their areas of operation and influence.

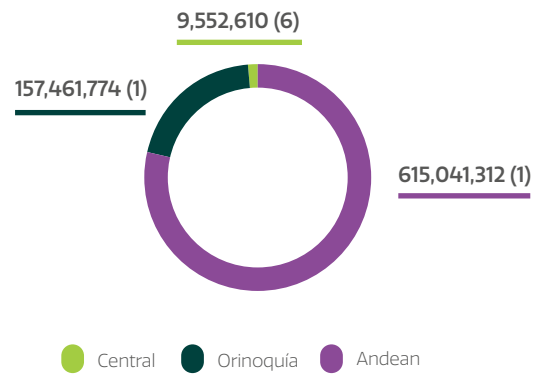
As of December the 31st, 2020, Ecopetrol transferred pipes, electrical equipment, office furniture and premises free of charge to the Central, Orinoco and Andean regions. This equipment was requested by different municipalities (Puerto Nare, Sabana de Torres and Dosquebradas) and was also delivered to agencies such as the Rionegro Nare Regional Autonomous Corporation - CORNARE and the Meta Infrastructure Agency.

The total cost of the free transfers was \$ 782,055,696, awarded to eight recipients. The intended recipients were SENA apprentices, to conduct practice in Construction Techniques; also for the adaptation of areas to contain hippopotamuses, capturing the species and carrying out sterilization surgeries for ulterior zoo transfer.

Other projects included prospecting and drilling activities of three deep wells with their corresponding lines of conduction to the drinking water treatment plant

(DWTP); and the improvement of office infrastructure. Within the framework of comprehensive emergency care in Dosquebradas – and in the course of conciliation processes – Ecopetrol delivered 24 properties located in the township of Aguazul – municipality of Dosquebradas – to the municipal administration.

Graph 63:
Total free transfers



Source: Ecopetrol. Vice Presidency of Sustainable Development

Education and sports

Interventions in education and sports seek to promote educational quality and coverage and school retention locally. Through these initiatives, Ecopetrol contributes to Sustainable Development Goal (SDG) 4: Quality Education. By 2022 Ecopetrol seeks to benefit 252,000 boys, girls, and young people – equivalent to 3% of the goal of the 2019-2022 National Development Plan, promoting access to quality education.

In 2020, the efforts aimed to achieve:

- Better quality: initiatives that promote children to learn more and better. It includes teacher training, provision of pertinent pedagogical material, and monitoring to ensure ownership and sustainability at the end of the project.
- Better access: It favors the construction or improvement of new infrastructures and the promotion of official actions to expand the offer of educational quotas or scholarships.

More than 1,750 young people are currently accessing higher education within the framework of the National Government Program “Generation E”, Ecopetrol’s “Mario Galán Gómez” high school scholarships and “Utopia” program – unique in its kind in the country.

- Greater retention: actions aimed at promoting the good use of free time and incentives to stay in the educational system.

In 2020, music schools were developed by the National Batuta Foundation in the Departments of Huila, Nariño, and Meta. More than 1,400 children and young people participated and the execution of the “Sembrando Joropo” Program continued, which seeks to preserve the Casanare culture with the participation of children and adolescents from the Department.

Seven furniture projects were completed, benefiting 6,580 boys, girls, and young people from public Educational Institutions in nine departments of the country.

Table 63 details the most relevant projects in 2020 aiming at promoting school quality and retention:

To know the details of these investments, access the following [link](#).

SOCIAL DIMENSION

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Table 63: Most relevant projects for the promotion of school quality retention in 2020

Regional	Scope	Municipalities	Impact
Caribbean	Provision of school kits	Cartagena (Bolívar) and Uribia (La Guajira)	8,154 students benefited
Caribbean	Proper use of free time	Cartagena (Bolívar)	180 students benefited
Catatumbo Arauca	Improvement of education - <i>Corpoeducación</i>	Tibú (North of Santander)	14,477 students and teachers
Catatumbo Arauca	Provision of school kits	14 municipalities of Boyacá, Norte de Santander and César	11,500 students benefited
Central	Provision of school furniture	5 municipalities of Santander, César, Bolívar and Antioquia	3,196 students and teachers
Central	Construction of educational infrastructure - Adaptation and improvement of the sports facility at Campus D of El Pedral Educational Institution	Puerto Wilches (Santander)	2,517 students and beneficiaries
Central	Palestine court bleachers construction	Puerto Parra (Santander)	120 inhabitants
East	Provision of school kits	Puerto Gaitán (Meta)	3,360 students benefited
Orinoquía	Transversal Education - Corpoeducation (Sex education, education for peace and environmental education)	Guamal, Acacías, Villavicencio and Castilla La Nueva (Meta)	200 educational venues
Orinoquía	Construction of infrastructure and equipment- Boquemonte Headquarters, Universidad de los Llanos	Granada (Gao)	264,000 people
Orinoquía	Construction and provision of sports centers and biosaludable parks	Acacías (Meta)	17,000 people
Piedemonte	Escuela Nueva - Fundación Escuela Nueva Volvamos a la Gente	Tauramena and Aguazul (Casanare)	Aguazul: 542 students and 31 teachers Tauramena: 326 students and 23 teachers.
Piedemonte	Provision of school furniture	Yopal (Casanare)	1,512 students and teachers benefited
South	Musical training - Batuta National Foundation	Palermo, Villavieja, Yaguará, Aipe, Neiva, Isnos, San Agustín (Huila)	1,000 students
South	Construction of Sports Recreation Park	Palermo (Huila)	Inhabitants of the Betania town center of the Municipality of Palermo benefited.
Andean	Provision of school kits	Departments of Nariño, Santander, Boyacá, Tolima, Cundinamarca, Valle del Cauca, Caldas, Risaralda and Antioquia	6,794 students from Educational Institutions in the areas of influence
Andean	Musical training - Batuta National Foundation	Palermo, Villavieja, Yaguará, Aipe, Neiva, Isnos, San Agustín (Huila), Tumaco (Nariño) and Villavicencio (Meta)	80 students

Source: Ecopetrol, Vice Presidency of Sustainable Development

Health

In addition to the contribution in the framework of the emergency caused by COVID-19, described in detail in Chapter 6, in 2020 Ecopetrol made investments in health infrastructure and has developed workshops to promote access to this quality service.

In this sense, Table 64 highlights projects aiming at improving community health care.

Table 64: Projects to improve community health care

Regional Branch	Project	Municipalities	Scope and impact
Catatumbo Arauca	Provision of health posts in Gibraltar and Samoré	Toledo (North of Santander)	3,000 people
Central	Variable cooling system at El Danubio Health Center	Barrancabermeja (Santander)	20,175 people
South	Provision of biomedical equipment and elements for ESE Hospital San Carlos	Aipe (Huila)	16,000 people

Source: Ecopetrol, Vice Presidency of Sustainable Development

Ecopetrol participates in projects in more than 8 regions of Colombia working on SDG 1 "No Poverty" to contribute to the well-being of the communities.



SOCIAL DIMENSION

Inclusive Rural Development

Investment in this line aims to link communities in areas of interest to productive chains and facilitate access of the rural population to public programs, goods, and services.

Four projects were successfully completed during 2020, benefiting 509 farmer families in the departments of Santander and Meta.

A framework agreement was signed in 2020 with the Ministry of Agriculture and Rural Development (MADR), which is added to the current agreements with the National Land Agency and with the Rural Development Agency.

GRI 203-2

Table 65: Inclusive Rural Development Line and the most relevant agreements in execution for this term

Regional	Draft	Municipality	Beneficiaries
Andean East	Agroemprende Cacao Putumayo	Orito, Valle del Guamuez, San Miguel (Putumayo)	350
	Recovery of productive vocation settlers and peasants	Puerto Gaitán (Meta)	105
	Citrus Trees - Yaguará	Yaguará (Huila)	65
Orinoquía	Agroemprende Cacao Meta	10 municipalities	1,000
	Inclusive Food Supply Model	Villavicencio, Castilla, Guamal, Acacias (Meta)	480
	Sustainable Agribusiness Model (completed)	10 municipalities	175
	Strengthening rural associative enterprises - Cacao (completed)	Guamal (Meta)	118
Piedemonte	Pineapple chain strengthening	Tauramena (Casanare)	120
Catatumbo Arauca	Citrus Production Chain Strengthening	Saravena (Arauca)	120
Central	Strengthening of production chains (completed)	Barrancabermeja (Santander)	175
	Ireland and Caribbean Livestock (completed)	Sabana de Torres (Santander)	41
Caribbean	Development of the panela agroindustry	Foundation (Magdalena)	100
National	Framework Agreement with the National Land Agency	National	300
	Framework Agreement with the Rural Development Agency	National	TBD
	Framework Agreement with the Ministry of Agriculture and Rural Development	National	TBD

Source: Ecopetrol, Vice Presidency of Sustainable Development

Entrepreneurship and business development

In order to strengthen the regional business fabric, Ecopetrol set a goal to benefit 3,872 people or businesses by 2022.

The most relevant projects in 2020 include the continuity of the Entrepreneurship and

Business Development Centers in Putumayo, Meta and Santander – which have benefited 458 people.

The Entrepreneurship Centers which are part of the *Sacúdete* strategy, led by the First Lady of the Nation; the United Nations Development Program – UNDP and Ecopetrol have promoted innovation, entrepreneurship and business development.

Institutional and community strengthening

Ecopetrol promotes institutional strengthening, in coordination with the State and other stakeholders. Good Governance and Citizen Participation initiatives are implemented.

Ecopetrol supported the implementation of the Public Employment Service in the El Centro district in Barrancabermeja (Santander), which aims to contribute to the development of public employment policy by the Central Regional Branch. For the Eastern Andean Region, an agreement was approved to train Community Action Boards (*Juntas de Acción Comunal*) in Puerto Gaitán in partnership with UNDP for 2021.

Public and community Infrastructure

The purpose of this line is to improve the conditions of the communities in terms of access and terrestrial interconnectivity to facilitate commercial exchange and productivity in the regions, as well as to promote

projects that create spaces for collaboration, participation, education, and recreation.

The partnership with the National Coffee Federation was formalized in December 2020; it aims to develop projects in road and community infrastructure and contribute to the economic reactivation of the regions through the generation of temporary employment and consumption of local supplies in areas of common interest.

Road infrastructure

Eight road infrastructure projects were completed during 2020, where through 238.4 km of roads were intervened to benefit around 471,000 inhabitants, contributing to their mobility and land interconnectivity, the dynamism of the regions, and the creation of – mostly local – jobs:

GRI 203-2

Table 66: Road Infrastructure Projects in 2020

East	Draft	Department	Scope or impact
Catatumbo Arauca	Acquisition of machinery and vehicles: El Teorama	North of Santander	12 km of the road network, benefiting 22,438 inhabitants of the area.
Catatumbo Arauca	Acquisition of machinery and vehicles: El Tarra	North of Santander	12 km of the road network benefiting 11,002 inhabitants of the area.
Catatumbo Arauca	Acquisition of machinery and vehicles: Convención	North of Santander	12 km of the road network benefiting 13,030 inhabitants of the area.
Central	Paving for urban roads in Carrera 3 between Calle 5 and 7 in the municipality of Puerto Wilches	Santander	3,000 inhabitants of the urban area of the municipality of Puerto Wilches
Central	Paving the road that connects the Magdalena Medio highway with Ruta del Cacao and the highway from the Barrancabermeja - Puerto Wilches road to Guillermo Gaviria Correa bridge (21 km)	Santander	230,000 inhabitants of Barrancabermeja and Magdalena Medio and generated more than 2000 – mostly local – jobs.
East	Maintenance of roads: Puerto Gaitán (173.4 Km)	Meta	Inhabitants of the Puerto Triunfo, Santa Helena, Rubiales, Santa Catalina, Comejenal, Alto Manacacias, and Alto Neblinas villages located in the municipality of Puerto Gaitán Meta.

Source: Ecopetrol, Vice Presidency of Sustainable Development

GRI 203-2

Public infrastructure of community interest

Table 67: Community Infrastructure Projects by Ecopetrol in 2020

Regional	Draft	Department	Scope or impact
Orinoquia	Restoration and adaptation of the House of Culture and acoustic shell at San Martín de los Llanos	Meta	Inhabitants of San Martín de los Llanos.
Central	Improvement of the communal hall and sports field in the Cayumba district and the communal hall of the El Pedral district – municipality of Puerto Wilches	Santander	Inhabitants of Cayumba and El Pedral townships in the municipality of Puerto Wilches.
East	Adaptation and improvement of the existing social, cultural and sports meeting spaces at Puerto Triunfo village, in the municipality of Puerto Gaitán	Meta	Inhabitants of the village of Puerto Triunfo.

Source: Ecopetrol, Vice Presidency of Sustainable Development

Public Services: Drinking water and basic sanitation

Ecopetrol uses water resources in 71 municipalities. During 2020, Ecopetrol supported the execution of a project addressing access to drinking water in the municipality of Puerto Wilches, Santander department, benefiting 5,792 people, and a basic sanitation project in the area of influence of the municipality of Carmen de Chucurí, expanding coverage to 212 people and allowing the start of the Domestic Waste Water Treatment Plant (PTARD). Additionally, the construction of 108 sanitary units was advanced in the municipality of La Gloria, department of Cesar. By 2021, the expansion of water systems in the municipality of Riohacha, department of La Guajira, will begin.

Seven projects are currently underway, seeking to benefit more than 900,000 people by 2022. These projects include

the construction of the alternate water collection system for the aqueduct in Villavicencio, Meta; the metropolitan water system of the municipalities of Cúcuta, Villa del Rosario, and Los Patios, in Norte de Santander; the construction of the San Silvestre domestic wastewater treatment plant in the city of Barrancabermeja, Santander; and the implementation of four individual water purification solutions in educational institutions in the municipality of Puerto Wilches, through the “Water for Education, Education for Water” program in partnership with the EPM Foundation.

Civil works reached amounts close to \$ 1,617 million in partnership with local and regional agencies.

GRI 203-2


Table 68: Basic sanitation projects

Regional	Draft	Municipality	Impacts and Expected Results
Central	Construction of the Drinkable Water Treatment Plant (DWTP) in the southern sector of the municipal seat.	Puerto Wilches	5,792 people.
Central	Construction of the second phase of the sanitary sewage system and provision of the wastewater treatment plant (WWTP) in the village of El Campo 27	Carmen de Chucurí	212 people about 60 families

Source: Ecopetrol, Vice Presidency of Sustainable Development

In relation to public energy and gas services, three new agreements were signed in the Arauca Catatumbo region, which reflect the work coordinated between EG, ODL/Bicentenario Oleoducto Vivo Foundation and the local authorities.

For more information related to the execution of the aforementioned investment lines, access the following [link](#).



Public works for taxes

In 2020, we continue to lead the implementation of the Public Works for Taxes mechanism in the country, with nine projects assigned for a value of \$ 102,609 million (41% of the national annual investment). In addition to the efforts of our Cenit subsidiaries (3), Hocol (1), ODL y Bicentenario (1) and Ocesa (1), this initiative reaches a total of 15 projects with a total

investment of \$ 122,407 million, 49% of the national total. These projects are expected to benefit 413,149 Colombians.

Table 69 lists the details of each of the projects assigned during 2020 that are associated with public works for taxes for the FY 2019.

Table 69: Works assigned during 2020 associated with the FY 2019

Business	Sector	Draft	Value	Beneficiaries	Product to be delivered
Ecopetrol	Roads	Cubarral urban road pavement - Meta	\$ 9,132,853,518	2,054	2 km
Ecopetrol	Roads	Improved pavement on tertiary road: Aguazul - Casanare	\$ 19,021,493,248	378	8.5 Kms
Ecopetrol	Roads	Improved pavement on tertiary road: Ipiales - Nariño	\$ 4,563,941,972	2,638	2.3 Kms
Ecopetrol	Roads	Improvement of the secondary road Paujil Cartagena del Chairá, Caquetá	\$ 29,569,360,946	257,673	8 Kms
Ecopetrol	Water	Riohacha Aqueduct Networks - Guajira	\$ 7,001,595,831	12,885	1 (expanded aqueduct)
Ecopetrol	Education	Casanare Educational Headquarters (11 Municipalities)	\$ 8,301,178,177	19,739	200 locations
Ecopetrol	Education	Putumayo Educational Headquarters (7 Municipalities)	\$ 6,871,643,104	31,145	350 locations
Ecopetrol	Education	Equipment for Educational Centers Norte de Santander (6 Municipalities)	\$ 15,300,647,795	36,613	568 locations
Ecopetrol	Education	Arauca Student Residences - Equipment (5 Municipalities)	\$ 2,846,782,942	2,411	8 locations
CENIT	Education	Equipment for Educational Centers La Gloria (Cesar)	\$ 695,833,505	3,511	37 locations
CENIT	Education	El Copey Educational Headquarters (Cesar)	\$ 916,148,776	6,129	23 locations
CENIT	Education	Educational Headquarters Dagua (Valle)	\$ 1,470,792,910	3,358	67 locations
Hocol	Education	Equipment for Educational Centers Ortega (Tolima)	\$ 1,660,568,253	6,315	106 locations
Ocesa	Education	Educational facilities (Antioquia)	\$ 9,409,686,861	26,905	231 locations
The Llanos Orientales Pipeline and the Bicentenario Pipeline	Education	Equipment for Child Development Centers (CDIs) ICBF (Casanare)	\$ 5,644,427,937	1,395	11 CDIs

Source: Ecopetrol, Vice Presidency of Sustainable Development

SOCIAL DIMENSION

Six projects were completed and delivered during 2020, for an amount of \$ 48,667 million. 347,817 inhabitants of the country were benefited in 21 municipalities in four departments, as listed on Table 70.

Table 70: Projects completed during 2020

Business	Sector	Draft	Value	Beneficiaries	Product to be delivered
Ecopetrol	Roads	Rehabilitation of the Tame - Corocoro Road, Arauca. Arauca Department	\$ 27,657,052,869	270,708	5 Kms
Ecopetrol	Roads	Pavement improvement of tertiary roads in the municipality of La Gloria, Cesar	\$ 4,741,747,462	6,335	2 km
Ecopetrol	Roads	Construction of basic sanitary units for the rural area of the municipality of La Gloria Cesar	\$ 2,726,321,797	347	108 sanitary units
Ecopetrol	Education	Provision of School Furniture and equipment for the official educational venues of the Municipality of Yondó	\$ 1,169,234,194	3,802	46 locations
Ecopetrol	Education	Provision of school environments in institutions and official educational centers of the municipalities of Arauca	\$ 8,496,314,857	23,827	129 locations
Ecopetrol	Education	Provision of school furniture for official educational establishments of 14 Municipalities of Meta	\$ 3,876,570,068	42,798	284 locations

Source: Ecopetrol, Vice Presidency of Sustainable Development



GRI 413-2, WEF 29E, SASB EM-EP-210b.1

Management of social impacts

GRI 413-2

Impacts associated with business activity and measures to manage them

All operations and projects developed by Ecopetrol must comply with all regulations and legal requirements established by environmental authorities, such as the Ministry of the Environment and Sustainable Development, the National Environmental Licensing Authority (ANLA), and the Regional Autonomous Corporations.

These instruments ensure the identification and assessment of social and environmental impacts, and the definition of compensation or mitigation measures necessary to manage them, ensuring responsible business management with the communities and the environment.

The process to identify impacts is carried out through Environmental Management Plans (EMP). The impacts

and risks of the activity are identified and assessed preventatively, defining plans and measures required for their proper management. Similarly, spaces for citizen participation are created to identify other impacts and management measures that, according to their relevance, can be included in the environmental impact assessment (EIA) and the EMP.

Management records are established around each of these variables, the monitoring and evaluation of which is led by the authorities.

New forms of relationship and work were adopted in the year 2020, aiming to promote the participation of communities and different social actors, in compliance with the measures provided for the prevention and control of the health emergency adopted as a result of the pandemic.

Some of the impacts of the activity carried out by Ecopetrol and of the measures adopted by the Company to manage them are presented in Table 71.

Table 71. Impacts associated with business activity and management measures

Impacts	Management measures
Generation of expectations.	Communication and information strategy regarding the activity and its different stages.
Generation of noise and luminosity.	Installation of equipment with new technologies that produce less noise, as well as barriers that mitigate lighting.
Use of public infrastructure (e.g. roads). Generation of emissions and particulate matter.	Attention to damages created by the mobilization of equipment, guaranteeing that roads remain in the same or better conditions than initially found, as well as the management of traffic and emission of particulate matter with the participation of the community.
Contamination. Waste disposal.	Disposal and treatment of waste, according to the classification, characterization of the environment, and established regulations.
Changes in regional economic vocations and their social dynamics.	Development, promotion, and execution of sustainable productive projects in the regions, in order to strengthen the productive vocations of the territory, promoting entrepreneurship and economic diversification.

Source: Ecopetrol, Vice Presidency of Sustainable Development

Impact identification and definition of measures are carried out continuously during the execution of projects and the development of Ecopetrol’s operations in all areas of operation. The process includes different mechanisms for participation and involvement of stakeholders in order to ensure that all possible impacts and risks are identified.

SOCIAL DIMENSION

Table 72: Identification of impacts and management measures.

Regional	Identified Impacts	Management Measures
East	<ul style="list-style-type: none"> · Change in population dynamics. · Change in population structure. · Change in supply and demand of goods and services. · Change in the local labor market. · Variation in income level. · Change in labor supply. · Modification in the use and management of the environment. · Change in community organization and areas of participation. · Change in internal community relations. 	<ul style="list-style-type: none"> · 8 Programs of social management plan. · 9 Management & monitoring programs and 41 environmental management records.
Catatumbo- Arauca	<ul style="list-style-type: none"> · Change in the supply and demand of goods and services. · Change in the local labor market . · Change in income level. · Modification in the use and management of the environment. 	<ul style="list-style-type: none"> · Consolidation of relationships of trust through the construction of a joint vision of the territory between the company and the community.
South	<ul style="list-style-type: none"> · Generation of stakeholder expectations. · Generation of expectations in improving the income of the population. 	<ul style="list-style-type: none"> · 166 briefings in areas of influence · 61 Sessions for strengthening participation and dialogue with the communities. · 4 Accountability sessions at the end of 2020 with local authorities and Community Action Boards. · 30 sessions to establish relations with indigenous communities.
Piedemonte	<ul style="list-style-type: none"> · Change in migration dynamics. · Change in employment dynamics. · Changes in the production system in the region. · Labor conflict. · Change in the dynamics of community organizations. · Change in cultural dynamics. 	<ul style="list-style-type: none"> · 9 Programs of the integrated social management plan, including the initiatives "<i>Sembrando Joropo</i>", and "<i>International Contrapunteo and Voz Recia Tournament</i>", focused on the cultural reaffirmation of the region. · 1 Follow-up, control and monitoring program.
Caribbean	<ul style="list-style-type: none"> · Generation of social and employment expectations. · Generation of expectations in improving the income of the population. · Generation of stakeholder expectations. · Generation of environmental impacts in the area due to resource management. 	<ul style="list-style-type: none"> · Follow-up and monitoring programs for the environmental management strategies defined.
Central	<ul style="list-style-type: none"> · Conflict associated with labor issues. · Change in population dynamics. · Change in supply and demand of goods and services. · Change in the local labor market. · Change in community organization and areas of participation. 	<ul style="list-style-type: none"> · Integrated Social Management Plan, focused on strengthening the relationship with stakeholders, coordinating institutional arrangements present in the territory.

Table 72: Identification of impacts and management measures. (Follow-up)

Regional	Identified Impacts	Management Measures
Andean	<ul style="list-style-type: none"> · Generation of stakeholder expectations. · Generation of expectations in improving the income of the population. · Generation of social and employment expectations. 	<ul style="list-style-type: none"> · 6 Workplace programs for the social management plan. · 13 activities as part of the fulfillment of socio-economic programs.
Orinoquía	<ul style="list-style-type: none"> · Generation of expectations in improving the income of the population. · Generation of stakeholder expectations. 	<ul style="list-style-type: none"> · Integrated social management plan, focused on: Management of economic projects, training in comprehensive management of the use and exploitation of water resources, among others.

Source: Ecopetrol, Vice Presidency of Sustainable Development

Attention at Lisama 158 Well

Continuing the development of the Environment strategy to meet technical, environmental and socioeconomic needs in the post-contingency stage, within the framework of the event associated with the outcrop of crude oil in a property near the Lisama 158 well, Table

73 lists the social investment projects (in the form of high-impact initiatives) that emerged from the tripartite dialogue sessions between Ecopetrol, the community and state agencies.

Table 73: Projects identified in tripartite spaces

Draft	Condition	Investment (COP Million)
La Fortuna Rural Gasification	In progress 2020 -2021	\$ 617
Lisama Rural Gasification	In progress 2020 -2021	\$ 3,100
Pozo Nutrias II School classrooms	Completed in 2019	\$ 1,351
Phase II of Colegio La Fortuna	Completed in 2019	\$ 5,519
Lisama II School Improvement	In progress 2020 -2021	\$ 2,286
Improvement of the Meseta de San Rafael school	Completed in 2020	\$ 173
Yacaranda school improvement	Completed in 2020	\$ 134
La Unión school improvement	Completed in 2020	\$ 211
El Guarumo school improvement	Completed in 2020	\$ 180
Construction of the Meseta de San Rafael court cover	Running 2021	\$ 1,059
Improvement and equipment at La Fortuna Health Post	Completed in 2019	\$ 240

Source: Ecopetrol, Vice Presidency of Sustainable Development

SOCIAL DIMENSION

In addition, the execution of the contract “Monitoring the activities of fisheries and biological fisheries in the lower part of the Sogamoso river and El Llanito swamp” began with an investment of \$ 384 million. This consists of the execution of a participatory community monitoring program with artisanal local fishermen, to consolidate a database with information collected in 12 preselected sampling points, and subsequent analysis of same on indicators or fishing attributes.

Sessions were also held with institutions and local authorities, to present progress of the Environmental Recovery Plan, monitor investment projects, strengthen institutions, and synergistically promote actions for the benefit of the communities.

For more information regarding environmental issues related to Lisama, 158 well, please refer to Chapter 5: Environmental Dimension.

GRI 413-1

Mechanisms for participation and involvement of Stakeholders in the management of social impacts.

In order to ensure that all possible impacts and risks are identified, the process includes different mechanisms for participation and involvement of stakeholders, as shown in Table 74.

Table 74: Mechanisms for participation and involvement of stakeholders in the management of social impacts

Socio-environmental impact assessments.	Public content about the results of the evaluations.	Community development programs based on the needs of local communities.	Consultation processes with ethnic groups.
<p>In accordance with current regulations, the process of requesting or modifying environmental permits requires studies to identify social and environmental impacts and define management measures to mitigate, control or compensate.</p> <p>Stakeholders are involved in the process of preparing these studies – e.g. through informational meetings for initiation, follow-up and evaluation, and workshops to identify impacts and management measures.</p> <p>The application of this mechanism is evidenced in the case of updating the Environmental Impact Assessment (EIA) of the Exploratory Drilling Area of the Farallones prospect in the municipality of Ubalá (Cundinamarca).</p>	<p>The results of socio-environmental studies and other information of interest are disclosed, e.g. through the implementation of follow-up committees for environmental monitoring, such as those developed in the socialization of these results with stakeholders, through home-to-home communication strategies, with town criers, due to the biosecurity restrictions set by the national government, in order to contain the spread of COVID-19.</p>	<p>In the process of defining projects and initiatives supported with Ecopetrol's social investment resources, the Company considers the expectations of its stakeholders. These expectations are identified through spaces for relationships and joint construction that are crystallized in actions and significant investments at the regional and national level.</p> <p>This tripartite dialogue mechanism is applied (communities, municipalities and the Company) where social investment projects were carried out such as access to public services. Home Natural Gas through networks for inhabitants of the municipalities of San Vicente de Chucurí and Barrancabermeja (Santander) and improvement and expansion of seven educational centers, sports venues and improvement and provision of the health center.</p>	<p>Ecopetrol carries out prior consultation processes whenever so required by the Ministry of Interior.</p> <p>Additionally, in each area of operation ethnic and other minority groups are identified and an approach is sought to understand the cultural particularities of each community, allowing the construction of a direct dialogue.</p> <p>An example of this participation mechanism was the prior consultation process in Block Llanos 38, Califa Exploratory Drilling Area in Saravena (Arauca).</p>

Source: Ecopetrol, Vice Presidency of Sustainable Development



Formal complaint and claim processes in local communities.

Formal channels are in place for stakeholders to file their requests, complaints, claims and requests (PQRS).

A new citizen participation office was opened in the municipality of Puerto Wilches (Santander) in 2020 given the need to establish closer contact channels and to facilitate communication between the community and the company. This was important to have a more expeditious and formal channel to address the concerns and requests of the community closest to the research activity of oil exploration in unconventional oil reservoirs.

Assessments to identify risks and impacts on Human Rights

In the regions where these evaluations have been carried out, all stakeholders are involved in the identification of human rights impacts and even in the identification of possible prevention or mitigation measures.

An example of this is the socialization exercises carried out within the framework of the human rights risk analysis in Magdalena Medio.

Participation plans based on stakeholder mapping.

All regions where Ecopetrol operates have Comprehensive Environment Plans, which include different types of relationship activities, most of them defined and agreed upon with the communities in the process of coexistence of business operations in the territory, promoting dialogue with stakeholders, such as national, regional and local institutions, local authorities, contractors and the community in general.

This mechanism was applied throughout the national territory, mainly in the development of new projects in the production and exploration segments, such as the case of the Llanos 121 exploratory prospect, in the municipalities of Tame (Arauca) and Hato Corozal (Casanare) where the mapping and diagnosis of the supply and capacities for new business activities and investments was carried out disclosing aspects of interest in the hiring of local and regional labor and goods and services. Similarly, the Pilot Projects of Comprehensive Research were carried out for oil development in Unconventional Oil Reservoirs in the municipality of Puerto Wilches (Santander), in order to submit the relevant proposal to the ANH.

SOCIAL DIMENSION

Throughout the national territory with the presence or interest of Ecopetrol operations, 257 participation scenarios were carried out. These participation spaces were carried out based on the organization's assets, distributed in the operating regions, as can be seen in Table 75.

GRI 203-1, WEF 28E

Programs for the Benefit of Communities (PBC)

Programs for the Benefit of Communities – PBCs – are the mandatory social investments made by companies dedicated to the oil industry, within the framework of the Oil Exploration and Production and Technical Evaluation contracts signed with the ANH. Thus, execution of PBCs promotes sustainable development in the respective areas of influence, seeking community integration. During 2020, investments in PBC amounted to \$ 1,142 million, executed in the eight projects mentioned in Table 76.

Table 75: Distribution of sessions for participation and involvement of stakeholders

Regional Environment	Number of Sessions Held
South	76
Orinoquía	69
Central	50
Piedemonte	27
Catatumbo Arauca	15
East	13
Andean	7

Source: Ecopetrol, Vice Presidency of Sustainable Development

Table 76: 2020 Investment in Programs for the Benefit of Communities (PBC)

Project Name	Department	Municipality	Investment (COP Million)
Improvement of Loma de Tigre Educational Campus, Acacias, department of Meta.	Meta	Acacias	\$ 214
Food kits as humanitarian aid for COVID-19	La Guajira	Riohacha	\$ 119
Food kits as humanitarian aid for COVID-19	La Guajira	Uribia	\$ 124
Provision of furniture to Community Action Boards, Ombudsman's Offices, Townships, Citizen Participation Houses and Cultural Schools in the area of influence of Ecopetrol in the Department of Huila - South Regional Branch.	Huila	Several	\$ 45
Provision of ecological points in the municipalities of Aipe, Neiva, Palermo, Tello Villavieja and Yaguará in the Department of Huila - South Regional Branch	Huila	Several	\$ 7
Studies and Designs for the construction of the Paso de los Ríos village aqueduct	North of Santander	Cucuta	\$ 165
Equipment for of health posts at Gibraltar and Samoré	North of Santander	Toledo	\$ 85
Reconstruction of drainage works and construction of complementary works in critical points for the improvement of secondary roads Tibú - La Gabarra and Astilleros - Tibú, Municipality of Tibú, Norte de Santander	North of Santander	Tibú	\$ 383

Source: Ecopetrol, Vice Presidency of Sustainable Development

GRI OG-13, 413-2, SASB EM-EP-540a.1

Security incidents

Ecopetrol seeks to contribute to the generation of social welfare conditions at the regional and local level, while constructing favorable environments.

Environmental management activities are carried out using analytical, managerial and performance tools, which allow the viability of projects and the consolidation of operations, ensuring the growth of the economic value of Ecopetrol and EG.

Comparison of alarms and incidents

2,074 environmental situations occurred in 2020, of which 865 corresponded to alarms¹ and 1,209 were incidents².

Main themes of security incidents in 2020

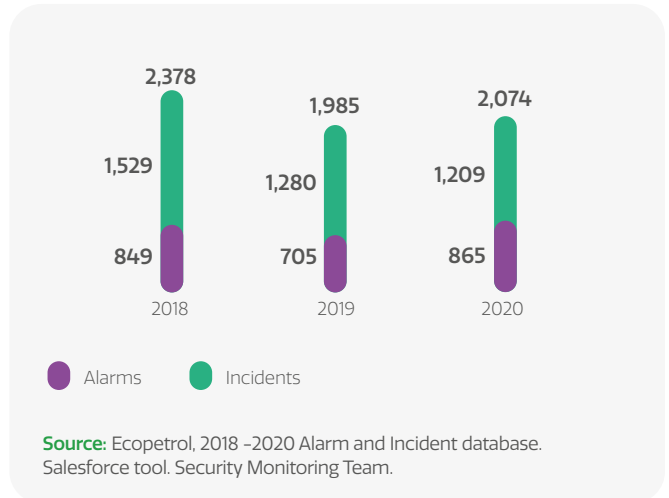
In 2020 there was a 5% increase in the number of reported events, going from 1,985 in 2019 to 2,074 in 2020. This increase was due to the increase in alarms, going from 705 in 2019 to 865 in 2020, equivalent to a 23% increase.

The number of incidents fell by 5% as compared to the previous year, from 1,280 in 2019 to 1,209 in 2020. The increase in alarms and the decrease in the number of incidents are associated with the improvement in the culture of reporting and event anticipation.

Incidents associated with attacks on infrastructure continued to occur during 2020, although in smaller numbers as compared to 2019. The details can be consulted in Chapter 3, Value Chain.

In addition to attacks against infrastructure, one of the great challenges for Ecopetrol in terms of physical security in 2020 was the increase in theft of company and contractor vehicles, especially in the Catatumbo area, with 35 stolen vehicles, without affectation to people.

Graph 64:
Comparison of Alarms and Incidents in the 2018 -2020 period



1 An environmental alarm is any auditory or visual notification of any internal or external condition, circumstance or situation that indicates proximity of an incident. An alarm warns of the possibility of an action (blocking, cessation of activity, attack, among others) that may impact the normal execution of the organization's activities.

2 On the other hand, an environmental incident is an action, condition, circumstance or situation that intervenes in the normal development of operations and activities, impacting the environment or the fulfillment of the organization's objectives. In some cases, an incident corresponds to the materialization of a previously identified alarm.

GRI 103-2

HUMAN RIGHTS

Our Human Rights approach is in accordance with the premises, goals, and activities outlined for 2020, based on the results of the stakeholders' perception survey, the results of the Human Rights (HR) risks assessment, follow-up on risk prevention and mitigation plans, and the results of external evaluations such as the Dow Jones Sustainability Index and the *Corporate Human Rights Benchmark*.

Commitment to respect human rights

We are aware of the growing importance and development of HR frameworks for companies at international, regional and national levels, as well as the emergence of multiple initiatives from the private sector, governments and civil society, to achieve the best performance of companies on this matter.

We have incorporated a series of standards which serve as a roadmap. Based on these standards, Ecopetrol has been adopting guidelines and procedures that reinforce the commitment to respect human rights. The main of the aforesaid documents is the Human Rights Guide, which

establishes the rights over which the Company has special consideration, its management principles and Ecopetrol's expectations in relation to its Stakeholders.

To see more information about the guidelines, click [here](#).
To see more information about the **Human Rights Guide**, click [here](#).



GRI 103-1, 412-1

Human Rights Governance

The Corporate Governance and Sustainability Committee is tasked with analyzing and formulating recommendations to the Board of Directors on the company's sustainability agenda, in which human rights is included. In 2020 this Committee learned about the company's management system on Human Rights and issued guidelines for 2021. Similarly, issues associated with human rights were informed to the Steering Committee in order to establish guidelines and courses of action.

Human rights management is supported by the Corporate Responsibility System - with an EG scope - which is also part of the Company's Integrated Management System. In 2020, Ecopetrol, through its Corporate Governance model, held four Corporate Responsibility working sessions where human rights issues were addressed.

GRI 103-2, 412-3, SASB EM-EP-210a.3

Human Rights Management

Ecopetrol's management is framed in the four principles established in the Human Rights Guide: Due diligence, transversality, complementarity, and collaborative work. Based on this commitment the Human Rights Action Plan is developed and actions to be taken are established under a Plan-Do-Check-Act (PDCA) approach to ensure alignment with global standards.

Table 77: Compliance with the Human Rights Action Plan

2018		2019		2020	
Goal	Compliance	Goal	Compliance	Goal	Compliance
90%	97%	90%	98%	90%	98%

Source: Ecopetrol, Secretary General and Presidency Support

GRI 103-3, 408-1, 412-1, WEF 22E

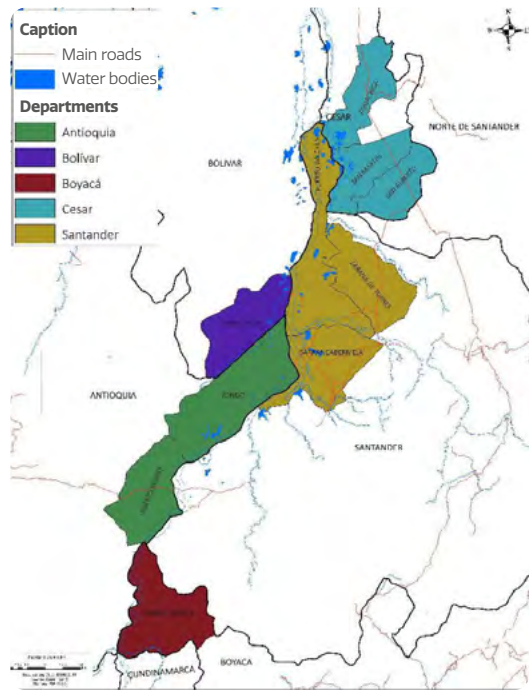
Risk analysis and management in human rights

At the operational level

Ecopetrol continued to carry out annual exercises for the identification and evaluation of risks and impacts on human rights. In this sense, during 2020 the company completed the risk analysis for the Magdalena Medio Valley operations and focused efforts on updating the human rights risk map of the Orinoco Region. The due diligence exercise was extended to more areas of the operation, defining corresponding prevention and mitigation plans.

Analysis at *Valle del Magdalena Medio*

- Geographical scope: Puerto Berrío and Yondó in Antioquia, Puerto Wilches, Barrancabermeja and Sabana de Torres in Santander, Cantagallo in Bolívar, Puerto Boyacá in Boyacá, and San Alberto, Aguachica and San Martín in Cesar.



To see more information about the Risk Management Analysis, click [here](#).

Ecopetrol has assessed its 3 main operational sites. Each site has a human rights risks prevention and mitigation plan.

SOCIAL DIMENSION

Actors involvement:

A total of 223 regional actors participated, of which 128 had an exclusive role as rights holders. We carried out 147 semi-structured interviews with them, and eight workshops were held to socialize the risks and impacts identified.

A differential approach was incorporated to address different aspects such as: gender, age (childhood), belonging to social organizations (leaders and members of unions), belonging to ethnic communities, and conflict victims.

After identifying 16 risks and impacts, more than seven sessions were held to define the risk prevention and mitigation plan. These sessions involved different areas of the organization, and 35 actions were defined for implementation.

The most relevant identified risks and impacts can be grouped into the following groups of rights:

- Right to an adequate/healthy environment.
- Rights to an adequate standard of living.
- Rights to life and personal safety.
- Labor rights no discrimination.
- Right to information and participation.

The Pilot Projects for Comprehensive Research of Unconventional Oil Reservoirs (PPII) will be carried out in the Centrorregional branch. Therefore, in 2020 we established the basis to continue a Human Rights analysis in this particular activity in 2021.

Total number and percentage of operations with human rights evaluations: With the completion of this risk analysis, Ecopetrol has covered its main areas of operation in the last three years, representing 59.1% of EG’s production.

At corporate level

As a member of *Guías Colombia* initiative, the “Self-diagnosis tool for identifying human rights management gaps” was applied for the second consecutive year. Through this tool, a self-diagnosis was carried out for Ecopetrol with the “guidelines on mechanisms for complaints and claims related to Human Rights and International Humanitarian Law (IHL)”, issued by this initiative.

As a result of this exercise, eight indicators were identified for which there is an opportunity for improvement. A series of recommendations were suggested to be implemented. This bridging program will take place throughout 2021.

In relation to the self-diagnosis applied during 2019 on “Purchase and acquisition of rights over land and right of use”, actions were taken and improvements were adopted during 2020 regarding the gaps identified, including those related to resettlement and land restitution.

In addition to these exercises, a diagnosis of human rights management was carried out for a universe of suppliers in Ecopetrol’s supply chain. (See section on due diligence in the Supply Chain).

WEF 22E

Salient issues

As a result of the human rights risk analyses carried out periodically, - with the support of human rights experts, and involving rights holders - Ecopetrol identified outstanding issues, which must be managed by the Company for prevention and mitigation of risks and impacts on human rights.

Ecopetrol preserves Human Rights in Supply Chains		
<ul style="list-style-type: none"> • Healthy Environment • Rights over land • Ethnic communities 	<ul style="list-style-type: none"> • Equality and discrimination • Social protest • Decent working conditions (Health and Safety) 	<ul style="list-style-type: none"> • Freedom of association and unionized negotiation • Equal opportunities for access to employment • Decent working conditions (Health and Safety)

GRI 103-1, 103-2, 103-3, WEF 14

Human Rights Monitoring

Ecopetrol permanently monitors human rights risks using internal and external sources of information. To facilitate such monitoring, a list of human rights risks was included in the operational risk matrix, facilitating their incorporation into the risk management cycle, as well as the adoption of preventative actions and the identification of negative impacts.

Within the framework of this monitoring process, six cases of alleged or potential impact on human rights were known during 2020. These cases were related to labor and indigenous issues, social leaders, and the intervention of the Law Enforcement in situations of public order. The cases were brought to the attention of the authorities and/or were dealt with by the competent area.

GRI 409-1

After conducting the risk analysis on human rights at the regional level and permanent monitoring, no situations were identified that implied a risk of forced labor in operations or in the supply chain.

GRI 103-1, 103-2, 103-3


Diversity, Inclusion and equal opportunities

In response to the provisions of its Human Rights guidelines and the Code of Ethics and Conduct, Ecopetrol defined clear guidelines that establish the duty of employees to ensure and strive for the respect and promotion of Human Rights, as well as Diversity and inclusion.

In terms of human talent, the Company has developed labor practices aligned with this regulatory framework, applicable from the level of the Board of Directors, the Steering Committee, and all the people who work in the Company and in EG. The most relevant of these practices is the Diversity and Inclusion (D&I) Program, based on the principles of meritocracy, equity, and justice.

This program has defined a set of indicators and milestones for its implementation. Each of the “Perspectives” has different initiatives that have already led to various results in 2020. The most relevant milestones in the program are the following:

To see further details about the Diversity and Inclusion Program, click [here](#).



Cross-cutting milestones

Extension of our community:

	2019	2020
Sponsors	6	9
Champions Volunteers	208	417
Partnerships	28	32
Participations in our activities and training actions	5,300	8,295

The D&I Program also expands within EG companies:

2019	2020
Cenit	Hocol, Ocesa, ODL, Reficar

The Diverse Economic and Labor Inclusion Route was created for the Supply Chain and Management of the social environment aspects, and expanded Ecopetrol’s experience in this field:

To see further details about the Diverse Economic and Labor Inclusion Route, click [here](#).



Table 78: Expansion of D&I in the Supply Chain

Diverse labor and economic inclusion route (Participations per event)	2019	2020
Proveedor In (Inclusive Supplier): socialization cycles of the D&I Program and inclusive employment guidelines for partners and suppliers	35	129 participants
Directory of Responsible Purchasing and Diverse Markets: fairs that promote purchasing and support to ventures of vulnerable population in celebration seasons	18	33 start-ups at Fair
Regulations for inclusive employment in the Ecopetrol Recruitment Manual: inclusion of regulatory guides that promote inclusive employment.	1 contracts	3 contracts adopted
Somos Colombia Rounds: virtual commercial rounds	NA	12 rounds 72 startups \$ 6.4 billion in sustainable purchases.
Gastronomic Festival "Los Sabores de mi Tierra" - The flavors of my hometown: weeks in which our kitchens offer typical menus from the areas of the country where we operate, acquiring food manufactured or grown by entrepreneurs from vulnerable populations.	NA	15 participating ventures \$ 40 million in purchases
Inclusive circular economy: circular economy projects with vulnerable populations or those struggling with labor insertion.	NA	2 inclusive circular economy projects under development.

Source: Ecopetrol, Vice Presidency of Procurement.

The diversity regulatory framework was strengthened, launching in 2020:

- Diversity and Inclusion Guide for Ecopetrol
- Language and inclusive communication guide
- Corporate Diversity and Inclusion Guidelines and D&I Kit for GE companies.

Communication in regards to D & I:

	2019	2020
Internal scope	3,135	14,683
External reach	-	433,337

Ecopetrol by recognizing the needs of our workers and the Society and Community, can work in an inclusive institutional. Contributing to SDG 10 "Reduced Inequalities".



To see the Diversity and Inclusion Guide for Ecopetrol, click [here.](#)

To see the Language and inclusive communication guide, click [here.](#)



Adjustments were made to the human talent processes to advance in conscious inclusion:

- **Induction module:** Principles of D&I, program, unconscious biases and inclusive language and communication.
- **Unbiased selection:** Training and selection guidelines for inclusive recruitment and selection without bias.
- **Compensation:** Application of national and international standards for annual monitoring of salary differences between men and women.
- **Positions:** Application of inclusive language guidelines.
- **Training, Development and Leadership:** Training actions on diversity issues and actions to prevent different forms of GBV, discrimination, transform stereotypes and biases of the organizational culture.
- **Culture:** The Diversity-related principle “I lead upon the basis of Diversity and Inclusion” was incorporated into the new EG Culture model.

During 2020 Ecopetrol was recognized and certified given its advances in Diversity and Inclusion:

- Inspirational companies awarded by the Andi Foundation, USAID and *Portafolio* journal.
- Women Economic Forum, Women’s Indian Chamber of Commerce and Industry, All Ladies League and She Is Foundation.
- National ranking of inclusive companies by the LGTBI Chamber of Commerce and the National Consulting Center. Ecopetrol ranked 6th in the Top 10, and received two additional awards for outstanding Diversity Group of 2020 and first Colombian company in the ranking. Cenit and Ocesa were also measured.
- Progress in the adoption of the Equipares Seal, a gender equity system with phases of adoption, diagnosis, and then silver and gold certifications.





Gender Perspective

- Ecopetrol promoted six initiatives on gender equality and made progress in each of them. This led Ecopetrol to occupy the second place in the measurement of the Par Ranking measured by Aequales, improving 12 positions as compared to 2017, surpassing the goal of 73. Ecopetrol also reached 87% in the UN WEPS (*Women Empowerment Principles*) measurement and advanced in the Equipares Seal of the Ministry of Labor and UNDP, both with Ecopetrol and the companies of the Group.
- The Selection and Mobility section of this document shows the gender metrics associated with the proportion of recruitment by gender.

Gender Perspective [here](#).
 To extend the demographic data, click [here](#).

Gender metrics

Table 79: Women in Leadership Positions

Niveles	2018		2019			2020			Total increase
	Woman	%W	Woman	%W	Annual increase	Woman	%W	Annual increase	
1st level President - VPS	3	14%	3	14%	0 ppt	5	16%	2.5 ppt	2 ppt
2nd level Management or equivalent	14	14%	20	18%	3 ppt	30	27%	9.3 ppt	13 ppt
3rd level Directorates and equivalents +	46	20%	56	24%	4 ppt	64	29%	5.3 ppt	10 ppt
4th level Departmental and equivalents +	56	17%	72	19%	2 ppt	78	20%	1.4 ppt	3 ppt
Total level of Leadership	119	18%	151	20%	2.6 ppt	177	24%	3.6 ppt	6 ppt
5th level administrative staff, technical	1,875	29%	2,007	30%	0.4 ppt	1,935	30%	0.18 ppt	1 ppt
6th Level staff, operational	183	7%	166	6%	-0.5 ppt	161	6%	-0.12 ppt	-1 ppt
Total	2,177	22%	2,324	23%	1 ppt	2,273	23%	0.23 ppt	1 ppt

Source: Ecopetrol, Vice Presidency of Human Talent



Disability Perspective

- Ecopetrol has developed six disability initiatives. These initiatives also respond to Ecopetrol's adherence to the Valuable 500, an international movement that seeks to get 500 of the largest and most influential companies in the world to commit to actions that promote the inclusion of people with disabilities as a visible contribution to the SDGs. Membership was announced at the 75th UN General Assembly, on September 30th.

Metrics on disability

Table 80: Number of beneficiaries of inclusive education

	2019	2020
Comprehensive Inclusive education Plan	-	473*
Regular Plan (pedagogical and therapeutic supports)	-	108
Total	-	581

Source: Ecopetrol, Vice Presidency of Human Talent
 Note: * Of the 473 people who received the Complete Inclusive Education Plan, 119 received pedagogical and therapeutic support.

Table 81: Number of people with disabilities employed at Ecopetrol

2018		2019		2020	
#	%	#	%	#	%
Women					
62	10%	68	9%	59	9%
Men					
534	90%	698	91%	632	91%
Total					
596	100%	766	100%	691	100%

Source: Ecopetrol, Vice Presidency of Human Talent

Table 82: Number of people with disabilities hired by Ecopetrol annually

2018		2019		2020	
#	%	#	%	#	%
Women					
3	25%	2	7%	0	-
Men					
9	75%	27	93%	0	-
Total					
12	100%	29	100%	0	-

Source: Ecopetrol, Vice Presidency of Human Talent

Disability Perspective [here.](#)
To extend the demographic data, click [here.](#)



Perspective of victims, ex-combatants, and retirees / veterans from Law Enforcement Agencies

- As with the previous perspectives, there are six initiatives in the area of victims, ex-combatants and retirees from Law Enforcement Agencies. This allowed progress in cooperation alliances with the Victims Unit, the Ministry of Defense, the Agency for Reincorporation and Normalization, ANDI Foundation, and the International Organization for Migration (IOM) with the Inclusion for Peace Program.

Perspective of victims [here.](#)
To extend the demographic data, click [here.](#)



Perspective of ethnicities, origin and sociocultural conditions

- Within the framework of adhering to the Great National Pact for Diversity and Inclusion of the IOM / USAID Inclusion Program for Peace - Ethnicity approach, a diagnostic process was developed on the inclusion of indigenous and Afro-descendant population in Ecopetrol.

Perspective of ethnicities [here.](#)
To extend the demographic data, click [here.](#)



Perspective of sexual orientation and gender identity (SOGI)

- Progress was made in the alliance with the LGBTI Chamber of Commerce of Colombia, by virtue of which the first diagnosis of inclusion was carried out with the SOGI (*Sexual Orientation and Gender Identity*) community in the Company, based on the UN Principles of Inclusion in Work Settings.
- The company was also measured under the first National Ranking of Inclusive Companies for LGBTI community. In addition to ranking 6th as a company, the volunteer team of champions of Ecopetrol Group was awarded as the Outstanding Diversity Team prize, due to the leadership and training in these issues.

Perspective of sexual orientation [here.](#)
To extend the demographic data, click [here.](#)

GRI 406-1, SASB FR 310 a, WEF 20E

Complaints about labor practices and discrimination

There were no cases of discrimination materialized in the Company involving workers during 2020. Through Ecopetrol's D&I Guide, the Company rejects any kind of discrimination based on sex, disability, ethnic identity, physiognomy, religious beliefs, political ideology, among others - a position which is reinforced through the Company's Code of Ethics and Conduct.

Regarding this aspect, the OPC received three complaints against contractors during 2020, referring to "Presumed lack of transparency, discrimination in a selection process" and "Discrimination in employment and occupation". However, no facts or circumstances were found in any of these cases to demonstrate that these people were indeed the object of discriminatory treatment by Ecopetrol or its partners.

Prevention of workplace harassment

The Ecopetrol Labor Coexistence Committee promotes respect, impartiality, tolerance, serenity, spirit of dialogue, and conciliation that tend to improve work coexistence in a completely confidential environment.

To see further details, [click.](#)



GRI 103-1, 103-2, SASB EM-EP-210a.3, SASB EM-EP-210b.1

Indigenous and Afro - Colombian communities

During 2020, the COVID-19 pandemic made a difference in the way in which Ecopetrol S.A. related to ethnic communities. Giving priority to safeguarding health and avoiding the risk of contagion, the Company has followed the instructions of the health authorities and the national and local government.

At present, there are two guidelines in Ecopetrol that govern relations with ethnic communities:

Guide for Relationships with communities of Ethnic Groups [here.](#)
Procedure for Carrying Out Prior Consultations [here.](#)



Accordingly, Ecopetrol was respectful of community decisions on the temporary interruption of prior consultation processes and other spaces for dialogue - or continuation thereof - applying all biosafety measures to hold specific meetings.

The latter was updated in 2020 in accordance with international standards, recent regulations and jurisprudence - especially Ruling SU-123/2018.

Intercultural Dialogue

Dialogue with the Sikuani Alto Unuma Reservation

Ecopetrol is present in the municipality of Puerto Gaitán, Meta with the operation of the Rubiales Field, in the border with the Sikuani Alto Unuma Meta Indigenous Reservation. As of the arrival of Ecopetrol in 2016 to the field - and after carrying out the repair consultation with this community - the intercultural

social dialogue has continued, allowing to determine the vision and concerns of the community and address any conflicts that may arise.

A dialog agenda has been created through the Action and Development working group of the indigenous peoples of Puerto Gaitán, Meta, created by the

Government of Meta. Representatives of the municipal reserves, local authorities, and delegates of the oil industry operators participate in agreement with the indigenous communities. This allows to monitor the commitments established. Ecopetrol participates in the Action and Development Table whenever industry-related issues are raised.

With the aim of aiding in strengthening this working group, an agreement was signed with the Colombian Petroleum Association (ACP), which has a two-pronged purpose: i) provide logistical and technical support for the operation of the Table, and ii) strengthen the competences of leaders and members of the reservations, territories, settlements, and indigenous organizations of Puerto Gaitán.

Dialogue with the U'wa People.

Ecopetrol's participation in the dialogue committee established by the National Government with the U'wa people has been instrumental in strengthening communication between Ecopetrol and AsoU'wa. This is an intercultural workspace that aims to strengthen trust, knowledge and mutual encounter.

This space was established in 2018, after several years of distant relationship, partly generated by the current controversy between this people and the Colombian State before international bodies. Stable and permanent communication is currently maintained with AsoU'wa, and it is expected to expand the radius of action to the other organizations representing the U'wa Group.

GRI 103-3, OG-10

Prevention and management of intercultural conflicts

Identification of ethnic communities prior to project development

When the operations to be carried out may directly affect ethnic groups, the required processes are carried out to safeguard and guarantee the right to Prior Consultation. The following actions are carried out for the identification of ethnic groups in the areas where we operate:

1. Ethnic diagnoses from secondary sources, which integrates known information on the presence of ethnic groups in the area and the history of their relationship. In 2020 we added the monitoring of ethnic community registry, which is a control action at the Mayor's Offices of the municipalities where there are direct operations.
2. Request for certification of the need for Prior Consultation: Prior to the development of any project, the National Authority for Prior Consultation - ANCP- is requested to certify

the need for prior consultation on an area of influence. In 2020, 12 requests for prior consultation were carried out, of which two indicated the need to carry out prior consultation – one for a new seismic project and another for specific environmental compliance of abandonment to the well.

3. Report of the presence of communities in the area: in the cases in which Ecopetrol identifies ethnic communities that may be directly affected by the activities of a project, the presence of this community in the area is reported to the ANCP and then a request is submitted for the issuance of the relevant pronouncement on the part of the authority as to the need for prior consultation. In 2020, the creation of the Inga Nukanchipa indigenous council – located within the area of influence of the “Polígono Churuyaco” project – was reported to the ANCP, for which prior consultation with other ethnic communities in the area had been carried out.

Understanding the context for a good relationship with indigenous and Afro-Colombian communities

For the relationship with ethnic groups that live in areas of the operation, intercultural dialogue is taken as the principle and articulating axis of the process. For this reason, in addition to diagnoses on the territories (which can provide relevant information on the characteristics of ethnic groups) participatory baselines are built during the prior consultation processes for the collection of information from the community.

The Annex 2 of the Guide for relations with ethnic groups is also applied in these dialogue processes (“Guiding questions for an initial characterization of ethnic communities”), which support Company workers who interact with ethnic groups to ask questions about their history, social organization and basic norms for relationships.

GRI 103-3, OG-9

Previous consultations made and in follow-up stage.

The Prior Consultation process is carried out in order to comply with the legal and environmental regulations, as well as to seek the prior consent of the indigenous and Afro-Colombian communities.

Free, Prior and Informed Consent (FPIC) is necessary in Colombia for the development of projects that involve any of the exceptional situations established by the Constitutional Court: i) Transfer or relocation of the indigenous or tribal people from their place of settlement; ii) The storage or deposit of dangerous or toxic materials in their territories, or iii) Measures that imply a high social, cultural and environmental impact that puts their subsistence at risk.

Since Ecopetrol has not developed any project with these characteristics, the Company carries out Prior Consultation processes seeking to reach agreements for the execution of projects that respect the cultural heritage in indigenous and Afro-Colombian communities.

It was not possible to move forward with some prior consultations in 2020 due to health-related restrictions.

To consult the projects that have included Prior Consultation processes in the last five years – and their current status – please visit **previous consultations in development.**

Four reports were made to the ANCP during 2020 in order to ensure (within the framework of due diligence), the opinion of this Authority on the inclusion of different communities in the required prior consultation processes:

- Report of the Inga Sumayuyai council for the prior consultation of *Polígono Churuyaco*.
- Report of the Florida Kawinanae council to evaluate the need for prior consultation.
- For the Macao exploratory project, the Ministry of Interior determined the necessity of four prior consultations: Ishu Awa Indigenous Reservation, Rumiayaco Pastos Indigenous Reservation, Nasa UH Indigenous Reservation, and Liberación y Futuro Community Council. Considering its knowledge of the area, Ecopetrol requested the integration of three other ethnic groups in the certification: Cofán Santa Rosa, Cofán Ukumari Kankhe and Inga Nukanchipa Yuyay.
- Abandonment and Cleaning of Airú Well. The Ministry of Interior determined that the consultation with the Villa Catalina reservation is necessary.

GRI 103-1, 103-2, 413-1

Protection and promotion of multiculturalism

Agreement for the promotion of the Conservation of the Cultural Heritage of the Cofan People.

An agreement was signed in 2020 with the Permanent Working Group of the Cofán People. It sought to strengthen the conservation and cultural promotion through the adaptation of five spaces for *mythotheques*, as well as the participatory diagnosis to update their Life Plan.



Agreement for the Sponsorship of artisans of ethnic groups within the framework of Expoartesanías Fair

Support was provided for the logistics and installation of an ethnic handicraft pavilion at Expoartesanías Fair. Every year, the participation of about 100 artisans is facilitated in their respective stands – a space that allows the promotion and recovery of ancestral knowledge. The virtual version of the Fair was supported in 2020, in which 102 artisans from different regions of the country participated.





Ecopetrol supports diversity and inclusion in indigenous communities, promoting 350 artisans, of which 102 belong to ethnic groups, at Expoartesanías Digital 2020



Archaeological authorizations

Ecopetrol is committed to protecting the archaeological heritage of the Nation and raising awareness of its importance. To this effect, actions have been implemented both internally and with partner companies, as well as with the local populations where projects are developed.

We developed 65 preventative archeology programs in different regions of the country in 2020 – mainly in the Orinoco region and the *Valle del Magdalena Medio*.

Balance of activities during 2020:

We obtained 26 records in accordance with ICANH regulations (decree 138/2019) to enable and expedite the development and construction of projects such as Campo Casabe - Peñas Blancas, Campo Rubiales, Campo Cumanday, 50K Production Field, Cubarral Block, Block CPO-09, Campo Llanito, Campo Mago Norte, APE Medina Occidental, Apiay Block, AD Floreña, AD Pauto, APE Llanos 8 Sector Sur, among others.



GRI OG-10, 103-3

Prevention and management of intercultural conflicts

Ecopetrol's main strategy to avoid intercultural conflicts has been based on compliance with environmental regulations and identifying the presence of ethnic groups in the areas to be intervened. In addition, prior consultation processes have been carried out whenever so determined by the Ministry of Interior.

Currently, it can be established that one cause of the conflict with ethnic groups is the lack of clear regulations on the application of the prior consultation process – especially in existing operational areas, before the issuance of Act 21 of 1991. The abovementioned regulation enacts a provision contained in the ILO 169 Convention 169. This situation has led to the establishment of guardianships by ethnic groups against Ecopetrol and other government entities, as well as for its partners and subsidiaries. In the face of such protection, Ecopetrol has been respectful of (and diligent in regards to) the judges' decisions.

Table 83: Significant conflicts with ethnic communities

Date	Community	Draft	Situation
July 2016	Alto Unuma Reserve, Meta.	Polygon within Campo Rubiales.	<p>The Alto Unuma Meta Reserve argues that it has never been consulted about the Rubiales Field operation, which has affected sacred sites within the field.</p> <p>In response to the certification of the presence of the Sikuani community and the ruling of the State Council, prior consultation was developed from August 2017 to January 2019, reaching compensation agreements worth \$ 12 billion, represented in environmental cultural, and productive projects.</p>
2018	<i>Cabildo</i> Sikuani Florida Kawinanae Reserve	CPO8 Sur Exploratory Drilling Area	<p>The Land Restitution Unit asked a restitution judge to hand over several properties in the municipality of Puerto Gaitán to the Florida Kawinanae community. The Ministry of Interior registered the community in its database, therefore the community requests Ecopetrol to carry out a prior consultation process.</p> <p>Ecopetrol has asked the Ministry of Interior for its pronouncement in this regard, based on the description of the activities and the evaluation of the project's impacts, which indicate that Ecopetrol has not intervened in the territory intended by the community. Contact has been maintained with community leaders, indicating that Ecopetrol is willing to dialogue within the legal framework, and according to institutional guidelines.</p> <p>Through due diligence, Ecopetrol has reported the activities that it has been developing outside the territory intended by the Florida Kawinanae community.</p>
2019	<i>Cabildo</i> Pasto Telar Luz de Amanecer Reserve	Access road to Ecopetrol operating areas in the municipality of Orito	The Telar de Luz del Amanecer council filed an injunctive protection action requesting consultation on the use of the road as access to operational areas, after being registered with the Ministry of Interior. The injunctive proceeding ruled in favor of Ecopetrol and the community filed a popular action that is currently underway.
2020	Reserves of the municipality of Puerto Gaitán	Request for prioritization of indigenous labor in the municipality	<p>Indigenous communities request that the hiring of indigenous labor be prioritized.</p> <p>Ecopetrol has complied with the national regulations on contracting. Given that ILO 169 Convention establishes the right to equal conditions with the rest of the population, the Government has established a dialogue table to advance in the revision of the norm. Ecopetrol is awaiting the decisions of the national government.</p>

Source: Ecopetrol, Vice Presidency of Human Talent

GRI 411-1

Identified cases of violations of the rights of indigenous peoples

No violations of the rights of indigenous peoples were identified during 2020. In the cases of guardianships that had been carried out (Case of Polígono Rubiales and Case of APE-Berilo Exploratory Drilling Area), the processes were formalized reaching agreements with the communities. In

the case of APE Berilo, given that the injunctive proceeding was filed prior to the commencement of the project, it is expected to start in 2022. The fulfillment of the agreements has not begun for this reason, as the actions agreed are linked to the commencement of the operation. In the case of the polygon within the Rubiales Field, the fulfillment of agreements with the communities began, and there is positive progress.

GRI 102-41, 103-1, 103-2, 103-3, 407-1, SASB EM-EP-210a.1, SASB EM EP-210a.2

Operations at sites with presence of indigenous communities

The map on the presence of ethnic groups in the departments where we operate shows the operations of Ecopetrol S.A., its infrastructure and exploratory blocks, and the existence of Indigenous Reservations and lands titled to Community Councils.

Ecopetrol does not have a database that establishes the location of the communities that do not have legally

To see the map on the presence of ethnic groups in the departments where we operate, click [here](#).



constituted lands, as the definition of territorial limits must be legalized by the National Government. Consequently, each time an activity is planned to be carried out in a new area, the Company requests the Ministry of Interior to issue the respective resolution of prior consultation, for which the Ministry evaluates whether a verification visit to the area is required, or issues the Administrative Act on the history of its databases.

GRI 102-41, 103-1, 103-2, 103-3, 407-1, WEF 21, WEF 21E

Right of association and collective bargaining

In order to strengthen the dialogue with Trade Unions and reach agreements in favor of the workers and the Company, a total of 425 spaces with the different Trade Unions at the national level were held in 2020.

Of these spaces, a total of 293 commitments were generated, which are fully closed. Ten extra-conventional acts were signed with Unión Sindical

Obrera (USO), ADECO and SINDISPETROL. Several of these agreements were made within the framework of the COVID-19 pandemic, in order to provide support to workers.

There are currently 20 trade union organizations at Ecopetrol S.A. to which the Company's workers are affiliated. Eleven of them are Industry Unions or by branch of economic activity, and nine are Company Unions.

Table 84: Trade union organizations affiliated with the Company's workers.

	Industry Unions	Company Unions
1	USO	ASPEC
2	ADECO	ASOPETROL
3	SINDISPETROL	TRASINE
4	UTIPEC	ASTECO
5	SINATRINHI	SINPECO
6	SINTRAMANPETROL	SINPROECOP
7	ASINTRAHC	APROTECO
8	USTRASEN	ASTIPHEC
9	SINTRAMEN	SITRAECO
10	USOLEODUCTOS	
11	ASINPE	

Source: Ecopetrol, Vice Presidency of Human Talent

In 2020, 50.3% of Ecopetrol workers were affiliated to one of the abovementioned Trade Union Organizations; the current Collective Bargaining Agreement (CCTV) applies to 78.3% of Ecopetrol S.A. workers.

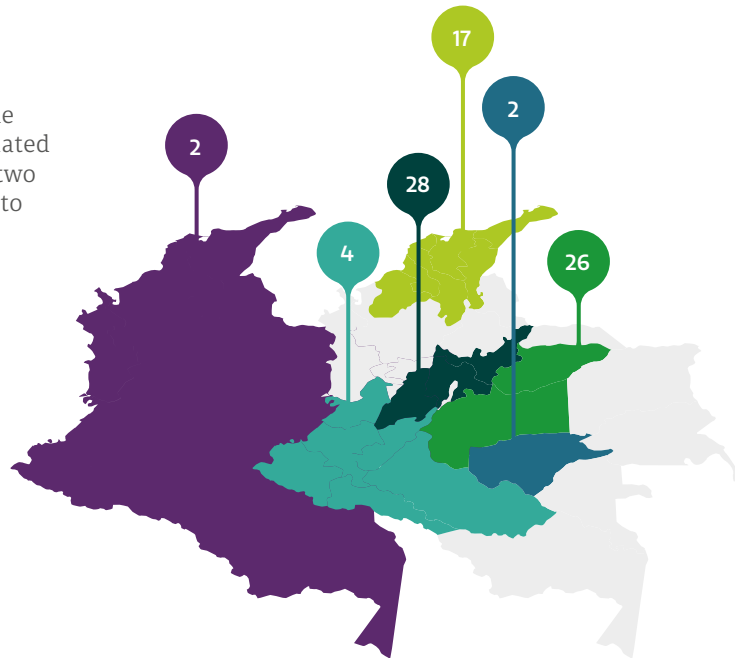
Monitoring work abnormality incidents

There were no general strikes that stopped the operation in 2020, although there were 79 isolated incidents of labor abnormality. Additionally, two incidents took place at the national level due to protests against the National Government.

Incidents in 2020 by regions

- Central
- Orinoquia
- Caribbean
- Southwest
- East
- National

79
Total



Source: Ecopetrol, Vice Presidency of Human Talent

We comply with bargaining agreement-related commitments on human rights

Collective Bargaining Agreement CCTV 2018-2022 includes Chapter XVII called “Human Rights and Peace”, by virtue of which Ecopetrol and the USO work together to encourage respect, compliance, and dissemination of human rights in the Company and regions where it operates.

In the development of this chapter, there is a National ECP - USO Commission for Human Rights and Peace and seven Human Rights Subcommittees that work to fulfill this purpose.

Activities carried out:

- To date and since April of 2019, the National Commission for Human Rights and Peace by consensus welcomed a worker to apply the exceptional conventional protection mechanism in case of threat, which involves paid leave and financial assistance, in addition to offering the worker the alternative of transferring to a different workplace.
- Twelve virtual monthly meetings were held in compliance with the provisions of the pandemic.

- Follow-up of agendas and construction of solutions for the effective protection of human rights within due diligence. This includes monitoring the cases of workers relocated to the different areas of the Company in previous years.
- In accordance with the 2020 work plan agreed upon by the ECP-USO National Commission for Human Rights and Peace, 12 Human Rights Workshops, two Regional Assemblies and a National Assembly of workers for Peace were held.

In the year 2020, under the framework of the Convention and within the principle of due diligence, the requests made by workers and union leaders were addressed in a timely and effective manner, in terms of safety and protection. Thus, compliance with all their rights in general (and human rights in particular) was guaranteed.

GRI 403-4

Health in the current Collective Bargaining Agreement

Collective Bargaining Agreement CCTV 2018-2022 – chapter VI enshrines the agreements in the matter of health services for the workers of the Company and their duly registered beneficiaries. Various commitments are established on health issues, including the integration of a National ECP - USO Health Commission, as a bipartite

body that addresses related aspects. In developing this chapter, the ECP - USO National Commission for Human Rights and Peace and Human Rights Subcommittees work to fulfill this purpose. This commission is made up of two representatives appointed by the administration to represent the Company, and four workers appointed by the union to represent the USO. With the provision of health services, ECP - USO Health Subcommittees are additionally established at the regional level with the same purpose.

Chapter X of the aforementioned Collective Bargaining Agreement contains agreements related to occupational health and industrial safety for workers in the different Company locations in the country.

GRI 402-1

Minimum notice periods in organizational changes

The notice time for workers in the event of a massive dismissal is not contemplated in the Convention or in any other document. However, all the actions of Ecopetrol S.A. are framed within the legal provisions that govern it; in line with this, in the event that Ecopetrol should need to resort to a massive dismissal, the legal procedure in the Substantive Labor Code would be followed. This includes authorization by the Ministry of Labor.

GRI 102-11 103-1, 103-2, 410-1, 412-3, SASB EM-EP-210a.3

Safety and Human Rights

The activities carried out to promote the safety of our workers, operations and infrastructure, are carried out in accordance with the guidelines established by Ecopetrol in matters of Human Rights – and especially in accordance with the Voluntary Principles on Safety and Human Rights, also tending to the general interest of those who live in the Company’s areas of operation.

In this sense, actions are carried out in terms of the relationship with the Law Enforcement, Private Security and risk prevention actions in matters of security and human rights.

Law Enforcement: the agreements and cooperation agreements with the Law Enforcement Agencies have transparency and human rights clauses that provide commitments for the counterpart to train personnel in human rights matters.

Private Security: Compliance by private security contracted by Ecopetrol with the human rights clause included in the contracts is managed and closely monitored. In this regard, a report is issued with a series of recommendations that allow to adjust the human rights policies of contractors with the Company’s work.

Following are the most relevant obligations established in the clause:

- Know – and act in accordance with – the principles of the Code of Ethics and Ecopetrol’s Business and Human Rights Guide.
- Promote respect for International Humanitarian Law (IHL), recognizing that the Private Security service is a complement to the activity of the State.

- Develop training programs that include the United Nations Basic Principles on the use of force and firearms and the Voluntary Principles on Safety and Human Rights.
- Adopt a process for the identification, prevention and management of human rights risks related to its activity.

The verification process of compliance with the human rights clause was carried out in 2020 with the ten private security companies, and all of them have complied with the recommendations made.

GRI 103-3

Risk prevention and management: Efforts were focused during 2020 on carrying out risk prevention plans in Safety and Human Rights; this strategy began in 2019. In 2020, actions defined after the construction of the risk scenarios were carried out and the first exercise of risk scenarios for the Southern Region was built. In addition, there was a definition of actions based on the risk analysis in human rights for the *Valle del Magdalena Medio*.

A robust training plan was implemented for the prevention of human rights and safety risks, covering 315 people in 18 training courses throughout the year (See the Training Section).

To see the Security and Human Rights Risk Prevention plans, click [here](#).

To see the training on risk prevention in Security and Human Rights, click [here](#).



LAND RIGHTS

GRI OG-12

Relocations

During 2020, Ecopetrol continued to carry out two relocations that began in 2019; one with ethnic communities, and one with non-ethnic communities, considering the procedure for the resettlement of the population in areas of development of operations and projects. There were no new relocations in 2020.



Table 85: Procedure to complete relocations

Municipality (Department)	Description
Cartagena (Bolívar)	The resettlement of the Zenú de Membrillar indigenous council is underway with the accompaniment of the different local, regional, and national authorities, for its relocation in the Bayunca township, in Cartagena.
Barrancabermeja (Santander)	Resettlement of 35 families located in the El Centro district, area of direct influence of the Operations Management of La Cira Infantas, Central Regional Vice Presidency. The relocation process was accompanied by the land management team of the La Cira Infantas project. As a result of these relocations, a process was carried out for adaptation to positive change, improvement in the habitability conditions of the houses, and the well-being of the families.

Source: Ecopetrol, Vice Presidency of Sustainable Development

GRI 103-1, 103-2, 103-3, 408-1, 412 - 3, WEF 14, WEF 22E, SASB EM-EP-210b.1.

Due diligence in the value chain


In order to contribute to the construction of a more stable, equitable and inclusive global market, which fosters more prosperous societies and contributes to the fulfillment of SDG 8: Decent work and economic growth, the Company promotes a supply chain that is respectful of human rights and an inclusive labor market.

Ecopetrol is committed to ensuring good labor, environmental and social practices throughout the supply chain. For this reason, the company communicates our expectations to suppliers and incorporates, clauses on the matter within the regulations and commercial agreements. Additionally,

in the performance evaluation, Ecopetrol applies criteria associated with the aforementioned dimensions, this in addition to disseminating the human rights policy among supplier companies and their workers, and promoting due diligence actions.

To see our expectations to suppliers, click [here](#).

To see the regulations, click [here](#).



TALLER DE CO-CREACIÓN DERECHOS HUMANOS

PROVEEDORES TOP 20 ECOPETROL

MARTES, 22 DE SEPTIEMBRE DE 2020



**USAMOS NUESTRA ENERGÍA PARA
CONSTRUIR UNA EMPRESA Y UN PAÍS
DE TODOS, PARA TODOS**

The First Workshop on Co-Creation in Human Rights Management in the supply chain was held with the Top 20 suppliers of Ecopetrol, and allowed to know the opinion and good practices of this Stakeholder in the management of Human Rights. The panel “Human Rights management in the supply chain” was held within the framework of this workshop, with Baker Hughes and Siemens Energy, among other suppliers.

Evaluation of supplier management

As part of the due diligence actions, Ecopetrol continued with the supplier self-diagnosis exercise, where through 217 respondents answered questions related to their commitment and management in human rights.

From the results, it is highlighted that 100% of the respondents incorporate human rights issues into one or more corporate policies. However, there are opportunities for improvement on specific roles and responsibilities for managing the issue and carrying out evaluations of risks in human rights.

GRI 103-1, 103-2, 103-3, 408-1, WEF 14, WEF 22E

Follow-up to specific contractual clauses – Rights of children and adolescents

Ecopetrol continued working on the implementation and assurance of compliance with the specific contractual clauses on human rights that it has for several contracts, such as the case of land transport by tank trucks, and private security.

In the case of land transport, the risk of affecting the rights of children and adolescents continued to be addressed through the administration of the contract where compliance is monitored, with the delivery of evidence of human rights management by suppliers, and their management capacity is strengthened through training.

The workshop “Children and adolescents victims of sexual violence: Attention Route” was held in 2020 by the Colombian Institute of Family Welfare (ICBF). Another workshop was held on the incorporation of the SDGs into the transport activity by *Pacto Global Colombia*.

Regarding the monitoring of compliance with the private security clause, see the Safety and Human Rights section.

GRI 412-2, SASB EM-EP-210b.1

Communication and training in human rights

Ecopetrol makes its commitment to respect human rights and its expectations known to its stakeholders through different means, including its website, training, communications, and social networks.

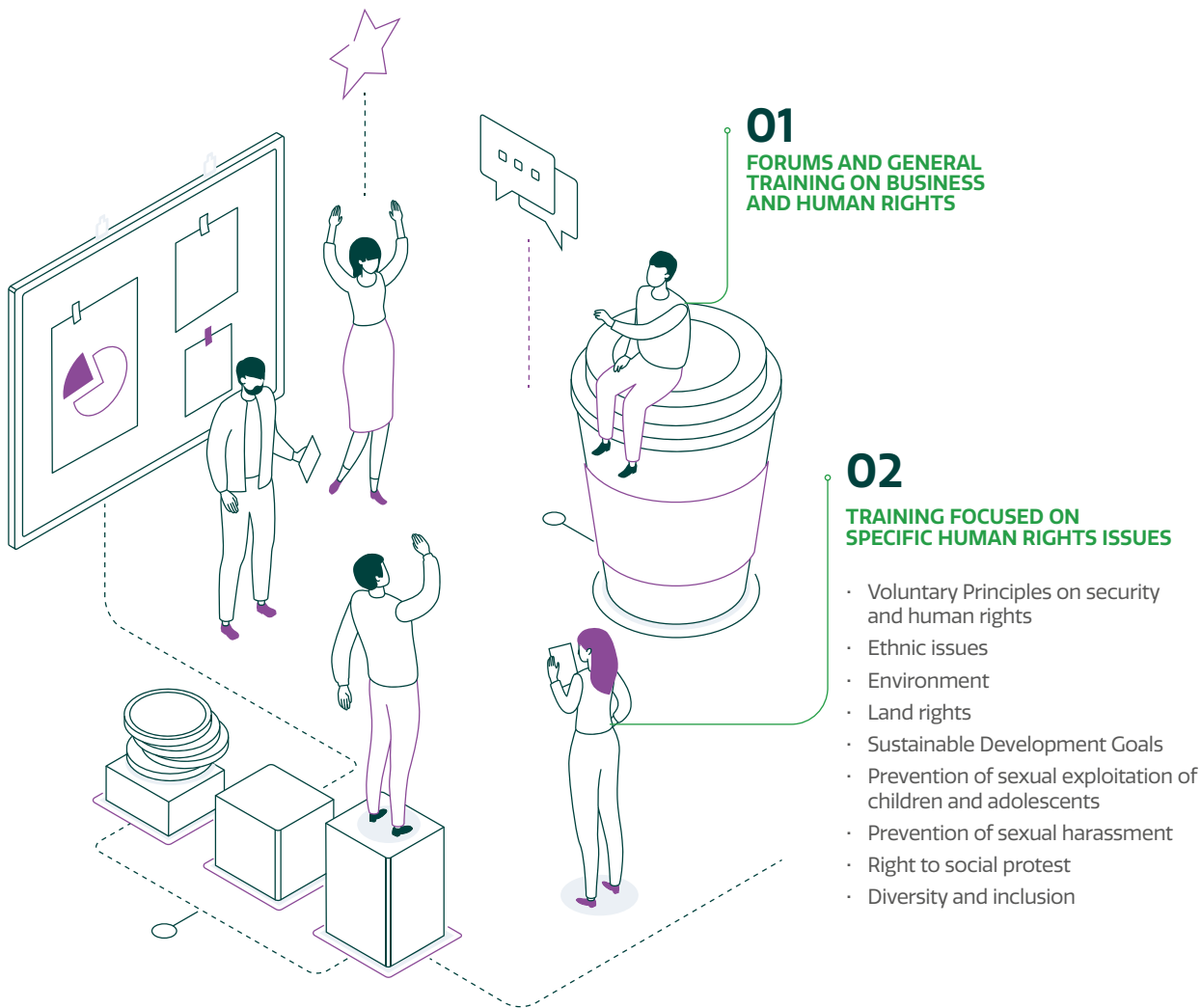
Statements of the CEO and other members of the management team

During the last two years, our CEO has voiced Ecopetrol’s commitment to respect human rights. The streaming event “Human Rights as a pillar of sustainability” was held in 2020 with the participation of President Felipe Bayón, and Dante Pesce, member of the United Nations Working Group on Business and Human Rights. There were well over 1,800 connections from EG workers and collaborators.

In other spaces aimed at contractor companies, partners, and other stakeholders, some members of the Steering Committee have publicly expressed the company’s commitment to human rights and the

expectations of the organization in its various relationships with Stakeholders. These senior executives include the Executive Vice President of Operations, the Secretary General, and the Vice President of Sustainable Development.

Raising awareness about the importance of carrying out business activities with respect for human rights is of great importance for Ecopetrol. In this sense, two types of awareness and training activities were carried out.




The activities above are equivalent to at least 1,270 hours of training given to 635 employees and contractors, in addition to the 8,295 participations in meetings associated with diversity and inclusion. This represents a coverage of approximately 65% of the workers of Ecopetrol and its Group.

GRI 412-2

Coordination with public and private agencies


At present, there is close coordination with different entities with competencies in the field of human rights at the national level. Ecopetrol is also part of business and multi-stakeholder initiatives that promote responsible business conduct and is attentive to human rights.



Human Rights and Agencia Nacional de Hidrocarburos:
The Company is part of this collaborative work initiative led by the ANH. During 2020, we participated in the work sessions planned, as well as in the training spaces provided by ANH. Several of our workers participated.




Global Compact:
Ecopetrol – fulfilling its commitment to meet the 10 Principles of the Global Compact – continued to be a member of this initiative in 2020 and partook in the spaces defined for the implementation of its agenda.




Human Rights Working Group - IPIECA:
Since mid-2020, Ecopetrol has been a member of IPIECA, allowing it to participate in different working groups, including on Human Rights.



Human Rights and Energy Working Group:
The Company participated in the initial sessions of this group, which are led by the Ministry of Mines and Energy.



Guías Colombia:
Ecopetrol actively participates in this multi-stakeholder initiative throughout the year in its plenary sessions and other scheduled activities.



Human Rights and Responsible Business Conduct Committee - ANI:
Ecopetrol, as a member of ANDI, continued to participate in this workspace during 2020.

KF_33

KF_76

KF_92

-05-



Environmental **DIMENSION**



Wax palm
Ceroxylon quindiuense



GRI 102-11

DECLARATION OF PRECAUTIONARY PRINCIPLE

Ecopetrol applies the precautionary principle as part of its environmental management. Therefore, in the absence of knowledge regarding a potential impact or risk, the Company takes measures to study and scientifically understand the risk during the planning stages of the

projects, i.e. before the potential impacts occur, and takes preventative actions or mitigation measures that have proven to be effective over time, which are permanently observed and evaluated. In this way, operational risks are prevented, even in the absence of scientific certainty.

GRI 103-1, SASB EM-EP-160a.1

Strategic environmental guidelines

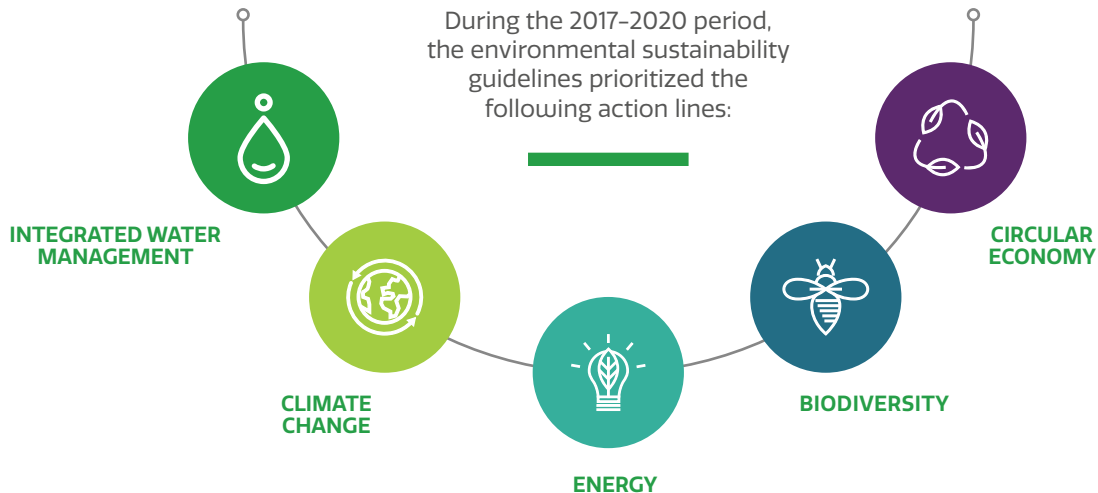
The environmental dimension of the Social Environment Strategy includes the topics of integrated water management, climate change, biodiversity and circular economy. This chapter will also address other relevant topics on the company’s sustainability agenda related to energy, fuel quality and air quality.

as exceptional material issues, and biodiversity and circular economy as featured items. Within the framework of the strategy, the roadmaps for these issues during 2021 will be defined with the respective short, medium and long-term objectives.

As a result of the materiality analysis carried out in 2020, Ecopetrol began to build the Sustainability Strategy (see chapter 1), in which the topics of integrated water management and climate change were categorized

The details of the Social Environment Strategy can be found on Ecopetrol’s website by clicking [here](#).

For more information on the environmental dimension, please see [here](#).





GRI 103-2

INTEGRATED WATER MANAGEMENT

Its objective is to incorporate efficient water management into the organization's value chain as an enabler of projects and operations, seeking the sustainability of the company, the reduction of environmental impacts and conflicts associated with water, and water security in the environment.



GRI 103-2, WEF 8

CLIMATE CHANGE

Ecopetrol has a climate change strategy that purports to reduce carbon emissions in operations and in the value chain, in line with the established goals; reducing the vulnerability of the operation to variability and climate change; and adequately managing risks and identifying opportunities in relation to this issue. This strategy takes into account the National Government's policies and plans on climate change and seeks to align with the main international standards, such as the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).



GRI 103-2

ENERGY

The 2021 - 2023 strategy seeks to incorporate environmental elements based on the increase in energy sales and the expansion of the generation park in order to encourage consumption thereof by EG.



GRI 103-2

BIODIVERSITY

The biodiversity strategy is based on four axes: i) prevention and mitigation of impacts and compensation of residual impacts applying mitigation hierarchy, ii) implementation of nature-based solutions that allow responses to challenges associated with climate change, biodiversity management and water resources and water resources, iii) knowledge creation, and iv) Consolidation of the company's culture about biodiversity.



GRI 103-2

CIRCULAR ECONOMY

The circular economy model for EG was structured in line with the National Circular Economy Strategy¹ declared by the Ministry of Environment and Sustainable Development (MADS) in 2019.

The main objective of the circular economy model is to incorporate this concept into management processes to promote economic growth, improve competitiveness and mitigate risks related to the environment and the volatility of raw material prices, in the medium term. This is based on five components:

- Efficient use of resources and new businesses,
- Improvement and development of products and services,
- Norms and public policies,
- Land management towards circularity and
- Culture.

¹ This strategy defined the concept of a circular economy as 'systems of production and consumption that promote the efficient use of materials, water and energy, taking into account the resilience of ecosystems, the circular use of material flows through the implementation of technological innovation, associations and collaborations amongst stakeholders, and the promotion of business models that respond to the foundations of sustainable development'.

GRI 103-2,201-2, WEF 15E

ENVIRONMENTAL INVESTMENTS AND EXPENDITURE

Ecopetrol invested \$ 929,660 million in environmental programs in 2020. This value corresponds to the information on investments and environmental expenses submitted to the Office of the Comptroller General of the Republic during Q1 of each year (graph 65).

Graph 65.
Ecopetrol's Investments and environmental expenses
 (COP Million)



This figure represents a 9% increase as compared to 2019, which is mainly explained by: investments and expenses related to the management of dumping, solid waste and hazards in the operating areas of the Barrancabermeja refinery, drilling projects, and some fields of production to ensure the operational continuity of each of the areas.

Ecopetrol has a climate change strategy whose main objective is to maintain a low-carbon operation and reduce the operation's vulnerability to climate variability and change.



ENVIRONMENTAL DIMENSION

The investment made in environmental programs in 2020 was distributed as follows:

- **\$84,688 million**

in operational environmental investments mainly for the execution of environmental studies, diagnoses, legal procedures, audits, operation and maintenance of equipment and monitoring networks.

- **\$31,995 million**

in environmental investments directed to water, represented in recovery and protection programs, purchase and assembly of equipment for control and monitoring of the quantity and quality of surface and/or underground water resources, and the protection of hydrographic basins.

- **\$14,776 million**

in environmental investments directed to programs for forest recovery and protection.

- **\$67,129 million**

in programs for the recovery and protection of air, represented in the acquisition of equipment and development of productive technologies to reduce atmospheric emissions.

- **\$122,969 million**

in programs for the recovery and protection of the soil, represented in the management and physical works of soil protection (geotechnical protection programs).

- **\$8,072 million**

in environmental investment in biodiversity, represented by investments in programs and projects for the preservation, conservation, and rational use of biodiversity.

- **\$491,035 million**

in environmental investment in drinking water and basic sanitation, represented in wastewater treatment projects and programs, construction and implementation of drinking water supply works, and solid and hazardous waste management and disposal.

- **\$108,917 million**

in environmental investment in risk management, represented in disaster prevention programs, support in disaster response and post-disaster activities.

- **\$ 79 million**

in urban environmental investment.



GRI 103-3

ENVIRONMENTAL MANAGEMENT INDICATORS

Following are the Company’s environmental indicators reported its 2020 TBG:

Table 86. Environmental indicators

Indicator	Unit	Goal / Maximum limit * 2020	Real Value 2020	Goal / Maximum limit 2021
Environmental incidents for operational reasons	Number	7	4	5
Barrels spilled due to environmental incidents caused by operational reasons	Barrels	140	125	128
<i>Reduction of greenhouse gas emissions, compared to the "business as usual" scenario</i>	Reduced tons	113,265	199,847	235,262

Source: Ecopetrol, Vice Presidency of HSE

Note: *The goals and maximum limits for 2020 only take into account the operations of Ecopetrol S.A.

In addition to these indicators monitored in the TBG, the different topics discussed in this chapter include other relevant indicators that are monitored.

To see the results of the monitoring by quarter of the environmental, social and corporate governance (ESG) indicators, please refer to **this link** and search for the TESG Dashboard.



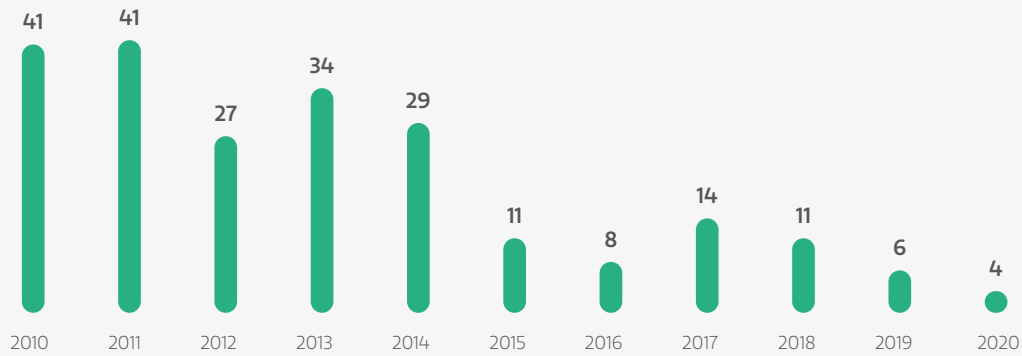
Environmental incidents for operational reasons

The indicator of environmental incidents due to operational reasons during 2020 met the maximum limit established by the Company, with a 43% reduction as compared to the maximum set for this year. In turn, the frequency of incidents decreased by 33 % compared to FY 2019. Graph 66 below shows the evolution of this indicator for the 2010-2020 period.

ENVIRONMENTAL DIMENSION

Graph 66.
Environmental incidents due to operational

(Number of incidents)



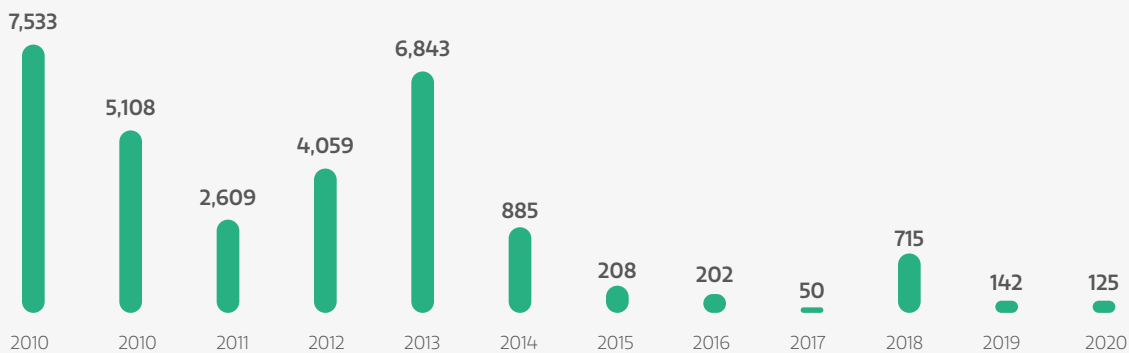
Source: Ecopetrol, Vice Presidency of HSE.

The indicator of barrels spilled due to environmental incidents caused by operational reasons met the maximum limit established by the Company, with an 11% reduction as compared to the maximum limit established for this year. In turn, the volume spilled in 2020 had a decrease of 12 % as compared to 2019. Graph 66 below shows the evolution of this indicator for the 2010-2020 period.

It should be noted that the favorable evolution of the environmental incident indicator in recent years is given by a continuous improvement of the processes, rigorous analysis of the activities of our projects, the operational discipline and the strengthening and implementation of management, monitoring and analysis tools. These elements have allowed the Company to make progress in identifying the causes and adjusting corporate strategies towards reducing incidents.

Graph 67.
Barrels spilled due to operational incidents

(Number of barrels spilled).



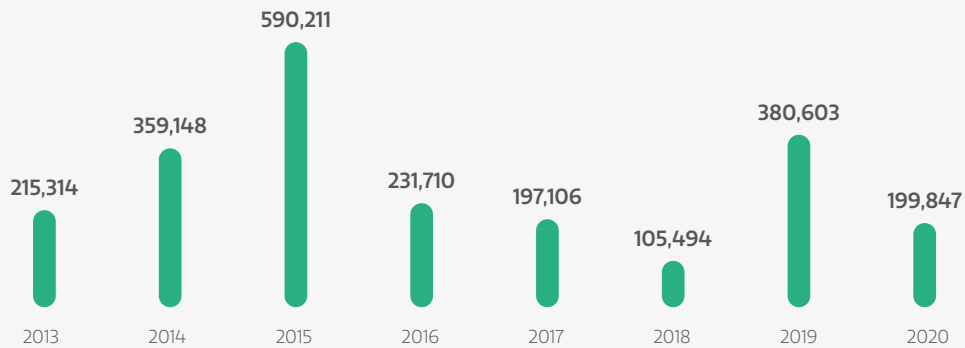
Source: Ecopetrol, Vice Presidency of HSE.

Regarding the indicator for the reduction of Greenhouse Gas Emissions (GHG) See graph 68. It is important to mention that there was a reduction of 199,847 equivalent tons of CO₂ (tCO₂e) in 2020 in new projects implemented during the year.

(five in production and two in refining), as well as to the inclusion of a new production project during the year.

This reduction exceeds the 2020 goal by 76%, which was achieved thanks to a better performance of seven projects

Graph 68.
Reduction of greenhouse gas emissions
 (Tons of CO₂ equivalent)



Source: Ecopetrol, Vice Presidency of HSE.



Emissions reduction, Cartagena Refinery



Material issue: Integrated water management

Standard	<u>GRI 103-1</u>	<u>GRI 103-2</u>	<u>GRI 103-3</u>
	Why is the issue material?	How is the issue managed?	How do you evaluate the issue?
<u>GRI 303</u> Water	Responsible management of water resources is essential to guarantee the protection and conservation of the environment and the operational continuity of the different business areas. Ecopetrol is publicly committed to sustainable water management through its adherence to the CEO Water Mandate.	The environmental strategy includes a integrated water management line. Its objective is to incorporate efficient water management into the value chain, as an enabler of projects and operations, seeking the sustainability of the company, the reduction of environmental impacts and conflicts associated with water and water security in the environment.	The integrated water management strategy is evaluated through indicators on: volume of water extracted by source, water sources significantly affected by the extraction of water, and volume of recycled and reused water.
<u>GRI OG-5</u> Generated water			
<u>GRI 103-1</u>	Ecopetrol process where the greatest impact is generated	Stakeholders where the greatest impacts are generated	Area that manages impacts
Impact coverage	Exploration, production, refining, petrochemicals and transportation	All stakeholders	Vice Presidency of HSE

GRI 103-2, 303-1, 303-2

INTEGRATED WATER MANAGEMENT

Water is a vital resource for the development of Ecopetrol’s operations, as well as for the communities in the areas where it carries out its operations. Based on this consideration, the objective of the integral management of water in Ecopetrol is to incorporate in its value chain the efficient management of this resource as an enabler of projects and operations, seeking the sustainability of the company, the reduction of environmental impacts and conflicts associated with water, as well as water security in the environment.

WEF 10

Water required to operate

In 2020, the total volume of water required to develop Ecopetrol’s value chain activities was 147.6 million cubic meters (m³). 65% of this volume (96.5 million m³) comes from the reuse of effluents and only 35% (51 million m³) was captured from natural sources and purchased from aqueducts. As can be seen in graph

WEF 11E

Operational efficiency in water management

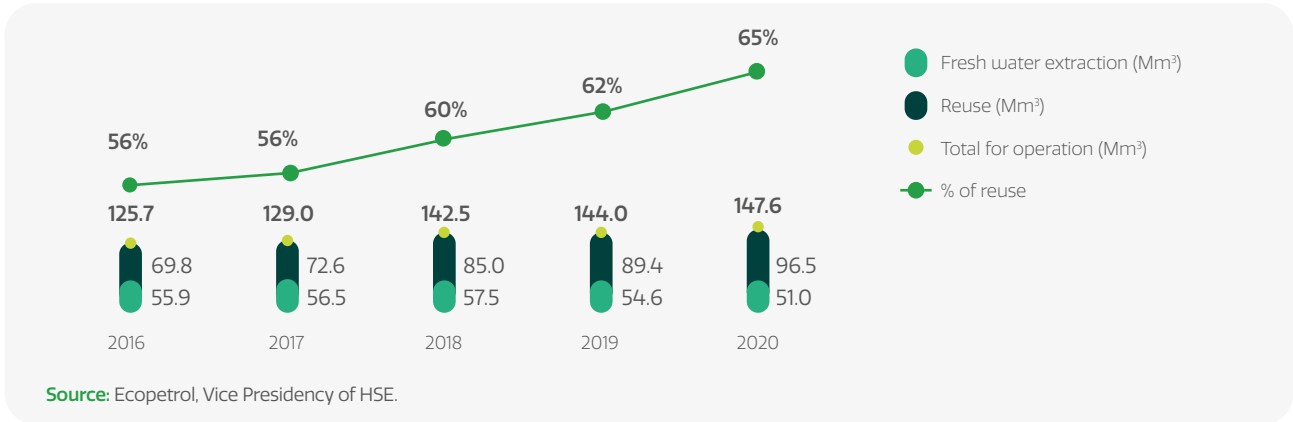
Through this strategic theme, it seeks to carry out the integral management of water in businesses, in order to generate value through the qualification of production and reserves, as well as to guarantee the availability and continuity of the current and future supply of the liquid for the projects and operations, considering the sustainability of the water resource.

The details of this strategy can be consulted in the following [link](#).



69 below, the percentage of reuse as compared to the total water required to operate has been increasing each year, going from 56% in 2016 to 65% in 2020, which has allowed a sustained reduction in fresh water collection in recent years, despite higher water requirements to operate.

Graph 69.
Water required to operate



GRI 303-3, SASB EM-EP-140a.1, WEF 11E

Water collection from natural sources and aqueducts

51 million m³ of fresh water from natural sources and aqueducts were captured, during 2020 – which represents a 7% decrease as compared to the volume captured in 2019, mainly due to reductions in the Barrancabermeja and Cartagena refineries associated with lower loads of crude due to the pandemic. On the other hand, the use of water collected in the La Cira Infantas, San Francisco, and Yaguará production fields for recovery processes was reduced. The use of collected water for recovery was eliminated in San Francisco, and Yaguará.

68% of the total water collected was extracted from 40 surface points such as rivers, streams, swamps and sewers, 18% corresponds to underground water extracted from 82 authorized points; and the remaining 14% was acquired from 27 aqueduct delivery points and external suppliers that have approved the sale of water for domestic and industrial use.

53.63% of the volume of fresh water captured was used in the refining and petrochemical processes (*Downstream*), followed by development and production processes (*Upstream*), where 26.29% of the total volume captured was used; 19.54%, equivalent to 9.98 million m³, was supplied for the supply of communities located mainly in the El Centro district, in Barrancabermeja - Santander, and the remaining percentage was used for exploration (0.01%) and transportation (0.4%) processes and corporate administrative areas (0.13%).



0.01%
Exploration processes

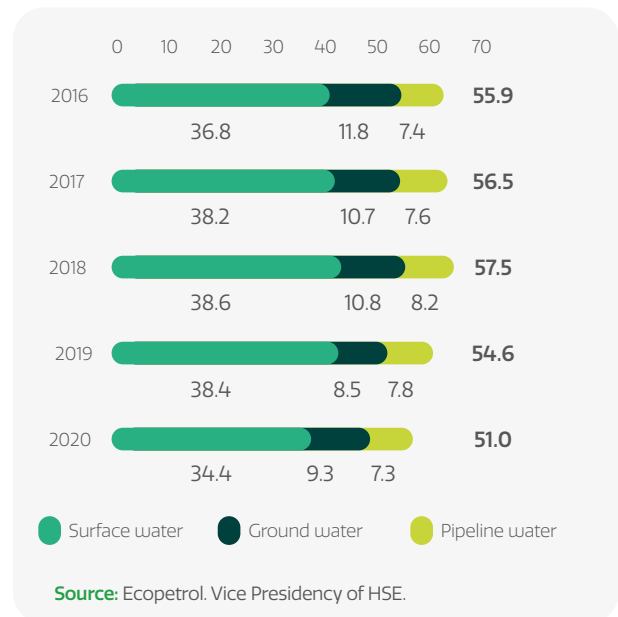


0.4%
Transportation



0.13%
Corporate administrative areas

Graph 70.
Fresh water collection by source

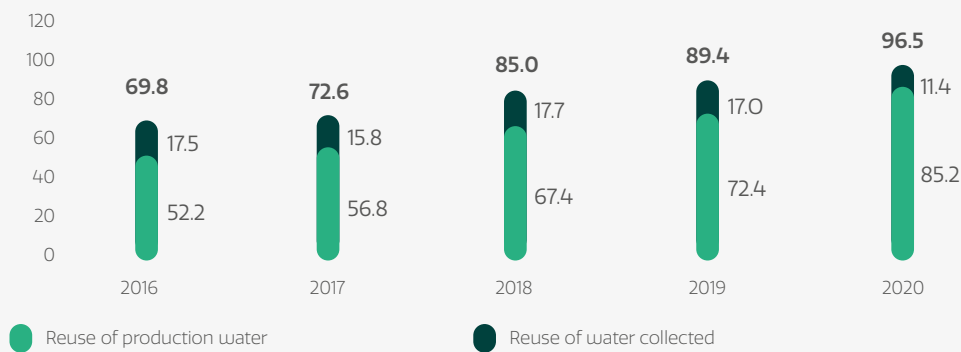


Water reuse

Ecopetrol is committed to the reuse of water as a strategy to reduce the volumes of fresh water collection and discharges. 96.5 million m³ of water were reused, equivalent to 65% of the total required

to operate, which means that Ecopetrol avoided the capture and dumping of this volume. This figure represents an 8% increase as compared to 2019.

Graph 71.
Water reuse



Source: Ecopetrol, Vice Presidency of HSE.

The types of reuse carried out at Ecopetrol are explained below:



Reuse of water captured

In 2020, Ecopetrol reused and recirculated a total of 11.4 million m³ of effluents from the use of captured water. The percentage of reuse, calculated as the relationship between the volume of reused-recirculated water and the total volume captured was 28%, (upon the issuance of this report, the volume of drinking water supplied to communities is not included) showing an 8% decrease with respect to 2019 mainly due to the exit of process units in the Barrancabermeja and Cartagena refineries as a result of the pandemic.

On the other hand, domestic and industrial wastewater is reused in drilling activities, which is used again after undergoing tertiary treatments (reverse osmosis and demineralization) in the production of drilling mud, equipment washing, cooling water for pumps and industrial uses.



Production water reuse

85.2 million m³ of production water were reused in Upstream processes, which represents an 18% increase as compared to 2019, mainly due to the greater reinjection of production water for recovery in the Castilla field. Ecopetrol's production water reuse percentage, calculated as the ratio between the volume of production water reused and the total production water generated, was 21% (+ 3% vis-à-vis FY 2019.)

The highest volumes of production water reuse are concentrated in reinjection activities to maintain reservoir pressure or increase oil production (84.8 million m³) and to a lesser extent (0.4 million m³) in the preparation of drilling muds, well maintenance, fire-fighting systems, equipment cooling and power generation in Termosuria, among others.

2021 – 2023 Goals

With the definition of Water Management as an element that must be approached by the company in an exceptional manner, the goals and roadmaps during 2020 were established for the period 2021-2023, seeking to maximize the reuse of water as a strategy to reduce the extraction of fresh water from natural sources and aqueducts.

Thus, the production water reuse percentage is expected to increase from the current 18% to 22.4% in 2021, 24.8% in 2022 and 27.2% in 2023. Similarly, it is sought to increase reuse of collected water from 28% today to 34.2% in 2021, 37.6% in 2022 and 38% in 2023.

GRI 303-4, WEF 11E

Effluent Management

The total volume of effluents generated by Ecopetrol’s operations during 2020 was 432.3 million m³, which include:



403.4 million m³

of production water (93% of total effluents). Production water is a natural element during oil extraction, since oil, gas and water are mixed in oil fields (on average, for each barrel of oil equivalent, 13 barrels of production water are generated). This mixture is brought to the surface, where the products (oil and gas) are separated from the water.



28.9 million m³

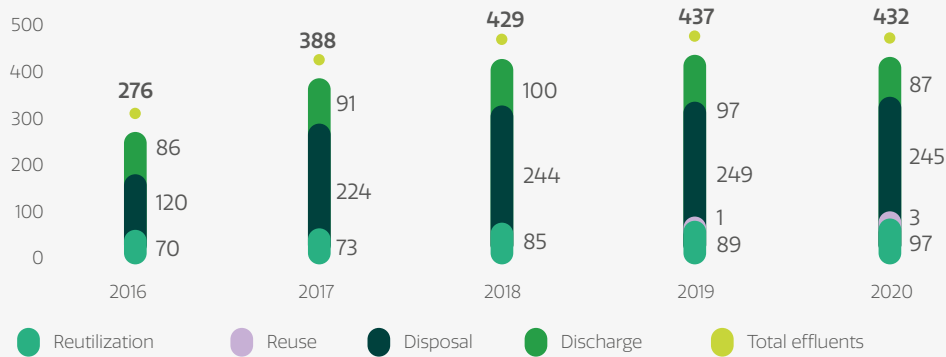
of wastewater (7% of total effluents), understood as wastewater resulting from the use of the water captured for industrial and domestic uses.



ENVIRONMENTAL DIMENSION

Graph 72 below presents different alternatives Ecopetrol has established for effluent management:

Graph 72.
Effluent management (Million of m³)



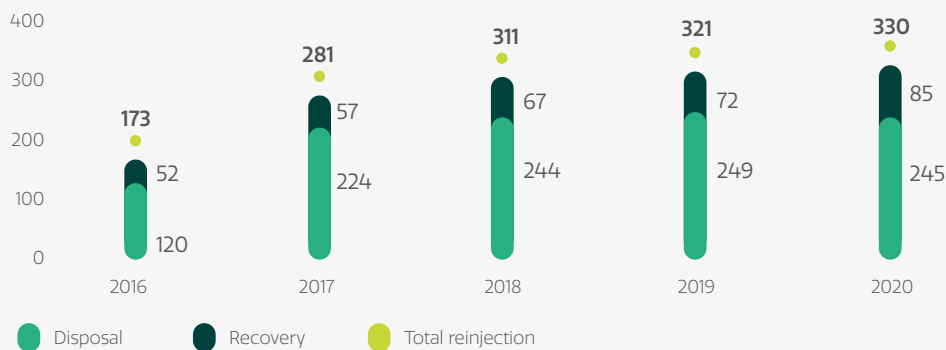
Source: Ecopetrol, Vice Presidency of HSE.

GRI OG-5

Production water reinjection

The volume of production water reinjected for final disposal in 2020 was **245.4 million m³** – which corresponds to 56.8% of the total effluents. The volume of production water reinjected for recovery (a form of reuse) was 84.8 million m³, which corresponds to 19.6% of the total effluents.

Graph 73.
Production water reinjection



Source: Ecopetrol, Vice Presidency of HSE.

Production water reuse

Reuse is another alternative for wastewater management, under Colombian environmental regulations. During 2020, Ecopetrol reused 3.1 million m³ of treated production water from the Castilla field, for the irrigation of forest crops in the

Agroenergetic Sustainability Area (ASA). This value means an increase of 170% with respect to the volume reused in 2019, and is equivalent to 0.7% of the total effluents (0.8% of the total production water generated throughout the country).



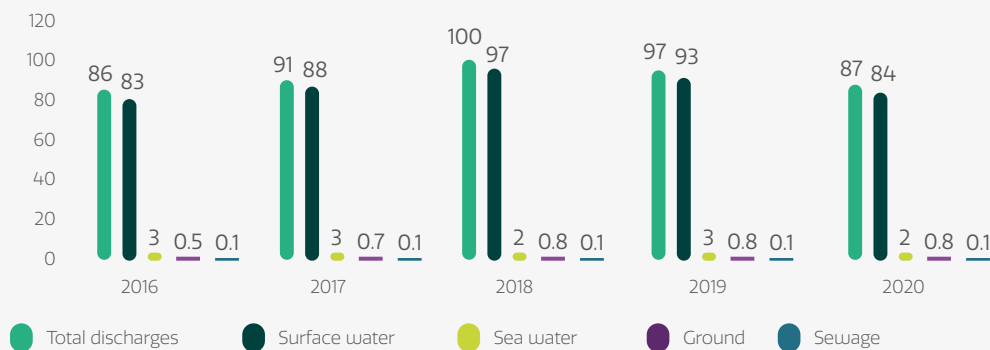
GRI 306-1, 306-5, WEF 15E

Wastewater discharges

The discharge of wastewater is the last alternative used by Ecopetrol for the management of its effluents. The Company has discharge points authorized by the competent environmental authorities, who determine the flow, quality and time conditions so that the discharge does not affect the natural characteristics of the receiving bodies. Before disposing of wastewater in surface water bodies, marine waters or soils, these are subjected to treatments in order to remove the concentrations of substances of environmental interest and comply with the maximum permissible limits established in Colombian regulations.

370 dumping points were used throughout the country in 2020: 74 to dispose of industrial wastewater, 286 for domestic wastewater (mainly septic tanks) and 10 for mixed wastewater, in which 87.3 million m³ of water were discharged – i.e. a 10% decrease as compared to 2019. This decrease is mainly due to lower discharges in the Castilla field and the Barrancabermeja refinery, and to the elimination of the discharge from the Chichimene field, which in 2020 reinjected 100% of its production waters. 96.2% of this volume was discharged onto surface water bodies, 2.7% into marine waters, 0.9% into the ground, and the remaining 0.2% into sewers.

Graph 74.
Historical volumes of discharges by type of receptor



Source: Ecopetrol, Vice Presidency of HSE.

Regarding the distribution of discharges by segment, 84% of the discharged water corresponds to production, 15.7% to refining and petrochemicals, 0.2% to transportation and 0.1% to drilling.

WEF 15E**Improvement initiatives in wastewater management and treatment**

During 2020 Ecopetrol continued the implementation of its Plans for Reconversion to Clean Technologies in Management of Discharges (PRTLGV) approved by the environmental authorities. These plans envisage 32 points of discharge of industrial wastewater, which will allow the company to increase the reuse of water and reduce the volumes of fresh water collection and discharges.

Noteworthy is the recent fulfillment of the plan to convert to clean technologies in the management of discharges of the Orito and Churuyaco production fields, which achieved the goal of total elimination of discharges to surface bodies.

SASB EM-EP-140a,2**GRI 303-5, WEF 11E****Water consumption**

Water consumption is defined as the difference between the total volume of water extracted and the volume of water that returns to the natural environment. According to the *CDP Water Security Reporting Guidance methodology (2020)*, the estimated water consumption was **13.6 million m³, which is equivalent to 3% of the total inputs**. Most of the consumption is recorded in the refining segment due to high evaporation losses.

Table 87. Total water consumption for the last 5 years

Water consumption (million m ³)	2016	2017	2018	2019	2020
Input	300.6	410.4	440.1	453.8	454.5
Fresh water collection	55.9	56.5	57.5	54.6	51.0
Production water	244.7	353.9	382.6	399.1	403.4
Effluents	280.3	393.6	433.9	439.3	440.9
Captured water injected for recovery	13.7	13.6	14.2	12.1	10.3
Drinking water supplied to third parties (communities)	8.1	8.2	8.5	8.3	10.0
Production water reinjected for recovery	52.2	56.7	67.1	71.7	84.8
Production water reinjected for final disposal	120.4	224.0	244.0	249.3	245.4
Production water reuse for agricultural irrigation	0.1	-	0.1	1.2	3.1
Discharges	85.8	91.1	100.0	96.7	87.3
Balance (consumption)	20.3	16.7	6.2	14.5	13.6

Source: Ecopetrol, Vice Presidency of HSE

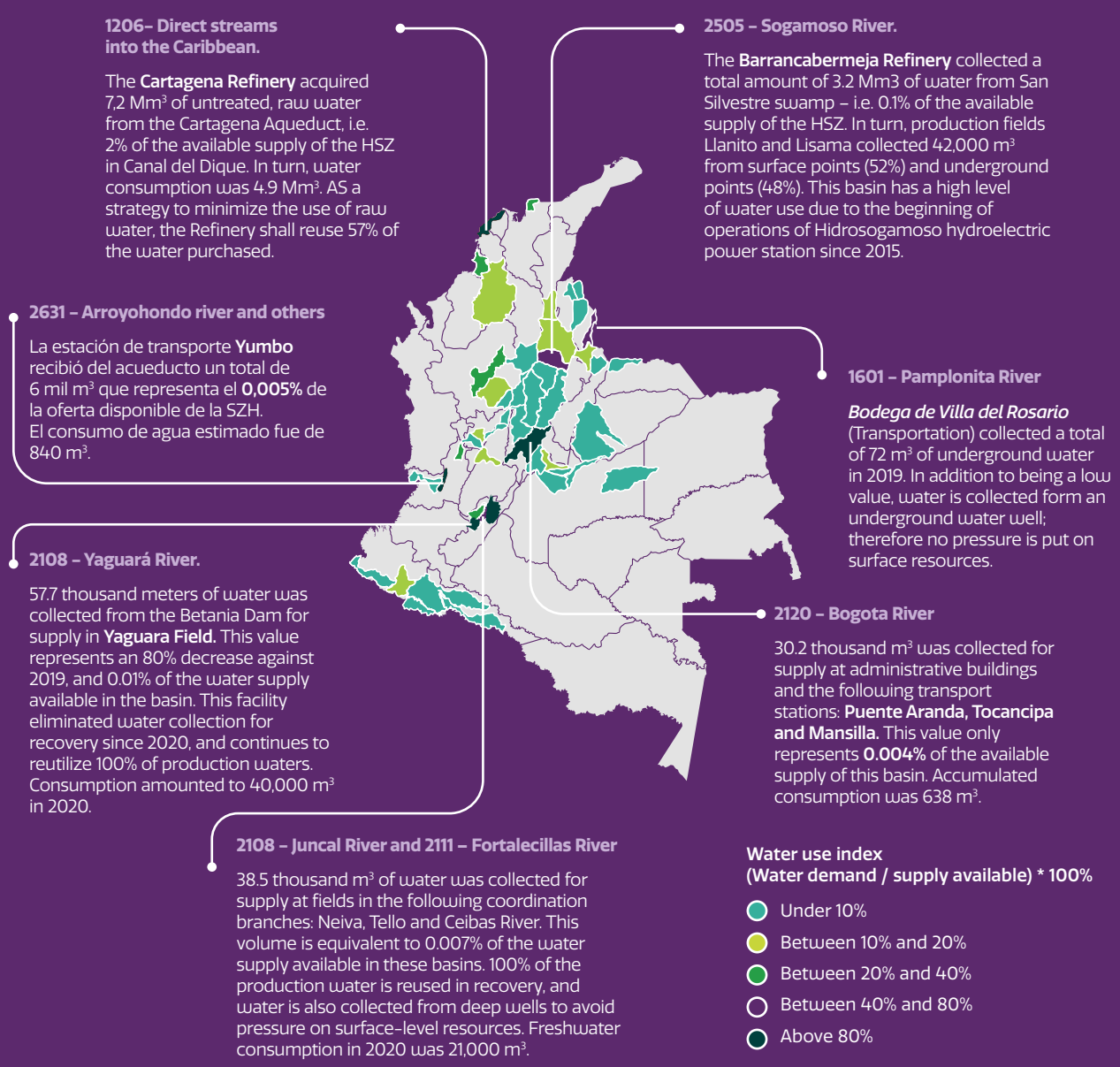
GRI 201-2, 306-5, WEF 10

Risks associated with water

Water is a vital resource for Ecopetrol’s operations and projects. For this reason, risk analyses associated with the resource are continually carried out, in which possible scenarios that may affect the continuity of operations are evaluated and anticipated.

With regard to physical risks, Ecopetrol identifies its facilities located in areas with potential water stress, when the water use index (relationship between water demand and available surface supply of the hydrographic subzone) is greater than 40%, using official information published in the 2018 National Water Study (IDEAM).

10.5 million m³ of fresh water were collected from hydrographic subzones under this condition in 2020, which represents 21% of the total water collected by the company. On the other hand, 12.8 million m³ of production waters were generated (12.5 million m³ were reused in recovery processes) and 3 million m³ were discharged – including production waters. Based on these flows, the estimated consumption was 7.9 million m³. Ecopetrol continues to develop initiatives that allow it to reduce dependence on fresh water at these facilities.



ENVIRONMENTAL DIMENSION

With regard to regulatory and legal risks, Ecopetrol participated in the Ministry of Environment and Sustainable Development MADS-led initiative to monitor the implementation of Resolution 631 of 2015. Ecopetrol also partook in the consumption module estimation workshops and participated in the workshops to update the water reuse regulations.

Regarding reputational risks, 147 PQRs related to water resources were received in 2020, i.e. 33% less than in 2019 and corresponding to approximately 0.6% of the total PQRs received by Ecopetrol's OPC.

Ecopetrol obtained a B consolidated rating (Management) in the CDP-Water report, which assesses different aspects of water management in companies. This result means that the company takes coordinated actions to address the growing challenges around water availability. On the other hand, Ecopetrol's Water Policy stands out (established in its Integrated water management Strategy), which received the highest rating in the report (A, Leadership).

GRI 303-3, 303-4, 303-5

To consult all the indicators requested in the GRI 303 version 2018 standard, please refer to the Ecopetrol website in the Water Management section by [clicking here](#).



Water footprint

Ecopetrol began the exercise to calculate the water footprint in the production and refining segments in 2020, based on 2014 ISO 14046 standard. This exercise undertook to determine the impacts associated with water management and identify options for improvement in direct operations and throughout the life cycle (indirect).

This calculation allows knowing the co-benefits of decarbonization projects focused on reducing GHG emissions, which can also contribute to reducing the water degradation footprint.

The first results of this exercise carried out in three fields of the Orinoquía region allow to conclude that the greatest contribution of the water consumption footprint in the production segment is associated with indirect activities (purchase of electrical energy and manufacture of raw materials and inputs consumed in operations), while the aspects that stand out for the water degradation footprint are related to gas flaring (direct) or the manufacture of raw materials (indirect).

Additionally, the water scarcity footprint allowed to evaluate the potential of fresh water deprivation for humans or ecosystems, due to water consumption in the production fields studied.



Cartagena Refinery - Reficar, Bolívar Dpt., Cartagena.

Supply chain

The diagnosis of the integral management of water was developed during 2020 by the supply chain of services that require its use for industrial activities. **This allowed to identify the gaps and opportunities to leverage the goals proposed in water management by the company.**

On the other hand, the results of the indirect water scarcity footprint will make it possible to identify suppliers of goods (raw materials and inputs) with which initiatives to reduce the risks associated with water should be addressed.

Extraction and consumption of water by suppliers that provide services at Ecopetrol's facilities is accounted for in the amounts reported in the water section of this chapter. Similarly, the management of discharges generated by these suppliers is carried out through the Companies' industrial wastewater treatment and disposal alternatives, and are reported in the water discharge section of this chapter.

Sustainability and water security in the environment

The purpose of this theme is to promote solutions based on nature and natural climate solutions that contribute to the recovery and conservation of water resources, as well as reducing the gap in access to drinking water and basic sanitation in the areas where we operate.

Natural capital management

During 2020, 36,124 hectares were intervened for regulation and water availability, of which 2,044 hectares correspond to those included in the compensation agreements signed with communities of the *Piedemonte Llanero* (Colombian Eastern Plains Piedemonte) and 34,080 hectares reached through the Wildlife Project that is being carried out in the Magdalena Medio, the Orinoquía and the Piedemonte of the Amazon. On the other hand, progress was made in

the execution of immediate and preventative actions for the recovery and conservation of Ciénaga San Silvestre swamp in partnership with the Santander Regional Autonomous Corporation - CAS.

Access to water and sanitation

Information related to this topic can be found in Chapter 4: Social Dimension, Public Services: Drinking water and basic sanitation.

Water planning and water governance

This theme seeks to positively influence the processes of land use planning, water resource planning/management in the areas of interest of the Company.

Water governance

It is important for Ecopetrol to support and link to the work carried out in the field of water security at the international, national and regional levels. For this reason, the Companies participates in the following initiatives:



The CEO Water Mandate



ENVIRONMENTAL DIMENSION

Since 2018, Ecopetrol has been a member of the promotion group of the *Agua Para Colombia* – Water for Colombia Coalition, a national multisectoral initiative that seeks to improve the water security of 15 river basins. In addition, the Company participates in three work tables that furthered the following topics during 2020:

01

Corporate Standards Workgroup:

Alternatives for wastewater reuse and efficient use of water resources.

02

Public Policy Table

Toolbox for environmental investments in aqueducts.

03

Technology and Innovation Roundtable

Unconventional technological alternatives for access to water in dispersed rural areas.



Villavicencio and Acacias Water Governance Mechanism.

A situational analysis of water security was carried out in the municipalities of Villavicencio and Acacias, Meta during 2020, in partnership with *The Nature Conservancy* - TNC and with the support of ASORINOQUIA to determine the feasibility of implementing a multisectoral collective action platform. This platform would have the participation of public, private and civil society organizations interested in providing solutions to the challenges of water security in the watersheds supplying water to these municipalities.

Water planning and management

The diagnosis of the Hydrographic Subzones (HSZ) of interest to Ecopetrol was updated, with the presence of assets and infrastructure associated with oil exploration and exploitation. 140 HSZ were identified, of which 51 have an approved Watershed Ordinance and Management Plan (POMCA); 11 are under formulation, and 78 have not started the organization process as

yet. None of the POMCAS in formulation was in the dissemination phase during 2020.

Ecopetrol participated together with ANDI and ACP in updating the POMCAS guide and issuing the clarifying circular on its objective and scope, achieving the construction of the necessary guidelines on risk management.

A study was started as part of the joint work agenda with the Ministry of Environment - MADS to define the methodology that would allow the elaboration of wetland maps at a scale of 1: 25,000.

The zoning and Environmental Management Plan of the DRMI *Humedal San Silvestre* wetland are being updated in conjunction with the CAS. This is being done through the implementation of the management plan guide for areas of the National System of Protected Areas (SINAP). This process is in the preparation stage, and must be completed in the first semester of 2021.

GRI 201-2, SASB EM-EP-110a.3

CLIMATE ACTION

Ecopetrol maintains its commitment to reduce its carbon footprint. In this regard, the Company joins efforts to limit the increase in global temperature below 1.5 ° C, supporting its actions in the Climate Change Strategy, which recognizes the importance of reducing emissions

of carbon in the operations and in the value chain of the company, in line with the established goals, the vulnerability of the operation to variability and climate change, as well as in adequately managing risks and identifying opportunities in relation to this thematic.

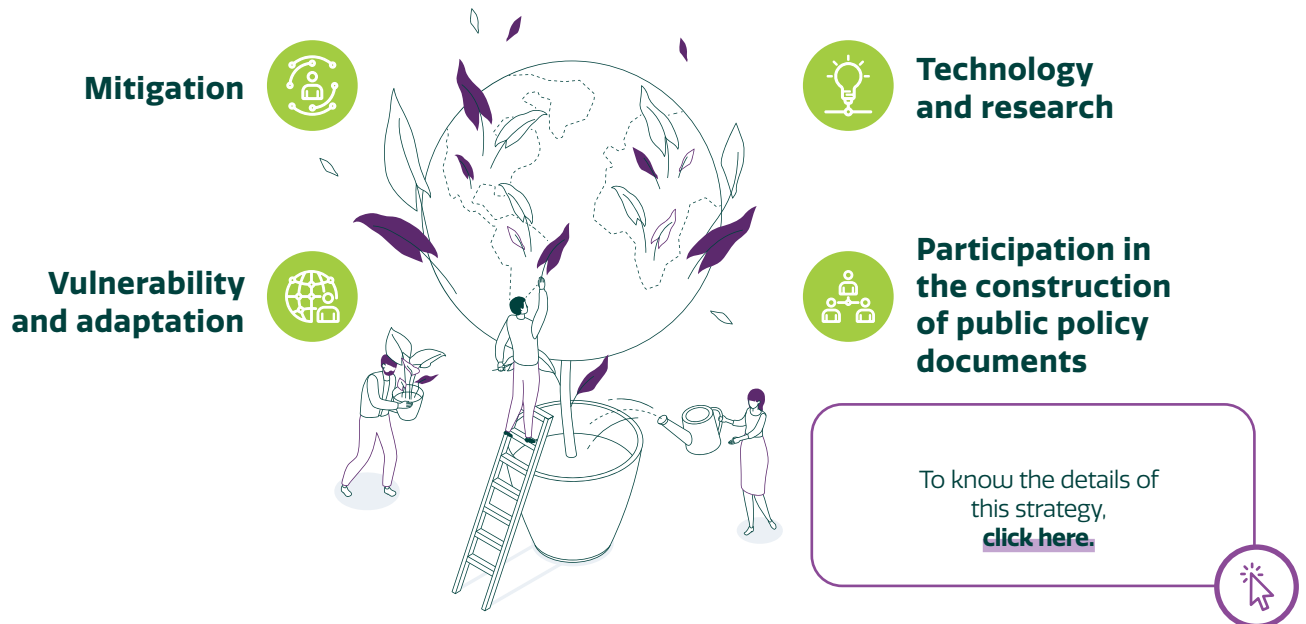


Material issue: Climate change

Standard	<u>GRI 103-1</u>	<u>GRI 103-2</u>	<u>GRI 103-3</u>
	Why is the issue material?	How is the issue managed?	How is the issue evaluated?
<p><u>GRI 304</u> Biodiversity</p> <p><u>GRI 305</u> Issues 2016</p> <p><u>GRI 306</u> Effluents and waste</p> <p><u>GRI 307</u> Environmental compliance</p>	<p>Ecopetrol maintains its commitment to reduce its carbon footprint and thus join efforts to limit the increase in global temperature below 1.5°C, supporting its actions in the Climate Change Strategy.</p>	<p>The Climate Change Strategy has four strategic lines:</p> <ul style="list-style-type: none"> · Mitigation, · Vulnerability and Adaptation, · Technology and Research, and · Participation in the construction of public policy documents. 	<p>Ecopetrol annually defines a goal to reduce GHG emissions within the framework of the decarbonization plan and analyzes the risks associated with the climate due to physical variables to reduce vulnerability in the operation, environment and facilities.</p>
	<p>Ecopetrol process where the greatest impact is generated</p>	<p>Stakeholders where the greatest impacts are generated</p>	<p>Area that manages impacts</p>
<p><u>GRI 103-1</u> Impact coverage</p>	<p>Operations and Value chain (exploration, production, transportation, refining, commercialization, petrochemicals and support areas).</p>	<p>All stakeholders.</p>	<p>Vice Presidency of HSE and the Vice Presidency of Procurement and Services</p>

Ecopetrol's climate change strategy

The Climate Change Strategy has four strategic lines:



WEF 8



Mitigation

This strategic line seeks to reduce GHG emissions from the oil and gas value chain, in accordance with the business objectives of growth and sustainable development.

Ecopetrol committed to reduce 20% of GHG emissions of scope 1 and 2 in 2030 with respect to a Business as Usual scenario. During 2021, Ecopetrol will review and update the medium and long-term goals for reducing GHG emissions for scope 1, 2 and 3, taking into account the new nationally determined contribution of Colombia (NDC), whose general objective is to reduce 51% of the country's emissions by 2030, among others.

To achieve its objectives, Ecopetrol is implementing a decarbonization plan that is structured in four components:

- Permanent updating of the GHG inventory.
- Development and implementation of an emissions reduction portfolio.
- Design and implementation of a portfolio of compensation through Natural Climate Solutions.
- Definition of a carbon neutrality roadmap. (See Graph 75).

Ecopetrol decarbonization plan



Source: Vice Presidency of HSE

*Corresponds to inventoried information for the first 10 months of 2020, and averaged for the months of November and December. These data may change once definitive information becomes available.

 WEF 13E Material issue: Air quality			
Standard	<u>GRI 103-1</u>	<u>GRI 103-2</u>	<u>GRI 103-3</u>
	Why is the issue material?	How is the issue managed?	How is the issue evaluated?
<u>GRI 305</u> Emissions	Ecopetrol, as a relevant player in the oil and gas industry, has a commitment with the country to help improve air quality for the well-being of citizens and care for the environment.	There is a GHG emission reduction program based on fugitive emissions management and vents, energy efficiency, reduction of burning in flare stacks and inclusion of renewables in the energy matrix, which contribute to the improvement of air quality.	Ecopetrol annually defines a goal to reduce GHG emissions within the framework of the decarbonization plan. For 2020, the goal achieved was 199,847 tCO ₂ e, exceeding the intended goal by 76%. With this result, by 2020 an accumulated reduced 1.81 MtCO ₂ e is achieved
	Ecopetrol process where the greatest impact is generated	Stakeholders where the greatest impacts are generated	Area that manages impacts
<u>GRI 103-1</u> Impact coverage	Value chain of the company (exploration, production, transportation, refining and petrochemicals, commercialization, and support areas).	All stakeholders.	Vice Presidency of HSE.

GRI 305-1, 305-2, SASB EM-EP-110a.2, EM-EP-110a.1
WEF 7, WEF 7E

Emissions inventory

Ecopetrol’s GHG emissions inventory is prepared under the ISO 14064-1 methodology and the *GHG Protocol*. In 2017, the year corresponding to 2016 was verified by AENOR firm, in accordance with standard ISO 14064-1:2006, which covered 100% of the emissions generated in Colombia in the facilities where the company has operational control.

The management of the information associated with GHG emissions and its estimation is carried out through the SAP-EC computer solution. During 2020, the inventory update process continued, which includes (among other aspects), the validation and inclusion of new sources, the review and update of emission factors and the update of global warming potentials in accordance with the Fifth Report of Evaluation of the Intergovernmental Panel on Climate Change (IPCC-AR5). In 2021, Ecopetrol’s GHG inventory

will be subject to third-party verification again, and this verification will include the 2017-2020 period.

GRI 305-3

Additionally, the company’s first Scope 3 emissions estimate was made in 2020, establishing that these emissions were between 101 and 118 million tons of CO₂ e (MtCO₂ e) in 2019. In 2021, the estimates will be adjusted.

Scope 1 and 2 GHG emissions in 2020 were estimated at 10,986 kilotons of CO₂e (KtCO₂e), 5% less than in 2019, mainly associated with the refining segment, which in 2020 lowered the load by 14.4% (See Table 88 below). These emissions correspond to the emissions of the assets operated by Ecopetrol, including Reficar and Genit.

ENVIRONMENTAL DIMENSION

Table 88. Total annual GHG emissions (kilotons CO₂ e)

SCOPE	2016*	2017*	2018*	2019*	2020**
Direct / Scope 1	8,610	10,717	11,056	10,854	10,201
Indirect / Scope 2	527	455	508	722	784,9
TOTAL	9,136	11,172	11,564	11,576	10,986

Source: Vice Presidency of HSE

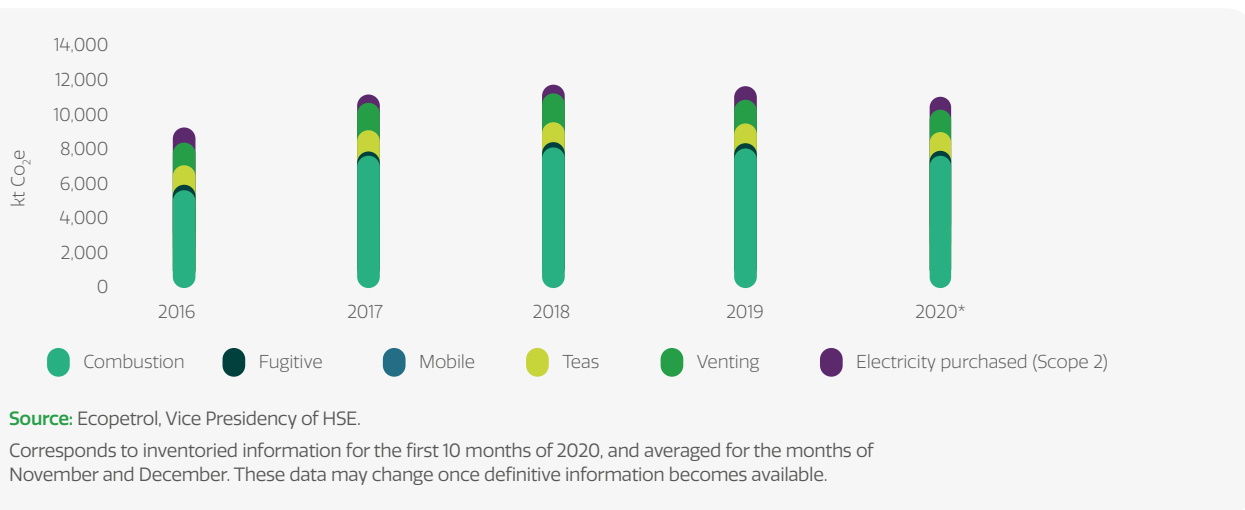
Note: The emissions reported correspond to the total of the assets operated by Ecopetrol, including Reficar and Cenit.

* Data adjusted based on the update of SIGEA 2016, 2017, 2018 and 2019.

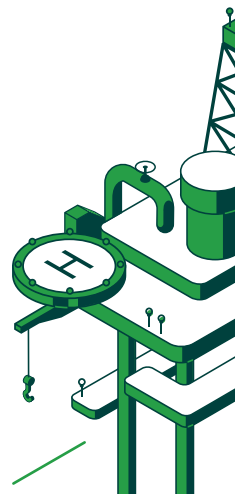
** Corresponds to information inventoried for the first 10 months of 2020, and averaged for the months of November and December. These data may change once definitive information becomes available.

The increase in emissions from 2016 to 2017 is mainly due to constant improvements in inventory and the incorporation of assets that were put into operation by Ecopetrol.

Graph 75. Total GHG emissions by type of source



The direct emissions (Scope 1) estimated in the production process were 4,951 KtCO₂e (48.5%); 5,051 KtCO₂e (49.5%) in refining and industrial processes and 199 KtCO₂e (2%) in transportation and logistics. On the other hand, the indirect emissions (Scope 2) estimated in the production process were 675 KtCO₂e (85.98%), 0.17 KtCO₂e (0.02%) in refining and industrial processes and 110 KtCO₂e (14%) in transport and logistics.



Graph 76.
Annual direct emissions from operational processes



Source: Ecopetrol, Vice Presidency of HSE.

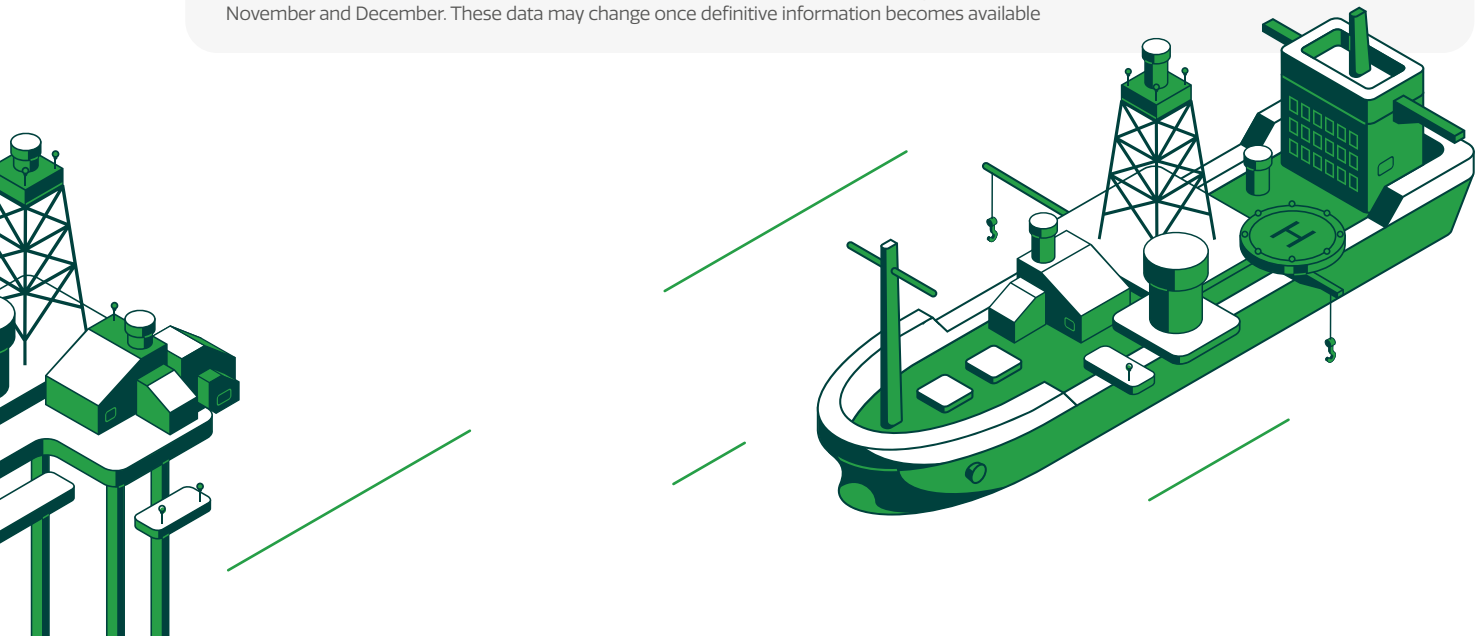
* Corresponds to inventoried information for the first 10 months of 2020, and averaged for the months of November and December. These data may change once definitive information becomes available.

Graph 77.
Annual indirect emissions from operational processes



Source: Ecopetrol, Vice Presidency of HSE.

* Corresponds to inventoried information for the first 10 months of 2020, and averaged for the months of November and December. These data may change once definitive information becomes available.



ENVIRONMENTAL DIMENSION

Table 89 shows the carbon intensity indicators for production and refining and petrochemical processes, calculated for the year 2020. The intensity calculations correspond to the emissions of the assets

operated by Ecopetrol, estimated from a production of 558,966 barrels of oil equivalent per day (bpde) and a volume of cargo to refineries of 319,800 barrels per calendar day (bdc).

GRI 305-4, 305-5

Table 89. Carbon intensity by activity

PROCESS	UNIT	CARBON INTENSITY				
		2016*	2017*	2018*	2019*	2020**
Production	kgCO ₂ e / barrel of oil equivalent year	27.9	26.3	26.7	26.8	27.6
Refining and Petrochemical	kgCO ₂ e / barrels year	46.6	45.5	45.4	43.2	43.3

Source: Ecopetrol, Vice Presidency of HSE

* Data adjusted based on the update of SIGEA 2016, 2017, 2018 and 2019.

** Corresponds to information inventoried for the first 10 months of 2020, and averaged for the months of November and December. These data may change once definitive information becomes available.

The increase in carbon intensity in the production process in 2020 is related to the entry of the Pauto and Floreña assets into the inventory, which became Ecopetrol's operations as of March 2020.

Tables 90, 91 and 92 show the data on direct and indirect GHG emissions by type of pollutant (CO₂, CH₄ and N₂O).

Table 90. Annual emissions (KtCO₂e)

SCOPE	2016*	2017*	2018*	2019*	2020**
Direct / Scope 1	8,110	10,219	10,575	10,377	9,744
Indirect / Scope 2	525	455	508	721	784

Source: Ecopetrol, Vice Presidency of HSE

* Data adjusted based on the update of SIGEA 2016, 2017, 2018 and 2019.

** Corresponds to information inventoried for the first 10 months of 2020, and averaged for the months of November and December. These data may change once definitive information becomes available.

The decrease in scope 1 emissions in 2020 is due to a decrease in the volume of crude oil loaded. Regarding scope 2, the increase in 2020 corresponds to the inclusion of generation centers in production, as part of the update of inventory sources.

Table 91. Annual emissions of CH₄ (kilotons)

SCOPE	2016*	2017*	2018*	2019*	2020**
Direct / <i>Scope 1</i>	17	17	16	16	17
Indirect / <i>Scope 2</i>	<0.1	<0.1	<0.1	<0.1	<0.1

Source: Ecopetrol, Vice Presidency of HSE

* Data adjusted based on the update of SIGEA 2016, 2017, 2018 and 2019.

** Corresponds to information inventoried for the first 10 months of 2020, and averaged for the months of November and December. These data may change once definitive information becomes available.

Table 92. Annual emissions of N₂O (kilotons)

SCOPE	2016*	2017*	2018*	2019*	2020**
Direct / <i>Scope 1</i>	0.09	0.11	0.11	0.11	0.11
Indirect / <i>Scope 2</i>	<0.1	<0.1	<0.1	<0.1	<0.1

Source: Ecopetrol, Vice Presidency of HSE

* Data adjusted based on the update of SIGEA 2016, 2017, 2018 and 2019.

** Corresponds to information inventoried for the first 10 months of 2020, and averaged for the months of November and December. These data may change once definitive information becomes available.

Table 93. GHG Emissions from Ozone Depleting Substances (ODS) and their substitutes

SOURCE OF EMISSION	CO ₂ emissions e (tons) *				
	2016	2017	2018	2019	2020
Refrigeration and air conditioning	1,432	1,722	258	3,000	3,012
Fire protection	0	-	-	-	-
Total Emissions of ODS	1,432	1,722	258	3,000	3,012
Imports	NA	NA	NA	NA	NA
Exports	NA	NA	NA	NA	NA
Total	1,432	1,722	258	3,000	3,012

Source: Ecopetrol, Vice Presidency of HSE

* For the calculation of GHG emissions by ODS (Ozone Depleting Substances) and their substitutes, the advanced method level 2a of the Intergovernmental Panel of Experts on Climate Change was used.

WEF 12E, WEF 13E**Criterion pollutant emissions****GRI 305-7, SASB EM-EP-120a.1****Table 94. Criterion pollutant emissions (kilotons)**

Pollutant	2016*	2017*	2018*	2019*	2020**
NOx	21.01	28.77	27.96	28.76	31.52
SOx	21.23	26.61	25.81	25.77	23.34
CO	203.07	277.76	255.06	241.37	245.85
MP	2.94	4.37	4.09	3.95	4.05
VOC	107.20	108.01	108.66	115.36	110.31

Source: Ecopetrol, Vice Presidency of HSE

* Data adjusted based on the update of SIGEA 2016, 2017, 2018 and 2019.

** Corresponds to information inventoried for the first 10 months of 2020, and averaged for the months of November and December. These data may change once definitive information becomes available.

The increase in NOx emissions in 2020 corresponds to the inclusion of the Pauto and Floreña assets, which became Ecopetrol's operations as of March 2020.

With the implementation of plans to reduce fugitive emissions and vents, the reduction of gas flaring, the

incorporation of unconventional renewable energy sources and the improvement of energy efficiency, as well as optimization in the operation and maintenance of the emission control systems in each of the facilities, it will be possible to reduce the emissions of criteria pollutants in the future.

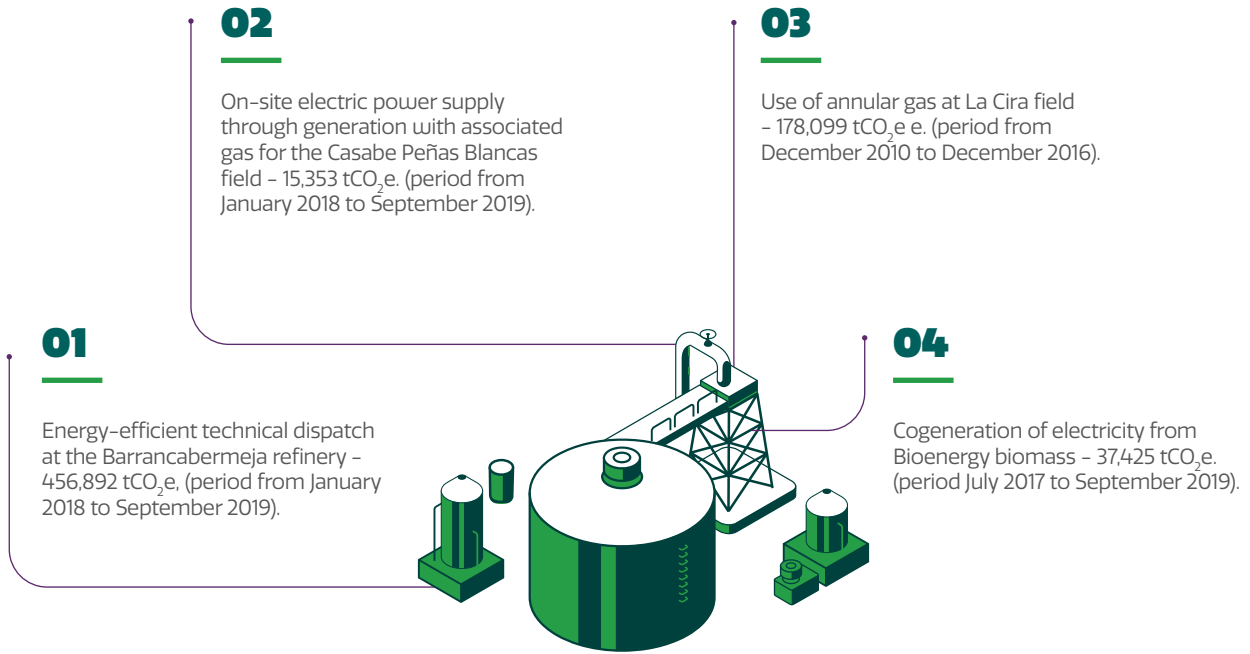
GRI 305-5, WEF 7E**Emission reduction**

To achieve compliance with 20% of the reduction of GHG emissions, Ecopetrol establishes an annual goal defined from the implementation of projects in different operating areas of the company. In 2020, the goal achieved by new projects implemented was 199,847 tons of CO₂e (tCO₂e), exceeding the established goal of 113,265 tCO₂e by 76%.

The total accumulated reduction during the 2010-2020 period is 8,472,766 tCO₂e (See Graph 79: Reductions of GHG Emissions (tCO₂e). Period 2010-2020).

The proposed goal for the year 2021, as a result of the implementation of new emission reduction projects, is 235,262 tCO₂e.

In addition, Ecopetrol had a 687,769 tCO₂e reduction in 2020 as verified by *Ruby Canyon Engineering* which corresponds to the following projects:



Ecopetrol had a reduction of 687,769 tons of CO₂e in 2020.

Additionally, validation was achieved of the emission reduction methodologies under the solar photovoltaic renewable energy umbrella projects and the use of gas.

Reduction of GHG emissions (MtCO₂e)

Graph 78.
GHG Emission Reductions (MtCO₂e).



In 2020, Ecopetrol defined and approved the Strategy for Fugitive Emissions and Vents Management

The reductions of GHG emissions in Ecopetrol are focused on the development of the following specific programs:



Reduction of fugitive emissions and vents

In 2020, the Company's Fugitive Emissions and Vents Management Strategy was approved, which was built considering the company's progress on the subject, recommendations from experts, and best practices of the industry.

With the implementation of the strategy it is sought to achieve the following objectives:

- Achieve compliance with the collective sectoral goal proposed by the member companies of the Climate and Clean Air Coalition (CCAC) by 2025 in terms of intensity of 0.25%, or in absolute terms of 45% by 2025 and from 60% to 75% by 2030 over the levels estimated for 2015.
- The information reported must reach level 4/5 proposed by CCAC, for which it is necessary to:
 - Increase direct measurements by combining bottom-up and top-down technologies.
 - Calculate proper emission factors.
 - Generate higher levels of transparency and credibility regarding reports.
- Under the CCAC framework, 100% of the operated assets must reach the measurement level 4/5 in 2023, and 100% of the non-operated assets in 2025.

744 leaks were identified during 2019 and 2020, which have their respective closure plan, and 580 leaks were closed as of December the 31st, 2020, with 107% compliance with respect to the activities planned.



Energy efficiency:

The objective is to increase energy efficiency by 3% by 2022 as compared to the 2017 baseline, for which implementation cases have already been identified in the three segments of the Company: *Upstream, Midstream and Downstream.*

GRI OG-6



Reduction in flaring

Ecopetrol is part of the "Zero Routine Flaring" initiative led by the World Bank, which reflects the company's commitment to eliminate routine flaring by 2030.

The goal for 2022 is to reduce 77% of gas flaring in torches, which corresponds to a reduction of 45 million cubic feet per day (mcf/d) to 10 mcf/d with respect to the levels of 2017.

GRI OG-3, SASB EM-EP-420a.3



Renewable energy

In 2020, Ecopetrol increased the goal from 300 MW in 2022 to 400 MW by 2023 in Unconventional renewable energies to its electricity generation matrix, increasing the share of these sources from 5% in 2019 to 21% in 2023. These renewable energy projects will lead to an estimated annual reduction of 318,000 tCO₂e / year. The construction of the San Fernando Solar Park began in 2020 with a capacity of 59 MWp, in addition to the 21 MWp of the Castilla Solar Park that came into operation in 2019.

Additionally, the contract was awarded for the measurement of wind potential in the department of Bolívar, in areas near the Cartagena refinery, which will begin measurements in Q12021. The second solar wave for an additional 45 MW in photovoltaic solar energy parks is currently in the process of assignation.

This allowed the generation of 27.9 GWh of electric power from photovoltaic sources in the Castilla Solar Park, and 37.5 GWh from biomass in Bionenergy, for a total of 65.4 GWh.

Emissions Offset – Natural Climate Solutions

During 2020 – and with the support of The Nature Conservancy (TNC), Ecopetrol advanced in the construction of a portfolio of projects at the national level in Natural Climate Solutions (SNC) to leverage the fulfillment of GHG emission reduction goals. As part of this exercise, the projects with the greatest GHG reduction potential in Colombia were prioritized:

- Deforestation or avoided conversion of the forest ,
- Restoration of natural forest, and
- Slanting of trees on agricultural lands (silvopastoral and agroforestry).

The following evaluation criteria have been established to establish the inclusion of projects in the portfolio:

- Carbon storage or capture potential,
- Government priorities and data availability,
- Social and environmental co-benefits,
- Use of recognized carbon standards,
- Cost-effectiveness, and
- Experience and capabilities of developers.

Carbon neutral

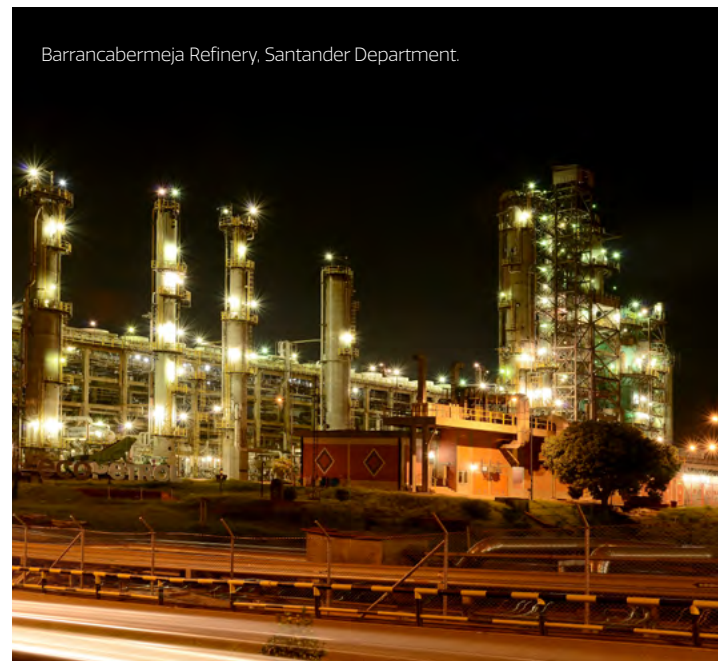
During 2020, the Company made progress in the analysis and construction of important elements for the definition of a carbon neutrality roadmap. In this sense, the Company prepared the projection curve of GHG emissions in the medium and long term, the cost abatement curve, the construction of the compensation portfolio through SNC, and defined the shadow price that should be incorporated in the evaluations of the portfolio of investments.

For this last aspect, seeking to anticipate the risks derived from the impact of emissions, Ecopetrol structured the shadow price model for CO₂ and the guidelines to incorporate its impact in the economic evaluations of the investment portfolio, which will be implemented as of 2021.

The shadow price will be USD \$ 20 per ton in 2021, USD \$ 30 per ton from 2025 and USD \$ 40 per ton from 2030.

This methodology applies to all GE growth and optimization opportunities under its initiatives for decision making in the different segments.

The carbon neutrality roadmap will be built in 2021; intermediate and long-term emission reduction goals will also be defined in line with Ecopetrol’s growth strategy, and the necessary mitigation and compensation initiatives and actions will be identified to achieve the goals, as well as the necessary resources.



Barrancabermeja Refinery, Santander Department.

GRI 103-1, 201-2

Vulnerability and adaptation to climate variability and change

This strategic axis seeks to reduce the risks and impacts on the company’s facilities, nearby communities and ecosystems, which may generate the phenomena of climate variability and change.

For the management of physical risks associated with variability and climate change in Ecopetrol, the Company defined the risk “Inadequate management in the face of climate change and water” in 2020 within the business risk map. Attention to this risk includes monitoring the probability of occurrence of extreme climatic events from the monthly alerts issued by the Institute of Hydrology, Meteorology and Environmental Studies of Colombia (IDEAM), on the possible presence of the “El Niño” and “La Niña” climatic variability phenomena, activating an action plan at the company level in the event of a probability of occurrence greater than 80% of any climatic phenomenon. On this risk, additional metrics and controls will be included in 2021 related to impacts derived from transition risks associated with the climate.

Additionally, the Company has a Climate Variability and Change Adaptation Plan for each region, in which climate risk is identified based on criteria of sensitivity and adaptive capacity, considering different natural threats and the incidence of alterations in precipitation and temperature.

Progress was made in 2020 in structuring the regional roadmap for the implementation of adaptation plans, including measures associated with water resource management, conservation and preservation of natural capital, climate-resilient infrastructure, and climate-compatible operations.

To know the details of adaptation and vulnerability management, please refer to [this link](#).



Technology

Through this strategic axis, it is sought to influence the reduction of GHG emissions through research and development actions. The activities planned in the decarbonization roadmap continued in 2020 continued, as detailed below.



Natural Carbon Sinks

In this thematic line, three ecosystems have been defined as priorities: *morichales* (endemic in the *Llanos Orientales*), coastal marine (Mangroves) and wetland-type lake ecosystems. For the three ecosystems, it is sought to complement the methodologies known to estimate the potential for capturing CO₂ through the growth of biomass.



Carbon Capture, Sequestration and Utilization (CCUS)

For this topic, the scope of the studies has focused on the structuring of a computer tool based on the geospatial location of the main CO₂ emitters in Ecopetrol, together with the location of the main deposits, fields or assets that could eventually be targeted for CO₂ injection processes as a technological alternative to increase crude oil production. To date, this Geovisor is in the construction and formulation stage. A survey of technology suppliers was carried out in 2020 for the CO₂ capture process, mainly focused on the case of diluted streams.



Biomass co-processing in refineries

The most important activity developed during 2020 on this topic focuses on the structuring of an industrial trial at the Cartagena refinery for the production of Bioctane (Green Diesel), incorporating refined palm oil in hydrotreating units.



Green hydrogen generation

This topic consolidates the process of formulating and carrying out a hydrogen generation pilot test using PEMEC technology in coupling with the hydrotreatment units of the Cartagena refinery. For this purpose, the ICP has consolidated the process of purchasing an electrolyzer with this technology (with an electrical consumption of 50 KWatt) which will arrive in the country in 2021



Gas to liquids with torch gas

Given the diversity in size and high geographical dispersion of the torches that currently exist at EG, it is necessary to define viable technological options for low-scale flows that are far from the economic and technological possibilities derived from electricity generation with these currents to meet the goal of the World Bank's "Zero Routine Flaring" initiative. A showroom of world-class technology suppliers was held in 2020 for a pilot test in 2021, using an Ecopetrol torch with low emission flow for the production of liquid fuels.



Detection, measurement and mitigation of fugitive emissions

The analysis of 649 daily methane satellite data files was conducted in 2020 in order to advance in the identification of the areas with the highest methane emissions in the company using top-down technologies. With these data, monthly methane averages were built for Colombia and four zones were selected for regional analysis based on the spatial distribution of Ecopetrol facilities, showing that methane satellite images in the national territory are influenced by bodies of water, wetlands, etc. land use and deforestation.

The identification of methane super-emitters will be conducted in 2021 based on the results obtained from the analysis of the aforementioned satellite images, flights, in-situ measurements (*bottom-up*) and higher resolution satellite images (50m*50m).



GRI 102-12

Participation in public policy documents

Ecopetrol articulates its climate change strategy to the public policy of the National Government and contributes to the construction of technical and regulatory guidelines to strengthen the country's institutional capacity on climate change. In the framework of this component, regulatory risks associated with the climate that may have an effect on the management of climate change carried out by the company are also managed.

The Company continues to support the implementation of the Comprehensive Climate Change Plan for the mining and energy sector -PIGCCme- formulated by the Ministry of Mines and Energy².

² Adopted as per Resolution 40807/2018

ENVIRONMENTAL DIMENSION

In 2020, Ecopetrol participated in the work tables for the construction of the regulation on burning in firewood and fugitive emissions, which will be issued in 2021 by the MME. Similarly, the information necessary for the development of the analysis was provided in the “Estimation of the potential for capturing greenhouse gas removals by the implementation of compensation activities imposed as an environmental obligation on the mining and energy sector.”

Additionally, Ecopetrol participated in the consultation process led by the Ministry of Environment - MADS on the update document of the Nationally Determined Contribution -NDC-, contributing to the discussion on the challenges for the oil sector in relation to the accounting of emissions and reduction of same.



WEF 8

Risks associated with climate

Climate change is a reality that imposes new challenges for Ecopetrol; therefore the Company monitors the risks that may affect the operation and prevent the fulfillment of climate objectives in the short, medium and long term. In this context, the following risks are analyzed:

Physical risks

Colombia is a highly vulnerable country, ranked 53rd in the Global Climate Risk Index. Its geographical location in the tropics gives it countless ecosystem benefits; however, it is also affected by different phenomena of interannual scale climate variability such as the “El Niño” phenomenon and “La Niña” – its opposite phase.

During the occurrence of an “El Niño” phenomenon, the most important events are water shortages due to the reduction in precipitation and forest fires mainly due to the increase in air temperature. In the occurrence of a “La Niña” phenomenon, the most relevant events are floods and mass movements due to increased precipitation.

On the other hand, the development of the actions established in the sector agreement signed between Ecopetrol and MADS in 2019 is progressing in matters relating to:

- Promotion of the implementation of best practices in sector operations that allow to achieve a low operation in carbon emissions;
- Construction of a portfolio of mitigation and adaptation options based on nature;
- Development of national methodologies to verify reduction of emissions and
- Adoption of adaptation measures to reduce the impact of climate variability and change phenomena, among others.

At the end of 2020, the country was affected by the occurrence of the “La Niña” phenomenon, with a moderate to strong intensity. Based on the official information, the company activated the alert on the imminent presence of the phenomenon, informing the operating areas about the conditions, impacts and expected effects, and an action plan was drawn up to prevent possible incidents associated with this phenomenon.

The physical risk for Ecopetrol is relevant – especially due to climatic variability phenomena (acute risks), taking into account the company’s presence in a large part of the national territory. The risks associated with these variables are monitored and evaluated from the vulnerability and adaptation axis of the company’s Climate Change Strategy.

For more information about the impacts derived from these phenomena (acute risks), go to the climate change section of the website by [clicking here](#).



Regulatory risks

In relation to regulatory risks, Ecopetrol monitors the evolution of current and emerging regulations related to climate change, especially those associated with the management of GHG emissions.

Most noteworthy is the update of the Nationally Determined Contribution -NDC- in 2020, in which the National Government increased the goal to reduce the country’s GHG emissions by 2030 from 20% to 51%. This increase represents the need for the Company to review its climate ambition scenarios and adjust (if necessary) the emission reduction goal. This task is currently in progress, and will be the subject of announcements during 2021.

In relation to upcoming regulations to be issued, the creation and establishment of a National Program of Tradable Quotas of (PNCTE) was established with the adoption of the Climate Change Law (National Law of Colombia No. 1931/2018). The PNCTE is expected to come into effect in 2022, and it may have an effect on allowable CO₂ emissions and the cost per ton of carbon. Additionally, the regulation on flaring and fugitive emissions has been identified, which will require a greater effort on the part of the company in the identification, measurement and correction of fugitive emissions and vents.

Global Initiatives

As part of the commitment to GHG mitigation, Ecopetrol continues to be part of the following global initiatives:

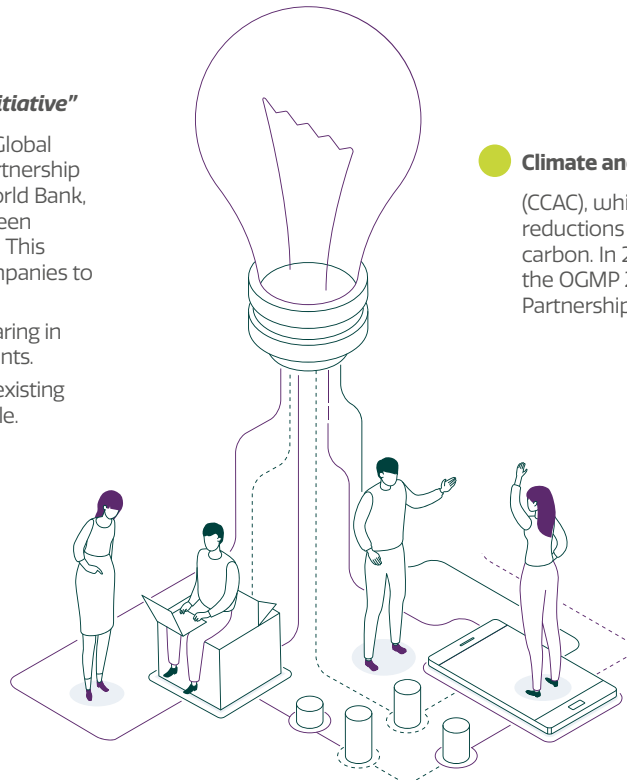
“Zero Routine Flaring Initiative”

Launched in 2015 by the Global Gas Flaring Reduction Partnership (GGFR) and led by the World Bank, of which Ecopetrol has been a part since January 2020. This initiative seeks to get companies to voluntarily commit to:

- Not carry out routine flaring in new oilfield developments.
- End routine burning in existing fields as soon as possible.

Climate and Clean Air Coalition

(CCAC), which seeks to accelerate reductions in methane and black carbon. In 2020, the company signed the OGMP 2.0 (Oil and Gas Methane Partnership) commitment.





Material Issue: Fuel quality

Standard	<u>GRI 103-1</u>	<u>GRI 103-2</u>	<u>GRI 103-3</u>
	Why is the issue material?	How is the issue managed?	How is the issue evaluated?
GRI OG-8 Benzene, lead and sulfur content in refined fuels	Ecopetrol, is committed to delivering increasingly cleaner fuels, has been carrying out actions that promote initiatives, proposals and behaviors to obtain better air each time.	Constantly improving the quality of fuels has required adjustments in production and scheduling from the Cartagena refineries.	The objective was to reduce the sulfur content in gasoline from 100 parts per million (ppm) to 50 ppm in refineries; and in diesel below 15 ppm (Ecopetrol maintained between 7ppm and 12ppm in 2020).
GRI 103-1	Ecopetrol process where the greatest impact is generated	Stakeholders where the greatest impacts are generated	Area that manages impacts
Impact coverage	Vice Presidency of Refining and Industrial Processes.	All stakeholders.	Commercial and Marketing Vice Presidency, and Refining and Industrial Processes Vice Presidency.

GRI OG-8, WEF 13E

Fuel Quality

Ecopetrol gasoline and diesel quality parameters

Ecopetrol produces basic (regular and extra) gasoline in accordance with the following quality parameters for benzene, lead, anti-knock index and sulfur in basic gasoline:

Table 95. Gasoline quality

Quality parameter	Unit	Value
Maximum lead	g / l	0.013
Benzene (ordinary gasoline)	% (vol / vol)	1.0
Benzene (extra gasoline)	% (vol / vol)	2.0
Antiknock Index AKI regular gasoline cte.		81
Antiknock Index AKI extra gasoline		91
Sulfur	ppm by weight	50.0 *

Source: Ecopetrol. Commercial and Marketing Vice Presidency

* Maximum sulfur content in the limits of the Barrancabermeja and Cartagena refineries as of December 2020. The transport system is currently under adjustment to carry this quality throughout the entire chain

Diesel production at Ecopetrol is formulated with a biodiesel content of 2% by volume in the Cartagena and Barrancabermeja refineries, with the following quality parameters, among others:

Table 96. Diesel quality

Quality parameter	Unit	Value
Sulfur	ppm by weight	20.0 **
Polycyclic Aromatics	% (m / m)	8.0 **
Cetane Number		45.0 ***
Biofuel Content	% (V / V)	2.0

Source: Ecopetrol. Commercial and Marketing Vice Presidency

** Value of the draft regulation resolution of the Ministry of Mines and Energy MME and the Ministry of Environment and Sustainable Development (MADS); diesel for the year 2020

*** Value in limits of the Barrancabermeja and Cartagena refineries for the year 2020.

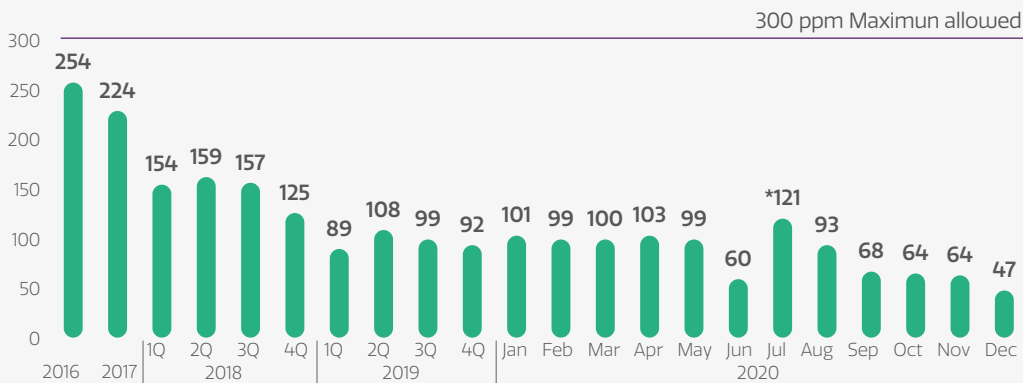
Quality of gasoline and diesel fuels

During 2020, the actions that were planned in the Barrancabermeja refinery were carried out to achieve the objective of reducing the sulfur content in gasoline from 100 parts per million (ppm) to 50 ppm in the refinery mesh. This is due to improvements in the quality of the components used for the blending of regular motor gasoline delivered by the Barrancabermeja refinery.

Graph 79. National average gasoline (ppm)

Sulfur content evolution
Average National Fuel - PPM

Sulfur content
(ppm= parts per million)



Source: Ecopetrol. Commercial and Marketing Vice Presidency

Note: Measurements as of December 31.

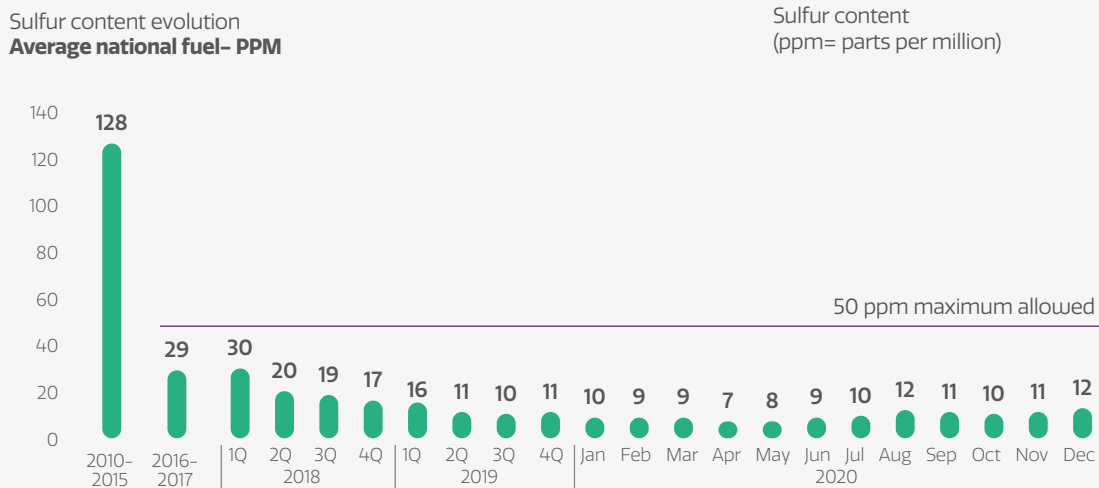
*Between June and July, technical maintenance was carried out on the gasoline hydrotreating plant at the Barrancabermeja refinery. From Jul / 2018 weighted volumetric average is included. Source: Cenit. National average content

ENVIRONMENTAL DIMENSION

The sulfur content in diesel during 2020 remained between 7 ppm and 12 ppm - below the objective of the internal path of 10 ppm to 15 ppm, complying with the commitment of the project under the new regulation for the year 2020 (maximum 20 ppm) and current regulation (maximum

50 ppm). The refineries have shown that they can obtain diesel for distribution throughout the national territory with a maximum sulfur content of 10 ppm under normal loading and operating conditions.

Graph 80.
Diesel B2 national average (ppm)



Source: Ecopetrol. Commercial and Marketing Vice Presidency
Measurements as of December 31. Diesel B2: 98% fossil and 2% biodiesel. Ecopetrol delivers B2 diesel throughout the country. As of September 2019 diesel B "is also delivered in Cartagena and Barranquilla. Source: Cenit. National average content

Fuel quality improvement

Below are the most relevant aspects of the year 2020 regarding Senda Interna - the fuel quality strategy:

WEF 13E

Regulatory aspects

Conpes - Public Policy Document 3943 on Air Quality: in July 2018, the document of the National Council for Economic and Social Policy (Conpes) 3943 on public policy for the improvement of air quality was issued, which indicates the general steps to reduce of the sulfur content in both fuels:

	2020	2021	2026-2030
gasoline, ppm	100	50	10
diesel, ppm	20	15-10	10*

* As of the last quarter of 2025, diesel must be at 10 ppm.

During 2019, the regulator, the Ministry of Mines and Energy MME and the Ministry of Environment and Sustainable Development (MADS) carried out the review and adjustment to the current regulation of gasoline quality and the current regulation of diesel quality. In accordance with the procedure for the issuance of technical regulations, the National Government carried out the two national consultations of the new technical regulations for the two fuels.

In the case of the proposed regulation for diesel, of the Ministry of Mines and Energy – MME and the

Ministry of Environment – MADS held the first national consultation in June 2019 and the second consultation in July 2020. In the case of gasoline, the ministries held the first national consultation in March of 2020 and the second in August 2020. Subsequently, through the Ministry of Commerce, Industry and Tourism, a single joint draft resolution for gasoline and diesel was sent to international consultation before the World Trade Organization (WTO) – a procedure that has an approximate duration of 3 months.

Supply of diesel (B2E) with a sulfur content of maximum 10 ppm to the new Transmilenio fleet in Bogotá

Fulfilling the commitment acquired in 2019 to contribute to the improvement of air quality, Ecopetrol supplied diesel with a maximum of 10 ppm of sulfur throughout 2020 for the new Transmilenio fleet in the city of Bogotá.

Improvement of the octane of extra gasoline in Ecopetrol's refineries

Ecopetrol continued delivering and ensuring the quality of the extra gasoline with 91-octane quality and a maximum of 100 ppm of sulfur during 2020.

Also, the following actions were carried out during 2020:

01

Once the strategy for the commercialization of AKI 91 extra gasoline was approved, in the fundamentals for the signing of supply contracts for the two refineries with wholesale distributors were approved as of July 2020.

02

A communication strategy focused on the attributes of extra gasoline was developed, in synergy with wholesale customers, within the framework of the campaigns to disseminate fuel quality improvement.

03

An adjustment was made to the price formula for AKI 91 extra gasoline, to reference it with international price indicators.

04

Supply contracts were signed for in Q4 2020.

Refining Development Program Study (PDR)

The objective of this is to carry out a technical and economic pre-feasibility study to identify and evaluate alternatives that allow Ecopetrol to advance towards a fuel quality comparable with world benchmarks in a coordinated, progressive and efficient manner, and to profitably capture

opportunities for growth in the target market. Viable alternatives were identified at the Barrancabermeja refinery within the scope of the Refining Development Program to improve the quality of gasoline and diesel.

GRI OG-14, WEF 13E

Fuel Quality Research Program

During 2021, Ecopetrol plans to advance in the following topics:

ICP- Universidad Pontificia – Jaime Isaza Cadavid Polytechnic – AMVA Research projects.

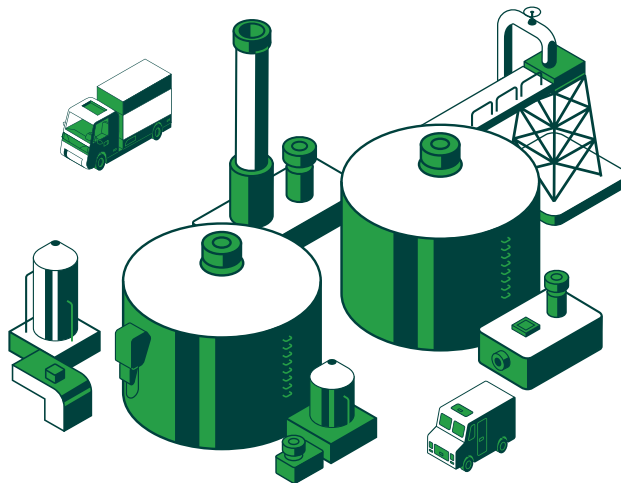
- Probe the contribution of the re-suspended particulate material on the emissions inventory in the *Aburrá Valley*.
- Characterize the PM 2.5 particulate material.

Transmilenio air quality study

- Determine the impact on the air quality breathed by users of stages 3 and 4 of the renewal of the Transmilenio fleet in Bogotá.

Transmilenio emission factor determination

- In April 2021, determine the emissions factor from the Transmilenio fleet under real operating conditions in Bogotá.
- With the latest equipment that the Colombian Petroleum Institute has, emissions will be measured in grams per kilometer of each of the vehicle technologies present in the Transmilenio's fleet. Emissions of carbon monoxide, carbon dioxide, nitrogen oxides, total hydrocarbons and particulate matter will be measured.



GRI OG-14, WEF 13E

2020 Achievements and progress

Since 2014, Ecopetrol’s ICP Innovation and Technology Center has been developing the Fuel Quality Research initiative in conjunction with other public and private actors. The plan seeks to appropriate the knowledge necessary to leverage Ecopetrol’s medium and long-term strategy regarding the quality of the fuels produced and their adequate alignment with the regulator’s vision.

This includes technological surveillance on regulatory issues, global trends in quality, vehicle technologies, refining strategies, and advances in international research, among others. Here is a description of the progress during 2020:

Air quality study in Transmilenio system – Stage 2.

Ecopetrol – jointly with Universidad de los Andes, Transmilenio and the district secretaries of Environment and Mobility of Bogotá – advanced the second phase of a study to determine the improvement of the air quality breathed by users of the Transmilenio system, by virtue of the Completion of the renewed Transmilenio vehicle fleet – phases 1 and 2 and the improvement of the fuel used in the buses. Stage 2 of the study in 2020 was advanced by 75% (the field measurement campaign ended), and it is expected to issue conclusions by Q1 2021.

At the close of the 2020 term, Ecopetrol contributed the sum of \$ 212 million to this study.

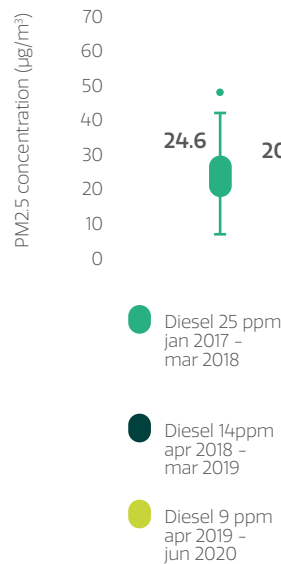
Particulate material characterization study in the Valle de Aburrá

In synergy with the Jaime Isaza Cadavid Polytechnic and the Valle de Aburrá Metropolitan Area, the second campaign of chemical characterization of the PM 2.5 particulate material in the Valle de Aburrá through nuclear techniques was carried out in 2020. With this, Ecopetrol participates in a macro project of UN ARCAL at the Latin American level, where particulate matter is characterized simultaneously in 13 Latin American cities.

As a relevant result, it was preliminarily established that the reduction in the sulfur content of diesel between 2017 and 2020 has made it possible to reduce the concentration of particulate matter PM2.5 by about 20% at the target air quality network station for this study (Belén Las Mercedes Station).

Ecopetrol contributed \$ 320 million to this project in the 2020 term.

Evolution of PM2.5 concentration at Belén Las Mercedes station



Estimation study of re-suspended particulate material in the Valle de Aburrá

The contribution of the re-suspended particulate material to the air quality of the Valle de Aburrá was determined in 2020 in an agreement with the Metropolitan Area of the Valle de Aburrá and with the participation of the Universidad Pontificia Bolivariana. During 2020, part of the work to collect particulate material prone to re-suspension was carried out and the experimental design will be complemented in the following term.

Ecopetrol contributed the sum of \$ 160 million to this project in the 2020 term.



Material issue: Biodiversity and ecosystem services

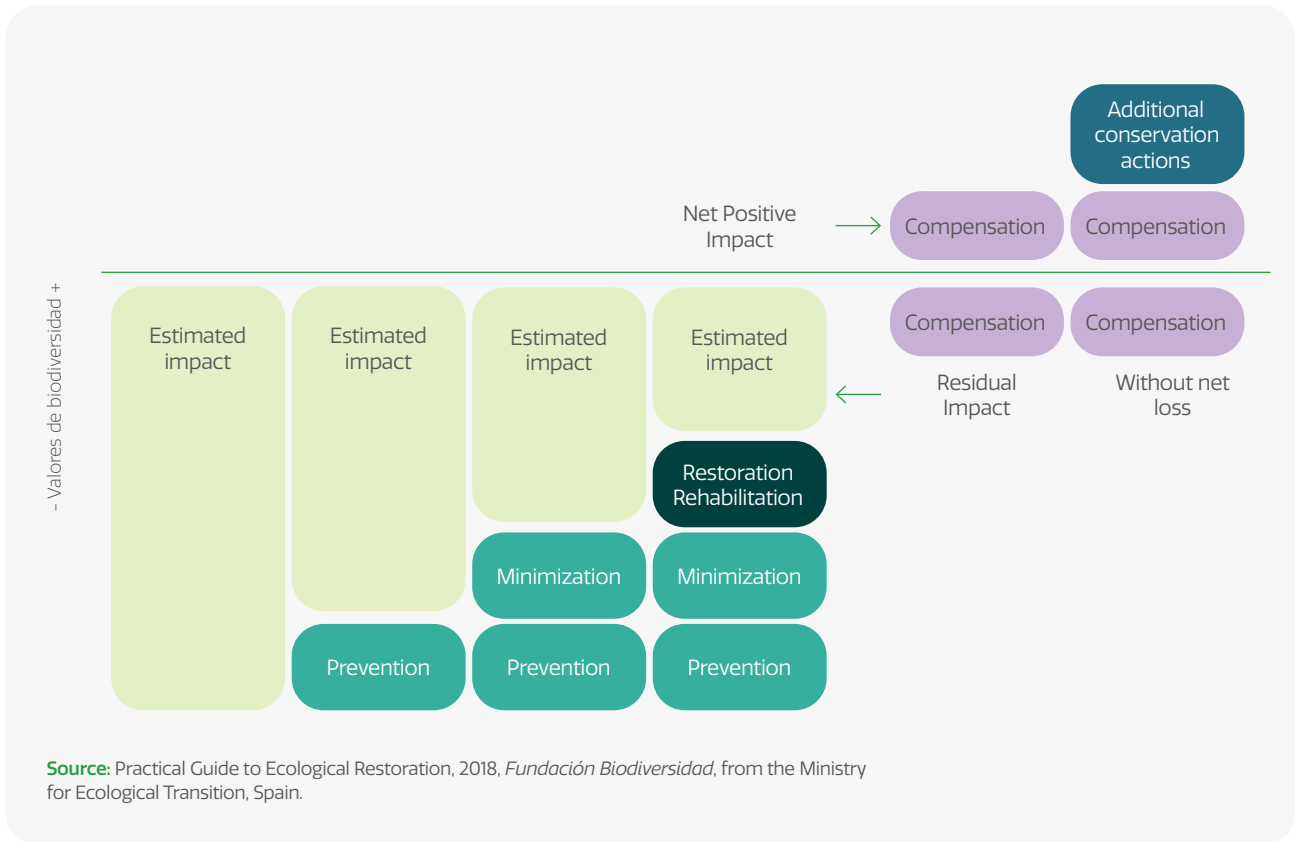
Standard	GRI 103-1	GRI 103-2	GRI 103-3
	Why is the issue material?	How is the issue managed?	How is the issue evaluated?
<p>GRI 304 Biodiversity</p>	<p>In order to anticipate the quantity and magnitude of possible residual impacts on biodiversity, the company implements the hierarchy of mitigation in its operations to conserve the ecosystems involved.</p>	<p>The biodiversity strategy is based on two axes:</p> <ul style="list-style-type: none"> Prevention and mitigation of impacts, Implementation of nature-based solutions that allow to respond to challenges associated with climate change, biodiversity management and water resources, food security or disaster risk, among others. 	<p>The goals on Biodiversity to 2023 are:</p> <ul style="list-style-type: none"> 780,000 has with baseline update in Magdalena Medio and Orinoquia region. 20 natural springs characterized in microorganisms to identify native species with bioremediation potential (Metabarcoding). 20,000 has conserved and/or restored in the prioritized nuclei and landscapes. Maintaining 15 wild species conserved in 3 landscapes (Magdalena Medio, Llanos Orientales and Putumayo). 20 eco – reserves of the Business Group (EG) implemented on the company's own premises. 6 million trees planted by Ecopetrol Corporate Group (EG).
<p>GRI 103-1 Impact coverage</p>	<p>Ecopetrol process where the greatest impact is generated</p> <p>Value chain (exploration, production, transportation, refining and petrochemicals, commercialization, and projects).</p>	<p>Stakeholders where the greatest impacts are generated</p> <p>All stakeholders.</p>	<p>Area that manages impacts</p> <p>Vice Presidency of HSE.</p>

GRI 103-1, 103-2

BIODIVERSITY

The company implements the mitigation hierarchy in its operations in order to minimize the amount and magnitude of potential residual impacts on biodiversity.

Mitigation hierarchy



This hierarchy refers to the sequence of measures designed to manage the negative impacts of a project, work or activity, in order to avoid a net loss of biodiversity. It should be applied for decision-making in the planning and design stages.

Biodiversity Strategy

The biodiversity strategy is based on four axes:

- Prevention and mitigation of impacts and compensation of residual impacts applying mitigation hierarchy,
- Implementation of nature-based solutions that allow responses to challenges associated with climate change, biodiversity management and water resources and water resources,

- Knowledge creation, and
- Consolidation of the company's culture about biodiversity.

To know the details of this strategy [click here](#).



The Biodiversity goals for 2023 are:

780,000

has with baseline update in the Magdalena Medio Valley and the Orinoquía region.

20,000

has conserved and/or restored in the prioritized nuclei and landscapes.

600

camera traps monitoring biodiversity in the Magdalena Medio Valley and the Orinoquía region.

Six million

trees planted by GE.



Maintaining 15

wild species conserved in 3 landscapes (Valle de Magdalena Medio, Eastern Plains and Putumayo).

20

EG eco - reserves on their own properties.

20

natural springs characterized in microorganisms to identify native species with bioremediation potential (Metabarcoding).

01

A tool for the analysis of socio-ecological resilience for its incorporation in the planning of projects and operations.

Prevention, mitigation and compensation of residual impacts on biodiversity through the mitigation hierarchy:

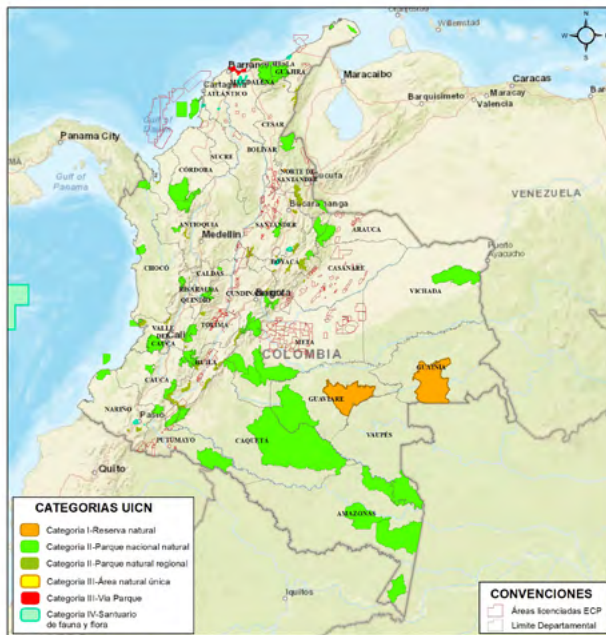
This strategy purports to prevent, avoid and mitigate impacts on biodiversity and offset residual impacts, generating a positive net impact (gain in biodiversity).

Ecopetrol declares that it does not have – nor does Ecopetrol plan to intervene with – exploration, production or refining activities in areas of great value for biodiversity classified according to the International

Union for the Conservation of Nature - IUCN in categories I to IV, consolidated in the map below.

Similarly, Ecopetrol does not have any projects or operations in areas declared World Heritage Sites by UNESCO, nor does it plan to intervene in these types of areas.

Areas of great value for biodiversity, IUCN categories I to IV and World Heritage Areas and Ecopetrol operations.



Source: Ecopetrol, Environmental Management and Relationships

Nature-based solutions

By implementing these types of solutions, Ecopetrol aims to maintain biodiversity and ecosystem services in strategic areas, while improving the livelihoods of local communities. Synergies are sought between nature, society and the economy, to respond to challenges such as climate change, water resource

management and biodiversity, for which work is being done on the consolidation of Nature-Based Solutions (NBS), instead of relying on conventional solutions. Information related to Natural Climate Solutions (NCS), which are part of the NBS, are addressed in the section on Climate Action in this chapter.

ENVIRONMENTAL DIMENSION

The goals seek to contribute to the integral management of biodiversity and to the maintenance of the provision of ecosystem services such as the regulation of flows from water sources, food provision, biodiversity conservation,

CO₂ sequestration, adaptation and reduction of vulnerability to climate change in regions, inter alia. The table below shows the evolution of the goals in recent years.

Table 97. Ecopetrol's Achievements in Biodiversity Management (2017 – 2020),

Criterion	Unit	2017	2018	2019	2020	Accumulated to 2020
Trees planted or given to communities, environmental authorities or local governments	Number of trees	2,000	49,638	537,954	650,453	1,240,045
Established nurseries and Seedlings produced in nurseries	Number of nurseries *	5	6	8	22	22
	Number of seedlings	31,041	28,820	9,000	90,724	159,585
Areas sown or in restoration processes	Hectares	70	49	93	4,436	4,648
Number of protected water sources	Number	-	-	2	92	94
Conservation agreements signed	Agreements	10	9	22	56	97
	Hectares	1,348	11,659	30,251	36,125	79,383
Threatened wild species in conservation processes	Number of Species *	10	10	15	15	15
Area in silvopastoral systems	Hectares	18	-	100	-	118
Area in agroforestry systems	Hectares	324*	-	181	204	709
Eco-efficient stoves established	Number	7,820*	235	72	-	8,127
Eco-reserve Network	Eco-reserve*	1	1	2	6	6
	Hectares	128	128	414	11,906	12,576
Protected areas declared under any conservation mandate ³	Number of Areas	11	4	7	14	36
	Hectares	151	14,322	5,658	17,767	37,898

Source: Ecopetrol, Vice Presidency of HSE

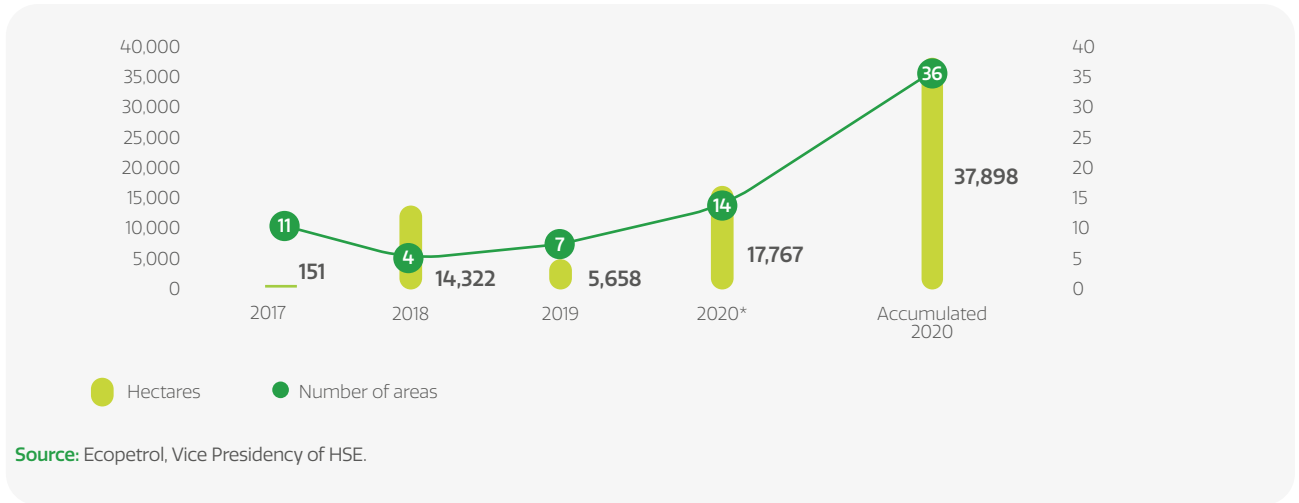
Notes:

* The data in 2018 to the accumulated data, as it includes the initiatives of previous years, The accumulated data for 2020 corresponds to the 6 ecoreserves that are part of the pilot with the Alexander von Humboldt Institute, the implementation of the management plans will begin in 2021,

** Data from the 2017 Sustainability Report, Strategic Regional Environmental Investment (IARE)

³ These correspond to representative areas with high biological value, which are declared in one of the categories of Protected Areas of the National System.

Graph 81.
Protected areas declared under any conservation mandate.



The trend of the results and the new proposed goals show Ecopetrol’s commitment to the integral management of biodiversity and ecosystem services.

To see the other graphs that show the positive trend of the results, please refer to the Biodiversity section on Ecopetrol’s website.

To know further details about the Biodiversity Strategy, [click here.](#)

Strategic partnerships for the management of Biodiversity and Ecosystem Services

During 2020, Ecopetrol continued with the execution of the agreements with the *Wildlife Conservation Society (Wildlife Project)*, the Alexander von Humboldt Institute (Fribas Project), *The Nature Conservancy* and the National Association of Businessmen of Colombia (ANDI), to protect various habitats in the Magdalena Medio Valley, the Eastern Plains and the Andean-Amazonian Piedemonte,

areas of interest given that the company’s exploration and production activities are carried out there.

For more details, see Table 98. Ecopetrol’s Achievements in Biodiversity Management (2017 – 2020) and go to the Ecopetrol Biodiversity section website to see the results of the projects listed below.

01 WILDLIFE PROJECT

The Wildlife Project (PVS) is an initiative for the conservation of biodiversity funded by Ecopetrol that began in 2013, with the *Wildlife Conservation Society* (WCS) as a partner, with the support of Mario Santo Domingo Foundation, the Action Fund for the Environment and Childhood, and local partner organizations that lead actions in the work landscapes.

In 2020, the initiative was recognized by the Ministry of Mines and Energy MME with the first place in the program “Significant Experiences in Environmental and Social Management of the Mining and Energy Sector”.








Wildlife Project (PVS) Partners

The prioritized species in the three landscapes are presented in the following figure:



The main impact results of the Wildlife Project - PVS are:

Table 98. Main advances and achievements of the Wildlife Project

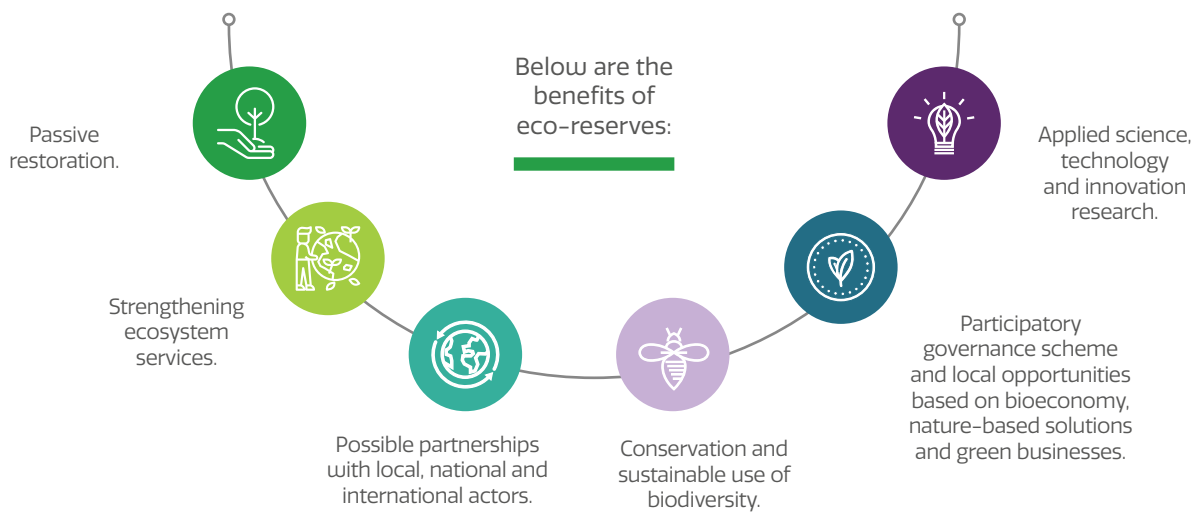
<p>Landscape and other species are favored by conservation agreements</p>	<p>Data have been collected in the areas under conservation agreements that show positive impacts on the prioritized species and other species, thanks to the increase of territory for their mobilization, reducing the pressures of extinction.</p>	 <p><i>Marimonda</i></p>
<p>Some species are increasing their populations in landscapes</p>	<p>The degree of occupation of the prioritized species in each landscape was evaluated, showing the increase in the use of territory and its populations, based on the conservation actions implemented.</p>	 <p><i>Leopardo</i></p>
<p>Deforestation is lower in the intervention landscape than in the surrounding landscapes.</p>	<p>Species like turtles are maintaining their populations and even showing signs of recovery.</p>	 <p><i>Charapa</i></p>
<p>Deforestation is lower in the intervention landscape than in the surrounding landscapes.</p>	<p>There is evidence of a positive trend in avoided deforestation, presenting a lower percentage of deforestation in the intervention landscapes as compared to similar areas outside the project.</p>	 <p><i>Paujil</i></p>
<p>Species are using biological corridors</p>	<p>From the monitoring data recorded with camera traps, it is evident that there is a use of biological corridors that have been promoted through the initiative, allowing the mobility of different species between forest fragments.</p>	 <p><i>Caimán</i></p>

Source: Ecopetrol Wildlife Project - WCS.

02 FIBERS PROJECT

The **Eco-reserves Network** has been consolidated as part of the agreement between Ecopetrol and the Alexander von Humboldt Institute, which corresponds to a Complementary Conservation Strategy (CCS) in which the properties that have a high contribution to the conservation of biodiversity and ecosystem services were identified.

Eco-reserves are geographically defined areas owned by Ecopetrol and intended in part or entirely to the conservation of biodiversity and the supply of ecosystem services, without limiting their productive and exploratory vocation.



The Network is made up of Ecopetrol properties that make up the eco-reserves. 6 pilot areas were included – i.e. more than 11,000 has – during 2020.

Table 99. Eco reserves in pilot areas 2020

Eco-reserve	Department	Has
La Tribuna and two adjoining properties	Huila	254.0
It encompasses CPF Cupiagua	Casanare	544.0
Agro-energy Sustainability Area ASA	Meta	286.0
La Esperanza property (Barranca Refinery)	Santander	457.0
Rubiales Field	Meta	10,168.5
Island IV Puerto Wilches- Cantagallo	Santander	197.0
Total		11,906.5

Source: Ecopetrol, Vice Presidency of HSE.

The future goals of this plan include the establishment of 50 eco-reserves throughout EG.



03 AGREEMENT WITH ANDI

Ecopetrol is part of the “**Biodiversity and Development for Putumayo**” initiative led by ANDI, which received an Award from the International Union for Conservation of Nature and the World Commission on Protected Areas (IUCN - WCPA),

recognizing the initiative as a good practice in Latin America and the Caribbean, for integrating actors with a common territorial purpose and increasing the contribution of the private sector in the management of biodiversity.

GRI 304-1, WEF 9

Operations in areas of great value to

As a result of the incorporation of biodiversity in the planning of projects and operations, Ecopetrol does not have operations in areas of great value for biodiversity in categories I to IV of IUCN protected areas or in areas declared World Heritage by UNESCO.

In its direct operation, Ecopetrol has four production facilities in two Regional Districts of Integrated Management (DRMI⁴) located in the department of Santander. These DRMIs were declared between the years 2005 and 2006, after the start of the industry operations in the area, which took place in 1951. On average, the percentage of the area of operation in the zones of exclusion from the areas of management is 9.12%, with the highest values found in DRMI San Silvestre (in the municipality of Barrancabermeja).



⁴ DRMI is defined as a space of the biosphere delimited by environmental or socioeconomic factors to design, plan and regulate the use and management of renewable natural resources and the economic activities developed there under sustainable development criteria (Decree 1974 of 1989). This protection category is homologated to the IUCN management category VI (Sustainable use of natural resources).

Table 100. Production operations within protected areas.

Regional District of Integrated Management - DRMI	Declaration Year	AP Area * (Km ²)	Ecopetrol project	Size of the operation (Km ²)	Year of beginning of Ecopetrol's operation	Type of Operation	Percentage of the operation within the PA (%)	Percentage of the operation in the PA's exclusion zones (%)
			CENTER	771.105		PRODUCTION	14.20	9.49
<i>San Silvestre</i>	2006	699.63	LA CIRA	189.37	1951	PRODUCTION	20.97	10.36
			LISAMA	158,125		PRODUCTION	42.40	22.44
			LLANITO	110.953		PRODUCTION	7.82	3.15
<i>Serranía de los Yariquíes</i>	2005	4,189.51	CENTER	771.105	1951	PRODUCTION	3.87	1.25
			LISAMA	158.125		PRODUCTION	57.60	8.04
Average							24.47	9.12

Source: Ecopetrol, Vice Presidency of HSE

Note:*AP: Protected Area

GRI 304-2, WEF9

Significant impacts on biodiversity

The nature of the significant impacts on biodiversity that Ecopetrol made during 2020 is associated with the transformation of the habitat. A total of 359 hectares were intervened and forest use comprised 1,657 m³. These interventions are subject to environmental compensation through the implementation of conservation or restoration projects through the actions, modes, mechanisms, quantities and forms enabled in each environmental management instrument.

GRI 306-5

Spill contingencies

6.8 km of water bodies and 0.1365 km² of soil were affected in 2020. These impacts are reversible in nature. In each of the cases reported, Ecopetrol activated the Emergency and Contingency Plan filed with the National Environmental Licensing Authority (ANLA), implementing the Incident Command System and following the procedures and protocols established for the care of environmental emergencies.

Table 101. Incidents and environmental impacts in the Orinoquía region.

Environmental Incidents	Contamination	Resources Affected		Affected species	Reversibility or Irreversibility of Impacts
		Water (km)	Soil (km ²)		
Orinoquía: Environmental Incidents					
Naphtha Leak Incident by 6" Line from cluster 21 to cluster 15	YES	0.8	0.000518	FLORA AND FAUNA	Reversible
Incident due to loss of containment in the form of a spray at TEA-ECH	YES		0.11	FLORA	Reversible

Table 101. Incidents and environmental impacts in the Orinoquía region. (follow-up)

Environmental Incidents	Contamination	Resources Affected		Affected species	Reversibility or Irreversibility of Impacts
		Water (km)	Soil (km²)		
Orinoquía: Environmental Incidents					
Naphtha leak fluid leak in the 8" line of the interconnection A - southern area of the Chichimene field	YES	2.5	0.000502	FLORA AND FAUNA	Reversible
Incident due to a gasoline leak in an 8" line from cluster 5 to cluster 38 - Chichimene field	YES	3.2	0.00045	FLORA AND FAUNA	Reversible
Naphtha spill incident from the Apiay-Chichimene naphtheaduct line, Chichimene field	YES	0.305	0.025	FLORA AND FAUNA	Reversible
Oil spill due to leak in seal packing in tank car in transfer activity with Frac Tank	YES		0.000052	FLORA	Reversible
	Total	6.8	0.1365		

Source: Ecopetrol, Vice Presidency of HSE

GRI 304-3

Habitats protected or restored

During the last five years (from January 2016 to December 2020) Ecopetrol has carried out protection or restoration of 5,452 hectares (has) based on actions to comply with its environmental obligations, of which 324 correspond to conservation projects, 1,359 has under restoration and 3,769 has to combined measures projects. These processes have been implemented through conservation agreement schemes, land purchase, protective reforestation, ecological restoration and isolation of areas for conservation, among others.

Finally, EG joined the National Government’s initiative #SembrarNosUne – *Planting Brings us Together*, which seeks to restore degraded ecosystems by planting of 180 million trees throughout the Colombian territory. EG committed to plant and deliver 6 million trees between 2018 and 2022.

GRI 304-3, OG-4

Progress in the recovery of the Lisama 158 contingency

In order to continue with the recovery of the Lisama 158 well contingency which took place in 2018, Ecopetrol acquired properties for 4.13 hectares with the purpose of contributing to the environmental recovery process of the affected area.

The areas affected were assigned to rehabilitation activities for riparian vegetation and flood plains associated with the bodies of water of the Lisama stream, La Muerte channel and its contributors, and voluntary conservation agreements were formalized with private owners.



ENVIRONMENTAL DIMENSION

Table 102. Contingency recovery actions at Lisama 158 Well

Habitats protected or restored	Area Protected / Restored	Size (Hectares)	Location	Protection / restoration scheme	Status as of the reporting date	Restoration measure success approved by third party
Lisama Field – Lisama 158 contingency (Water Corridor)	Recovery	103	Barrancabermeja, Santander	Conservation agreements	Execution	Ongoing
Lisama Field – Lisama 158 contingency	Compensation	0.0317	Santo Tomás II property, Barrancabermeja, Santander	Property acquisition	Closed	Does not apply
Lisama Field – Lisama 158 contingency (Zone one)	Recovery	4.01	Santo Tomás II property, Barrancabermeja, Santander	Property acquisition	Execution	Ongoing
Lisama Field – Lisama 158 contingency (Ground Zero)	Recovery	0.12	Santo Tomás II property, Barrancabermeja, Santander	Property acquisition	Execution	Ongoing

Source: Ecopetrol, Vice Presidency of HSE

For more information on the progress made in the recovery of the Lisama well contingency, please consult Ecopetrol’s website – Biodiversity Section.

GRI 304-4

Impact on species listed on the IUCN Red List

Ecopetrol did not impact or exploit species listed in the critically endangered, endangered and vulnerable categories of the IUCN Red List during the development of activities related to the operation in 2020.

We invite you to consult Ecopetrol’s website – Biodiversity Section to see the publications that have been made on this matter.

To see the Biodiversity Section, [click here.](#)





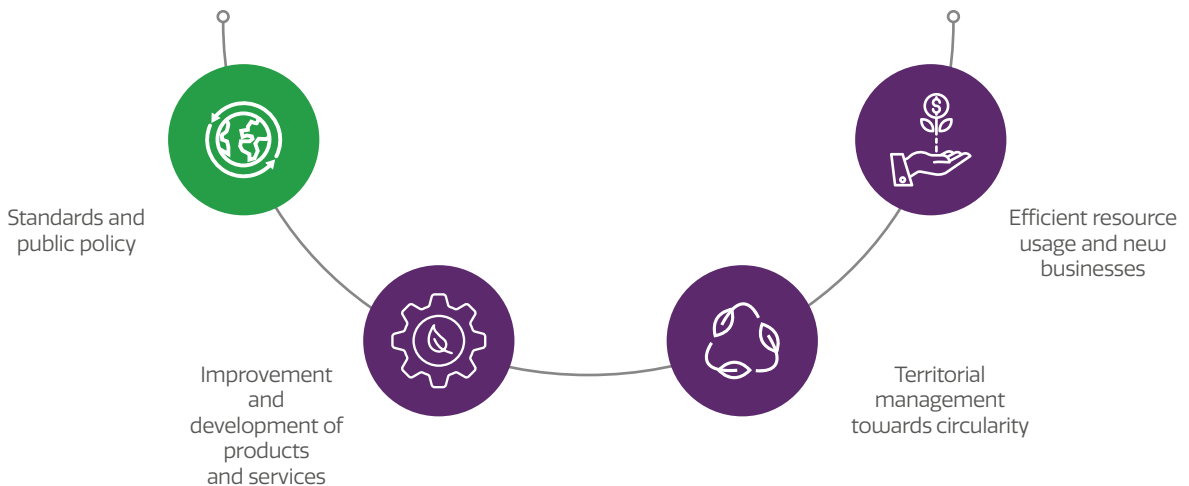
WEF 17E, WEF 18E

Material issue: Circular economy

Standard	GRI 103-1	GRI 103-2	GRI 103-3
	Why is the issue material?	How is the issue managed?	How is the issue evaluated?
<p>SDG 12 Responsible consumption and production</p> <p>GRI 306 Effluents and Waste</p>	<p>The Circular Economy Model of the Ecopetrol Group defined in 2019, seeks to promote more sustainable production and consumption in order to minimize the use of natural resources and environmental impacts, providing opportunities for growth, innovation and employment.</p>	<p>The circular economy model includes three components: Strategic, Support, and Operational; with the aim of promoting and influencing the development of circular initiatives in corporate areas, business units and companies of EG through different types of circular economy.</p>	<ul style="list-style-type: none"> · Planning and execution of the portfolio of circular initiatives for 2020. · Structuring circular business opportunities. · Percentage of solid waste used and recycling rate
GRI 103-1	Ecopetrol process where the greatest impact is generated	Stakeholders where the greatest impacts are generated	Area that manages impacts
Impact coverage	Value chain (exploration, production, transportation, refining and petrochemicals, commercialization, and support areas).	All stakeholders.	Vice Presidency of HSE and Supply and Services Vice Presidency.

CIRCULAR ECONOMY

Ecopetrol Group Circular Economy Model

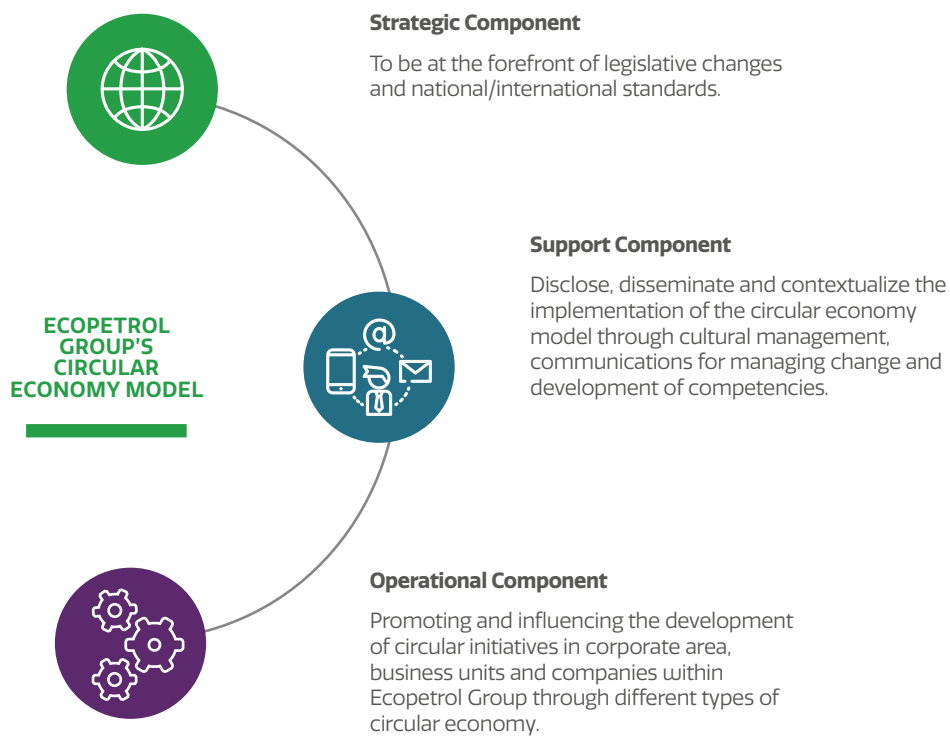


ENVIRONMENTAL DIMENSION

Based on the materiality exercise carried out during 2020, Ecopetrol defined that the Circular Economy element would be managed under the TESG Strategy under an *Outstanding* element approach. GE's Circular Economy Model defined in 2019 seeks to promote more sustainable production and

consumption (SDG 12) in order to minimize the use of natural resources and environmental impacts, contributing to opportunities for growth, innovation and employment. This model includes three components: Strategic, Support and Operational.

Circular Economy Model



The **strategic component** achieved a relationship and active participation at the national and international level in 2020 with the following agencies:

01

The Ministry of Environment and Sustainable Development (MADS): developing actions within the framework of the joint agenda established with Ecopetrol, carrying out work groups on the use of construction and demolition waste (CDW), management of hazardous waste and tires.

02

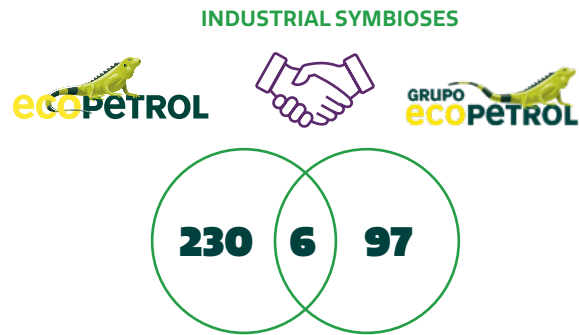
The Colombian Petroleum Agency - ACP and the National Environmental Permit Agency - ANLA to address possible tax benefits to promote the development of circular initiatives and to present specific circular economy initiatives (such as taking advantage of water-based drilling cuts and solar farms), which were approved by ANLA.

03

ISO TC 323 Circular Economy - ICONTEC: Participation in the circular measurement group with the purpose of preparing the Colombian Technical Standard.

The **Support component** included a virtual basic course on Circular Economy completed by 583 Ecopetrol professionals. In 2021, it will be extended to all Ecopetrol Group companies.

The **operational component** implemented the Circular Design Thinking methodology, with which it was possible to consolidate the **Circular Initiatives Portfolio** made up of **333 initiatives**: 230 from Ecopetrol, 97 from Group companies and six from industrial symbiosis.



At Ecopetrol, the Circular Initiatives Portfolio at the end of 2020 is as follows:

01

State of maturity:

12% of the initiatives are implemented, 30% in execution, 13% in planning, 12% in research and 33% in ideation.

02

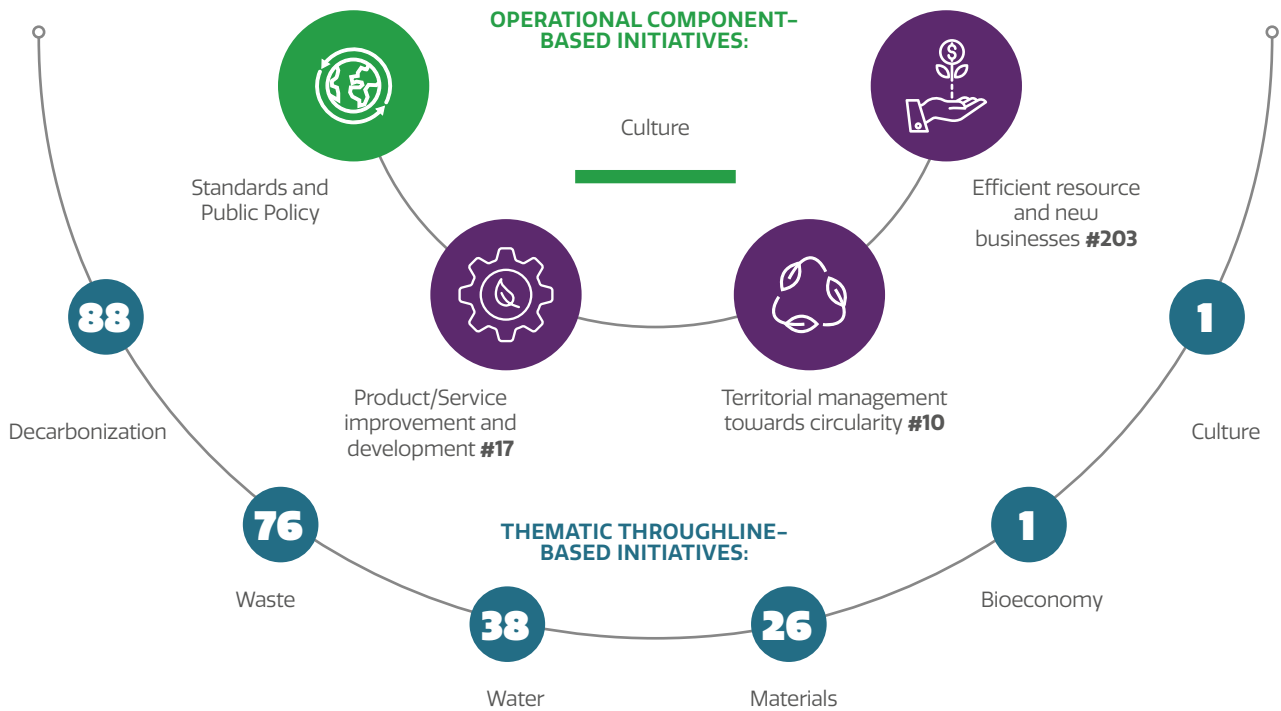
Thematic throughlines:

38% correspond to circular initiatives associated with decarbonization, 33% to waste, 16% to water, 11% to materials and the remaining 2% to bioeconomy and culture.

03

Components of the Model:

88% are related to the efficient use of resources and new businesses component; 7% to the improvement and development of products and services, and the remaining 5% to the management of the territory towards circularity.



ENVIRONMENTAL DIMENSION

The following specific circular business opportunities have been structured in accordance with the thematic throughlines:

Waste:

Using construction and demolition waste, water-based drilling cuts, dried water treatment plant sludge, wood, geomembranes and pipes not required in operation.

Decarbonization:

generation of renewable energy from a low and medium enthalpy-based geothermal process.

Water:

reuse of treated wastewater in drilling, through reverse osmosis; optimization of processes in thermoelectric plants using production waters, and use of artificial wetlands to achieve zero discharge of domestic wastewater.

Materials:

use of polypropylene to structure drill plates.

WEF 16E

Industrial symbiosis: 2 sustainable, inclusive, innovative projects were initiated alongside the Office of the Mayor of Bogota, Esenttia and Ecopetrol to promote circular economy and incorporate single - use plastic recycling technologies for infrastructure in the city. These projects expected to come into operation in 2021. Their details are summarized below:

- **Sustainable Transmilenio:** including plastic structures made of recycled material (vertical gardens) in a station and incorporating overhead lighting.
- **Alquería Recycling Center:** designing and implementing a recycling center to contribute significantly to the solid waste utilization rates of the Colombian capital.

WEF 18E

A roadmap will be built including goals in the short, medium and long term in 2021, with the aim of framing and reinforcing current initiatives, developing new ones, and advancing in the integration of circular economy principles in processes that influence decision-making in the Sustainability strategy, as well as structuring action plans and circularity metrics based on the review of the Circular Transition Indicators of the World Business Council for Sustainable Development - WBCSD), and Ellen MacArthur Foundation's *Circulytics* - Measuring Circularity.

It should be noted that management of materials and waste will be incorporated as a focal point in the circular economy, as detailed below.

Management of materials and waste

GRI 306-2

Management of hazardous and non-hazardous waste

Waste generation and management

Comprehensive waste management is part of the actions carried out at the level of operational excellence in order to leverage the Environmental Management Strategy and the Circular Economy Model for EG. Furthermore, comprehensive waste management is developed in strict compliance with

the national regulatory framework and internal procedures for Ecopetrol.

All waste management in Ecopetrol is available in the software tool named *SAP-WA SIGAR-Residuos*. The digital platform allows to monitor the quantities generated by each waste stream, issue reports of the generation indicators, and manage the documentation that supports legal management. It is also sought to have data to evaluate opportunities for improvement and promote circular economy with the information on waste management available in the tool.

Generation of hazardous and non-hazardous waste in 2020 was 298,135 tons, i.e. a 43 % decrease as compared to the amount generated in 2019 (see table 103) due to the execution of new drilling projects in the Central and Orinoquía regions, and new civil works, dismantling and maintenance activities at the Barrancabermeja refinery and production fields.

WEF 17E

Table 103. Solid waste generation (tons)

Year	Non-hazardous waste	Hazardous waste	Total
2015	29,669.77	117,150.51	146,820.28
2016	49,165.04	49,055.62	98,220.66
2017	103,627.22	35,185.76	138,812.98
2018	178,294.26	111,737.38	290,031.65
2019	211,506.61	319,442.65	530,948.80
2020	157,700.91	140,434.13	298,135.04

Source: Ecopetrol, Vice Presidency of HSE

Note: the data is extracted from the SAP-Waste Management (SAP-WA) tool for this period.

In 2020, it was identified that the operating process with the highest generation of non-hazardous waste was refining, followed by drilling and production. The residues with the highest contribution were: rubble, clarification mud and water-based drilling cuts. The use of drilling cuts is authorized in fields such as Rubiales (after stabilization and mixture with excavation material) in civil works and geotechnics. Similarly, metal scrap constitutes about 95% of the total recycled waste. The handling given to this waste is summarized in table 104 below.

WEF 17E

Non-hazardous solid waste management (kg)

Regarding hazardous waste, the highest generation was in the operational production process, followed by refining. 74% of the hazardous waste generated is oily sludge, which was subjected to bioremediation treatment. About 1.85% of the waste was taken to incineration and 21.5% sent to physical and thermal treatments such as co-processing and final disposal in a security cell.

Table 104. Non-hazardous solid waste management (kg)

Management Type	2015	2016	2017	2018	2019	2020
Reuse	25,843	41,938	42,221	94,454,413	163,913,132	3,171,017
Recycling	8,301,319	24,124,616	26,454,329	34,683,019	29,125,135	17,861,577
Composting	483,520	3,510,539	1,508,474	2,981,014	8,281,938,7	10,830,532
Recovery	0	2,095	536,151	3,000,000	0	0
Incineration	705,879	2,797,069	755,149	102,212	92,465	45,562
Others*	20,153,205	18,688,786	74,330,895	43,073,608	10,093,487	125,792,222
Total	29,669,766	49,165,043	103,627,219	178,294,266	211,506,158	157,700,910

Source: Ecopetrol, Vice Presidency of HSE

Note: *Others include: Rubble yard, Sanitary Landfill, vermiculture, etc.

ENVIRONMENTAL DIMENSION

In 2020, the national goals of reduction and management of RESPEL for the oil sector were established together with the Ministry of Environment and Sustainable Development (MADS) for Y9 oily sludge stream. The 2022 reduction goal indicates that

the generation rate should be reduced to 0.98 kg of oily sludge (Y9) / barrels of oil produced, while the utilization goal indicates that the utilization rate in 2022 should be increased to 0.08 tons of oily sludge (Y9) used / tons of oily sludge (Y9) generated.

GRI 306-2

Hazardous solid waste management (kg)

Table 105. Management of hazardous solid waste (kg) *

Management Type	2015	2016	2017	2018	2019	2020
Reuse	6,212	45,119	4,323	11,553	9,626	780,712
Recycling	1,937	13,640	5,443	61,049	82,666	3,103,009
Regeneration	159,305	59,890	1,568	62,072	-	-
Incineration	4,214,684	2,567,764	1,643,832	6,074,896	5,754,857	2,599,721
Bioremediation	33,419,409	31,579,204	11,652,568	88,885,827	307,583,429	103,740,906
Others**	79,348,958	14,789,999	21,878,023	16,641,992	6,012,070	30,209,786
Total	117,150,505	49,055,616	35,185,757	111,737,389	319,442,648	140,434,134

Source: Ecopetrol, Vice Presidency of HSE

* The data reported here correspond to the internal management carried out by Ecopetrol as a generator and through third parties for the management of hazardous waste, following the provisions of Decree 4741 of 2005.

** Others include: Security Cell, co-processing, physical and stabilization treatments, etc.

WEF 17E

Percentage of solid waste used and recycling rate

Taking into account the types of related management such as reuse, recycling, and regeneration, the percentage of use of (hazardous and non-hazardous) waste for 2020 was 12 %, contributed mostly by the use of the drilling cuts carried out in Rubiales field, the recycling of metal scrap from goods not required by the operation, and the composting of wood and vegetable waste. The recycling rate was 7.03 % in this same period, corresponding to waste reintroduced into third-party production processes such as metal scrap, paper cardboard, glass and plastic.

During 2020, circular initiatives for waste management were identified and agreements were signed for the use of campaigns, such as PLASTITON (implemented by

Esenttia) with the Cartagena refinery, which sought to increase the use of plastic and its incorporation into the processes of the company.

Regarding the use of hazardous waste – and taking into account that oily waste (or sludge) is one of the main types of hazardous waste generated, progress was made in 2020 on research under the agreement signed in 2019 with Universidad Industrial de Santander – UIS – to develop an investigation aimed at determining the technical and economic feasibility of transforming these wastes into cold product (s), to be applied to the road network with low traffic volumes; looking for options for the use of this waste within the framework of the circular economy model.

GRI OG-7

Amount of drilling waste (drilling muds and cuts) treated and/or disposed

The tables below report the amounts of waste generated according to the type of operation, depending on the fluid used in drilling activities.

Table 106. Total amount of drilling mud and cuttings produced (in tons) using an oil-based drilling fluid, by disposal method

Types of Management	2015	2016	2017	2018	2019	2020
Reinjection	N.A	N.A	N.A	N.A	N.A	N.A
Recycling	N.A	N.A	N.A	N.A	N.A	N.A
Land disposal at controlled sites	86,659	35,232	17,809	68,325	-	-
Disposal at sea	N.A	N.A	N.A	N.A	N.A	N.A
Others * (Explain)	N.A	N.A	N.A	N.A	N.A	N.A
Total Drilling Waste (Tons)	86,659	35,232	17,809	68,325	-	-

Source: Ecopetrol, Vice Presidency of HSE

Note: In 2020, no oil-based drilling fluids were used in drilling activities.

Table 107. Total amount of drilling mud and cuttings produced (in tons) using a water-based drilling fluid, by disposal method

Types of Management	2015	2016	2017	2018	2019	2020
Reinjection	N.A	N.A	N.A	N.A	N.A	N.A
Recycling	N.A	N.A	N.A	N.A	163,861	3,158
Land disposal at controlled sites	10,789	0	0	718	407,050	38,641
Disposal at sea	N.A	N.A	N.A	N.A	N.A	N.A
Others * (Internally processed)	N.A	N.A	N.A	783	-	-
Total Drilling Waste (Tons)	10,789	0	0	1,501	570,911	41,800

Source: Ecopetrol, Vice Presidency of HSE

ENVIRONMENTAL DIMENSION

During 2020 there was a decrease in the generation of water-based drilling cuts due to the abnormality in the activities, which forced the temporary suspension of some drilling campaign projects that were in maturity and intended to start activities from the second semester 2020.

Description of the process to decide the waste disposal method

The provisions of Ecopetrol's comprehensive waste management guide, the Comprehensive Waste Management Plans of each of the areas, and the characteristics of the waste described in Ecopetrol's Waste Catalog should be reviewed to define the most appropriate waste disposal method. This procedure allows to determine whether there are options

to minimize the generation or opportunities for exploitation, treatment or final disposal.

It is worth highlighting that the 2020 update to Ecopetrol's comprehensive waste management guide document was approved to incorporate the components of the circular economy model, and the changes in the color code for waste management based on resolution 2184 of 2019 began implementation on January 1, 2021.

GRI 306-4

Hazardous waste transportation

Within the framework of current legal compliance for the transport of hazardous waste, the following quantities of waste were transported during 2020.

Table 108. Amounts of hazardous waste transported (ton)

Amounts of hazardous waste transported	2016	2017	2018	2019	2020
Weight of hazardous waste transported (manager)	13,290	97,616	148,083	319,310	120,887
Imported hazardous waste weight	N.A	N.A	N.A	N.A	N.A
Exported hazardous waste weight	N.A	N.A	N.A	N.A	N.A
Weight of hazardous waste treated (internal and manager)	50,653	29,675	126,832	4,049	19,547
Total hazardous waste transported	63,943	127,291	274,915	323,359	140,434

Source: Ecopetrol. Vice Presidency of Procurement and Services

Substances with Polychlorinated Biphenyl Compounds (PCB)

In 2020, Ecopetrol prepared the eighth report of the PCB inventory with the balance period 2019 (see Table 109) in the web tool, taking into account the inventories updated by each of the operating areas.

Table 109. Inventory of equipment and waste likely to contain PCBs

Years	Equipment and waste				Total
	In use	In disuse	Discarded	Liquid Waste and other wastes	
2015	4,809	1,084	191	18	6,102
2016	4,765	1,001	303	15	6,084
2017	5,736	1,032	316	14	7,098
2018	5,654	1,213	405	11	7,282
2019	7,035	1,385	474	8	8,902
2020	6,441	1,101	504	7	8,053

Source: Ecopetrol. Vice Presidency of Sustainable Development

Note: The reported PCB Inventory corresponds to the period of the previous year

Compared to the inventory of the previous year, there was a 9% decrease in the total number of equipment reported, as more equipment was identified in use, disused and discarded. Of the total reported, 5,075 devices are free of PCBs (63%), and 504 devices were eliminated.

The plan for the year 2021 is to update the Polychlorinated Biphenyls Handling Guide and Management Plan in Ecopetrol, to establish guidelines for the management of PCBs and determine the current situation of the company with respect to their use or contaminated elements with this chemical compound, and ensure compliance with the obligations established in national regulations and in international agreements signed by the country.

GRI 305-6

Ozone Depleting Substances (ODS)

Ecopetrol has the Instructions for Reporting Information on Ozone Depleting Substances - ODS, which establishes the reporting mechanism defined by the organization for the management of these substances by the administrative and operational areas, in order to determine the current situation of Ecopetrol with respect

to the consumption and disposal of ODS, and to ensure compliance with the obligations according to article 5 of the Montreal Protocol and Act 29/1992.

Below is the information on the inventory reported in 2020:

ENVIRONMENTAL DIMENSION

Equipment in use:

3,846 pieces of equipment in use containing ODS were registered in 2020, which were divided into three classifications: equipment category, emission source and ODS substance. Table 110 lists the ODS loads for the equipment category and its distribution.

Table 110. ODS load per equipment category

Equipment Category	Load	Number of teams					
		2015	2016	2017	2018	2019	2020
Small size domestic / commercial applications	Load between 0 and 5 lb or 0 and 2.3 Kg	653	489	1,277	2,261	1,882	1,858
Medium and large commercial applications	Load between 5 and 15 lb or 2.3 and 6.8 Kg	1,012	728	1,514	1,490	1,592	1,714
Industrial applications	Load greater than 15 lb or 6.8 Kg	137	6	126	182	310	274
TOTAL		1,802	1,223	2,917	3,933	3,784	3,846

Source: Ecopetrol. Environmental and Relationship Management

Note: The ODS Inventory reported corresponds to the period of the previous year

Taking into account the distribution of equipment with ODS in use, most of it corresponds to air conditioning and refrigeration.

Disused equipment:

No disused equipment or electronic scrap with ODS were reported in 2020.

GRI 103-1, 103-2, 103-3, OG-11

Asset divestiture

The following relevant activities were carried out in 2020:

01

Disposal of assets that require dismantling work (Cocorná field): **4,200 tons** of waste, which prevented Ecopetrol from incurring costs in the amount of **\$ 1.700 billion**.

02

Transformation of **28,472 kg** per month of organic waste from Ecopetrol's food service into composting and pig feed.

03

Collection of **3,628Kg** of plastic in eco-bricks or love bottles.

Table 111. Asset divestiture, accounting derecognition (direct and associated operation)

Year	Quantity (Q)	Net Book Value (COP)
2017	2,980	71,857,718,587
2018	7,731	154,222,746,762
2019	5,441	24,978,003,206
2020	2,672	9,854,979,248
Total	18,824	260,913,447,803

Source: Ecopetrol, Vice Presidency of Procurement and Services

GRI 306-3, SASB EM-EP-160a.2

Significant spills

No significant spills affecting flora or fauna were recorded in 2020. The incidents that occurred on a larger scale activated the emergency and contingency plan filed with ANLA, implementing the Incident Command System, and following the procedures and protocols established for the care of environmental emergencies.

Clean-up work was carried out in the affected areas in each of the incidents; however, fauna and flora were not affected in any of the incidents presented.

GRI 103-1, 103-2, 103-3

**Environmental compliance
Environmental feasibility**

Environmental planning seeks to manage and obtain the required environmental authorizations in a timely manner to legitimize operations and projects that ensure compliance with business goals. The process includes the development of environmental feasibility strategies and environmental studies.

The following environmental authorizations were obtained during 2020:

18

environmental authorizations obtained from ANLA through the legal channel called *minor change*, which made it possible to implement projects and activities to be carried out within the production fields.

01

an environmental permit issued by ANLA for the "APE COL 5" (offshore), which allows to explore the presence and potential of gas in deep waters of the Colombian Caribbean.

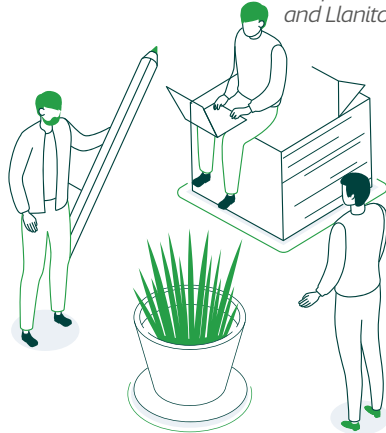
47

environmental authorizations before the regional autonomous corporations for the use and exploitation of natural resources from Ecopetrol's production fields in the Orinoquía, Central and Andina Oriente regions.

ENVIRONMENTAL DIMENSION

Among the environmental authorizations obtained in 2020 is the approval for the installation and operation of energy self-generation projects in the Yariguí, Cantagallo, Casabe, Huila and Rubiales production fields to enable the execution of solar projects with an installed capacity of 107,795 MW (sic).

Additionally, 109 procedures were processed and filed before the regional autonomous corporations and ANLA during 2020, including the following:

- *APE Medina Occidental* – Modification of environmental permit.
 - Modification of the Comprehensive Environmental Management Plan *Mares Bloque Centro (LC) Lisama and Llanito*.
 - Modification of environmental permit APE VMM32.
 - Modification of the Comprehensive Environmental Management Plan for Palagua field.
 - Modification of the Comprehensive Environmental Management Plan for Campo Yariguí –Cantagallo and Surroundings.
- 
- An illustration showing three stylized human figures in a professional setting. One figure on the left stands next to a large, vertical document. A second figure in the center is seated at a desk, working on a laptop. A third figure on the right stands near a large, horizontal document. In the foreground, there is a potted plant with green grass-like leaves. The entire scene is rendered in a clean, minimalist style with green and grey tones.

On the other hand, Ecopetrol actively participated in different scenarios with the National Government to technically support the issuance of Resolution 0821/2020, which issued the Terms of Reference for the Preparation of EIAs of Pilot Projects for Comprehensive Research of Unconventional Reservoirs (PPII).

Environmental compensation and 1% investment

In order to carry out interventions on a landscape scale and to comply with obligations of:

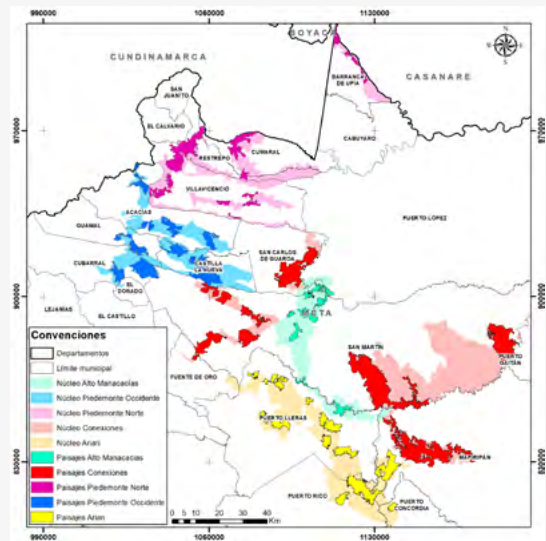
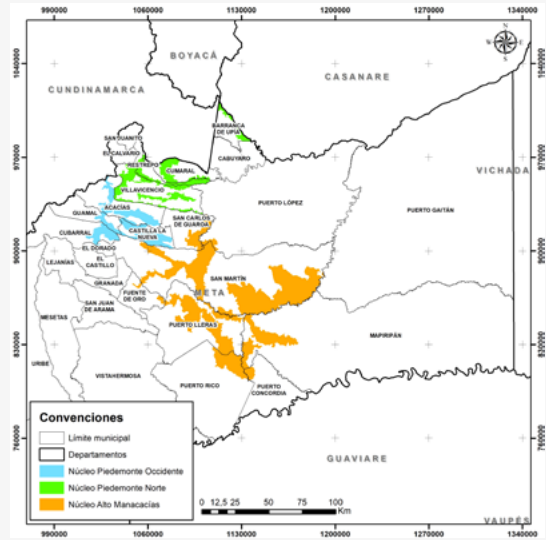
- environmental compensation, which are generated by the use and exploitation of renewable natural resources and
- Of the 1% investment, which is materialized by the collection of surface or underground water

as referred to in the paragraph of Article 43 – Act 99/1993, Ecopetrol identified and limited priority areas called “cores” where the areas of operation, areas of environmental and social interest coincide. Multifunctional landscapes are defined and prioritized in these cores, seeking ecological connectivity between natural areas and generating benefits for local and regional biodiversity.

Strategy for the implementation of compensation and 1% investment obligations of Ecopetrol.

Monitors: Indicators of landscape and property

- Biodiversity conservation planning in SCP areas of interest IAVH(2012)
- Core Definition (2007)
- Landscape definition (2019-2020)
- Selection of properties and participants (2019-2020)
- Participation-based property design
- Conservation agreements (2020-2022)



Source: Ecopetrol, Environmental Management and Relationship

ENVIRONMENTAL DIMENSION

The actions to implement these obligations are aimed at generating shared prosperity with the communities surrounding Ecopetrol's operations, and include:

- Agreements for the conservation of areas of environmental importance,
- Protective reforestation,
- Restoration of the ecosystem in any approach (recovery, rehabilitation and restoration),
- Purchase of properties for conservation and
- Hydrometeorological monitoring in the basins in which surface or groundwater collection is carried out.

Compensation and investment lines for the obligations in execution

Investment lines for the obligations in execution

Conservation agreements in areas of environmental importance with owners, holders or tenants, seeking to favor the conservation of ecosystems through payments in kind

Purchase of properties for conservation

Protective reforestation

Restoration under any approach (recovery, rehabilitation, restoration)

Hydrometeorological monitoring in basins where surface/underground water collection is carried out

With the fulfillment of these obligations there would be:

+ 1,200

Conservation Agreements through in-kind incentives

+ 13,000

hectares in conservation.

Source: Ecopetrol, Vice Presidency of HSE

Based on the strategy defined by Ecopetrol for compliance with environmental obligations, the implementation of conservation actions is promoted based on novel and innovative ways and mechanisms to contribute to the generation of better social, economic and environmental conditions in the country. For this reason, new and better practices are being sought in

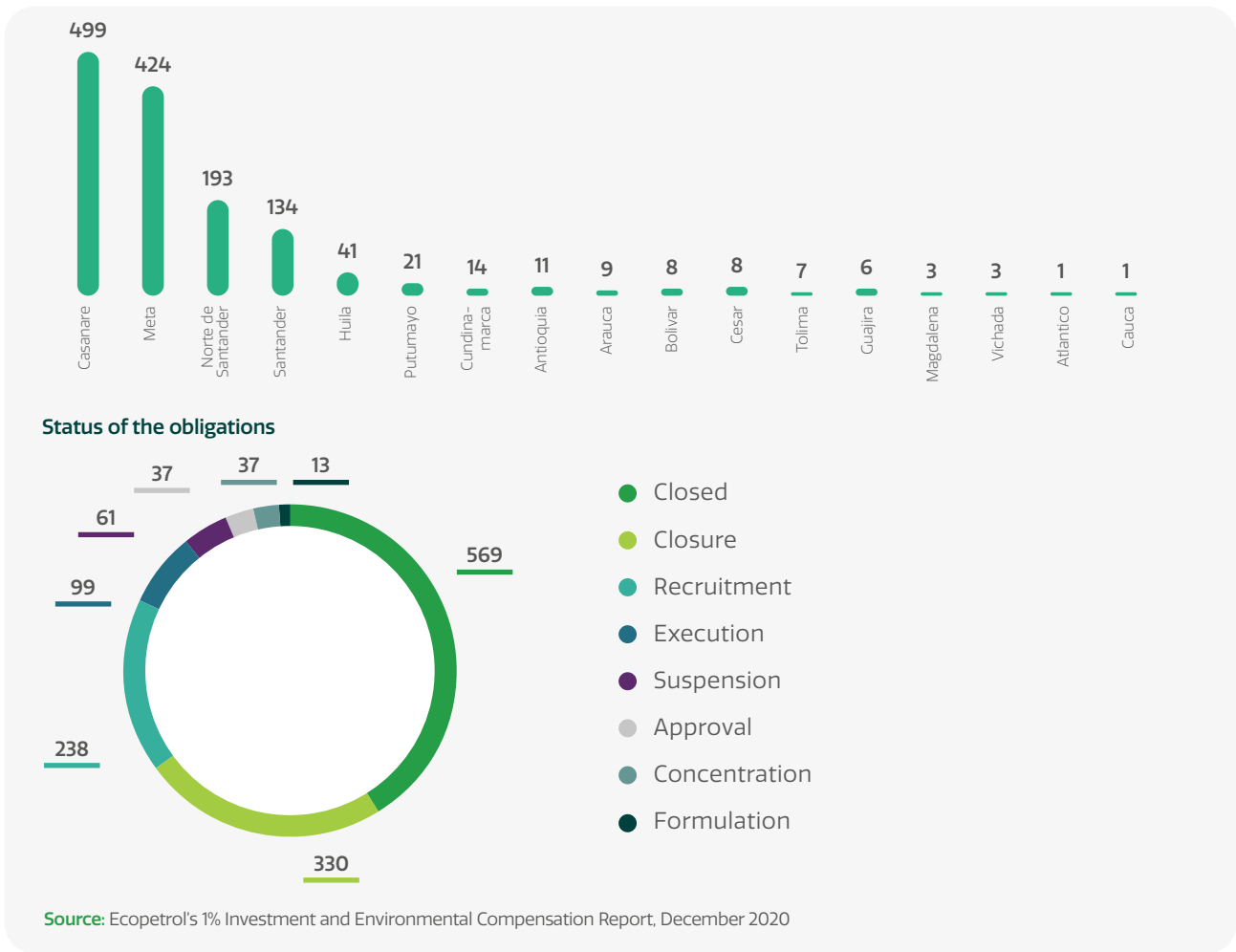
the territory, in order to reduce conflicts between the conservation of biodiversity and its ecosystem services and human activities, for which conservation strategies and tools have been developed which are more efficient, less expensive and have positive impacts on the social and economic conditions of the communities in the areas where they are developed.

Ecopetrol had 1,383 obligations as of December the 31st, 2020. The highest volume of obligations is derived from the 1% mandatory investment, followed by permits for forest use before the regional environmental authorities, compensation for changes in land use and compensation for water concessions.

Of the total obligations, 569 are closed, 330 in the closing process, 238 in contracting, 99 in execution, 61 in suspension (the activity that would generate the obligation has not started), 37 in approval by the environmental authorities, 36 in consultation with stakeholders and 13 in formulation.

The departments with the highest number of obligations are Casanare, Meta, Norte de Santander and Santander.

Graph 82.
Obligations by department



GRI 307-1, 419-1

Environmental non-compliance

There have been no fines significant (For Ecopetrol, above \$500,000,000)^[5] or non-monetary sanctions since 2017 - and until 2020.

5 CORPOVALLE DEL CAUCA: It imposed a fine of \$ 265.836.101, for finding Ecopetrol S.A. environmentally responsible. for having reduced the hydraulic capacity of the Vijes river, contributing to the sedimentation of its channel and generating flooding in the area and erosion on its two banks of the socioavation.

KF_33
KF_76
KF_92



-06-

Ecopetrol EFFORTS DURING IN THE COVID-19 EMERGENCY

Since the beginning of 2020, humankind has been the protagonist and witness of an unprecedented crisis in recent history. This situation, which has had great impacts for human beings, for countries and for the economy could not be alien to Ecopetrol. Therefore, the Company designed a special plan to face the COVID-19 pandemic.



Julián Romero
Ecopetrol's Worker

This special chapter on COVID-19 aims to capture the multiple actions that the Company adopted - and continues to develop - to address the crisis, and the way it has interacted with its stakeholders to overcome it.

Since March 17, 2020, the National Government declared a State of Social and Economic Emergency through Decree 417/2020. The National Government also activated Act 46 of 1988 that orders all Colombians to be jointly responsible for emergency care and promotes coordination between local and national governments and companies through the National Risk Management Unit.

SENIOR MANAGEMENT-LEVEL COMMITMENT

Board of Directors

Ecopetrol’s Board of Directors has been permanently at the forefront of the crisis caused by COVID-19. Throughout the year, Ecopetrol’s Board of Directors held a total of 15 extraordinary sessions to direct

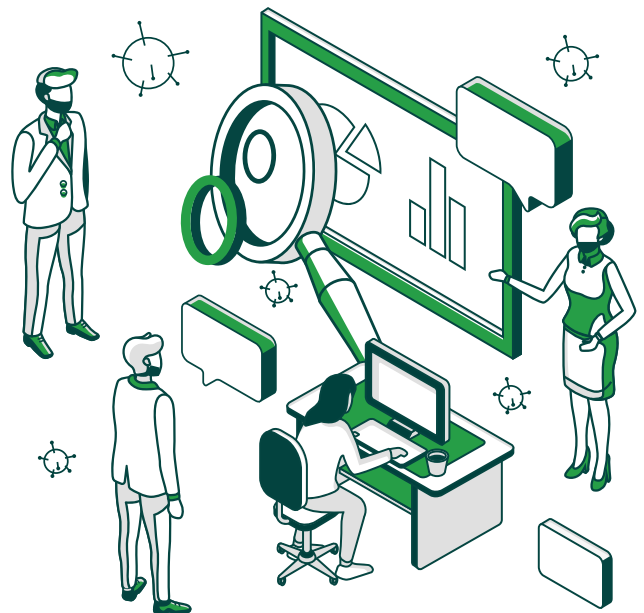
Ecopetrol with opportunity and expeditiousness in taking measures to counteract the impacts derived from this crisis, which was added to the fall in oil prices and the destruction of the demand for oil.

COVID-19 Crisis Committee

The COVID-19 Crisis Committee was structured in March 2020. It is made up of the company’s vice presidents, and it is mainly tasked with the systematic monitoring of the behavior of the pandemic and its impact on Ecopetrol’s operations, as well as making strategic decisions for prevention, preparation and attention in the emergency and the assurance of operational continuity.

In addition Ecopetrol issued the ‘Declaration of Contingency Operation’ in March 2020 and activated the equipment, plans and actions required to prevent infections, respond to new challenges in the operation and special containment measures.

As a quick response - and in advance of the emergency declaration of the National Government, Ecopetrol launched the COVID-19 Health Response Committee in February. This committee was made up of health professionals whose main functions are the generation of technical guidelines, the assurance of resources for the care of the pandemic, the monitoring and surveillance of probable and/or confirmed cases and the generation of reports in order to ensure effective and timely decision-making, and adoption of the necessary measures for senior management of the Company and for the different instances of surveillance and control of the country.



Business risk map

The global pandemic situation was identified among the emerging risks in the business risk construction and update exercise. The foregoing led to the addition of the risk “Propagation of Pandemics that affect the Operation” to the Business Risk Matrix, whose management focuses are:

- Promoting and verifying compliance with biosafety protocols by officials and contractors to prevent and mitigate the Pandemic in operations, and
- Monitoring alarms and incidents that may affect the continuity of Ecopetrol’s operation during the pandemic.

Resources allocated for attention to the health emergency

In March 2020, the creation of the Cost Center was formalized within the framework of the health emergency. Thus, the mechanism for the approval of financial resources in contingent operation was enabled, which facilitated their allocation and use to prepare and tend to the health emergency.

Similarly, Ecopetrol allocated resources to support the communities in its areas of influence which had been impacted by the pandemic. The budget resources executed in these two lines during FY 2020 are detailed in Table 112.

Table 112. Contingencies against COVID by Ecopetrol

Type	COP Billion
Operational Contingency	\$ 63.2
Third Party Support Contingency	\$ 87.2
Total Contingency Ecopetrol S.A.	\$ 150.4

Source: Ecopetrol

STRATEGY FOR THE CARE OF THE HEALTH EMERGENCY

Ecopetrol established the guidelines and launched activities aimed at the prevention, preparation and care of the health emergency since the beginning of February 2020, before the declaration of a pandemic by the World Health Organization and the Declaration of Health Emergency in Colombia.

These actions were focused on two objectives:

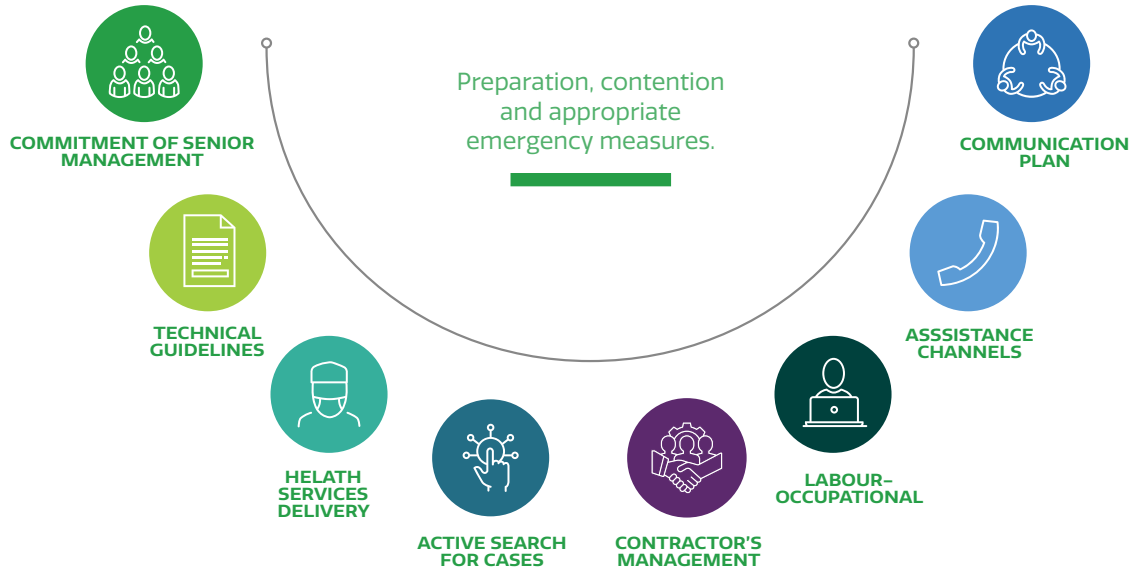


Preserving the life and integrity of workers, pensioners and beneficiaries of the Excepted Health Regime, which according to the provisions of Law 100 of 1993, must be ensured by Ecopetrol S.A. (Around 65,000 people)



To ensure the continuity of Ecopetrol’s operation as a fundamental element to guarantee the country’s energy security.

The strategy deployed by Ecopetrol has been supported by the following pillars:



PREPARATION, DISSEMINATION AND APPLICATION OF TECHNICAL GUIDELINES

Since the beginning of February 2020, Ecopetrol has been generating technical guidelines that establish prevention, preparation and care measures for the health emergency, adjusted to the particular conditions of the Company's operation and within the framework of the provisions issued by the National Government and the Ministry of Health and Social Protection, inter alia.

In this sense, 49 standards and technical guidelines were prepared, disseminated and implemented in 2020, of which there are three relevant documents with parameters to ensure the protection of workers against the risk of contagion by COVID-19:

COVID-19 pandemic biosafety plan:

- Includes the guidelines, actions and recommendations to identify and reduce the transmission of the pandemic virus strain; reduce its effects on people (infections, hospitalizations and deaths) and on essential services; as well as minimizing the operational, economic and social repercussions that the Coronavirus pandemic could cause.
- Provides guidelines that provide preparation to recognize and handle eventual suspected, probable and/or confirmed cases of COVID-19 disease in Ecopetrol Group,

- Updates the HSE management system with the new risk associated with the SARS-CoV-2 virus and the COVID-19 pandemic.

Pandemic guide:

- Providing health and operational guidelines to recognize and manage coronavirus cases and provide a planned response to an epidemic / pandemic, respecting HSE standards,
- Defining guidelines to control coronavirus transmission and reducing its effects (infections, hospitalizations and deaths),
- Promoting the maintenance of essential healthcare services to minimize the operational, economic and social repercussions derived from the pandemic.

Guidelines for the epidemiological surveillance of respiratory infection by the Coronavirus SARS-CoV-2: Establishes the criteria and procedures for the active search of cases, the healthcare of the beneficiaries, the timely detection of cases and the assurance of all measures necessary to minimize the risk of contagion.

Provision of health services

The following actions have been carried out since the beginning of the pandemic – inter alia:

- Adjustment of the health care model during the time of the COVID-19 epidemic, guaranteeing timely attention to the health needs and well-being of the beneficiary population of the Ecopetrol health plan.
- Strengthening home care programs to reduce the influx of patients in health care centers and reducing the risk of exposure.
- Implementation of the epidemiological surveillance system for COVID-19.
- Expansion of services at Ismael Darío Rincón Hospital in Barrancabermeja (Property of Ecopetrol S.A.): Enabling the Molecular Biology Laboratory to process diagnostic tests for COVID-19, enabling nine Intensive Care Units, expansion and improvements in other services to ensure diagnostic and therapeutic procedures for patients with COVID-19 who are beneficiaries of the Ecopetrol health plan and for the community in general.

PROTECTING OUR WORKERS HAS BEEN A PRIORITY

On the occasion of the health emergency decreed by the Ministry of Health and Social Protection, Ecopetrol defined the following labor measures aimed at the well-being of workers and their families. Some of them are immediate and others are focused on actively contributing to flatten the contagion curve.

Labor dimension – occupational

- Remote work was adopted for workers with administrative functions that can be carried out from facilities other than those of the Company since March 16, 2020. Of approximately 13,000 employees of the Ecopetrol Group, more than 9,000 worked remotely through a secure digital connection.
- A change was applied in the remote work schedule that would allow the attention of family or personal activities, to harmonize this work modality with the quality of life of our workers.
- New work shift schemes were designed (for the operation) adapted to the needs generated by the provisions issued by local authorities in each region.
- A compensated half-day was established each week to attend personal or family situations.
- The paid leave for contingency was established, which refers to the possibility of continuing with the payment of the salary without providing the service to those workers who have a health condition that requires isolation and who cannot carry out the activity at home on account of the nature of the functions to be developed.
- Operation with vital minimums on all operational fronts: Exploration, Production, Refining and Petrochemicals, Transportation and Projects and Drilling. This measure has been applied in different businesses throughout the country depending on the regional behavior of the pandemic, and its main objective was to ensure continuity of operation in safe conditions, as an essential element to guarantee the country's energy security.
- Isolation of workers with health risks, with comorbidities that make them vulnerable in case of contagion with the Coronavirus - SARS-CoV-2 (1,343 workers).
- Remote support in ergonomics and psychosocial risk management, to ensure the best working conditions at home for workers.
- 296 ergonomics workshops were carried out, achieving a coverage of 5,009 workers, and additionally 3,211 individual counseling sessions were carried out with 16,450 people covered.
- Regarding the management and care of psychosocial risk, 608 workshops were carried out, reaching 5,612 people and 2,223 individual counseling sessions were carried out.

Adoption of mental health programs within the framework of the mandatory preventative isolation

Comprehensive wellness Program for workers and families

Work-life balance and care for the physical and emotional health of our workers and their families was promoted in the midst of remote work and the circumstances of the pandemic. In 2020, we offered various activities around three interrelated pillars: *Take Care of yourself, Share and Have Fun*. The details of this program can be consulted in the section on Labor practices of this report.

High-risk activities identified by psychosocial risk

The following actions were developed during 2020 in order to control and mitigate impacts on mental health and psychosocial conditions specifically associated with isolation and the COVID-19 health emergency:

Group psychosocial intervention strategy

It was developed through workshops to listen to workers facing the conditions in which they have faced the entire process of the pandemic and remote work.

The topics discussed are: emotion management, strengthening of coping strategies, stress management, use and appropriate distribution of time due to current conditions and remote work, resilience and management of fear of uncertainty, psychoeducational guidelines and awareness of the present.

Individual psychosocial intervention strategy

It consists of identifying support needs for self-management and people from their family nuclei. This has allowed a greater awareness of self-care, generating changes, new habits and healthy lifestyles.

Individual accompaniment strategy for leaders

This seeks to provide support to its collaborators due to current conditions, high demands for care, difficulties in developing teamwork, family-work balance due to the high demand for work and shifts which are too long to comply with the schedule.

Graph 83. Comparison of the percentage of compliance with the psychosocial risk intervention plans



Source: Ecopetrol – Vice Presidency of HSE, tool www.ecosaludocupacional.com

Other benefits adopted by the company

- Extension of the term of award for housing loans.
- Freezing loan installments awarded by Ecopetrol at the request of the worker for a maximum period of three months.
- Freezing installments of loans awarded by Ecopetrol to workers with some comorbidity, with decreased income caused by the change in the work schedule.
- Enjoying early holidays.
- Granting healthcare policies to workers who could not return to the country due to the closure of borders and were in remote work outside the country.
- Extension of health services for children over 18 years of age who are not studying due to issues caused by the pandemic, as long as they retain their place in educational institutions.

ACTIVE SEARCH FOR COVID-19 CASES IN ECOPETROL OPERATIONS

Since April 2020, the strategy of active search for COVID-19 cases in direct workers and contractors of Ecopetrol was launched through the performance of RT-PCR diagnostic tests.

The fundamental objective is the identification of positive cases, their timely isolation and corresponding medical management, along with the identification and study of contacts, in an attempt to cut chains of contagion and minimize the risk of affecting the Company's operations.

42,562 diagnostic tests were carried out in 2020, detecting a total of 2,927 positive cases, from which the respective epidemiological investigations and all other corresponding actions were deployed.

IDENTIFICATION OF IMPACTS AND VARIATIONS IN THE SUPPLY CHAIN

Administration and contract supervision actions were strengthened, in order to promote and ensure compliance with norms and guidelines for the prevention, preparation and care under the health emergency published by the National Government, the Ministry of Health and Social Protection, the National Institute of Health and the Departmental and Municipal Health Secretariats, as well as those issued internally by Ecopetrol.



Cash flow leverage for suppliers

Ecopetrol voluntarily adopted actions aimed at alleviating or strengthening the cash flow of its suppliers to facilitate the application of employment protection measures and to comply with financial commitments:

- Return of retention in guarantee: Considering aspects related to the performance of the supplier and the complexity of the contracts, Ecopetrol proceeded to release most of the resources withheld to contractors to guarantee possible non-compliance with third parties.
- Suspension of the discount of economic sanctions: In order not to make the situation more burdensome for the contractors, the collection of any outstanding economic values due to contractual breaches was suspended for six months.
- Activation of expeditious payment for micro, small and medium entrepreneurs: This initiative is not an early or advance payment; Ecopetrol waived the 30-day pay cycle after invoice filing to complete payments more expeditiously and thus strengthen the cash flow of suppliers.

HIGHLIGHTS: FIGURES

110
Suppliers

received the Withholding in Guarantee in advance, amounting to **COP \$ 116 billion**, in **145 Suppliers**.

Six (6)
Suppliers

were unlisted from the critical rating by paying off their business and labor obligations.

COP \$ 6,712
million

in financial penalties suspended for 6 months to leverage Suppliers' cash flow.

1,399
MSMEs

benefited from the expeditious payment measure during 8 months, amounting to **COP \$ 553 billion** without financial discount (45% of all Ecopetrol suppliers).

Job preservation for suppliers workers

Ecopetrol respects the administrative, financial, legal and contractual autonomy of its suppliers to define the best alternatives aimed at ensuring the sustainability of their company and that of their workers.

In 2020, Ecopetrol encouraged suppliers to keep the vital minimum to operate, without generating termination of contracts, and fostered a rapprochement between suppliers and the institutional framework to ensure

permanent monitoring of the workforce impacted by the suspension or termination of contracts.

Thus, although the confinement measures due to the COVID-19 pandemic and the international drop in oil prices did indeed strongly impact the industry, Ecopetrol has maintained its commitment to link local labor. Indirect jobs were created for more than 33,000 workers in 2020.

Quédate en Casa – 'Stay at Home' initiative with a total contribution of COP \$ 753 million

Economic aid represented in grocery vouchers or grocery kits in kind for former workers and employees of Ecopetrol contractors affected by the economic and social situation generated by the pandemic and the fall of oil prices. This benefit was provided by the EG foundation on a temporary basis, benefiting 5,265 people.

Communications plan

The COVID-19 Communication Plan was structured to address the crisis situation, in order to prepare the workers and users of the Ecopetrol health service to face the pandemic.

More than 1,800 communications were disseminated during 2020 through different channels (Intranet, email, Yammer, WhatsApp, social networks #Entretodosnoscuidamos, among others) with information on educational and preventative measures related to self-care, biosafety standards and protocols, work at home, mental health in the new normal, among others.

Similarly, 30 streaming conferences were held, reaching 81,096 connections, between Ecopetrol Group workers, family members and pensioners benefiting from the company's health plan.

Additionally, six leaders meetings were held with virtual participation of all Ecopetrol Group workers and an average of 16,309 connections per meeting, managing to keep the entire organization connected and informed on the different topics of interest.

GRI 413-1

Mechanisms for participation and involvement of stakeholders in the management of social impacts

The participation of stakeholders is paramount for Ecopetrol, in order to determine their perceptions and address situations that may entail impacts for them. In this sense – particularly for COVID-19 – the Company consulted its stakeholders on different occasions and provided special attention channels.

Consultation of perception and expectations to Stakeholders

Within the annual stakeholder perception and expectations survey, Ecopetrol incorporated two questions on the matter that were answered by three of our groups: employees, society and community, and the State.

1. Do you believe that Ecopetrol has been supportive, and has made efforts and contributions to overcome the negative effects of COVID-19?
92.62% of those surveyed answered to this question affirmatively.
2. Activities in which efforts are reflected.
The following activities stood out in this response: strengthening the health system (equipment and tests) and humanitarian aid (food kits, personal protection and cleaning items).

GRI 403-1

Participation and consultation with workers

The Company had several scenarios in which the disclosure of information related to the behavior of the pandemic in the Company (and the measures adopted) was ensured. Similarly, in these scenarios, workers had the opportunity to present proposals related to preventative measures, which were analyzed by the Administration's representation for their eventual application.

The scenarios are as follows:

12
regional

joint occupational health committees

01
national

health commission

34
local

occupational health committees

07
regional

health sub-commissions

Attention to requests, complaints and claims

3,343 queries, complaints, claims and suggestions (PQRS) related to COVID-19 were attended through the Office of Citizen Participation between February 2020 and January 2021. The associated topics were the following: Health care, personnel, community support, request for information and contractual issues.

New service channels



Creation of a corporate email mailbox: comiterespuestasaludcovid-19@ecopetrol.com.co, where through a total of 2,429 requests were attended and managed in 2020 in relation to the COVID-19 Pandemic.



Tele-Orientation Service, through which active monitoring of beneficiaries and COVID-19 surveillance actions are carried out by health professionals. In 2020, more than 8,000 calls were answered in which



information and education were offered to users of Ecopetrol's health services on issues related to the pandemic. More than 106,000 follow-up calls were made to beneficiaries with positive diagnoses.

Friendly Line: Attended by psychologists to provide guidance against emotional disturbances of workers and beneficiaries of health services.

Safe and available digital infrastructure and operation

Digital operation and infrastructure have been paramount for the organization for 2020, to guarantee the continuity of the business and offering a quality service always and everywhere for the operation of the Company.

In response to the emergency, Ecopetrol accelerated its digital transformation process and applied the remote work model for its workers, even before the national emergency was decreed.

To protect the security of the company's information, Ecopetrol strengthened its guidelines for remote connection through its network (through the double authentication system) when there are connections from different networks. In this sense, the Remote Work Decalogue was launched; this is a document that contains instructions and recommendations to ensure the correct use of the computer assigned, to obtain virtual assistance and information storage in the cloud. It also included recommendations to prevent the use of unauthorized software and to guard against malicious emails.

Similarly, the Company expanded its monitoring spectrum to have better visibility of critical cyber operations, with permanent reporting of its operations, stability and availability. From the viewpoint of cybersecurity, the environment monitoring capabilities and key profiles were activated to act in advance and create timely reports on cyber-attacks and cyber incidents, for the senior management levels.



ECOPETROL'S EFFORTS DURING IN THE COVID-19 EMERGENCY

Additionally, the Company updated its cybersecurity and cyber defense tools related to: (i) The use of corporate tools; (ii) Information security; (iii) Processing personal data; (iv) Computer systems and services; (v) Cybersecurity for control systems and automation processes; and (vi) Mobile devices that have access to corporate resources.

Following are some of the actions implemented within the context of the crisis:

- Commissioning and strengthening technological platforms to support the work-at-home strategy pursuant to the declaration of an emergency due to a pandemic, allowing the normal operation of Ecopetrol during the contingency and supporting:
 - More than **15,000** users nationwide, serviced remotely through our service desk, providing a solution to each of their technological needs.
 - **8,561** daily meetings through Teams .
 - **7,603** daily Teams calls.
 - More than **180,000** sites through Teams.
 - **4,151** weekly VPN connected users – with hours of connection in average.
- The General Shareholders' Meeting was held under a completely virtual format.
- The degree of technology obsolescence was reduced and we mitigated the risk of delays in the field through the installation of the multi-service network for Casabe and Cantagallo fields, for the monitoring of 170 wells. Similarly, the LTE NETWORK (Long Term Evolution) was installed for Campo San Francisco with the deployment of 57 links for the monitoring of 180 wells, with which it was possible to improve the availability of the network to 99.99% as compared to 99.95% in 2019.
- To leverage the organization's 'new normal' strategy, the WiFi, LAN, and videoconferencing networks of the Teusacá and Main buildings were enabled. In addition, 27 applications were migrated to the cloud.
- Biosafety pilots were applied in Barrancabermeja and Reficar, carried out successfully to ensure and maintain the biosafety standards for the entry of employees.

Support to communities, local, departmental and national governments

" (...) In all these tasks that we have been carrying out in the management of the pandemic in the city, it is important to thank Ecopetrol for its important contributions to the community of Barrancabermeja with the donation of personal protection items and all the support with the epidemiological groups, the Ministry of Health, and also with the contributions of the tripartite agreement that will be carried out between the Government, the District Mayor's Office and ECOPETROL in order to set up the Magdalena Medio Regional Hospital as a reference center of COVID-19 suspected respiratory symptoms, for the city and for the entire Magdalena Medio (...). ECOPETROL is a good neighbor and collaborator of the city, and has been very generous and very willing to invest in supporting this contingency within the prevention management plan, in order to eradicate and contain the advance of COVID-19 in the city of Barrancabermeja. (...)"

HAROLD LORAN, COVID-19 Coordinator at Magdalena Medio Regional Hospital



Ecopetrol’s Environment Management Strategy includes coordination with national policies to promote development and enable operation, depending on the different territories and their social, economic and cultural specificities.

In this sense, Ecopetrol and its subsidiaries Cenit, Ocesa, ODL, ODC, Bicentenario, Refinería de Cartagena, Hocol, Esenttia and Bioenergy designed initiatives for more than COP \$ 88 billion to cater to the needs prioritized by national, regional and local authorities in the areas of influence of the Group’s operation.

Investments were made in Magdalena Medio, Norte de Santander, Arauca, Casanare, Meta, Neiva, Putumayo, Caribe, with emphasis on Cartagena, Santa Marta and Coveñas and Bogotá, under a coordinated effort with the Ministry of Health and Social Protection and the National Unit for Disaster Risk Management.

In the health care line, investments were made in order to meet more than 72 requests received during the month of March by departmental and local authorities, risk management units, Police and Army, in the face of the emergency caused by COVID-19.

Given the magnitude of the emergency, Ecopetrol Group decided to support national, regional and local institutions to generate greater capacities to respond to the pandemic.

Ecopetrol Group’s contributions to mitigate the impact of the emergency **have benefited more than 252,000 families and 200 institutions in 118 municipalities and 21 departments**, through the following types of investment:

- **Strengthening institutional capacity** in emergency care by providing Personal Protection Items (PPI) and cleaning items. Its recipients are public actors at different levels, such as mayors or governments, health posts or police and service bodies, among others. With these endowments it was sought to facilitate both direct care (for example, through medical bodies) and the coordination of emergency care (police, municipalities and others).
- **Humanitarian aid.** Food kits were distributed among the population to guarantee access to basic services such as food, hygiene or water.
- **Provision of medical equipment.** Thermometers, Falcon tubes, styrofoam, vital sign monitors, respirators and ventilators, AMBU brand manual resuscitator, three flat beds with handrail or similar, infusion pumps, vital sign monitoring equipment, wall-mounted oxygen regulator, wall-mounted medical air regulators, suction pumps stethoscopes, among others.

Table 113. Supply lines during the health emergency.

Contribution Lines	Delivered quantity	Strengthened Institutions
Humanitarian Aid – Food Kits	66,652	N.A.
Cleaning elements	98,611	87
Personal protection items	776,346	
Medical equipment	119	8

Source: Ecopetrol



ECOPETROL'S EFFORTS DURING IN THE COVID-19 EMERGENCY

Personal Protection Items (PPIs), cleaning items, humanitarian aid and medical equipment were delivered for a value of COP \$ 11,696 million.

Specifically, the Secretary of Health of Bogotá was delivered of PPIs and medical equipment for a value of COP \$ 5,994 million, in order to join forces and contribute to strengthen the healthcare system in the Capital District for attention and mitigation of the impact of the emergency derived from the pandemic. See table 114.

Tabla 114. Contribution lines in Bogotá

Contribution Lines	Quantity Delivered	Institutions Strengthened
Personal Protection Elements (Secretary of Health Bogotá)	9,430	1
Medical equipment (Secretary of Health Bogotá)	289	1

Source: Ecopetrol

Solidarity support

The solidarity support aimed at contributing to the mitigation of the economic consequences of the COVID-19 in the population in a vulnerable condition.

In this sense, COP \$ 11,492 million was distributed as follows: COP \$ 4,182 million to Barrancabermeja, COP \$ 6,994 million to Meta and COP \$ 315 million to support the performance of COVID tests in Barrancabermeja.

As for COVID Tests, Ecopetrol S.A. acquired the commitment with the District Health Secretary of Barrancabermeja to provide 10,000 rapid antigen tests and 3,000 viral transport media (MTV) and 6,000 swabs for sampling, for the Secretariat to develop the PRASS Strategy (Testing, Tracking and Sustainable Selective Isolation).



Food baskets delivered by Ecopetrol's volunteer at Meta, Villavicencio.

Table 115. Solidarity support

Contribution Lines	No. Beneficiaries
Solidarity Support - Barrancabermeja	29,703
Solidarity Support - Meta	50,000
COVID testing	10,000

Source: Ecopetrol.

Other actions in partnership with universities, institutions and companies in the country

- Technological developments for the care of patients with coronavirus.

Ecopetrol Group, health agencies and technology-based companies came together to deliver 350,000 personal protection items and 27,000 valves for respiratory assistance that will serve to strengthen the health sector and prevent the spread of COVID-19.

The partnership included the development, production and distribution of 27,000 devices for artificial respirators, namely 3,000 splitter units or flow diverters, 18,000 Venturi valves and 6,000 one-way valves, as well as 350,000 anti-splash masks, to be delivered to medical institutions in different cities of the country.

- Advanced technology mobile laboratory

This mobile laboratory allows the diagnosis of people infected with the SARS-CoV-2 virus and has the most modern technology. It will allow reaching remote parts of the country, where there are no laboratories to perform diagnostic tests and support the management of the pandemic.

The innovative infrastructure (the only one of its kind in Latin America), meets the requirements of the National Institute of Health and was developed jointly by the Ecopetrol Innovation and Technology Center and by NINOX, a Santander company in the automotive sector. Ecopetrol allocated close to \$ 1,000 million for its construction.

- Association with Arturo Calle and Bio Bolsa to protect health personnel

Ecopetrol Group – with its subsidiary Esenttia – Bio Bolsa and the Arturo Calle Business Group delivered 147,000 medical clothing kits for the protection of health personnel tending to the health emergency in the country.

The kits (made up of gowns and head covers), were delivered to the Red Cross, as well as to local authorities to ensure their distribution to hospitals and health providers in various cities.

- Support in the payment of the energy bill

Cenit, Oleoducto de Colombia and Ecopetrol S.A. allocated COP \$ 3.6 billion to support the payment of electricity bills of the most vulnerable Colombian families whose income has been impacted by the spread of the COVID-19 pandemic.

The contribution was made within the framework of the “Comparto Mi Energía” - “I Share My Energy” initiative, under Decree 517 of April 4, 2020 of the Ministry of Mines and Energy. The involvement of Ecopetrol Group in this initiative benefited around 30,000 families from strata 1 and 2 in different areas of the country.



Healthcare material delivered by Ecopetrol's volunteer at Casanare, Yopal.

- “Helping does us all good”

Ecopetrol Group joined the initiative “Ayudar Nos Hace Bien” - “Helping Us Does Good”, led by the First Lady of the Nation, María Juliana Ruiz, to bring food kits to the most vulnerable families affected by the COVID-19 pandemic in the country.

The contribution exceeded \$ 5,200 million, represented in 41,877 humanitarian aid kits distributed in 64 municipalities in 21 departments of the country such as Santander, Norte de Santander, Cesar, Meta, Cundinamarca, Antioquia, Boyacá, Valle del Cauca, Huila, Nariño, Putumayo, La Guajira, and the cities of Neiva, Barranquilla and Cartagena, among others.

“New Normal” project - recovery measures

Industrial Hygiene Management under the New Normal Project

The strategy to ensure the gradual and responsible return to Ecopetrol Facilities during the COVID-19 pandemic included work on the industrial hygiene front for the evaluation of ventilation conditions in closed areas (also taking into account that the WHO published alerts on the need to establish controls to mitigate the transmission of the virus by air in poorly ventilated closed spaces) and on presenting proposals to improve these conditions at Ecopetrol's facilities.

Following is a list of the actions taken in 2020:

Administrative areas

- Preparation and publication of a procedure to ensure the implementation of interventions in ventilation and air conditioning systems in administrative areas.
- Disclosure of the standard published.
- Evaluation of ventilation and air conditioning conditions and proposals to improve indoor air quality for 23 Ecopetrol administrative facilities.
- Advice for interventions to ventilation and air conditioning systems to non-industrial infrastructure personnel.
- Technical opinions issued to ensure indoor air quality in closed rooms: five opinions.

Operational Areas

- Preparation and publication of two procedures to ensure the implementation of interventions in the ventilation and air conditioning systems in Ecopetrol's operating areas.
- Disclosure of standards in the Refining, Production and Transportation businesses
- Evaluation of ventilation and air conditioning conditions and proposals to improve indoor air quality for 1 VRC facility, 1 VAO facility and 5 GRC facilities.
- Advice to ensure implementation of improvements in Ventilation and Air Conditioning systems in closed areas for refining, production and transportation operational areas.



Recommendations for the gradual and responsible return to industrial and non-industrial facilities

- Support to the areas in the design and implementation of biosafety measures in industrial and non-industrial facilities through a general assessment of the work environment, ensuring adequate conditions for the worker, under the National guidelines adopted by the Company. (Resolution 666 of April 24, 2020 of the Ministry of Health and Social Protection to control and carry out proper management of the return to face-to-face work activities in any economic activity in Colombia.).
- Recommendations for the gradual and responsible return to the facilities of the Pilot Plan.
 - Teusacá Building
 - Main building
- Recommendations for the gradual and responsible return to facilities: *Plan Regiones*.
 - RCSA Administrative Block 2nd floor (Cartagena)
 - Eco Caribe Pilot Building 2nd floor (Cartagena)
 - GHD Management (Neiva)
 - Excellence Building 2nd floor (Barrancabermeja)
 - Primavera Urbana Complex 7th floor (Villavicencio)
- Recommendations for the gradual and responsible return to the facilities: VOL Integrated Center - 10th Floor - Teusacá Building.
- Recommendations for the gradual and responsible return to the facilities: Puerto Wilches Citizen Attention Office.
- Recommendations for the gradual and responsible return to the facilities: Food Zones - Building a, b and c; Buildings 1, 2,3 and 4 - GRC.
- Recommendations for the gradual and responsible return to the facilities: Food Zones - *Mi Llanura* Mess Hall - Rubiales.



Ecopetrol's worker working from home supporting the communication's campaign.

Technical support to teleworkers

The risk identification process is developed through three tools:

01

A basic survey where the official can express their desire to participate either virtually or in person in the stages of the project.

02

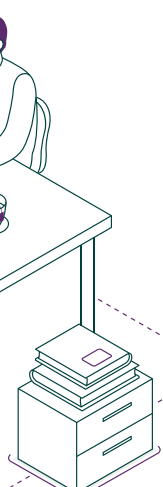
A self-report where the official identifies the risks in his/her current job

03

A job evaluation conducted by a professional specialist in ergonomics, to validate the information required to project a suitable work situation for the performance and well-being of the worker.

Technical support in proposals for risk intervention in Health and Safety at work.

This proposal includes the delivery of prototypes of ergonomic elements and accessories for the adaptation of work environments at home and facilities.



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(Comprehensive compliance option) - GRI

GRI 102-51

From January 1st to December 31st, 2020, the Report was published on March 26th, 2021

GRI 102-55

“The Content Index Service was made in the Spanish version of the report”



“For the GRI content index service, GRI Services reviewed that the GRI content index is clearly presented and that the references for all included disclosures are aligned with the corresponding sections in the body of the report”

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GRI 102: General disclosures 2016									
Organization's Profile									
102-1 Name of the organization	01 About Ecopetrol	20							
102-2 Activities, brands, products, and services	03 Our value chain	85, 91, 95, 100, 104, 105, 111							
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	02 Economic Dimension	74							
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102-8 Information on employees and other workers	04 Social Dimension	145, 149			Principle 6	Work and labor relations	8.- Decent work and economic growth		
102-9 Supply chain	01 About Ecopetrol	20							EM-EP-000.B EM-EP-000.C
	03 Our value chain	85, 91, 95, 100, 104, 129							EM-EP-000.A
102-10 Significant changes to the organization and its supply chain	01 About Ecopetrol	29							
102-11 Precautionary Principle or approach	04 Social Dimension	197							EM-EP-210a.3
	05 Environmental Dimension	203			Principle 7				
102-12 External initiatives	00 About this report	14							
	05 Environmental Dimension	233				Principle 1, 2, 5, 8, 9, 10			
102-13 Membership of associations	00 About this report	14							
	01 About Ecopetrol	21			Principle 1, 8, 9, 10	Organization Government			

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102-14 Statement from senior decision-maker	00 About this report	8, 16			Principle 7, 8, 9, 10 Gobierno	Organization Government			
102-15 Key impacts, risks, and opportunities	01 About Ecopetrol	62		Yes				Integrating risk and opportunity into business process	
Ethics and integrity									
102-16 Values, principles, standards, and norms of behavior	01 About Ecopetrol	36, 53		Yes	Principle 10	Organization Government	16.- Peace, justice and solid institutions	Anti-corruption	Código: EM-EP-510a.1, EM-EP-510a.2
	03 Our value chain	132							
102-17 Mechanisms for advice and concerns about ethics	01 About Ecopetrol	52, 56		Yes	Principle 10	Organization Government	16.- Peace, justice and solid institutions	Protected ethics advice and reporting mechanisms	EM-EP-510a.2
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102-18 Governance structure	01 About Ecopetrol	35, 48			Principle 1, 2, 3, 4, 5, 6, 7, 8, 9, 10	Organization Government			
102-19 Delegating authority	01 About Ecopetrol	48			Principle 10	Organization Government			
102-20 Executive-level responsibility for economic, environmental, and social topics	01 About Ecopetrol	29			Principle 10	Organization Government		Governance body composition	
102-21 Consulting stakeholders on economic, environmental, and social topics	01 About Ecopetrol	31		Yes		Organization Government	16.- Peace, justice and solid institutions		
102-22 Composition of the highest governance body and its committees	01 About Ecopetrol	39, 41, 44				Organization Government	5.- Gender equality 16.- Peace, justice and solid institutions	Governance body composition	

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102-24 Nominating and selecting the highest governance body	01 About Ecopetrol	40				Organization Government	5.- Gender equality 16.- Peace, justice and solid institutions		
102-25 Conflicts of interest	01 About Ecopetrol	58		Yes	Principle 10	Organization Government	16.- Peace, justice and solid institutions		
102-26 Role of highest governance body in setting purpose, values, and strategy	01 About Ecopetrol	35, 41, 48			Principle 7, 8, 9	Organization Government		Economic, environmental and social topics in capital allocation framework	
102-27 Collective knowledge of highest governance body	01 About Ecopetrol	59, 60		Yes		Organization Government			
102-28 Evaluating the highest governance body's performance	01 About Ecopetrol	46		Yes	Principle 10	Organization Government			
102-29 Identifying and managing economic, environmental, and social impacts	01 About Ecopetrol	31, 44				Organization Government	16.- Peace, justice and solid institutions		
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102-32 Highest governance body's role in sustainability reporting	01 About Ecopetrol	42				Organization Government			
102-33 Communicating critical concerns	01 About Ecopetrol	31		Yes		Organization Government			
102-34 Nature and total number of critical concerns	01 About Ecopetrol	45				Organization Government			

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102-37 Stakeholders' involvement in remuneration	01 About Ecopetrol	42				Organization Government	16.- Peace, justice and solid institutions		
102-38 Annual total compensation ratio	01 About Ecopetrol	49				Organization Government			
	04 Social Dimension	148					Pay gap Wage level		
102-39 Percentage increase in annual total compensation ratio	04 Social Dimension	147				Organization Government		Remuneration Economic Contribution	
Stakeholder engagement									
102-40 List of stakeholder groups	01 About Ecopetrol	30		Yes					
102-41 Collective bargaining agreements	04 Social Dimension	195		Yes	Principle 7	Fundamental principles and rights at work Work and work relations Work conditions and social protection Social dialogue	8.- Decent work and economic growth	102-42 Identifying and selecting stakeholders 102-43 Approach to stakeholder engagement	EM-EP-210a.1, EM-EP-210a.2
102-42 Identifying and selecting stakeholders	01 About Ecopetrol	30		Yes					
102-43 Approach to stakeholder engagement	01 About Ecopetrol	30		Yes					
	03 Our value chain	91, 93, 111, 136		Yes					
102-44 Key topics and concerns raised	01 About Ecopetrol	30		Yes					

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102-45 Entities included in the consolidated financial statements	01 About Ecopetrol	20, 21							
102-46 Defining report content and topic Boundaries	01 About Ecopetrol	25		Yes				Material issues impacting stakeholders	
102-47 List of material topics	01 About Ecopetrol	25		Yes				Material issues impacting stakeholders	
102-48 Restatements of information	01 About Ecopetrol	25						Material issues impacting stakeholders	
	03 Our value chain	122						Health and safety	EM-EP-320a.1
102-49 Changes in reporting	01 About Ecopetrol	25						Material issues impacting stakeholders	
102-50 Reporting period	00 About this report	15							
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Economic Performance									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	02 Economic Dimension	71		Yes					
103-2 The management approach and its components	02 Economic Dimension	71		Yes					
103-3 Evaluation of the management approach	02 Economic Dimension	74		Yes					
GRI 201: Economic Performance 2016									
201-1 Direct economic value generated and distributed	02 Economic Dimension	74, 75, 76		Yes			2.- Zero Hunger 5.- Gender equality 7.- Affordable and Clean Energy 8.- Decent Work and Economic Growth 9.- Industry, Innovation and Infrastructure	Total tax paid	
	03 Our value chain	93, 118, 138		Yes		Active participation of community. Generation of wealth and income. Social investment.		Total R&D expenses (\$)	
	04 Social Dimension	164		Yes				Total Social Investment (\$)	Infrastructure investments and services supported
201-2 Financial implications and other risks and opportunities due to climate change	05 Environmental Dimension	217, 220, 232			Principle 7 Criterio 10	Mitigation and adaptations to climate change	13.- Climate action	Water consumption and withdrawal in water-stressed areas	EM-EP-110a.3
201-3 Defined benefit plan obligations and other retirement plans	02 Economic Dimension	75				Work conditions and social protection			
201-4 Financial assistance received from government	02 Economic Dimension	75				Responsible political participation		Economic contribution	

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GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	01 About Ecopetrol	28							
	03 Our value chain	94							
103-2 The management approach and its components	03 Our value chain	94							
103-3 Evaluation of the management approach	03 Our value chain	94							
OG-1 Volume and characteristics of production and identified reserves estimate	03 Our value chain	91, 94							EM-EP-000.a
GRI 203: Indirect Economic Impacts 2016									
203-1 Infrastructure investments and services supported	04 Social Dimension	164, 180						Financial Investment Contribution	
								Economic Contribution	
								Infrastructure investments and services supported	
203-2 Significant indirect economic impacts	04 Social Dimension	164, 165, 167, 168, 170, 171, 172						Financial Investment Contribution	
								Economic Contribution	
								Infrastructure investments and services supported	

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GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	03 Our value chain	131							
103-2 The management approach and its components	03 Our value chain	132							
103-3 Evaluation of the management approach	03 Our value chain	134							
GRI 204: Procurement Practices 2016									
204-1 Proportion of spending on local suppliers	03 Our value chain	130			Principle 6	Promote social responsibility in the value chain. Employment relations and skill development. Income and wealth generation	1.- Fin de la pobreza 5.- Gender equality 8.- Decent Work and Economic Growth 12.- Responsible production and consumption		
Anti-corruption									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	01 About Ecopetrol	52							
103-2 The management approach and its components	01 About Ecopetrol	55, 56							
103-3 Evaluation of the management approach	01 About Ecopetrol	55							
GRI 205: Anti-corruption 2016									
205-1 Operations assessed for risks related to corruption	01 About Ecopetrol	56		Yes					
205-2 Communication and training about anti-corruption policies and procedures	01 About Ecopetrol	55, 56, 58, 59, 60		Yes				Anti-corruption	
205-3 Confirmed incidents of corruption and actions taken	01 About Ecopetrol	56		Yes				Anti-corruption	

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Enviromental Dimension									
Energy									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	03 Our value chain	112		Yes					
103-2 Management approach	03 Our value chain	112		Yes					
103-3 Evaluation of the management approach	03 Our value chain	112		Yes					
GRI 302: Energy 2016									
302-1 Energy consumption within the organization	03 Our value chain	112, 114		Yes	Principle 8, 9	Pollution prevention. Sustainable use of resources. Mitigation and adaptations to climate change	7.- Affordable and Clean Energy 8.- Decent Work and Economic Growth 12.- Responsible production and consumption 13.- Climate action		
302-2 Energy consumption outside of the organization	03 Our value chain	112, 114		Yes	Principle 8, 9	Pollution prevention. Sustainable use of resources.	7.- Affordable and Clean Energy 8.- Decent Work and Economic Growth 12.- Responsible production and consumption 13.- Climate action Uso sostenible de los recurso		
302-3 Energy intensity	03 Our value chain	115		Yes	Principle 8, 9	Sustainable use of resources.	7.Affordable and Clean Energy 12.- Responsible production and consumption 13.- Climate action		

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302-4 Reduction of energy consumption	03 Our value chain	115		Yes	Principle 8, 9	Sustainable use of resources.	7. Affordable and Clean Energy 8.- Decent Work and Economic Growth 12.- Responsible production and consumption 13.- Climate action		
302-5 Reductions in energy requirements of products and services			Not applicable. The Ecopetrol product does not have energy requirements.	Yes	Principle 8, 9	Sustainable use of resources.	7.- Affordable and Clean Energy 8.- Decent Work and Economic Growth 12.- Responsible production and consumption 13.- Climate action		
Research and development investment in renewable energies									
103-1 Explanation of the material topic and its Boundary	03 Our value chain	112		Yes					
103-2 The management approach and its components	03 Our value chain	112		Yes					
103-3 Evaluation of the management approach	03 Our value chain	112		Yes					
OG-2 Total expenses in research and development of renewable energies	03 Our value chain	112		Yes					
Renewable energy amount									
103-1 Explanation of the material topic and its Boundary	03 Our value chain	112							
103-2 The management approach and its components	03 Our value chain	112							
103-3 Evaluation of the management approach	03 Our value chain	112							
OG-3 Total amount of renewable energy generated by source	03 Our value chain	112		Yes					
	05 Environmental Dimension	230		Yes					EM-EP-420a.3

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Water									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	05 Environmental Dimension	210		Yes					
103-2 The management approach and its components	05 Environmental Dimension	210		Yes					
103-3 Evaluation of the management approach	05 Environmental Dimension	210		Yes					
GRI 303: Water 2018									
303-1 Interactions with water as a shared resource	05 Environmental Dimension	210		Yes					
303-2 Management of water discharge-related impacts	05 Environmental Dimension	210		Yes					
303-3 Water withdrawal	05 Environmental Dimension	211, 218		Yes				Impact of freshwater consumption and withdrawal	EM-EP-140a.1
303-4 Water discharge	05 Environmental Dimension	213, 218		Yes				Impact of freshwater consumption and withdrawal	
303-5 Water consumption	05 Environmental Dimension	216, 218		Yes				Impact of freshwater consumption and withdrawal	EM-EP-140a.2
Biodiversity									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	05 Environmental Dimension	242		Yes	Principle 8, 9	Sustainable use of resources	6.- Clean water and sanitation		
103-2 The management approach and its components	05 Environmental Dimension	242		Yes	Principle 8, 9	Sustainable use of resources	6.- Clean water and sanitation		
103-3 Evaluation of the management approach	05 Environmental Dimension	242		Yes	Principle 8, 9	Pollution prevention. Sustainable use of resources .	6.- Clean water and sanitation 8.- Decent Work and Economic Growth		

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GRI 304: Biodiversity 2016									
304-1 Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas	05 Environmental Dimension	251		Yes	Principle 8, 9	Sustainable use of resources	6.- Clean water and sanitation	Land use and ecological sensitivity	
304-2 Significant impacts of activities, products, and services on biodiversity	05 Environmental Dimension	252		Yes	Principle 8, 9	Sustainable use of resources	6.- Clean water and sanitation	Land use and ecological sensitivity	
304-3 Habitats protected or restored	05 Environmental Dimension	253		Yes	Principle 8, 9	Sustainable use of resources	6.- Clean water and sanitation		
304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	05 Environmental Dimension	254		Yes	Principle 8, 9	Sustainable use of resources	6.- Clean water and sanitation		
Emissions									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	05 Environmental Dimension	224		Yes	Principle 8, 9	Sustainable use of resources	6.- Clean water and sanitation	Impact of air pollution	
103-2 The management approach and its components	05 Environmental Dimension	224		Yes	Principle 8, 9	Sustainable use of resources	6.- Clean water and sanitation	Impact of air pollution	
103-3 Evaluation of the management approach	05 Environmental Dimension	224		Yes	Principle 8, 9	Pollution prevention. Sustainable use of resources .	6.- Clean water and sanitation 8.- Decent Work and Economic Growth	Impact of air pollution	

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GRI 305: Emissions 2016									
305-1 Direct (Scope 1) GHG emissions	05 Environmental Dimension	223		Yes	Principle 7, 8	Mitigation and adaptations to climate change	3.- Health and wellbeing 13.- Climate action 15.- Life of land ecosystem	Greenhouse gas (GHG) emissions Paris-aligned GHG emissions targets	EM-EP-110a.1 EM-EP-110a.2
305-2 Energy indirect (Scope 2) GHG emissions	05 Environmental Dimension	223		Yes	Principle 7, 8	Mitigation and adaptations to climate change	3.- Health and wellbeing 13.- Climate action 15.- Life of land ecosystem	Greenhouse gas (GHG) emissions Paris-aligned GHG emissions targets	EM-EP-110a.1 EM-EP-110a.2
305-3 Other indirect (Scope 3) GHG emissions	05 Environmental Dimension	223		Yes	Principle 7, 8	Mitigation and adaptations to climate change	3.- Health and wellbeing 13.- Climate action 15.- Life of land ecosystem	Greenhouse gas (GHG) emissions Paris-aligned GHG emissions targets	
305-4 GHG emissions intensity	05 Environmental Dimension	226		Yes	Principle 7, 8	Mitigation and adaptations to climate change	13.- Climate action 15.- Life of land ecosystem		
305-5 Reduction of GHG emissions	05 Environmental Dimension	226, 228		Yes	Principle 7, 8	Mitigation and adaptations to climate change	13.- Climate action 15.- Life of land ecosystem	Paris-aligned GHG emissions targets	
305-6 Emissions of ozone-depleting substances (ODS)	05 Environmental Dimension	263		Yes	Principle 7, 8	Pollution prevention	3.- Health and wellbeing		
305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	05 Environmental Dimension	228		Yes	Principle 7, 8	Pollution prevention	3.- Health and wellbeing 15.- Life of land ecosystem	Impact of air pollution Air pollution	EM-EP-120a.1
Benzene, Lead and Sulfur									
OG - 8 Benzene, Lead and Sulfur content in refined fuels	05 Environmental Dimension	236		Yes				Impact of air pollution	
Biofuels produced, bought and sold									
OG - 14 Volume of biofuels produced, bought and sold	03 Our value chain	103		Yes					
	05 Environmental Dimension	240, 241		Yes				Impact of air pollution	

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Waste									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	05 Environmental Dimension	255		Yes				Impact of solid waste disposal Resource circularity	
103-2 The management approach and its components	05 Environmental Dimension	255		Yes				Impact of solid waste disposal Resource circularity	
103-3 Evaluation of the management approach	05 Environmental Dimension	255		Yes				Impact of solid waste disposal Resource circularity	
GRI 306: Waste 2016									
306-1 Waste generation and significant waste-related impacts	05 Environmental Dimension	215		Yes	Principle 7, 8	Pollution prevention	3.- Health and wellbeing 6.- Clean water and sanitation 12.- Responsible production and consumption 14.- Underwater life	Impact of water pollution	
306-2 Management of significant waste-related impacts	05 Environmental Dimension	258, 260		Yes	Principle 7, 8	Pollution prevention	3.- Health and wellbeing 6.- Clean water and sanitation 12.- Responsible production and consumption		
306-3 Waste generated	05 Environmental Dimension	265		Yes	Principle 7	Pollution prevention	3.- Health and wellbeing 12.- Responsible production and consumption 14.- Underwater life 15.- Life of land ecosystem		EM-EP-160a.2
306-4 Waste diverted from disposal	05 Environmental Dimension	262		Yes	Principle 7	Pollution prevention	3.- Health and wellbeing 12.- Responsible production and consumption 14.- Underwater life 15.- Life of land ecosystem		

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306-5 Waste directed to disposal	05 Environmental Dimension	215, 217, 252			Principle 8, 9	Sustainable use of resources Protección del medio ambiente, la biodiversidad y restauración de hábitats naturales	6.- Clean water and sanitation 14.- Underwater life ecosystem 15.- Life of land ecosystem	Impact of water pollution Water consumption and withdrawal in water-stressed areas	
Drilling residues									
OG-7 Quantity of drilling residues (muds and residues derived from drilling) perations	05 Environmental Dimension	261		Yes					
Water from formations or sources									
OG-5 Volume of water formations or source	05 Environmental Dimension	210, 214		Yes					
Volume of burned and vented hydrocarbon									
OG-6 Volume of burned and vented hydrocarbons as part or primary operations	05 Environmental Dimension	230		Yes					
Environmental compliance									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	05 Environmental Dimension	221		Yes					
103-2 The management approach and its components	05 Environmental Dimension	221		Yes					
103-3 Evaluation of the management approach	05 Environmental Dimension	221		Yes					
GRI 307: Enviromental compliance 2016									
307-1 Non-compliance with environmental laws and regulations	05 Environmental Dimension	269		Yes		Pollution prevention	16.- Peace, justice and solid institutions		

GENERAL CONTENT	Chapter	Page/ Comment	Omission	Verification	Global Compact	ISO26000	Sustainable Development Goals (SDG)	WEF- IBC	SASB
Social Dimension									
Employment									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	04 Social Dimension	143							
103-2 Management approach	04 Social Dimension	143							
103-3 Evaluation of the management approach	04 Social Dimension	143							
GRI 401: Employment 2016									
401-1 New employee hires and employee turnover	04 Social Dimension	145, 146			Principle 6	Work and labor relations	5.- Gender equality 8.- Decent Work and Economic Growth	Diversity and inclusion Absolute number and rate of employment	
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	04 Social Dimension	150				Work and labor relations. Work conditions and social protection	8.- Decent Work and Economic Growth		
401-3 Parental leave	04 Social Dimension	152				Work conditions and social protection	5.- Gender equality 8.- Decent Work and Economic Growth		
Labor/Management Relations									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	04 Social Dimension	143							
103-2 Management approach	04 Social Dimension	143							
103-3 Evaluation of the management approach	04 Social Dimension	143							

GRI CONTENT INDEX

GENERAL CONTENT	Chapter	Page/ Comment	Omission	Verification	Global Compact	ISO26000	Sustainable Development Goals (SDG)	WEF- IBC	SASB
GRI 402: Labor/Management Relations 2016									
402-1 Minimum notice periods regarding operational changes	04 Social Dimension	197		Yes		Work conditions and social protection	5.- Gender equality 8.- Decent Work and Economic Growth		
Occupational health and safety									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	03 Our value chain	118		Yes					
103-2 The management approach and its components	03 Our value chain	118		Yes					
103-3 Evaluation of the management approach	03 Our value chain	118		Yes					
GRI 403: Occupational health and safety 2016									
403-1 Worker representation on formal joint management-worker health and safety committees	03 Our value chain 06 Ecopetrol in the covid-19 emergency	125 278			Principle 3	Health and safety at work	8.- Decent Work and Economic Growth	Employee well-being	
403-2 Types of accidents and frequency rates, work-related illnesses, days lost, absenteeism, number of deaths due to labor accident or work-related illness	03 Our value chain	121, 122				Health and safety at work	3.- Health and wellbeing 8.- Decent Work and Economic Growth	Health and safety	EM-EP-320a.1
403-3 Workers with high incidence or high risk of activity-related illness	03 Our value chain	126				Health and safety at work	3.- Health and wellbeing 8.- Decent Work and Economic Growth		
403-4 Health safety issues addresses in formal agreement with unions	04 Social Dimension	196			Principle 3	Health and safety at work	8.- Decent Work and Economic Growth		

GENERAL CONTENT	Chapter	Page/ Comment	Omission	Verification	Global Compact	ISO26000	Sustainable Development Goals (SDG)	WEF- IBC	SASB
Process safety									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	03 Our value chain	118							
103-2 The management approach and its components	03 Our value chain	118							
103-3 Evaluation of the management approach	03 Our value chain	118							
OG-13 Number of process safety incidents and events, by type of activity	03 Our value chain	97, 118, 128							EM-EP-540a.1, EM-EP-540a.2
	04 Social Dimension	181							EM-EP-540a.1
Training and education									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	04 Social Dimension	143							
103-2 The management approach and its components	04 Social Dimension	143							
103-3 Evaluation of the management approach	04 Social Dimension	143							
GRI 404: Training and education 2016									
404-1 Average hours of training per year per employee 6	04 Social Dimension	155, 156, 160				Human development and training in the workplace	4.- Quality education 5. Gender equality 8. Decent Work and Economic Growth	Training provided	
404-2 Programs for upgrading employee skills and transition assistance programs	04 Social Dimension	160				Human development and training in the workplace	8. Decent Work and Economic Growth		
404-3 Percentage of employees receiving regular performance and career development reviews	04 Social Dimension	161				Human development and training in the workplace	5. Gender equality 8. Decent Work and Economic Growth		

GRI CONTENT INDEX

GENERAL CONTENT	Chapter	Page/ Comment	Omission	Verification	Global Compact	ISO26000	Sustainable Development Goals (SDG)	WEF- IBC	SASB
Diversity and equal opportunity									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	04 Social Dimension	149						Pay equality Living wage Pay gap	
103-2 The management approach and its components	04 Social Dimension	149						Pay equality Living wage Pay gap	
103-3 Evaluation of the management approach	04 Social Dimension	149						Pay equality Living wage Pay gap	
GRI 405: Diversity and equal opportunity 2016									
405-1 Diversity of governance bodies and employees	04 Social Dimension	145			Principle 1, 6	Discrimination and vulnerable groups. Fundamental rights and principles in the workplace Work and labor relations	5. Gender equality 8. Decent Work and Economic Growth	Diversity and inclusion	
405-2 Ratio of basic salary and remuneration of women to men	04 Social Dimension	149			Principle 1, 6	Discrimination and vulnerable groups Fundamental rights and principles in the workplace. Work and labor relations. Work conditions and social protection	8. Decent Work and Economic Growth 10. Reducción de la desigualdad	Pay equality Living wage Pay gap	

GENERAL CONTENT	Chapter	Page/ Comment	Omission	Verification	Global Compact	ISO26000	Sustainable Development Goals (SDG)	WEF- IBC	SASB
Non-discrimination									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	04 Social Dimension	146, 185						Risk for incidents of child, forced or compulsory labour Absolute number and rate of employment	
103-2 The management approach and its components	04 Social Dimension	146, 185						Risk for incidents of child, forced or compulsory labour Absolute number and rate of employment	
103-3 Evaluation of the management approach	04 Social Dimension	146, 185						Risk for incidents of child, forced or compulsory labour Absolute number and rate of employment	
GRI 406: Non-discrimination 2016									
406-1 Incidents of discrimination and corrective actions taken	01 About Ecopetrol	56, 57						Protected ethics advice and reporting mechanisms Monetary losses from unethical behaviour	
	04 Social Dimension	146, 190			Principle 1, 2, 6	Avoid complicity. Claim resolution. Discrimination and vulnerable groups. Fundamental rights and principles in the workplace. Work and labor relations.	5.- Gender equality 8.- Decent Work and Economic Growth 16.- Peace, justice and solid institutions	Absolute number and rate of employment Discrimination and harassment incidents and the total amount of monetary losses	FR 310 a,

GRI CONTENT INDEX

GENERAL CONTENT	Chapter	Page/ Comment	Omission	Verification	Global Compact	ISO26000	Sustainable Development Goals (SDG)	WEF- IBC	SASB
Freedom of association and collective bargaining									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	05 Environmental Dimension	195						Total tax paid Freedom of association and collective bargaining at risk	EM-EP-210a.1, EM-EP-210a.2
103-2 The management approach and its components	05 Environmental Dimension	195						Total tax paid Freedom of association and collective bargaining at risk	EM-EP-210a.1, EM-EP-210a.2
103-3 Evaluation of the management approach	05 Environmental Dimension	195						Total tax paid Freedom of association and collective bargaining at risk	EM-EP-210a.1, EM-EP-210a.2
GRI 407: Freedom of association and collective bargaining 2016									
407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	05 Environmental Dimension	195			Principle 1,2 , 3	Due diligence. Human rights risk situations. Avoid complicity. Civil and political rights. Fundamental rights and principles in the workplace. Work and labor relations. Social discourse	8.- Decent Work and Economic Growth	Total tax paid Freedom of association and collective bargaining at risk	EM-EP-210a.1, EM-EP-210a.2

GENERAL CONTENT	Chapter	Page/ Comment	Omission	Verification	Global Compact	ISO26000	Sustainable Development Goals (SDG)	WEF- IBC	SASB
Child labor									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	04 Social Dimension	199						Risk for incidents of child, forced or compulsory labour Human rights review, grievance impact & modern slavery	
103-2 Management approach	04 Social Dimension	199						Risk for incidents of child, forced or compulsory labour Human rights review, grievance impact & modern slavery	
103-3 Evaluation of the management approach	04 Social Dimension	199						Risk for incidents of child, forced or compulsory labour Human rights review, grievance impact & modern slavery	
GRI 408: Child labor 2016									
408-1 Operations and suppliers at significant risk for incidents of child labor	04 Social Dimension	183, 198, 199			Principle 1, 2, 5	Due diligence Human rights risk situations. Avoid complicity. Discrimination and vulnerable groups Fundamental rights and principles in the workplace.	8.- Decent Work and Economic Growth 16.- Peace, justice and solid institutions	Risk for incidents of child, forced or compulsory labour Human rights review, grievance impact & modern slavery	EM-EP-210b.1 EM-EP-210b.1

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GENERAL CONTENT	Chapter	Page/ Comment	Omission	Verification	Global Compact	ISO26000	Sustainable Development Goals (SDG)	WEF- IBC	SASB
Forced or compulsory labor									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	04 Social Dimension	185							Risk for incidents of child, forced or compulsory labour
103-2 The management approach and its components	04 Social Dimension	185							Risk for incidents of child, forced or compulsory labour
103-3 Evaluation of the management approach	04 Social Dimension	185							Risk for incidents of child, forced or compulsory labour
GRI 409: Forced or compulsory labor 2016									
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	04 Social Dimension	185			Principle 1,2, 4	Due diligence Human rights risk situations. Avoid complicity. Discrimination and vulnerable groups Fundamental rights and principles in the workplace.	8.- Decent Work and Economic Growth		Risk for incidents of child, forced or compulsory labour
Security practices									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	04 Social Dimension	197							EM-EP-210a.3
103-2 The management approach and its components	04 Social Dimension	197							EM-EP-210a.3
103-3 Evaluation of the management approach	04 Social Dimension	197							

GENERAL CONTENT	Chapter	Page/ Comment	Omission	Verification	Global Compact	ISO26000	Sustainable Development Goals (SDG)	WEF- IBC	SASB
GRI 410: Security practices 2016									
410-1 Security personnel trained in human rights policies or procedures	04 Social Dimension	197			Principle 1, 2	Avoid complicity. Work and labor relations. Promote social responsibility in the value chain.	16.- Peace, justice and solid institutions		EM-EP-210a.3
Rights of indigenous peoples									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	04 Social Dimension	190							EM-EP-210a.3, EM-EP-210b.1
103-2 Management approach	04 Social Dimension	190							EM-EP-210a.3, EM-EP-210b.1
103-3 Evaluation of the management approach	04 Social Dimension	191, 192							
GRI 411: Rights of indigenous peoples 2016									
411-1 Incidents of violations involving rights of indigenous peoples	04 Social Dimension	194			Principle 1, 2	Claim resolution. Civil and political rights. Respect for property rights.	2.- Zero Hunger		
Presence of indigenous peoples									
OG-9 Operations in sites with presence of indigenous communities, or in adjacent areas, affected by the activities;percentage of these sites that have specific participation strategies	04 Social Dimension	192							

GRI CONTENT INDEX

GENERAL CONTENT	Chapter	Page/ Comment	Omission	Verification	Global Compact	ISO26000	Sustainable Development Goals (SDG)	WEF- IBC	SASB
Human rights assessment									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	04 Social Dimension	182							
103-2 The management approach and its components	04 Social Dimension	182							EM-EP-210a.3
103-3 Evaluation of the management approach	04 Social Dimension	183						Human rights review, grievance impact & modern slavery	
GRI 412: Human rights assessment 2016									
412-1 Operations that have been subject to human rights reviews or impact assessments	04 Social Dimension	182, 183		Yes	Principle 1, 2	Human rights. Due diligence Human rights risk situations		Human rights review, grievance impact & modern slavery	
412-2 Employee training on human rights policies or procedures	04 Social Dimension	199, 201		Yes	Principle 1, 2	Due diligence Avoid complicity. Promote social responsibility in the value chain			EM-EP-210b.1
412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	04 Social Dimension	182, 197		Yes	Principle 1, 2	Avoid complicity.			EM-EP-210a.3
Local communities									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	04 Social Dimension	162		Yes					
103-2 The management approach and its components	04 Social Dimension	162		Yes					
103-3 Evaluation of the management approach	04 Social Dimension	162		Yes					

GENERAL CONTENT	Chapter	Page/ Comment	Omission	Verification	Global Compact	ISO26000	Sustainable Development Goals (SDG)	WEF- IBC	SASB
GRI 413: Local communities 2016									
413-1 Operations with local community engagement, impact assessments, and development programs	01 About Ecopetrol	32, 33		Yes					
	03 Our value chain	118, 125, 134		Yes			Employee well-being		
	04 Social Dimension	164, 178, 192		Yes		Economic, social and cultural rights. Employment relations and skill development. Income and wealth generation. Respect to property rights.	Economic contribution Financial investment contribution Infrastructure investments and services supported		
	06 Ecopetrol in the covid-19 emergency	278		Yes					
413-2 Operations with significant actual and potential negative impacts on local communities	04 Social Dimension	175, 181		Yes		Economic, social and cultural rights Pollution prevention. Protection of the environment, biodiversity and natural habitat restoration. Active participation and community development	1.- End to poverty 2.- Zero Hunger	Significant indirect economic impacts	EM-EP-210b.1 EM-EP-540a.1
Public policy									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	01 About Ecopetrol	69						Alignment of strategy and policies to lobbying	
103-2 The management approach and its components	01 About Ecopetrol	69						Alignment of strategy and policies to lobbying	
103-3 Evaluation of the management approach	01 About Ecopetrol	69						Alignment of strategy and policies to lobbying	

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GENERAL CONTENT	Chapter	Page/ Comment	Omission	Verification	Global Compact	ISO26000	Sustainable Development Goals (SDG)	WEF- IBC	SASB
GRI 415 Public policy 2016									
415-1 Political contributions	00 About this report	14							
	01 About Ecopetrol	69						Alignment of strategy and policies to lobbying	
Number of litigations with local communities and indigenous communities									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	04 Social Dimension	190		Yes					EM-EP-210a.3, EM-EP-210b.1
103-2 The management approach and its components	04 Social Dimension	190		Yes					EM-EP-210a.3, EM-EP-210b.1
103-3 Evaluation of the management approach	04 Social Dimension	191, 193		Yes					
OG- 10 Number and description of significant litigations with local communities and indigenous-communities	04 Social Dimension	191, 193		Yes					
Voluntary resettlement									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	04 Social Dimension	162		Yes					
103-2 The management approach and its components	04 Social Dimension	162		Yes					
103-3 Evaluation of the management approach	04 Social Dimension	162		Yes					
OG - 12 List, quantify and describe involuntary settlement cases necessary for the company's activities	04 Social Dimension	162, 198		Yes					

GENERAL CONTENT	Chapter	Page/ Comment	Omission	Verification	Global Compact	ISO26000	Sustainable Development Goals (SDG)	WEF- IBC	SASB
Socioeconomic compliance									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	02 Economic Dimension	80							
103-2 The management approach and its components	02 Economic Dimension	80, 81							
103-3 Evaluation of the management approach	02 Economic Dimension	80							
GRI 419: Socioeconomic compliance 2016									
419-1 Non-compliance with laws and regulations in the social and economic area	02 Economic Dimension	80				Respect for property rights. Generation of wealth and income	16.- Peace, justice and solid institutions		
	05 Environmental Dimension	269							
Dismantled sites									
GRI 103: Management approach 2016									
103-1 Explanation of the material topic and its Boundary	05 Environmental Dimension	264							
103-2 The management approach and its components	05 Environmental Dimension	264							
103-3 Evaluation of the management approach	03 Our value chain	95							
	05 Environmental Dimension	264							
OG-11 Sites that have been dismantled on the dismantling is underway	03 Our value chain	95							
	05 Environmental Dimension	264							

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CERTIFICATIONS





Pacto Global
Red Colombia

NIT: 900.327.192-5

www.pactoglobal-colombia.org

Bogotá D.C. marzo 08, 2021

Mr.
FELIPE BAYÓN PARDO
CEO
Ecopetrol S.A.
Bogotá D.C.

Below, the Global Compact Network Colombia presents its view resulting from reading and analyzing ECOPETROL's 2020 Sustainable Management Integrated Report, in accordance with the advanced COP criteria. Advanced COP is a reporting progress policy that reviews the adoption of and commitment with the following aspects, assessed by twenty-one criteria:


1. The 10 Principles' implementation in the Strategies and Operations
2. Strong Human Rights management policies and procedures
3. Strong Workforce management policies and procedures
4. Strong Environmental management policies and procedures
5. Strong Anti-Corruption management policies and procedures
6. Taking actions to support the widest reaching UN objectives and issues
7. Corporate Sustainability Leadership and Governance

The report's content demonstrates a 99% progress according to the advanced COP criteria analysis methodology. The instrument used to assess indicators and the thematic assessment documents are attached to this letter.

The Colombian Global Compact Local Network strongly acknowledges ECOPETROL S.A. for its management and commitment with the UN Global Compact's principles and objectives in its operations and with its stakeholders.

Sincerely,

Cordialmente,



Mauricio López González
Director Ejecutivo

Assurance Statement - Adherence to GRI Standards and AA1000 Principles



Independent Assurance Report

BSD Consulting carried out for the tenth consecutive time, the external assurance of the Integrated Sustainable Management Report of Ecopetrol SA, corresponding to 2020 period. The aim of the assurance is to provide an independent opinion on:

- The stakeholder engagement process and the response given through the report.
- The adherence of the principles of AA1000AP (2018)
- The application of the GRI Standards principles
- The compliance with the GRI Standards and the in-accordance claim.

Independence

BSD Consulting works independently and ensures that none of its members maintains consulting contracts or other commercial ties with Ecopetrol SA.

Competence

BSD Consulting is a global consulting company that provides knowledge and solutions for sustainable development. It has more than 20 years of experience preparing sustainability reports, implementing training courses and conducting external verification. This assurance has been carried out by professionals with experience and training in sustainability reports, stakeholder engagement and external verification.

Responsibilities of Ecopetrol SA and BSD Consulting

The elaboration of the report, the stakeholder engagement and the definition of materiality are responsibilities of Ecopetrol SA. The assurance of the Integrated Sustainable Management Report 2020, according to AccountAbility Standard AA1000AP (2018) principles and the adherence to the principles and contents of the Global Reporting Initiative (GRI) Standards, are responsibilities of BSD Consulting.

Scope and Limitations

The scope of this work corresponds to the non-financial information of the Integrated Sustainable Management Report 2020 of Ecopetrol SA. The verification process was conducted according to the principles of Inclusion, Materiality, Response Capacity and Impact of AA1000 (2018). This is a Type 2 and moderate level verification. The application of GRI content and quality principles and the inclusion of the general and thematic disclosures of the GRI Standards was also evaluated. For this purpose, BSD uses the AA1000AS v3 assurance standard as reference. BSD is a AA1000 licensed provider. Likewise, the principles and guidelines of the ISAE3000 Standard are followed.

Methodology

BSD Consulting's verification process included:

- Review the materiality assessment, criteria applied, and results.
- Review the sustainability relevant issues in the industrial sector and the company, which were highlighted and were a trend in the media.
- Review of documents and internal management systems.

- Interviews with leaders from key areas to understand the context on sustainability management and the reporting of material topics, as well as the operation of the management and production and information systems.
- Review of the reliability of selected information, through the examination of the internal processes of capture, analysis, and traceability.
- Critical reading of the final draft of the report and request for adjustments and clarifications.

General Findings and Conclusions

Through this independent assurance, BSD Consulting concluded that the Integrated Sustainable Management Report of Ecopetrol SA 2020 complies with the principles of quality and content of the GRI Standards and the principles of the AA1000 Standard (2018). Nothing was found that could suggest that the information and data contained in this report do not come from reliable sources or management systems, nor that the information reported may lead the reader to misleading or erroneous conclusions about the performance.

The following are observations and opportunities for improvement for the application of the principles.

AA1000AP Principles and GRI Principles

Principle of Inclusion and Participation of Stakeholders

Within the framework of the Sustainability Strategy, in 2020 the company conducted a review exercise of its Stakeholders, updating seven main groups and defining specific subgroups for each one.

Similarly, to manage the relationship with each group, an area responsible for managing commitments was assigned, the promise of value and its objectives were defined, as well as the monitoring and involvement mechanisms.

As in previous years, Ecopetrol carried out the Consultation of Perception and Expectations of Stakeholders to collect their evaluations on economic, social, and environmental issues, in order to identify opportunities for improve the relationship and facilitate the understanding of the needs and expectations that align with the business objectives and corporate strategy.

Principle of Materiality

For the 2020 reporting period, a materiality update process was conducted, identifying 28 elements that must be managed by the company, due to their impacts or their influence on the perceptions of stakeholders.

However, it was highlighted that Ecopetrol has four management approaches for these elements: Exceptional, Outstanding, Differentiated and Compliance. Thus, only the Exceptional and Outstanding elements are prioritized as material topics, with 10 relevant issues.

Responsiveness Principle

During the 2020 period, the adoption of the Sustainability strategy stands out, due to the discussions on

BOGOTÁ DC, March 25 2021

Assurance Statement - Adherence to GRI Standards and AA1000 Principles



environmental, social and governance (ESG) issues, which additionally incorporates the technological variable (TESG), to leverage and accelerate the start-up of innovative solutions for the challenges on these matters, associated with all activities of the company.

Also, throughout the report, a response is given to the information requirements on the management of all material topics, as well as the initiatives carried out within its strategy.

Impact Principle

For the 2020 period, Ecopetrol has a risk management system and a business risk map, which meets the ISO 31000, COSO 2013 and COSO ERM 2017, COBIT standards, as well as the SOX and FCPA laws.

Through these normative references, the company has established policies, the good governance code, manuals, guides, and internal instructions, for the management and administration of risks and impacts and internal control (identification, evaluation, treatment-monitoring, and communication) to facilitate the process of making informed decisions.

However, it is recommended to give greater visibility regarding the results of the performance of risk management, which complement the broad description of its approach.

Principle of Completeness

In the 2020 report, the 10 material topics (Exceptional and Outstanding elements) are reported broadly and deeply, providing reasonable and accurate information on their context, management, and performance.

Quality Principles

The information in the report is adequate according to the quality principles established by the GRI, presented in a balanced way (achievements and challenges), clear and precise (accessible and understandable), reliable (from reliable management systems), punctual and comparable (quantitative of various periods).

Sustainability Context

The content on the social, environmental, and economic performance of the organization is presented within the context of broader sustainable development for the sector, region and country.

GRI general and topic-specific disclosures

BSD Consulting reviewed the contents of the report in detail, finding that:

- All the general disclosures are reported, corresponding to GRI 102 Standard: General Contents (2016).
- All management approaches of material topics are reported, as stated in GRI Standard 103 (2016), as well as its correspondent topic-specific disclosures, and the Oil & Gas Sector Guide contents.
- For the next period is recommended to identify the updates of the applicable topic-specific disclosures for their implementation.
- For this period, the effort made by Ecopetrol to simplify the information reported is highlighted,

considering the complexity and extent of the topics discussed, giving relevance to the most significant milestones and with support of references attached with links to the report, facilitating the access to more detail of each content, smoothing the reading by the different audiences.

Additionally, BSD verified the traceability and quality of the information of the contents mentioned below, through interviews and review of supporting documents:

Contenido temático GRI									
Strategy	102-15								
Ethics and integrity	102-16								
government	102-17								
Economic performance	201-1	102-21	102-25	102-27	102-28	102-33			
Anti-corruption	205-1	205-2	205-3						
Energy	302-1	302-2	302-3	302-4	OG-2	OG-3			
Water	303-1	303-2	303-3	303-4	303-5				
Biodiversity	304-1	304-2	304-3	304-4					
Emissions	305-1	305-2	305-3	305-4	305-5	305-6	305-7	OG-8	OG-14
Effluents and waste	306-1	306-2	306-3	306-4	OG-5	OG-6	OG-7		
Environmental compliance	307-1								
Human rights assessment	412-1	412-2	412-3						
Local communities	413-1	413-2	OG-12						

Compliance option

In accordance with the above, BSD Consulting declares that the Ecopetrol SA 2020 Integrated Sustainable Management Report complies with the criteria corresponding to the "Comprehensive" compliance option of the GRI Standards of the Global Reporting Initiative.



Marcela Romero Merino

CEO
BSD Consulting S.A.S.

Verification Leader:
Jimena Lucio Giraldo
Consultant. BSD Consulting S.A.S.



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SPECIAL CORPORATE GROUP REPORT

Production field
Caño Limón

SPECIAL CORPORATE GROUP REPORT

According to Colombian legislation, for the status of Business Group to exist there must be unity of purpose and direction among the related entities in addition to a situation of control or subordination.

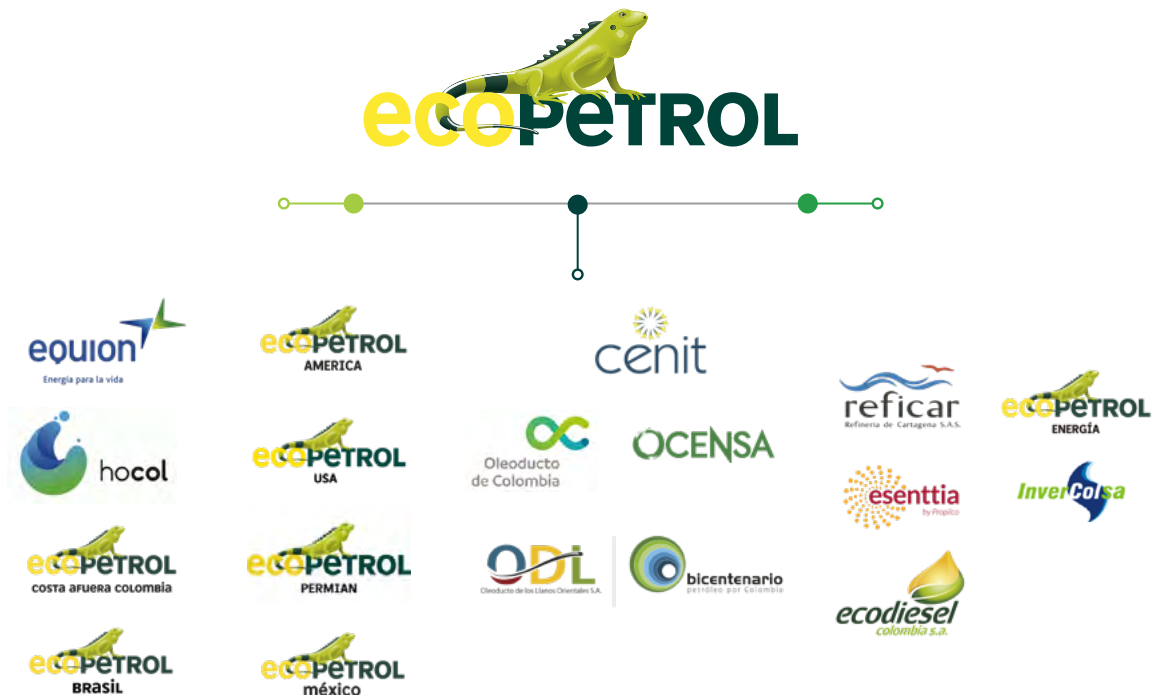
In other words, the situation of the Business Group means that the controlling company determines an objective or purpose by virtue of the direction it exercises over the group of companies that make up the Group, without prejudice to the individual development of the corporate purpose or activity of each of them.

The consolidation of Ecopetrol Corporate Group has made it possible to maximize the value of its companies' assets and improve its position in the markets in which they participate. The group is made up of companies that carry out activities along the value chain and are directed through the segments wherethrough alignment is generated around the unity of purpose and direction.

Under the challenging context of the year 2020, the Group was successful in showing its resilience and adaptation capacity in the face of an adverse and volatile environment. The challenges as a group for 2021 focus

on restoring the growth path of the Companies that comprise it, enhancing their competitiveness, developing the sustainability agenda and establishing the route towards the energy transition, in line with the strategic pillars: cash protection, cost efficiency, capital discipline and profitable and sustainable growth, thus allowing companies to grow and preserve the value of assets through investments that provide reliability, integrity and continuity to the Group's value chain.

The principle of financial consolidation that governs us provides that each of the components of the financial statement of Ecopetrol as the parent company and its controlled companies are presented as though they were a single economic entity. Therefore, the application of the International Financial Reporting Standards (IFRS) allows to capture the synergies of the transactions between the segments and the different companies of the Group, through the reduction of unit costs, the ability to undertake integrated businesses and greater efficiency in the use of resources, which represent a financial structure that optimizes the cost of capital and maximizes returns to its shareholders.



SPECIAL, GROUP-LEVEL REPORT

In accordance with the provisions of the Bylaws of Ecopetrol S.A. (“Ecopetrol and/or the Company”), the Board of Directors at Ecopetrol presents to its shareholders the following special report of the business group at the General Shareholders’ Meeting, corresponding to the management of FY 2020.

The Board of Directors – exercising its role as strategic guide – ensures that Ecopetrol’s economic relations with its subordinates are carried out within the conditions established by law, the regulations on prevention, management and resolution of conflicts of interest, and in all cases under market conditions.

Ecopetrol has instruments such as the Ecopetrol S.A. transfer price guide between economic related parties, which defines the parameters to be taken into account when determining the compensation to be agreed upon

in operations carried out between Ecopetrol and its subordinates. Thus, it is sought to be consistent with the agreements established with or between third parties.

The Group’s special report (referred to in Article 29 – Act 222/1995), intends for operations with related parties to be duly disclosed in the notes to the financial statements; in line with the foregoing, we present these details below. Similarly, it is worth mentioning that – in addition to this report – the President of Ecopetrol S.A. submits a semi-annual report to the Board of Directors on the operations, agreements or contracts that the company has entered into with its subordinates within this period, indicating the conditions of same, which in any case correspond to those of the market.

In this vein, the economic relations with the subordinate during the year 2020 were carried out under the parameters set forth above, as detailed below.

01

Major Transactions with Related Parties

Ecopetrol S.A.

Notes to the separate financial statements
December the 31st, 2020

(Figures expressed in COP Million, unless otherwise indicated)

Related parties

1.1 Subsidiaries, associates and joint ventures

The balances with subsidiaries, associates and joint ventures as of December the 31st, 2020 are as follows:

	Accounts Receivable	Accounts Receivable - Loans	Other financial assets	Other Assets	Accounts Payable	Other liabilities
Subsidiaries						
Refinería de Cartagena S.A.S.	2,020,460	-	-	-	478,154	2,742
Cenit Transporte y Logística de Hidrocarburos S.A.S	35,879	-	-	23,687	304,209	21,817
Oleoducto Central S.A. - Ocesa	26,654	-	-	10,879	352,425	7,917
Hocol S.A.	20,373	-	-	76,679	64,421	12
Inversiones de Gases de Colombia S.A. y subsidiarias	17,542	-	-	-	1,093	295
Esenttia S.A.	11,022	-	-	-	-	-
Esenttia Masterbatch Ltda	7,383	-	-	-	-	-
Oleoducto de los Llanos Orientales S.A.	5,224	-	-	-	60,013	-
Ecopetrol Permian LLC	3,375	-	-	-	-	-
Ecopetrol Oleo & Gas do Brasil Ltda	2,260	-	-	-	-	3
Oleoducto de Colombia S.A. - ODC	1,642	-	-	52,706	47,980	48,256
Ecopetrol America LLC	1,612	-	-	-	1,573	-
Oleoducto Bicentenario de Colombia S.A.S.	727	-	-	250,115	1,634	3
Ecopetrol Global Energy S.L.U	11	-	-	-	-	-
Ecopetrol Energía S.A.S. E.S.P.	321	-	-	-	7,801	-
Black Gold Re Limited	321	-	-	-	-	-
Ecopetrol Costa Afuera	92	-	-	-	-	-
Andean Chemicals Limited	40	-	-	-	-	-
Hocol Petroleum Limited	17	-	-	-	-	-
Ecopetrol Capital AG	-	-	123,106	-	-	-
Joint Ventures						
Equion Energía Limited	1,950	-	-	6,923	32,241	1,663
Ecodiesel Colombia S.A.	1,345	-	-	-	31,186	1
Offshore International Group Inc (1)	-	97,300	-	-	-	-

(Follow-up)

	Accounts Receivable	Accounts Receivable - Loans	Other financial assets	Other Assets	Accounts Payable	Other liabilities
Associates						
E2 Energía Eficiente S.A. E.S.P.	4,453	-	-	-	967	-
Serviport S.A.	-	-	-	-	948	-
Balance as of December the 31st, 2020	2,162,703	97,300	123,106	420,989	1,384,645	82,709
Current	2,162,703	97,300	123,106	155,465	1,384,645	82,709
Non-current	-	-	-	265,524	-	-
	2,162,703	97,300	123,106	420,989	1,384,645	82,709

To facilitate comparison, below we present the balances with subsidiaries, associates and joint ventures as of December the 31st, 2019:

	Accounts Receivable	Accounts Receivable - Loans	Other financial assets	Other Assets	Accounts Payable	Other liabilities
Subsidiaries						
Refinería de Cartagena S.A.S.	1,482,845	-	-	-	179,054	26,713
Cenit Transporte y Logística de Hidrocarburos S.A.S	84,683	-	-	15,893	259,460	11,139
Oleoducto de los Llanos Orientales S.A.	24,707	-	-	-	107,244	-
Oleoducto Central S.A.	17,124	-	-	9,294	404,561	3,923
Inversiones de Gases de Colombia S.A. y subsidiarias	12,485	-	-	-	1,006	-
Esenttia Masterbatch Ltda	8,061	-	-	-	-	-
Oleoducto Bicentenario de Colombia S.A.S.	3,180	-	-	248,822	17,203	-
Oleoducto de Colombia S.A.	2,798	-	-	42,508	40,927	32,309
Esenttia S.A.	2,695	-	-	-	-	-
Hocol S.A.	1,908	-	-	5,136	76,560	43
Ecopetrol Energía S.A.S. E.S.P.	199	-	-	-	80,728	-
Ecopetrol Costa Afuera	303	-	-	-	-	-
Black Gold Limited	96	-	-	-	-	-

	Accounts Receivable	Accounts Receivable - Loans	Other financial assets	Other Assets	Accounts Payable	Other liabilities
Hocol Petroleum Limited	134	-	-	-	-	-
Andean Chemicals Limited	136	-	-	-	-	-
Ecopetrol Capital AG	324	-	967,555	-	-	-
Ecopetrol America LLC	338	-	-	-	7,048	-
Bioenergy S.A.	356	-	-	-	-	48
Ecopetrol del Perú	11	-	-	-	-	-
Joint Ventures						
Equion Energía Limited	24,010	-	-	55,068	153,462	794
Ecodiesel Colombia S.A.	2,116	-	-	-	29,447	1
Offshore International Group Inc (1)	-	93,657	-	-	-	-
Associates						
Serviport S.A.	-	-	-	-	4,668	-
Balance as of December the 31st, 2019	1,668,509	93,657	967,555	376,721	1,361,368	74,970
Current	1,668,509	-	967,555	180,411	1,361,368	74,970
Non-current	-	93,657	-	196,310	-	-
	1,668,509	93,657	967,555	376,721	1,361,368	74,970

Accounts Receivable - Loans:

(1) Offshore International Group Inc: Loan granted by Ecopetrol S.A. for USD \$ 57 million in 2016, with a 4.99% Effective Annual interest rate payable semi-annually starting in 2017 and maturing in 2021. The balance in nominal value of this loan as of December the 31st, 2020 is USD \$ 28 million (2019 - USD \$ 28).

The main transactions with related parties for the periods ending December the 31st, 2020 (as compared to 2019) are detailed below:



SPECIAL CORPORATE GROUP REPORT **ECOPETROL S.A**

	2020		2019	
	Income	Costs and Expenses	Income	Costs and Expenses
Subsidiaries				
Refinería de Cartagena S.A.S.	6,509,377	1,859,467	9,299,448	1,921,344
Ecopetrol Capital AG	754,056	730,829	1,099,164	1,040,144
Cenit Transporte y Logística de Hidrocarburos S.A.S.	319,555	3,347,641	417,183	3,108,557
Inversiones de Gases de Colombia S.A. - Invercolsa S.A.	174,050	7,202	12,967	518
Hocol S.A.	77,126	352,337	8,600	452,355
Esenttia Masterbatch Ltda	63,171	-	84,106	-
Oleoducto Central S.A. - Ocesa	21,377	4,124,468	23,360	3,936,684
Esenttia S.A.	15,195	-	25,975	-
Oleoducto de Colombia S.A. - ODC	12,957	500,137	11,176	371,564
Oleoducto Bicentenario de Colombia S.A.S.	7,266	675,970	7,633	875,761
Ecopetrol Permian LLC	3,510	-	4,586	-
Ecopetrol Oleo & Gas do Brasil Ltda	2,875	-	397	-
Ecopetrol America LLC	2,473	16,668	1,479	22,424
Oleoducto de los Llanos Orientales S.A.	2,012	782,324	6,488	843,019
Black Gold Limited	1,615	-	1,312	-
Ecopetrol Energía S.A.S ESP	424	417,623	822	378,829
Ecopetrol Costa Afuera	416	-	2,813	-
Andean Chemicals Limited	161	-	257	-
Hocol Petroleum Limited	110	-	116	-
Ecopetrol Global Energy S.L.U.	31	-	-	-
Ecopetrol Germany GMBH (1)	-	-	5	-
Bioenergy S.A. (2)	32	-	1,544	-
Ecopetrol del Perú S.A.	-	9	10	-
Joint Ventures				
Equion Energía Limited	22,070	332,780	50,866	568,696
Ecodiesel Colombia S.A.	8,268	283,822	8,614	280,649
Offshore International Group Inc	4,461	-	3,245	-
Associates				
E2 Energía Eficiente S.A. E.S.P.	49,860	2,244	-	-
	8,052,448	13,433,521	11,072,166	13,800,544

(1) Ecopetrol Germany GMBH completed its liquidation process as of December the 31st, 2020; therefore, it is no longer considered a related party of Ecopetrol S.A.

(2) Bioenergy SAS and Bioenergy Zona Franca SAS are in the process of judicial liquidation; therefore, they are no longer considered as a related party for Ecopetrol S.A. in 2020.

Balances

The balances with associated companies and joint ventures as of December the 31st, 2020 are as follows (According to consolidated financial statements):

	Accounts Receivable	Accounts Receivable - Loans	Other financial assets	Other Assets	Accounts Payable	Other liabilities
Joint Ventures						
Equion Energía Limited (1)	1,950	-	7,093	32,335	1,277,046	1,663
Ecodiesel Colombia S.A.	1,345	-	-	35,632	-	1
Offshore International Group Inc (2)	-	97,300	-	-	-	-
Associates						
Gas Natural del Oriente S.A. E.S.P.	-	-	-	1,858	-	-
Extrucol S.A.	-	-	-	279	-	-
E2 Energía Eficiente S.A. E.S.P.	4,453	-	-	1,264	-	-
Serviport S.A.	-	-	-	948	-	-
Balance as of December the 31st, 2020	7,748	97,300	7,093	72,316	1,277,046	1,664
Current	7,748	97,300	7,093	72,316	1,277,046	1,664
Non-current	-	-	-	-	-	-
	7,748	97,300	7,093	72,316	1,277,046	1,664

To facilitate comparison, below are the balances with subsidiaries, associates and joint ventures as of December 31, 2019:



	Accounts Receivable	Accounts Receivable - Loans	Other financial assets	Other Assets	Accounts Payable	Other liabilities
Joint Ventures						
Equion Energía Limited (1)	25,333	-	57,016	153,501	1,108,403	794
Ecodiesel Colombia S.A,	2,116	-	-	29,447	-	1
Offshore International Group Inc (2)	-	93,657	-	-	-	-
Asociadas						
Serviport S.A,	-	-	-	4,668	-	-
Balance as of December the 31st, 2019	27,449	93,657	57,016	187,616	1,108,403	795
Current	27,449	-	57,016	187,616	1,108,403	795
Non-current	-	93,657	-	-	-	-
	27,449	93,657	57,016	187,616	1,108,403	795

Loans:

(1) Resources deposited by Equion in Ecopetrol Capital AG

Accounts Receivable - Loans:

(2) Offshore International Group Inc: Loan granted by Ecopetrol S.A. for USD \$ 57 million in 2016, with a 4.99% Effective Annual interest rate payable semi-annually starting in 2017 and maturing in 2021. The balance in nominal value of this loan as of December the 31st, 2020 is USD \$ 28 million (2019 - USD \$ 28).

The main transactions with related parties for the years ending December the 31st, 2020, 2019 and 2018 are detailed as follows (according to consolidated financial statements):

	2020		2019		2018	
	Sales and Services	Purchases of Products and Others	Sales and Services	Purchases of Products and Others	Sales and Services	Purchases of Products and Others
Joint Ventures						
Equion Energía Limited	27,595	356,872	317,382	569,105	67,002	846,284
Ecodiesel Colombia S.A.	8,268	346,201	8,614	280,649	6,860	267,498
Offshore International Group Inc	4,461	-	3,245	-	2,386	-
	40,324	703,073	329,241	849,754	76,248	1,113,782

Associates						
E2 Energía Eficiente S.A. E.S.P.	49,860	2,849	-	-	-	-
Gas Natural del Oriente S.A. E.S.P.	-	26,141	-	-	-	-
Extrucol S.A.	-	1,162	-	-	-	-
	90,184	733,225	329,241	849,754	76,248	1,113,782

02

Main changes in the structure of the Ecopetrol Group during 2020

As of January 31, 2021, Ecopetrol Group had 9 affiliate companies and 23 subsidiaries. Currently, Ecopetrol Group has companies with operations in Colombia, Brazil, Peru, the United States and Mexico.

Fecha de actualización 31/01/2021

COMPANY	SHAREHOLDERS	NUMBER OF SHARES	PARTICIPATION (%)	INDIRECT PARTICIPATION (%)	DIRECT PARTICIPATION (%)	INDIRECT DIRECT PARTICIPATION
PARTICIPACIONES ACCIONARIAS						
CONCENTRA INTELIGENCIA EN ENERGIA S.A.S (*INTELIGENCIA EN ENERGIA*)	Ecopetrol S.A	84,000	4.761904762%			
	Equion Energía Limited	84,000	4.761904762%			
	Other external shareholders from EG	1,596,000	90.476190476%	2.42857%	4.76190%	7.19048%
	TOTAL	1,764,000	100.000000000%			
ECODIESEL COLOMBIA S.A.	Ecopetrol S.A.	10,500,000,000	50.000000000%			
	Other external shareholders from EG	10,500,000,000	50.000000000%	0.00000%	50.00000%	50.00000%
	TOTAL	21,000,000,000	100.000000000%			
RODEO MIDLAND BASIN LLC (e)	Ecopetrol Permian LLC*	1	49.000000000%			
	Other external shareholders from EG	1	51.000000000%	49.00000%	0.00000%	49.00000%
	TOTAL	1	100.000000000%			
SOCIEDAD PORTUARIA OLEFINAS Y DERIVADOS	Esentia S.A.	349,992	49.9988571429%			
	Andrea Chemicals Ltd.	4	0.0005714286%			
	Ecopetrol America LLC	2	0.0002857143%			
	Ecopetrol Oleo e Gas do Brasil	2	0.0002857143%	50.00000%	0.00000%	50.00000%
	Another external shareholder from EG	350,000	50.000000000%			
Total	700,000	100.000000000%				

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COMPANY	SHAREHOLDERS	NUMBER OF SHARES	PARTICIPATION (%)	INDIRECT PARTICIPATION (%)	DIRECT PARTICIPATION (%)	INDIRECT DIRECT PARTICIPATION
SOCIEDAD COLOMBIANA DE SERVICIOS PORTUARIOS S.A. - Serviport S.A.	M&B Inversiones S.A.A	60,840,000	50.7000000000%			
	Cenit Transporte y Logística de Hidrocarburos SAS	58,800,000	49.0000000000%	49.000000%	0.000000%	49.000000
	Other shareholders	360,000	0.3000000000%			
	TOTAL	120,000,000	100.0000000000%			
SOCIEDAD PORTUARIA DEL DIQUE	Esenttia Masterbatch Ltda.	200	0.5096839959%			
	Other shareholders	39,040	99.4903160041%	0.50968%	0.000000%	0.50968%
	TOTAL	39,240	100.0000000000%			
TRANSGAS DE OCCIDENTE S.A.	Otro accionista externo a GEE	63,641,691	46.50000190700%			
	Colombia Pipelines Limited	27,372,771	20.00000131518%	10.200000%	0.000000%	10.200000%
	Other shareholders externos al GEE	45,849,384	33.49999677782%			
	Total	136,863,846	100.0000000000%			
ZONA FRANCA DE CARTAGENA S.A	Esenttia Masterbatch Ltda.	328	10.9993293092%			
	Other shareholders	2,654	89.0006706908%	10.99933%	0.000000	10.99933%
	TOTAL	2,982	100.0000000000%			
AFFILIATES						
ANDEAN CHEMICALS LIMITED	Ecopetrol S.A	645,707,273	100.0000000000%	0.000000%	100.000000%	100.000000%
	TOTAL	645,707,273	100.0000000000%			
BLACK GOLD RE LIMITED	Ecopetrol S.A	120,000	100.0000000000%	0.000000%	100.000000%	100.000000%
	TOTAL	120,000	100.0000000000%			
CENIT TRANSPORTE Y LOGÍSTICA DE HIDROCARBUROS S.A.S.	Ecopetrol S.A	167,775,741	100.0000000000%	0.000000%	100.000000%	100.000000%
	TOTAL	167,775,741	100.0000000000%			
ECOPETROL CAPITAL AG	Ecopetrol S.A	2,001,000	100.0000000000%	0.000000%	100.000000%	100.000000%
	TOTAL	2,001,000	100.0000000000%			
ECOPETROL GLOBAL ENERGY S.L.U.	Ecopetrol S.A	70,151,927	100.0000000000%	0.000000%	100.000000%	100.000000%
	TOTAL	70,151,927	100.0000000000%			

COMPANY	SHAREHOLDERS	NUMBER OF SHARES	PARTICIPATION (%)	INDIRECT PARTICIPATION (%)	DIRECT PARTICIPATION (%)	INDIRECT DIRECT PARTICIPATION
EQUION ENERGÍA A LIMITED (a)	Ecopetrol S.A	114,836,072	51.00000014212%			
	Talisman Colombia Holdco Limited	110,332,696	48.99999985788%	0.00000%	51.00000%	51.00000%
	TOTAL	225,168,768	100.000000000%			
HOCOL PETROLEUM LIMITED	Ecopetrol S.A	17,126,358	100.000000000%	0.00000%	100.00000%	100.00000%
	TOTAL	17,126,358	100.000000000%			
INVERSIONES DE GASES DE COLOMBIA S.A. - Invercolsa S.A.	Ecopetrol S.A	1,452,595,537	51.8784812194%			
	Another external shareholder from EG	1,309,754,183	46.7769974876%	0.00000%	51.87848%	51.87848%
	Other external shareholders from EG	37,646,546	1.3445212930%			
	TOTAL	2,799,996,266	100.000000000%			
REFINERIA DE CARTAGENA S.A.	Ecopetrol S.A.	944,182,540	99.34008733637%			
	Andean Chemicals Ltd.	6,272,168	0.659912347996%			
	Ecopetrol Global Energy S.L.U.	1	0.000000105213%	0.65991%	99.34009%	100.00000%
	Essentia S.A.	1	0.000000105213%			
	Esenttia Masterbatch Ltda.	1	0.000000105213%			
	TOTAL	950,454,711	100.000000000%			
SUBSIDIARIES						
BIOENERGY S.A.S EN LIQUIDACIÓN (b)	Andean Chemicals Ltd.	90,260,739	99.60965496363%			
	Mitsubishi Corporation	353,706	0.390341725637%			
	Ecopetrol Global Energy S.L.U.	1	0.000001103577%	99.60966%	0.00000%	99.60966%
	Esenttia MasterBatch Ltda.	1	0.000001103577%			
	Esenttia S.A.	1	0.000001103577%			
	TOTAL	90,614,448	100.000000000%			
BIOENERGY ZONA FRANCA S.A.S EN LIQUIDACIÓN (b)	Bioenergy S.A.S	182,650,245	100.000000000%	99.60966%	0.00000%	99.60966%
	TOTAL	182,650,245	100.000000000%			
COLOMBIA PIPELINES LIMITED	Equion Energía Limited	42,499,999	100.000000000%	51.00000%	0.00000%	51.00000%
	TOTAL	42,499,999	100.000000000%			

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COMPANY	SHAREHOLDERS	NUMBER OF SHARES	PARTICIPATION (%)	INDIRECT PARTICIPATION (%)	DIRECT PARTICIPATION (%)	INDIRECT DIRECT PARTICIPATION
ECOPETROL AMERICA LLC (c)	Ecopetrol USA INC (*)	1	100.0000000000%	100.00000%	0.00000%	100.00000%
	TOTAL	1	100.0000000000%			
ECOPETROL COSTA AFUERA COLOMBIA S.A.S	Hocol Petroleum Limited -HPL-	2,305,000	100.0000000000%	100.00000%	0.00000%	100.00000%
	TOTAL	2,305,000	100.0000000000%			
ECOPETROL DEL PERÚ S.A	Ecopetrol Global Energy S.L.U.	125,562,388	99.99999920358%			
	Ecopetrol América LLC	1	0.000000796417	100.00000%	0.00000%	100.00000%
	TOTAL	125,562,389	100.0000000000			
ECOPETROL ENERGIA S.A.S ESP	Ecopetrol S.A	99	99.0000000000			
	Andean Chemicals Ltd.	1	1.0000000000	1.00000%	99.00000%	100.00000%
	TOTAL	100	100.0000000000			
ECOPETROL OLEO & GAS DO BRASIL LTDA	Ecopetrol Global energy S.L.U	4,294,600,501	99.99999976715%			
	Ecopetrol America LLC	10	0.000000232851%	100.00000%	0.00000%	100.00000%
	TOTAL	4,294,600,511	100.0000000000%			
ECOPETROL PREMIUM LLC (c)	Ecopetrol USA Inc (*)	1	100.0000000000%	100.00000%	0.00000%	100.00000%
	TOTAL	1	100.0000000000%			
ECOPETROL USA INC	Ecopetrol Global Energy S.L.U	50,000	100.0000000000%	100.00000%	0.00000%	100.00000%
	TOTAL	50,000	100.0000000000%			
ECP HIDROCARBUROS MÉXICO	Ecopetrol Global Energy S.L.U	2,099,840,482	99.999995238%			
	Ecopetrol América LLC	100	0.000004762%	100.00000%	0.00000%	100.00000%
	TOTAL	2,099,840,582	100.0000000000%			
ESENTTIA MASTERBATCH LTD. ESENTTIA MB LTDA.	Esenttia S.A.	100,512	99.90060822734%			
	Andean Chemicals Ltd.	100	0.099391722657%	100.00000%	0.00000%	100.00000%
	TOTAL	100,612	100.0000000000%			
ESENTTIA RESINAS DEL PERÚ SAC	Esenttia S.A.	4,303,499	99.9999767631%			
	Esenttia Masterbatch Ltda	1	0.0000232369%	100.00000%	0.00000%	100.00000%
	TOTAL	4,303,500	100.0000000000%			

COMPANY	SHAREHOLDERS	NUMBER OF SHARES	PARTICIPATION (%)	INDIRECT PARTICIPATION (%)	DIRECT PARTICIPATION (%)	INDIRECT DIRECT PARTICIPATION
ESENTTIA S.A.	Ecopetrol S.A.	206,910,325	49.89999866417%	50.10000%	49.90000%	100.00000%
	Andean Chemicals Ltd.	207,739,633	50.10000061232%			
	Ecopetrol del Perú S.A.	1	0.00000024117%			
	Ecopetrol Oleo e Gas do Brasil	1	0.00000024117%			
	Ecopetrol America LLC	1	0.00000024117%			
TOTAL	414,303,500	100.0000000000%				
HOCOL	Hocol Petroleum Limited	102,507,935	100.0000000000%	100.00000%	0.00000%	100.00000%
	TOTAL	102,507,935	100.0000000000%			
KALIXPAN SERVICIOS TÉCNICOS S. de R.I. de C.V.	Hocol Petroleum Limited -HPL-	327,034	99.9908274833%	100.00000%	0.00000%	100.00000%
	Andean Chemicals Ltd.	30	0.0091725167%			
	TOTAL	327,064	100.0000000000%			
OLEODUCTO BICENTENARIO DE COLOMBIA S.A.S	Cenit Transporte y Logística de Hidrocarburos S.A.S.	364,936	55.44050266769%	56.40837%	0.00000%	56.40837%
	Hocol S.A.	6,371	0.967872291294%			
	Other external shareholders from EG	286,941	44.02990969969%			
	TOTAL	658,248	100.4382846587%			
OLEODUCTO CENTRAL S.A. - OCENSA	Cenit Transporte y Logística de Hidrocarburos S.A.S.	3,747,910	72.64799379725%	72.64799%	0.00000%	72.64799%
	Other external shareholders from EG	1,411,090	27.35200620275%			
	Al Candelaria Spain S.L.U	1,153,139	22.351986819151%			
	Banco de Bogotá (Panamá) S.A Fideicomiso acciones Ocesa	257,949	4.999980616399%			
	ISQ Booster Acquisitions S.A.R.L	1	0.00001938360%			
	Transporte registrado servicios S.A	1	0.00001938360%			
	TOTAL	5,159,000	100.0000000000%			

SPECIAL CORPORATE GROUP REPORT **ECOPETROL S.A**

COMPANY	SHAREHOLDERS	NUMBER OF SHARES	PARTICIPATION (%)	INDIRECT PARTICIPATION (%)	DIRECT PARTICIPATION (%)	INDIRECT DIRECT PARTICIPATION
OLEODUCTO DE COLOMBIA S.A - ODC	Cenit Transporte y Logística de Hidrocarburos S.A.S.	9,395	51.282751092%			
	Hocol S.A.	3,979	21.719432314%	73.00218%	0.00000%	73.00218%
	Other external shareholders from EG	4,946	26.997816594%			
	TOTAL	18,320	100.000000000%			
OLEODUCTO DE LOS LLANOS ORIENTALES S.A	Cenit Transporte y Logística de Hidrocarburos S.A.S.	130	65.000000000%			
	Pacific Midstream Holding Corporation/ Frontera	70	35.000000000%	65.00000%	0.00000%	65.00000%
	TOTAL	200	100.000000000%			
SANTIAGO OIL COMPANY (a)	Equion Energía Limited	1,502,220,0002	100.000000000%	51.00000%	0.00000%	51.00000%
	TOTAL	1,502,220,0002	100.000000000%			
TOPOLI SERVICIOS ADMINISTRATIVOS S. de R.L. de C.V.	Hocol Petroleum Limited -HPL	289,363	99.9896334742%			
	Andean Chemicals Ltd	30	0.0103665258%	100.00000%	0.00000%	100.00000%
	TOTAL	289,393	100.000000000%			
ESSENTIA S.A	Ecopetrol S.A.	206,910,325	49.89999866417%			
	Andean Chemicals Ltd.	207,739,633	50.10000061232%			
	Ecopetrol del Perú S.A.	1	0.00000024117%	50.10000%	49.90000%	100.00000%
	Ecopetrol Oleo e Gas do Brasil	1	0.00000024117%			
	Ecopetrol America LLCC	1	0.00000024117%			
	TOTAL	414,649,961	100.000000000%			
HOCOL S.A. (a)	Hocol Petroleum Limited	102,570,935	100.000000000%	100.00000%	0.00000%	100.00000%
	TOTAL	102,570,935	100.000000000%			
KALIZPAN SERVICIOS TÉCNICOS S. de R.L. de C.V.	Hocol Petroleum Limited -HPL-	2,970	99.000000000%			
	Andean Chemicals Ltd.	30	1.000000000%	100.00000%	0.00000%	100.00000%
	TOTAL	3,000	100.000000000%			

COMPANY	SHAREHOLDERS	NUMBER OF SHARES	PARTICIPATION (%)	INDIRECT PARTICIPATION (%)	DIRECT PARTICIPATION (%)	INDIRECT DIRECT PARTICIPATION
OLEODUCTO BICENTENARIO DE COLOMBIA S.A.S	Cenit, Transporte y Logística de Hidrocarburos S.A.S.	362,051	55.00221800902%			
	Hocol S.A.	6,371	0.967872291294%	55.97009%	0.00000%	55.97009%
	Others	289,826	44.02990969969%			
	TOTAL	658,248	100.000000000%			
OLEODUCTO CENTRAL S.A. - OCENSA	Cenit Transporte y Logística de Hidrocarburos S.A.S	3,747,910	72.64799379725%			
	Others	1,411,090	27.35200620275%	72.64799%	0.00000%	72.64799%
	TOTAL	5,159,000	100.000000000%			
OLEODUCTO DE COLOMBIA S.A. - ODC	Cenit Transporte y Logística de Hidrocarburos S.A.S	9,395	51.282751092%			
	Hocol S.A.	3,979	21.719423314%	73.00218%	0.00000%	73.00218%
	Otros	4,946	26.997816594%			
	TOTAL	18,320	100.000000000%			
OLEODUCTO DE LOS LLANOS ORIENTALES S.A	Cenit Transporte y Logística de Hidrocarburos S.A.S	130	65.000000000%			
	Pacific Midstream Holding Corporation/ Frontera	70	35.000000000%	65.00000%	0.00000%	65.00000%
	TOTAL	200	100.000000000%			
SANTIAGO OIL COMPANY (a)	Equion Energía Limited	1,502,220,0002	100.000000000%	51.00000%	0.00000%	51.00000%
	TOTAL	1,502,220,0002	100.000000000%			
TOPOLI SERVICIOS ADMINISTRATIVOS S. de R.L. de C.V.	Hocol Petroleum Limited -HPL-	289,363	99.9896334742%			
	Andean Chemicals Ltd.	30	0.0103665258%	100.00000%	0.00000%	100.00000%
	TOTAL	289,393	100.000000000%			

NOTES

(a) = Foreign company that has a branch in Colombia.

(b) = Company in liquidation process.

(c) = In this capital company stock is not divided into shares, it has a sole proprietor. One digit is included for uniformity purposes in the table.

In this table, the stock options' denominations, affiliates and subsidiaries have a legal and non-accounting connotation.

In this table the participation percentage is shown with ten decimal places to be able to visualize minimum shareholdings.

03

Description of the companies that make up Ecopetrol Group and their main achievements during 2020



3.1 UPSTREAM

HOCOL
S.A

ECOPETROL'S PERCENTAGE STAKE:

100% indirect stake through Hocol Petroleum Limited in Bermuda.

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

This company was acquired in 2009. It is dedicated to oil search, production and transportation in different regions of Colombia. Hocol currently has areas of operation in different areas of Colombia: North of Colombia (Lower Magdalena Valley, Sinú San Jacinto and Guajira), Llanos, Huila and Tolima (Upper Magdalena

Valley). The areas in which Hocol has interests cover exploration and production blocks. Its production comes mainly from the following fields: Ocelote, Chuchupa and Ballena, Bonga-Mamey, Bullerengue and La Cañada, located in the department of Meta, Guajira, Valle Inferior del Magdalena and Huila, respectively.

MAIN ACHIEVEMENTS:

- During the year 2020, Hocol reached an average production of 35.6 KBPED before royalties, achieved the addition of 42.6 Mbbls of 1P Reserves, with an IRR of 339%, and the incorporation of 3.3 Mbbls Discovered Resources by Delimiting, everything in a clean and safe operation, closing with a 0,47 TRCF indicator. Hocol's financial situation allowed it to fund 100% of the 2020 investment plan with cash generated by operations.
- Net profit of 84.6 MUSD despite the pandemic period and a Brent price lower than 2019. Similarly, there was a relevant ROACE performance, reaching 10% in 2020.
- Strengthening the company's growth through inorganic growth, and composition of production 50% gas, 50% crude, after receiving the operation of the assets of the Guajira Association on May 1, 2020, by acquiring 100% of Chevron's share. This transaction strengthens Hocol's natural gas positioning strategy in the North Colombia region. Similarly, Hocol maintained operational continuity and without accidents during 2020 with this operation, increased 1P reserves by 32% and effectively integrated 71 new collaborators.
- During 2020, Hocol remained as a Latin American benchmark in the Organizational Health Index (OHI), which is measured by McKinsey international consulting firm. In this measurement, Hocol is compared with a wide sample of companies in Latin America. Hocol increased in value from 89% in 2019 to 91% in 2020, remaining in the top 10% of McKinsey's sample of companies.
- The reputation perception study was carried out through the National Consulting Center, where Hocol obtained an extraordinary performance, obtaining a 903 GRI (Global Reputation Index) – above the average of the mining and energy sector (765 GRI), and above average of the top 10 Merco 2019 companies (865 GRI).
- Hocol began the construction of the Ocelote Field Nature Reserve planting 413 hectares of trees during 2020 – an example of how the protection of the environment, the generation of opportunities for the communities and the production of energy are activities that converge in a common and priority objective for the company. Thanks to this project, – 6,000 tons of CO₂ will be sequestered per year. Similarly, during 2020 Hocol managed to reduce 16 KTCO₂ in its operations, contributing to the decarbonization of Colombia.



ECOPETROL'S PERCENTAGE STAKE:

51% direct participation of Ecopetrol S.A.

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

En enero de 2011 Ecopetrol adquiere el 51% de esta compañía. Equion es una empresa de producción de petróleo que tiene presencia en el Piedemonte Llanero; sus inversiones se han enfocado en el desarrollo de las reservas de los contratos de Piedemonte.

MAIN ACHIEVEMENTS:

- During the years 2019 and 2020, Equion delivered its participation in the association contracts of Rio Chitamena (January 31, 2019) and Piedemonte (February 29, 2020).
- As a result of the decrease in its operations in 2020, taking into account the reality of the company, the management of operating assets and litigation and contingencies, management of the Equion Group companies was moved to the United Kingdom.
- On October 15, 2020, Equion sold its stake in the LTOI Plant Collaboration Agreement and its property right over the LTOI gas treatment plant to Ecopetrol, corresponding to 15.2%.
- On October 15, 2020, Santiago Oil Company (a subsidiary of Equion) sold its stake in the LTOI Plant Collaboration Agreement and its property right over the LTOI gas treatment plant to Ecopetrol, corresponding to 9.6%.



ECOPETROL AMERICA LLC:

100% indirect participation through Ecopetrol USA Inc., which in turn has indirect participation mainly through Ecopetrol Global Energy S.L.U.

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

This company was incorporated in 2007 with the aim of having a presence in the Gulf of Mexico of the United States, one of the most prospective areas in the world, in order to develop a long-term strategy that would allow to increase reserves and expand the investment portfolio.

MAIN ACHIEVEMENTS:

- In 2020, Ecopetrol America (EA) signed a strategic partnership with Chevron USA in which it acquired 30 new blocks and transferred the stake of 11 in the Gulf of Mexico. As a result, the company diversified its portfolio reducing risk and capital exposure.
- During 2020 EA reached an average production of 12,1 KBPED before royalties, achieved the addition of 8.98 Mbbls of 1P Reserves, with a 230 % IRR, and the incorporation of 31 Mbbls Prospective Resources.

**ECOPETROL
PERMEAN
LLC**

ECOPETROL'S PERCENTAGE STAKE:

100% indirect participation through Ecopetrol USA Inc., which in turn has indirect participation mainly through Ecopetrol Global Energy S.L.U.

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

This company was incorporated in 2019 with the aim of having a presence in the Permian basin of the United States – one of the most prolific areas and the one of greatest interest globally today – in order to develop

a long-term strategy that allows to increase reserves, expanding the investment portfolio to short-cycle assets, light crude oil and gas, as well as deepening knowledge in the development of unconventional fields.

MAIN ACHIEVEMENTS:

- During 2020, Ecopetrol and its operating partner OXY consolidated operations in their areas of interest in the Permian Basin, Midland Sub-basin, where the association operates around 100,000 acres.
- The partners demonstrated the flexibility and resilience of short-cycle oil projects to address changes in market conditions, managing to address the drop in international prices in March with a slowdown in activity and reactivating operations after the stabilization of prices in July 2020.
- The 2020 activity allowed to end the year with 22 wells in production and with 22 wells drilled (to be completed in Q1 2021).
- During the year 2020, Ecopetrol Permian reached an average production of 5.2 KBPED before royalties and reached a balance of 1P Reserves as of December 31 in the amount of 134.2 MMBoe.

**OFFSHORE
INTERNATIONAL
GROUP INC
SAVIA PERÚ**

ECOPETROL'S PERCENTAGE STAKE:

50% direct participation of Ecopetrol S.A..

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

This company was acquired by Ecopetrol S.A. (50%) in February, 2009, in association with Korean company Korea National Oil Corporation (KNOC) (50%). OIG's main asset is Savia Perú (formerly Petro-Tech Peruana SA), a company dedicated to oil exploration, development, production and processing in the Pacific. OIG currently has 2 blocks in Peru, thus:

- Z-2B is the main asset. It is located to the north of the country and is currently under exploitation and production.
- Z-6 block is in the exploitation phase without production, undergoing a situation of force majeure and with contingent gas resources and a potential development market for that area of the country.

MAIN ACHIEVEMENTS:

- The equivalent production of block Z-2B (84% owned by SAVIA and 16% Perupetro) reached 8 Kbpde in 2020.
- Efficiencies in maritime services were materialized in order to implement the integrity activities necessary to maintain production volumes.

ECOPETROL
OLEO E GAS DO
BRASIL LTDA

ECOPETROL'S PERCENTAGE STAKE:

100% indirect participation through Ecopetrol Global Energy S.L.U. (99%) - Ecopetrol America LLC. (1%)

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

This company was incorporated in December 2006, as part of the upstream internationalization strategy. Ecopetrol Brasil currently has participation in four offshore exploration blocks in Brazil, thus:

- Block CE-M-715 operator: PetroRio (50%) and Ecopetrol (50%) (Ceará Basin)
- Pau Brasil Block: Operator: BP (50%), CNOOC (30%) and Ecopetrol (20%) (Santos Basin)

- Saturn Block: Operator: Shell (45%), Chevron (45%) and Ecopetrol (10%) (Santos Basin)
- Blocks BM-S-54 - Gato do Mato Sul: Operator: Shell (50%), Ecopetrol (30%) and Total (20%) (Santos Basin)

MAIN ACHIEVEMENTS:

- The Brazilian Ministry of Mines and Energy signed amendments to contracts BM-S-54 and Sul de Gato do Mato, thereby materializing Ecopetrol's entry into the Gato do Mato discovery with a 30% stake.
- As part of the activities planned for the Gato do Mato offshore project, located in the Santos basin in Brazil, Shell (the project operator) completed the drilling of the Gato do Mato-4 delimiting well with favorable results. The update of the technical case and business assets allowed the incorporation of 111 Mbbls of discovered resources to the portfolio.
- Saturno block: Ecopetrol and its partners Shell (operator) and Chevron-CVX drilled their first exploratory well in the Santos Pre-Salt Basin (1-SHEL-33-RJS).
- In addition to the foregoing, the technical and commercial evaluations were carried out that concluded with the maturation of the exploratory opportunities identified in the current assets, allowing the incorporation of 759 Mbbls of prospective resources in the Ecopetrol Group portfolio
- The FZA-M-320 Block - located in the Foz do Amazonas Basin - was returned to the ANP during 1Q 2020.

ECOPETROL
PERU

ECOPETROL'S PERCENTAGE STAKE:

indirect participation of 100% mainly through Ecopetrol Global Energy S.L.U.

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

Incorporated in 2007. Ecopetrol Peru currently has a 30% stake in Block 101. After being returned to Perupetro, this block is in the process of environmental remediation through the Block Operator (Repsol) to continue with the closure of the company (estimated for 2021), once the respective environmental procedures are completed.

ECOPETROL
HIDROCARBUROS
MEXICO S.A.
DE C.V

ECOPETROL'S PERCENTAGE STAKE:

100% indirect stake through Ecopetrol Global Energy S.L.U. (99.99%) - Ecopetrol America LLC. (0.01%)

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

Company incorporated in 2017 whose exclusive purpose is oil exploration and extraction in the Mexican territory.

MAIN ACHIEVEMENTS:

- Seismic interpretation and prospect maturation process completed in block 6.
- Drilling of the Moyote well began in block 6 with our partner and operator, Petronas, on November 17.
- Progress was made in the regional evaluation of block 8 and the identification of prospects to be analyzed and prioritized with our partner and operator in the block (Pemex).

TOPILI
SERVICIOS
ADMINISTRATIVOS
S. DE R.L.
DE C.V.

ECOPETROL'S PERCENTAGE STAKE:

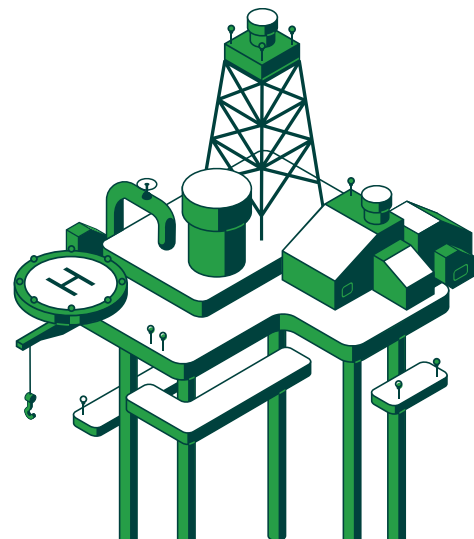
Indirect participation through Hocol Petroleum LTD -HPL- (99%) and Andean Chemicals LTD (1%)

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

Company incorporated in 2019 that aims to provide specialized services, either within the Mexican Republic or abroad, including services at managerial and management level, advisory and consultancy in administrative matters, human resources, recruitment, organizational management, planning, supply, systems, fiscal, accounting and financial for projects and operations related to the oil and hydrocarbon industry.

MAIN ACHIEVEMENTS:

The company remained in the pre-operational stage.



**KALIXPAN
SERVICIOS
TÉCNICOS, S.
DE R.L. DE C.V**

ECOPETROL'S PERCENTAGE STAKE:

Indirect participation through Hocol Petroleum LTD -HPL- (99%) and Andean Chemicals LTD (1%)

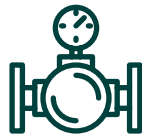
PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

This company was incorporated in 2019. Kalixpan aims to provide specialized technical and professional consulting and engineering services, geophysics and

geoscience in the development, management and supervision of projects related to the oil and hydrocarbon industry.

MAIN ACHIEVEMENTS:

The company remained in the pre-operational stage.



3.2 MIDSTREAM

**CENIT
TRANSPORTE
Y LOGÍSTICA
DE HIDROCAR-
BUROS S.A.S. –
CENIT**

ECOPETROL'S PERCENTAGE STAKE:

100% direct participation of Ecopetrol S.A.

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

Since 2013, Cenit has led the oil transport and logistics business in the country. Cenit owns a 4,802 km pipeline network and a total evacuation capacity of 1,497 kilo barrels per day (kbpd) – of which Cenit operates 2,969km directly. Cenit also has a network of 3,681 km in multiple pipelines, equivalent to a transport capacity of 365 kbpd, four discharge points; Monterrey, Araguaney, Vasconia and Ayacucho, two loading docks in Pozos Colorados and Tocancipá, three maritime terminals,

one for importing refined products, Terminal Pozos Colorados and 2 for exporting crude, Terminal Coveñas and Terminal Tumaco.

In November 2018, a mandate contract was signed with Ecopetrol S.A. in order to entrust the energy purchase to the Ministry of Energy and Mines, so that Ecopetrol's energy purchases includes Cenit's energy demand.

MAIN ACHIEVEMENTS:

- The operations carried out between Ecopetrol S.A. and Cenit Transporte y Logística de Hidrocarburos SAS were carried out in 2020 under market conditions and in the best interest of CENIT, in order to achieve its strategic objectives, adding value to Ecopetrol Corporate Group's strategy.
- In accordance with the new operating model (responding to a focus on efficiency, value generation, sustainability and profitability for our clients), Cenit assumed the remote operation of its oil transport systems in August 2020; this service was being provided by Ecopetrol S.A.

Cenit currently has contracts signed with:

- Oleoducto Central S.A. for the use of assets in Coveñas;
- Ship or pay unloading and loading service with Equion Energy; pipeline transportation, loading and unloading services with Hocol S.A., continuity margin, cargo transport to ports, loading and unloading services, pipeline transportation with Ecopetrol S.A.; and continuity margin with the Cartagena Refinery.

OLEODUCTO DE LOS LLANOS S.A. – ODL

ECOPETROL'S PERCENTAGE STAKE:

Ecopetrol S.A. has an indirect participation of 65% through Cenit S.A.S.

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

Oleoducto de los Llanos Orientales – ODL is a company with a nominal capacity to transport 310 kbpd. ODL operates in the departments of Meta and Casanare through 235 km of Pipeline from Rubiales

Pumping Station (Meta) to Monterrey (Casanare), and a 25 km diversion from El Viento (Casanare) to Cusiana (Casanare).

MAIN ACHIEVEMENTS:

- A clean and safe operation was maintained; there were no incidents in its Total Recordable Incident Frequency – TRIF indicators (recordable cases with affectation to individuals) and Process Safety Frequency Index.
- ODL successfully managed its total costs, which is reflected in a reduction in the Cost per Barrel (it stood at 0.54 USD/bl, i.e. 14% lower as compared to 2019).
- ODL achieved its execution goals (103%) for the Maintenance Program.
- ODL generated an EBITDA of COP \$ 811 billion.
- The major maintenance of TermoEBR was carried out. This asset provides important cost efficiencies to the business group, executing it in a short term and with lower costs than projected, in the midst of a health emergency environment and without incidents or accidents.
- ODL automated the planning and reporting process through the Volumetric Information System, where information can be consulted from the nomination to the closing of the volumetric balance, and facilitating the capture of improvement opportunities that can be implemented in the operation.

OLEODUCTO BICENTENARIO DE COLOMBIA S.A.S.

ECOPETROL'S PERCENTAGE STAKE:

Indirect participation 55.97% (55% through Cenit and 0.97% by Hocol).

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

Oleoducto Bicentenario de Colombia SAS was incorporated on August 18, 2010 by seven companies in the oil industry summoned by Ecopetrol as strategic partners for the construction and operation of a transportation system that would partake in national development by maximizing the country's oil wealth.

The oil production served by Bicentenario comes from the piedmont of the plains concentrated in Campo Rubiales, Castilla, Casanare and Floreña, through 230km of pipeline and a nominal capacity of up to 192 kbpd. The crude is owned by the Company's partners.

MAIN ACHIEVEMENTS:

- A clean and safe operation was maintained; there were no incidents in its Total Recordable Incident Frequency – TRIF indicators (recordable cases with affectation to individuals) and Process Safety Frequency Index.
- Through optimization strategies and efficiencies, Oleoducto Bicentenario de Colombia SAS achieved a reduction in Cost per Barrel as compared to 2019, going from USD/bl 0.83 to USD/bl 0.56.
- Oleoducto Bicentenario de Colombia SAS executed its Maintenance Program in accordance with the proposed goal, achieving a 102% compliance level.
- Oleoducto Bicentenario de Colombia SAS generated an EBITDA of COP \$ 596 billion.
- Oleoducto Bicentenario de Colombia SAS ended with the construction stages of the spill and bypass control valve system for checks 3 and 4 of the Pipeline, thereby improving the system's reliability in contingent or emergency situations.
- A cost reduction equivalent to 19% was achieved in 2020 as compared to 2019.

OLEODUCTO CENTRAL S.A. – OCENSA

ECOPETROL'S PERCENTAGE STAKE:

72.65% indirect participation through Cenit S.A.S.

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

Oleoducto Central S.A. – OCENSA has a pipeline of 836 kilometers on land (nominal capacity of 570kbpd in Segment 3) and 12 kilometers at sea. Ocenca has 10

pumping stations, a reducer pressure, a maritime terminal, tanks to store up to five million barrels and a base for the coordination of maintenance activities.

MAIN ACHIEVEMENTS:

- Volumes transported: 561 kbpd in segment II, which is equivalent to 205 million barrels during the year.
- The Company's EBITDA reached COP \$ 4.3 billion, with an EBITDA margin of 88%
- Operating Income: \$ 4.958 billion
- Net Profit \$ 2.538 billion
- There were efficiencies in variable costs due to a change in the operating scheme, a change in diet, and a reduction in the tariff for light blending crude and an increase in the substitution of crude bifuel for gas.
- Austerity measures and the search for efficiencies in Opex and Capex reduction were implemented, as well as preservation of cash in each of the business decisions.
- The commitments acquired with the communities were fulfilled. Stakeholder strengthening initiatives continue with a focus on women and development programs.

OLEODUCTO DE COLOMBIA S.A. – ODC

ECOPETROL'S PERCENTAGE STAKE:

Ecopetrol has a 73% indirect participation in ODC thus: 51.25% through Cenit S.A.S. and 21.72% through Hocol S.A.

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

Oleoducto de Colombia SA - ODC, is a company dedicated mainly to activities that enable the transport of heavy and medium crude oil between Vasconia plant and the

Coveñas terminal, as well as services of loading crude to tankers for export. The pipeline is 483km long and has an approximate capacity of 248 kbpd.

MAIN ACHIEVEMENTS:

- The Pipeline maintained its goal; i.e. zero accidents, human or environmental incidents.
- 102% Compliance with EBITDA as compared to its budget, and 101% as compared to budget sensitized by the Exchange Rate and Brent. (Actual: 539 MMCOP)
- 353 MMCOP net profit
- 78% EBITDA margin. 51% Net Margin.
- Barrels transported: 189 kbpd
- Vessels served: 92
- Progress was made in 2020 in the implementation of the ODC Corporate Governance Project, in alignment with CENIT as the leader of the midstream segment, and under the Ecopetrol Group model. This is done in order to provide an actionable framework to generate synchrony and organizational coordination, clarify the decision-making process and supporting Stakeholder management across the board.



3.3. DOWNSTREAM

ECOPETROL'S PERCENTAGE STAKE:

100% (includes direct and indirect participation).

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

The Cartagena refinery is one of the most modern refineries in Latin America. It meets high international standards, processing a significant component of heavy crude in its diet, taking advantage of nationally produced crude oils, and complementing them with international crude oil for transformation into clean fuels and high value-added petrochemicals.

The nominal loading capacity of the Cartagena refinery is 150 kbpd, and it has a conversion capacity of 97.5%. The remaining 2.5% is transformed into sulfur and coke – products used in the steel and agrochemical industries, respectively.

MAIN ACHIEVEMENTS:

- The production of gasoline with a quality lower than 30 ppm of sulfur began in January 2020, complying with Ecopetrol's clean fuel strategy.
- The percentage of national crude oil in the cargo composition increased, reaching a 100% record level in September, and 89% in average for the year.
- In an environment affected by the health emergency derived from COVID-19, the Cartagena refinery managed to carry out an efficient planning and operation adjusted to the demand and price scenarios, obtaining a gross refining margin of 6.6 USD/bl versus 5.8 USD/bl of the crack spread (5:1:1:3)
- Operating processes were executed safely during the year and in harmony with the environment and its communities, with zero process safety events and zero environmental events, in addition to the implementation of initiatives to reduce environmental impacts compared to 2019:
 - Average 10% increase in water reuse, and 2% reduction in raw water consumption.
 - Reduction of Greenhouse Gas emissions by 33,000 tons of CO₂ equivalent.
 - Approval of the Plan for Reconversion to Clean Technologies and Dump Management by the National Environmental Licensing Authority (ANLA).

REFINERÍA DE
CARTAGENA

ESENTTIA

ECOPETROL'S PERCENTAGE STAKE:

100% (includes direct and indirect participation).

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

This company belongs to the petrochemical sector and joined Ecopetrol Group in 2008. Located in the city of Cartagena, ESENTTIA is the leading producer in the polypropylene market in Colombia with a production capacity of 480,000 Ton/year.

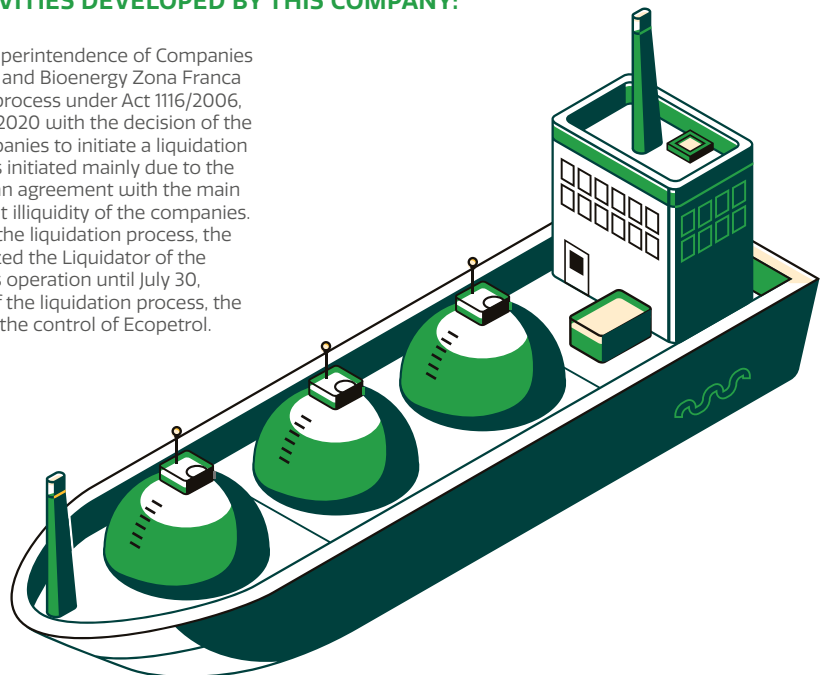
MAIN ACHIEVEMENTS:

- Thanks to the efforts and great commitment to working in safe conditions, during 2020 (and for more than 500 days) Esenttia did not have any HSE and process safety incidents.
 - Esenttia achieved a historical record in sales volume with 541,000 tons – the results of all business lines: polypropylene, polyethylene and Masterbatch exceeded the budgeted goals.
 - Investments aimed at improving efficiency and reliability of the production process led to a historical record in production, with 490,000 tons of polypropylene.
 - The expansion project of the polypropylene production plant started. It will increase production capacity by 70,000 tons.
 - Second best result of EBITDA even in conditions of high volatility and uncertainty caused by the pandemic. Esenttia’s resilience and response capacity were instrumental in overcoming the impacts on their competitive environment.
 - Esenttia achieved more than USD \$ 4 million savings in logistics costs for delivery and supply, thanks to an effective coordination and management of the integrated logistics chain.
 - Renegotiation of the propylene purchase contract, which ensures the supply of raw material for 5 years.
 - Esenttia obtained the Excellence status with the Exceptional Employer award by Great Place to Work.
- This distinction reflects the results of comprehensive talent management and the work environment. Recognitions in gender equity:
- » *Equipares* Silver Seal Award.
 - » Ecopetrol Group Excellence Awards – Good Labor Practices.
 - » Ranked 13 of Best Companies for women to work in Colombia – GPTW.
- In 2020, Esenttia presented a result of 43.5% in the company portfolio vitality index with the development of new products or improvements to the current portfolio.
 - 5 robots were developed during 2020, thus freeing up to 14,000 man-hours in operational processes, which allowed to allocate them to value-added processes.
 - 26 circular economy initiatives were developed in 2020 – 18 in conjunction with Ecopetrol Group. These initiatives aimed at strengthening the company’s sustainability strategy.
 - 230,000 kilograms of recycled plastic transformed into furniture were delivered in the city of Cartagena.
 - Alliance with United Polymernr for the production of biodegradable resins.
 - 900 thousand people were benefited with initiatives aimed to support the country developed by Esenttia. More than COP \$2,500 million were aimed to deliver clothing and medical supplies, markets, PCR tests and other elements to attend the health emergency due to COVID -19.



PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

On March 10, 2020, the Superintendence of Companies admitted Bioenergy S.A.S. and Bioenergy Zona Franca S.A.S. in a reorganization process under Act 1116/2006, which ended on June 24, 2020 with the decision of the Superintendence of Companies to initiate a liquidation process. This process was initiated mainly due to the impossibility of reaching an agreement with the main creditor, and the imminent illiquidity of the companies. Within the framework of the liquidation process, the Superintendence authorized the Liquidator of the companies to continue its operation until July 30, 2021. Since the opening of the liquidation process, the companies are not under the control of Ecopetrol.



**ECODIESEL
COLOMBIA
S.A.**

ECOPETROL'S PERCENTAGE STAKE:

50%

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

This company appertains to the Biofuels sector. It was incorporated in 2007 and has a biodiesel production plant in the city of Barrancabermeja, with a production capacity of up to 120,000 tons per year.

MAIN ACHIEVEMENTS:

- Internal processes were certified with Technical Quality Standards ISO 9001: 2015, ISO 14001: 2015, ISO 45001: 2018 and NORSOK WA 006: 2028.
- Historical monthly production records of 11,622 tons in August, and sales of 11,833 tons in October.
- A total of 122,503 tons of biodiesel sales were reached in 2020 – i.e. a 3.7% growth as compared to 2019.
- The company had an operating income of COP \$ 450 billion in 2020.
- Thus, Ecodiesel is consolidated as an important player in its area of influence and within the country's biodiesel sector, with a 24% share of the national market.



3.4. COMMERCIAL SEGMENT

**ECOPETROL
ENERGÍA S.A.S
E.S.P.**

ECOPETROL'S PERCENTAGE STAKE:

99% Ecopetrol S.A., and indirect participation through Andean Chemicals LTD (1%)

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

Ecopetrol Energía S.A.S. E.S.P. is a company 99% owned by Ecopetrol S.A., established in March 2018, which began operations in December of the same year and whose corporate purpose is the commercialization of Ecopetrol Group's electric energy business under the terms of the current regulation, as well as the provision of related services or complementary services in commercialization, in accordance with the provisions of Acts 142 and 143 of 1994 and any rules that regulate it, add to or amend them.



MAIN ACHIEVEMENTS:

- Provision of the electric power supply service to 68 unregulated borders of Ecopetrol Corporate Group, which represented a 5% increase as compared to the end of the previous year.
- 2,202 GWh of total energy consumption in meters billed during 2020 and a maximum monthly energy consumption of 211 GWh in February 2020.
- The annual billing for energy sales in 2020 amounted to \$ 699,452 MCOP, i.e. a 20% growth as compared to 2019.
- Annual sales revenue for 2020 was \$ 15,365 MCOP, i.e. a 20% growth as compared to 2019.
- FY 2020 net profit: \$ 5,256 MCOP, i.e. a 32% growth as compared to 2019.

ECOPETROL'S PERCENTAGE STAKE:

51.88% direct Ecopetrol S.A. participation

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

Inversiones de Gases de Colombia S.A. Invercolsa is a company with investments in companies in the energy sector through its gas and LPG distribution and commercialization companies, transportation companies and other businesses. The company is present throughout the entire Colombian territory and has its origins in the asset spin-off process the natural gas assets of Colgas S.A. Company. Through its controlled and uncontrolled companies, Invercolsa has presence in 19 departments (Mainly Huila, Tolima, Santander and the Caribbean coast).

MAIN ACHIEVEMENTS:

- Total EBITDA generated by Invercolsa in 2020: \$ COP 331 billion, aligned with the goal for the year. Ecopetrol's 51.8% stake in Invercolsa contributed 20% of the EBITDA value of the 2020 downstream segment.
- Debt restructuring to reduce interest rates by 0.4% Effective Annual to 1.33% EA for subsidiaries, with a \$ COP 4.5 billion reduction in financial expense.
- The necessary adjustments were made for the reconversion of the Financial Statements from IFRS-SMEs accounting standards to full IFRS.
- Implementation of the HSE culture and leadership model based on Ecopetrol Group (EG) good practices, geared to the commitment and visible leadership of the management line. In addition, alignment was achieved with the main EG HSE KPIs, such as *ICLA*, *TRIF*, *TAV* and *IFSP* (Environmental Compliance Index, Total Recordable Incident Frequency, Vehicle Accident Rate and Process Safety Frequency Index).
- Development of the plan for the implementation of SOX, updating its code of ethics and putting an ethical line into operation.
- As for technology, Invercolsa made progress in identifying needs in relation to improvements, adjustment and implementation of information tools, as well as in structuring alternative solutions to bridge the gaps identified.



3.5. FINANCIAL VEHICLES

BLACK
GOLD RE

ECOPETROL'S PERCENTAGE STAKE:

100% directly through Ecopetrol

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

Black Gold Re Limited (BGRé) is the Captive Reinsurer of Ecopetrol Group (EG). It was incorporated on August 24, 2006 and is in charge of enabling and optimizing the placement of Ecopetrol's Corporate Insurance Program and its subsidiaries through the adjustment of the levels of transfer or retention of risks, in order to guarantee the protection of their assets and operations, strengthening their negotiating capacity in the insurance market, minimizing the adverse effects of market cycles. BGRé designs and implements individual coverage and deductible strategies in accordance with the requirements of each business segment of Ecopetrol and its subsidiaries, capturing and controlling a part of the placement cost and thereby generating economic benefits for the EG.

ANDEAN
CHEMICALS
LTD

ECOPETROL'S PERCENTAGE STAKE:

100% directly through Ecopetrol

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

Andean Chemicals Ltd. (ACL) is a company established in Bermuda, an investment vehicle of Ecopetrol S.A., wherethrough the necessary resources have been channeled for companies in the Downstream segment, – among others – of the business group. Resources are received through ACL from the subsidiaries to place them within the framework of the guidelines established by its parent company Ecopetrol S.A.

ACL is the majority shareholder of the company Bioenergy SAS, which in turn is a shareholder of the company Bioenergy Zona Franca SAS, over which the Superintendence of Companies ordered the start

of the judicial liquidation process on June 24, 2020, in accordance with the provisions under Act 1116/2006 and as per Rulings 2020-01-293699 and 2020-01-37-15 issued by the Superintendence. The initiation of the judicial liquidation led to the loss of indirect control by Grupo Empresarial Ecopetrol S.A. parent company (through Andean Chemicals LTD.) Over these companies.

Currently, Andean Chemicals LTD. It continues to own its shares in its condition of majority shareholder, and in pursuance of the procedure and orders of the Superintendence of Companies in the judicial liquidation process.

**HOCOL
PETROLEUM
LIMITED**

ECOPETROL'S PERCENTAGE STAKE:

100% directly through Ecopetrol

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

Investment vehicle that reaches the portfolio as part of the acquisition of Hocol SA for the Upstream companies with operations in Colombia (Hocol S.A. and Ecopetrol Costa Afuera Colombia).

Hocol Petroleum Limited has been especially dedicated to capitalizations at Ecopetrol Costa Afuera Colombia, administrative payments and taxes in Colombia, dividend income from Hocol SA and interest on deposits at Ecopetrol Capital AG.

**ECOPETROL
GLOBAL
ENERGY, S.L.U**

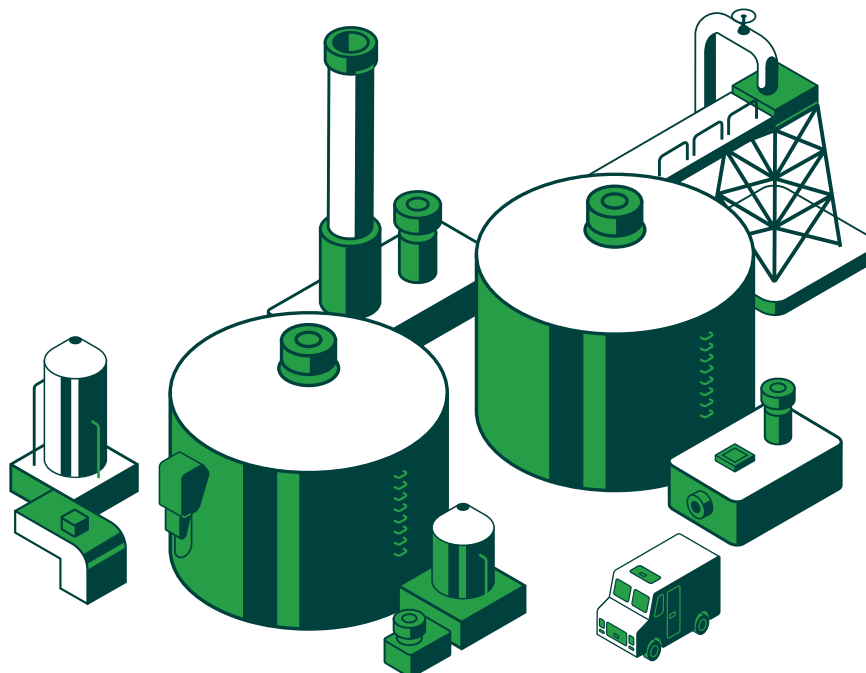
ECOPETROL'S PERCENTAGE STAKE:

100% directly through Ecopetrol

PROFILE AND ACTIVITIES DEVELOPED BY THIS COMPANY:

Investment vehicle for companies in the different segments with international operations, with an emphasis on Upstream. Ecopetrol Global Energy S.L.U. was incorporated under the Spanish tax regime of ETVE companies (Companies holding foreign securities), with effective administration headquarters in Spain.

Ecopetrol Global Energy S.L.U. has been especially dedicated to financial synergies derived from dividends from shares in foreign companies, in accordance with the ETVE Regime.



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KF_92

Report on **CODE OF COMMERCE ARTICLE 446**

Aplay Station
Meta Department

Report on Code of Commerce Article 446

(Stated in millions of Colombian pesos, except the basic earnings per share and the dividend payable per share)

1. Details of the profit and loss statement for the year ending December 31, 2020, specifying the depreciation, depletion and amortization expenses:

	For the year ending December 31, 2020
Sales revenue	43,528,927
Sales costs	(40,341,766)
Gross profit	3,187,161
Administrative expenses	(2,389,125)
Operations and projects expenses	(1,431,662)
Long-lived assets impairment	(424,829)
Other operational revenues, net	979,478
Operating (loss) income	(78,977)
Net financial results	
Financial income	1,694,344
Financial expenses	(4,428,984)
Net exchange rate profit (loss)	(286,037)
	(3,020,677)
Interest in the income of Group companies	3,905,136
Income before income tax	805,482
Income derived from income tax	882,595
Net income for the period	1,688,077
Net earnings per share (pesos)	41.1
Depreciation, depletion and amortization	(6,451,152)

2. Earnings distribution proposal for 2020:

The following is the 2020 earnings distribution proposal approved by the Board of Directors to be presented for the consideration of the General Shareholders' Meeting of March 26, 2021:

Net earnings after income tax provision	1,688,077
+ (Plus) Release of reserves accrued from previous years	5,066,156
Non-recurrent contingency reserve for sustainability	4,557,074
Excess tax depreciation reserve (Art. 130 National Tax Code- ET)	509,082
- (Minus) Reserve requirements for current year	677,889
Legal reserve (10%)	168,808
Excess tax depreciation reserve (Art. 130 ET)	509,082
Available to the Shareholders' Meeting	6,076,343
The following distribution is suggested:	
For untaxed dividend payment according to policy (Payout ¹ 41.41% of net earnings)	698,984
Occasional reserve for sustainability	5,377,359
Total dividend payable per share	\$17.0

- (1) The 40% percent established according to corporate policy was applied on net income, resulting in a dividend per share with decimals, which was rounded off to the nearest whole number in pesos, resulting in a dividend payout of at the least 40% of the net profit.

The profit distribution project, in conformity with the existing dividend policy, recommends the distribution of a dividend of \$17 COL pesos per share, equivalent to a dividend payout of 41.41% of the net income obtained during the fiscal year 2020. The suggested payment date for 100% of shareholders would be April 22, 2021.

Additionally, the Board of Directors recommends that an occasional reserve be constituted for \$ 5,377,359. The purpose of this reserve is to uphold the Company's financial sustainability and flexibility during the fulfilment of its strategy.

3.

3.a. Directors' Remuneration:

Consistent with the approval provided by the General Shareholders' Meeting of 2012 recorded in Minutes No. 026, the Directors' fees for attending meetings of the Board of Directors and/or its Committees increased from four to six legal monthly minimum salaries in force each year. Additionally, the General Shareholders' Meeting of 2018 approved the amendment to the Corporate Bylaws, recoded in Minutes No. 036, whereby the fourth paragraph of Article 23 thereof, which had different fees for in-person and remote meetings, was eliminated.

The members of the Board of Directors do not receive any sort of variable remuneration. The total amount paid for fees to members of the Board of Directors during 2020 amounted to \$ 3,102. The members of the Board of Directors do not receive any other payment.

Total remuneration paid to Steering Committee members as of December 31, 2020 amounted to \$ 22,127. The total travel and representation expenses paid to Steering Committee members in 2020 amounted to \$ 615.

3.b. Expenses for advisories related to handling specific matters before public or private entities:

	For the year ending on December 31, 2020
Specialized administrative and financial advisories	6,893

3.c. Provision of goods provided free of charge:

	For the year ending on December 31, 2020
Provision of goods provided free of charge	782

During 2020, Ecopetrol provided free of charge, to the Central, Orinoquia and Andina regionals: pipeline, electric equipment, office furniture and premises, which were requested by different municipalities such as the mayor of Puerto Nare on

behalf of the SENA, the mayor of Sabana de Torres and the mayor of Dosquebradas and also by entities such as the Rionegro Nare Regional Autonomous Corporation - CORNARE and the Infrastructure Agency of Meta.

3.d. Advertising and public relations expenses

	For the year ending on December 31, 2020
Media plan - advertising	4,995

There were no public relations expenses during 2020.

3.e. Money and other assets the Company holds abroad and foreign currency obligations:

	As of December 31, 2020	
	(In US dollars)	(in millions of pesos)
Money the Company holds abroad		
Banks and corporations	251,169,628	862,140
Other financial assets in foreign currency	595,229,881	2,043,127
Total	846,399,509	2,905,267
Other assets in foreign currency	145,541,352	499,571
Obligations in foreign currency		
Accounts payable to third parties	937,846,383	3,219,158
Bonds	9,385,890,377	32,217,069
Syndicated loan	1,726,295,374	5,925,509
Commercial loans	665,860,660	2,285,567
Lease liabilities	819,625,998	2,813,366
Financial obligations	12,597,672,409	43,241,511
Other liabilities	68,215,371	234,149
Total	13,603,734,163	46,694,818

3.f. Consolidated subsidiary companies and joint ventures

Company	Operating currency	Ecopetrol's ownership share	Activity
Subsidiaries			
Refinería de Cartagena S.A.S.	USD	100%	Oil refining, commercialization and product distribution
Cenit transporte y logística de hidrocarburos S.A.S. (*)	COL	100%	Storage and transport through oil pipelines
Ecopetrol Global Energy S.L.U.	USD	100%	Investment vehicle
Hocol Petroleum Limited.	USD	100%	Investment vehicle
Esenttia S.A.	USD	100%	Production and marketing of polypropylene resin
Ecopetrol Capital AG	USD	100%	Gathering of surpluses and financing for Ecopetrol Business Group companies
Andean Chemicals Ltd.	USD	100%	Investment vehicle
Black Gold Re Ltd.	USD	100%	Reinsurance for Ecopetrol Business Group companies
Inversiones de Gases de Colombia S.A. Invercolsa S.A.	COL	51.88%	Holding company with investments in natural gas and LPG transport and distribution companies in Colombia
Ecopetrol Energía S.A.S E.S.P.	COL	100%	Public power supply service
(*) Includes the effect of unrealized income from transactions of companies in the midstream segment			
Joint Ventures			
Equion Energía Limited	USD	51%	Oil exploration, exploitation and production
Offshore International Group Inc.	USD	50%	Oil exploration, exploitation and production
Ecodiesel Colombia S.A. (1)	COL	50%	Production, marketing and distribution of biofuels and oleochemicals

(1) Available information to November 30, 2020.

Country/ Domicile	Geographical area of operation	Net Equity	Earnings (loss) for the period	Total Assets	Total Liabilities
Colombia	Colombia	18,430,235	(1,482,958)	29,106,814	10,676,579
Colombia	Colombia	16,310,718	4,696,705	18,303,490	1,992,772
Spain	Spain	9,320,715	(434,773)	9,321,078	363
Bermuda	Bermuda	3,541,737	303,572	3,541,801	64
Colombia	Colombia	1,958,357	262,724	2,445,757	487,400
Switzerland	Switzerland	1,872,129	176,999	7,482,055	5,609,926
Bermuda	Bermuda	1,324,107	(162,720)	1,324,387	280
Bermuda	Bermuda	837,693	54,412	1,079,571	241,878
Colombia	Colombia	765,720	176,865	1,311,588	545,868
Colombia	Colombia	12,661	5,256	72,859	60,198
United Kingdom	Colombia	2,499,319	167,727	2,630,351	131,032
USA	Perú	543,621	(237,752)	1,568,795	1,025,174
Colombia	Colombia	103,344	29,188	167,801	64,457



Informe del Revisor Fiscal

A la Asamblea de Accionistas de:
Ecopetrol S.A.

Opinión

He auditado los estados financieros separados adjuntos de Ecopetrol S.A., que comprenden el estado de situación financiera al 31 de diciembre de 2020 y los correspondientes estados de resultados, de resultados integrales, de cambios en el patrimonio y de flujos de efectivo por el año terminado en esa fecha, y el resumen de las políticas contables significativas y otras notas explicativas.

En mi opinión, los estados financieros separados adjuntos, tomados de los libros de contabilidad, presentan razonablemente, en todos sus aspectos de importancia, la situación financiera de la Compañía al 31 de diciembre de 2020, los resultados de sus operaciones y los flujos de efectivo por año terminado en esa fecha, de conformidad con las Normas de Contabilidad y de Información Financiera aceptadas en Colombia adoptadas por la Contaduría General de la Nación.

Bases de la opinión

He llevado a cabo mi auditoría de acuerdo con Normas Internacionales de Auditoría aceptadas en Colombia. Mis responsabilidades en cumplimiento de dichas normas se describen en la sección *Responsabilidades del Auditor en la Auditoría de los Estados Financieros* de este informe. Soy independiente de la Compañía, de acuerdo con el Manual del Código de Ética para profesionales de la contabilidad, junto con los requisitos éticos relevantes para mi auditoría de estados financieros en Colombia, y he cumplido con las demás responsabilidades éticas aplicables. Considero que la evidencia de auditoría obtenida es suficiente y apropiada para fundamentar mi opinión.

Asuntos clave de auditoría

Los asuntos clave de auditoría son aquellos asuntos que, según mi juicio profesional, fueron de mayor importancia en mi auditoría de los estados financieros adjuntos. Estos asuntos se abordaron en el contexto de mi auditoría de los estados financieros tomados en su conjunto, y al momento de fundamentar la opinión correspondiente, pero no para proporcionar una opinión separada sobre estos asuntos. Con base en lo anterior, a continuación, detallo la manera en la que cada asunto clave fue abordado durante mi auditoría.

He cumplido con las responsabilidades descritas en la sección Responsabilidades del Auditor en la Auditoría de los Estados Financieros de mi informe, incluso en relación con estos asuntos. En consecuencia, mi auditoría incluyó la realización de los procedimientos diseñados para responder a los riesgos de incorrección material evaluados en los estados financieros. Los resultados de mis procedimientos de auditoría, incluidos los procedimientos realizados para abordar los asuntos que se mencionan a continuación, constituyen la base de mi opinión de auditoría sobre los estados financieros adjuntos.

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Determinación de la Depreciación, Agotamiento y Amortización y el Deterioro de Activos de Larga Vida

Descripción del Asunto Clave de Auditoría

Como se describe en la nota 3.1 y 3.2 de los estados financieros separados, el cálculo del método de unidades de producción que se utilizan en la determinación de la depreciación, agotamiento y amortización (DD&A) de propiedades, planta y equipo relacionados con la exploración y producción, los recursos naturales y ambientales, así como en la determinación de los flujos de efectivo futuros utilizados en los análisis de deterioro de activos de larga vida, dependen de la estimación relacionada con las reservas de petróleo y gas.

La gerencia utiliza ingenieros independientes externos (en adelante "especialistas") al estimar las reservas como factores geológicos, técnicos y económicos. Las estimaciones de las reservas de petróleo y gas dependen de una serie de factores variables y suposiciones clave, incluidas las cantidades de petróleo y gas que se espera recuperar, el momento de la recuperación, la producción, los costos operativos, de capital y el precio de venta, entre otros.

La determinación del DD&A de la Compañía y el cálculo del deterioro de los activos de larga vida es especialmente complejo debido a la naturaleza inherente de ingeniería técnica del proceso de estimación de reservas, el cual requiere el uso de especialistas y la evaluación de la Administración en la determinación de los supuestos descritos anteriormente utilizados por los especialistas en la estimación de las reservas de petróleo y gas.

Respuesta de Auditoría

Obtuvimos un entendimiento del proceso, evaluamos el diseño y probamos la efectividad operativa de los controles sobre el proceso de la Compañía para calcular el DD&A y realizar el análisis de deterioro de los activos de larga vida, incluidos los controles de la Administración sobre la integridad y la precisión de los datos financieros proporcionados a los especialistas para la estimación de reservas de petróleo y gas.

Nuestros procedimientos de auditoría incluyeron, entre otros, evaluar las calificaciones profesionales y la objetividad de las personas responsables de supervisar la preparación de las estimaciones de reserva por parte de los especialistas. Evaluamos la calificación y competencia de los especialistas contratados por la Compañía para desarrollar estas estimaciones. Adicionalmente evaluamos la integridad y precisión de los datos financieros y los supuestos descritos anteriormente utilizados por los especialistas en la estimación de las reservas de petróleo y gas con el fin de obtener documentación y evaluar evidencia corroborativa. Para las reservas probadas no desarrolladas, evaluamos el plan de desarrollo de la administración para cumplir con la regla de la SEC (U.S. Securities and Exchange Commission) de las ubicaciones no perforadas que están programadas para ser perforadas dentro de los cinco años, a menos que circunstancias específicas justifiquen un tiempo más largo, evaluando la consistencia de las proyecciones de desarrollo con el plan de perforación de la Compañía y disponibilidad de capital en relación con el plan de perforación. También probamos la precisión matemática de los cálculos de DD&A y revisamos la consistencia entre la estimación de las reservas de petróleo y gas preparada por los especialistas con las proyecciones de flujo de efectivo utilizadas en los análisis de deterioro de activos de larga vida.



Otra Información

La Administración es responsable de la otra información. La otra información comprende el informe de gestión sostenible, pero no incluye los estados financieros ni mi informe de auditoría correspondiente.

Mi opinión sobre los estados financieros no cubre la otra información y no expreso ninguna forma de conclusión que proporcione un grado de seguridad sobre esta.

En relación con mi auditoría de los estados financieros, mi responsabilidad es leer la otra información y, al hacerlo, considerar si existe una incongruencia material entre la otra información y los estados financieros o el conocimiento obtenido por mí en la auditoría o si parece que existe una incorrección material en la otra información por algún otro motivo. Si, basándome en el trabajo que he realizado, concluyo que existe una incorrección material en esta otra información, estoy obligado a informar de ello. No tengo nada de lo que informar al respecto.

Responsabilidades de la Administración y de los responsables del gobierno de la Compañía en relación con los estados financieros

La Administración es responsable por la preparación y correcta presentación de los estados financieros de acuerdo con las Normas de Contabilidad y de Información Financiera aceptadas en Colombia (NCIF) adoptadas por la Contaduría General de la Nación; de diseñar, implementar y mantener el control interno relevante para la preparación y correcta presentación de los estados financieros libres de incorrección material, bien sea por fraude o error; de seleccionar y de aplicar las políticas contables apropiadas; y, de establecer estimaciones contables razonables en las circunstancias.

Al preparar los estados financieros, la Administración es responsable de evaluar la capacidad de la Compañía para continuar como negocio en marcha, revelando, según corresponda, los asuntos relacionados con este asunto y utilizando la base contable de negocio en marcha, a menos que la Administración tenga la intención de liquidar la Compañía o cesar sus operaciones, o no tenga otra alternativa realista diferente a hacerlo.

Los encargados del gobierno de la Compañía son responsables de la supervisión del proceso de información financiera de la misma.

Responsabilidades del Auditor en la Auditoría de los Estados Financieros

Mi objetivo es obtener una seguridad razonable sobre si los estados financieros tomados en su conjunto están libres de incorrección material, ya sea por fraude o error, y emitir un informe que incluya mi opinión. La seguridad razonable es un alto nivel de aseguramiento, pero no garantiza que una auditoría realizada de acuerdo con las Normas Internacionales de Auditoría aceptadas en Colombia siempre detectará una incorrección material cuando exista. Las incorrecciones pueden surgir debido a fraude o error y se consideran materiales si, individualmente o acumuladas, podría esperarse que influyan razonablemente en las decisiones económicas que los usuarios tomen con base en los estados financieros.



Como parte de una auditoría de acuerdo con las Normas Internacionales de Auditoría aceptadas en Colombia, debo ejercer mi juicio profesional y mantener mi escepticismo profesional a lo largo de la auditoría, además de:

- Identificar y evaluar los riesgos de incorrección material en los estados financieros, ya sea por fraude o error, diseñar y ejecutar procedimientos de auditoría que respondan a esos riesgos, y obtener evidencia de auditoría que sea suficiente y apropiada para fundamentar mi opinión. El riesgo de no detectar una incorrección material debido a fraude es mayor que la resultante de un error, ya que el fraude puede implicar colusión, falsificación, omisiones intencionales, declaraciones falsas o sobrepaso del sistema de control interno.
- Obtener un entendimiento del control interno relevante para la auditoría, para diseñar procedimientos de auditoría que sean apropiados en las circunstancias.
- Evaluar lo adecuado de las políticas contables utilizadas, la razonabilidad de las estimaciones contables y las respectivas revelaciones realizadas por la Administración.
- Concluir sobre si es adecuado que la Administración utilice la base contable de negocio en marcha y, con base en la evidencia de auditoría obtenida, si existe una incertidumbre material relacionada con eventos o condiciones que puedan generar dudas significativas sobre la capacidad de la Compañía para continuar como negocio en marcha. Si concluyo que existe una incertidumbre importante, debo llamar la atención en el informe del auditor sobre las revelaciones relacionadas, incluidas en los estados financieros o, si dichas revelaciones son inadecuadas, modificar mi opinión. Las conclusiones del auditor se basan en la evidencia de auditoría obtenida hasta la fecha de mi informe, sin embargo, eventos o condiciones posteriores pueden hacer que una entidad no pueda continuar como negocio en marcha.
- Evaluar la presentación general, la estructura, el contenido de los estados financieros, incluyendo las revelaciones, y si los estados financieros representan las transacciones y eventos subyacentes de manera que se logre una presentación razonable.

Comuniqué a los responsables del gobierno de la Compañía, entre otros asuntos, el alcance planeado y el momento de realización de la auditoría, los hallazgos significativos de la misma, así como cualquier deficiencia significativa del control interno identificada en el transcurso de la auditoría.

También proporcioné a los responsables del gobierno de la Compañía una declaración de que he cumplido los requerimientos de ética aplicables en relación con la independencia y comunicado con ellos acerca de todas las relaciones y demás cuestiones de las que se podría esperar razonablemente que pudieran afectar mi independencia y, en su caso, las correspondientes salvaguardas.

Entre los asuntos que han sido objeto de comunicación con los responsables del gobierno de la Compañía, determiné los que han sido de la mayor significatividad en la auditoría de los estados financieros del período actual y que son, en consecuencia, asuntos clave de la auditoría. Describí esos asuntos en mi informe de auditoría salvo que las disposiciones legales o reglamentarias prohíban revelar públicamente el asunto o, en circunstancias extremadamente poco frecuentes, se determine que un asunto no se debería comunicar en mi informe porque cabe razonablemente esperar que las consecuencias adversas de hacerlo superarían los beneficios de interés público del mismo.



Otros Asuntos

Los estados financieros separados bajo normas de contabilidad y de información financiera aceptadas en Colombia (NCIF) adoptadas por la Contaduría General de la Nación de Ecopetrol S.A. al 31 de diciembre de 2019, que hacen parte de la información comparativa de los estados financieros adjuntos, fueron auditados por mí, de acuerdo con normas internacionales de auditoría aceptadas en Colombia, sobre los cuales expresé mi opinión el 21 de febrero de 2020.

Otros Requerimientos Legales y Reglamentarios

Fundamentado en el alcance de mi auditoría, no estoy enterado de situaciones indicativas de inobservancia en el cumplimiento de las siguientes obligaciones de la Compañía: 1) Llevar los libros de actas, registro de accionistas y de contabilidad, según las normas legales y la técnica contable; 2) Desarrollar las operaciones conforme a los estatutos y decisiones de la Asamblea de Accionistas y de la Junta Directiva, y a las normas relativas a la seguridad social integral; y 3) Conservar la correspondencia y los comprobantes de las cuentas. Adicionalmente, existe concordancia entre los estados financieros adjuntos y la información contable incluida en el informe de gestión preparado por la Administración de la Compañía, el cual incluye la constancia por parte de la Administración sobre la libre circulación de las facturas con endoso emitidas por los vendedores o proveedores. El informe correspondiente a lo requerido por el artículo 1.2.1.2 del Decreto 2420 de 2015 lo emití por separado el 22 de febrero de 2021.

A handwritten signature in black ink, appearing to read 'Victor Hugo Rodríguez Vargas', with a checkmark at the end.

Victor Hugo Rodríguez Vargas
Revisor Fiscal y Socio a cargo
Tarjeta Profesional 57851 -T
Designado por Ernst & Young Audit S.A.S. TR-530

Bogotá, Colombia
22 de febrero de 2021



WE PUT ALL OUR ENERGY INTO
BUILDING A COMPANY **-AND A COUNTRY-**
FROM US ALL TO US ALL



KF_33

KF_76

KF_92

ANNUAL
CORPORATE
GOVERNANCE
REPORT



ANNUAL CORPORATE GOVERNANCE REPORT 2020

In accordance with the provisions set forth in the Bylaws of Ecopetrol S.A. (Corporate Bylaws)¹ and the Corporate Governance Code,² the Board of Directors of Ecopetrol S.A. (Ecopetrol and/or the Company), presents to all its shareholders at its General Meeting the following 2020 Compliance Report as regards to its Corporate Governance Code.

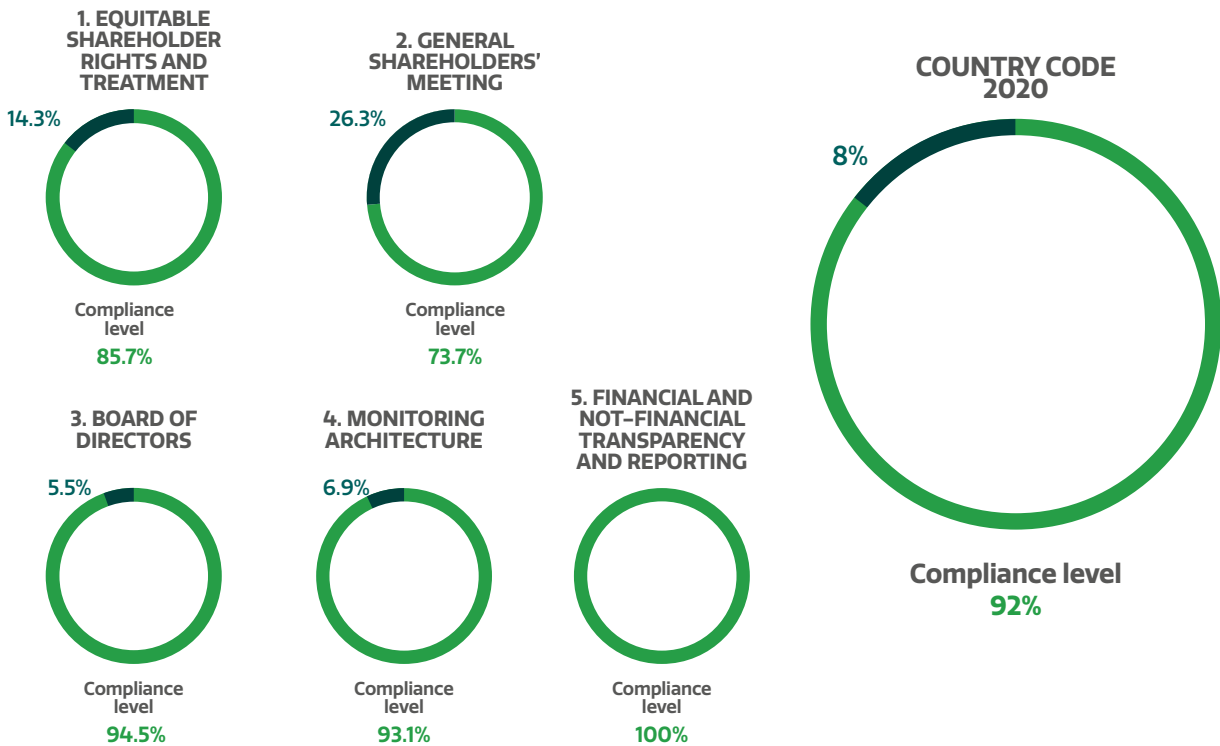
This report is divided into the following chapters: (a) Corporate governance model of the Ecopetrol Group; (ii) Ownership structure of Ecopetrol S.A.; (iii) General Shareholders' Meeting; (iv) Operations of the Board of Directors and its Committees; (v) Senior Management selection, development and remuneration; (vi) Control environment; (vii) Operations with related parties; (viii) Conflicts of interest; (ix) Dispute resolution mechanisms; (x) Transparency, fluency and integrity of information; and, (xi) Claims by shareholders and investors.



QR CODE APPLICABLE REGULATIONS

The report is structured to align with the recommendations of the Code of Best Corporate Practices of Colombia, commonly referred to as the Country Code³. During 2020, Ecopetrol adopted close to **92%** of the recommendations included therein, which represents a 2% increase with respect to the previous year

Code of best corporate practices – country code



Source: Ecopetrol, Secretary General and Assistant to the President

1 Numeral 19 of Article 23 of the Corporate Bylaws of Ecopetrol S.A.

2 Title III, Chapter III, Section 2 of the Corporate Governance Code.

3 In compliance with the provisions set forth in External Circular No. 028 of 2014, issued by the Financial Superintendence of Colombia, Ecopetrol S.A. submitted the 2020 Report on the Implementation of Code of Best Corporate Practices of Colombia, which can be found at www.superfinanciera.gov.co and www.ecopetrol.com.co

In response to the crisis caused by the COVID-19 pandemic and the fall in international oil prices and its impact on Ecopetrol, the Board of Directors and its Management, in line with best corporate governance practices and ensuring the Company’s governance, transparency and

control environment, took a series of general decisions to enable new technologies, strengthen the institutional culture, innovate its operations, adopt TESH criteria (Technology, Environment, Social and Governance) and continue on the energy transition path.

1. The Corporate Governance Model of the Ecopetrol

Ecopetrol has a clear and solid Corporate Governance System consisting, among others, of dynamic elements that require constant analysis and improvement, while taking into account the changing circumstances that affect the environment and the organization.

2020 in particular put to the test the Corporate Governance System of both Ecopetrol and its Group, proving that it was a sufficiently robust pillar for the

operation and the timely rendering of key decisions during the crisis.

Ecopetrol’s Corporate Governance System also enables the TESH strategy, where the dimension corresponding to governance is exercised through internal practices and rules that comprise said system, which in turn provide clarity to the decision-making process and offer confidence to its stakeholders, as detailed below:

Ecopetrol Group results are guided by the analysis and decisions undertaken by diverse stakeholders



Stakeholders

- Shareholders and investors
- Society and the Community
- The National state
- Suppliers
- Employees, retirees and beneficiaries
- Clients
- Associates and partners



Corporate governance ensures:

- Adequate decision-making by governance bodies
- Organizational trust and reputation
- Synergies between Group companies
- Enduring sustainable results and valuable relationships

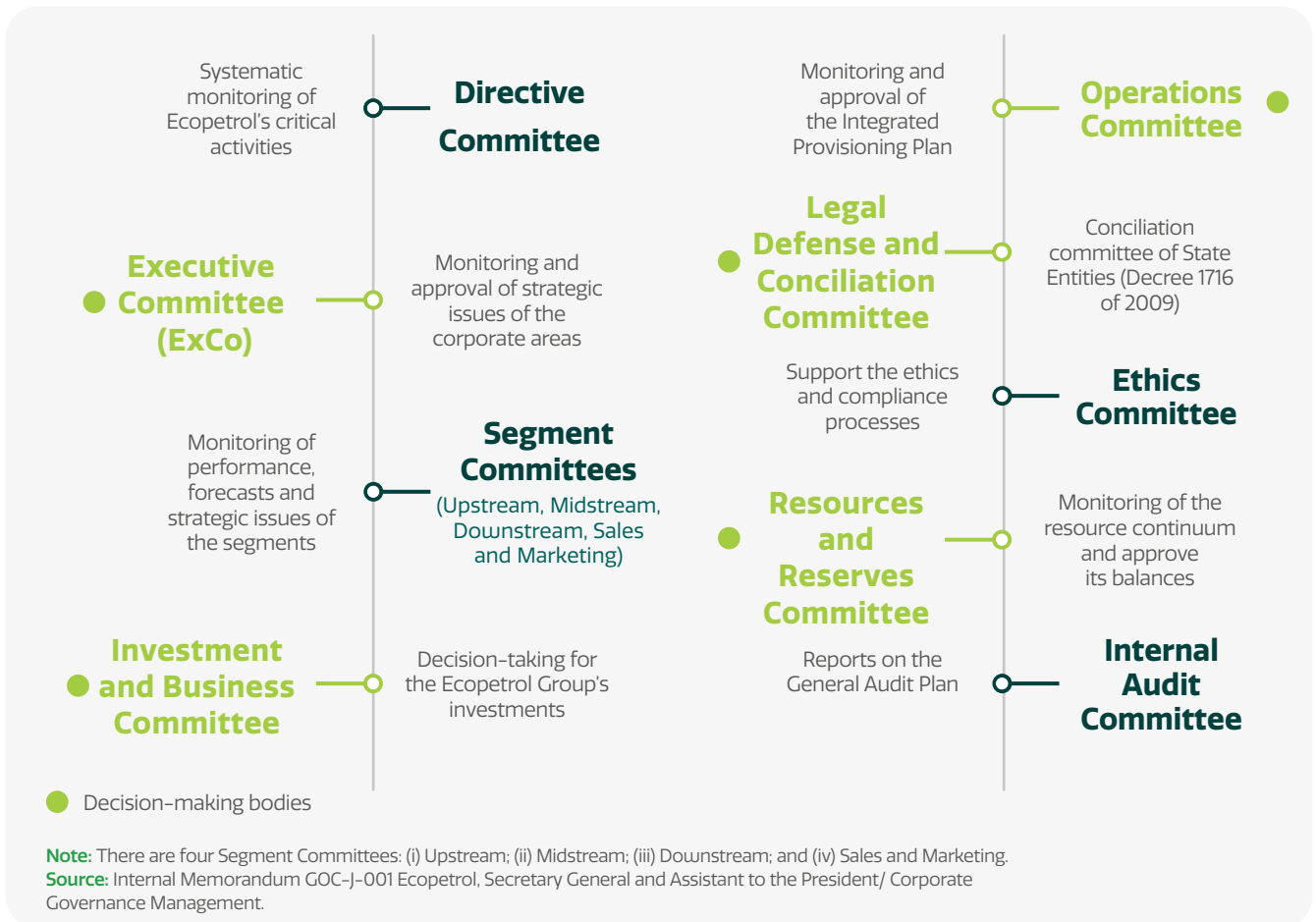
Source: Ecopetrol, Secretary General and Assistant to the President

The Corporate Governance Model is managed through Ecopetrol’s Corporate Governance System, which aims to provide a framework for action that is aligned with the corporate strategy, while constantly considering the internal and external context of the organization in order to provide a platform for the management and decision-making processes of the governing bodies and of the Ecopetrol Group in general, as well as to promote synergies and cooperation between Ecopetrol and the Group’s companies.

Included in the strategic guidance role exercised by Ecopetrol’s Board of Directors and its Corporate Governance and Sustainability Committee is the responsibility to ensure the good corporate governance of Ecopetrol and the Group. 2020 tested the Corporate Governance Model in the face of unforeseen and critical situations, confirming that the updating and strengthening process that concluded in 2019 contributed in terms of value, agility, clarity and consistency, demonstrating that the company has a solid structure regarding: i) the decision-making processes; ii) assertive relationships between Group companies, and; iii) effective management of senior management decision-making bodies.

The main elements that comprise the Corporate Governance System, which allow for the integrated articulation of the Company’s key decision-making process, are the following:

- 01** The Board of Directors of Ecopetrol has adopted the highest national and international corporate governance standards for securities issuers, such as those recommended and established by the Organization for Economic Cooperation and Development (OECD), the New York Stock Exchange and the Financial Superintendence of Colombia. Based on the good practices implemented, our Board of Directors has issued guidelines to the boards of directors of the Ecopetrol Group companies, with the purpose of strengthening their strategic alignment with the parent company.
- 02** Ecopetrol’s Steering Committees, the collegiate bodies who serve as a management tool to support the Company’s President are:



Progress was achieved during 2020 in the consolidation and adherence to the good governance practices defined and directed through segment management at the Ecopetrol Group level. The strengthening and strategic alignment leveraged in the different governance bodies is noteworthy, particularly through the boards of directors of the companies that comprise the Group and the Segment Committees.

The Boards of Directors and Senior Management Committees made progress in defining and improving the handling of deadlines for the submission of material, which contributed to better session planning and a more active participation of its directors and members.

The decision-making model, launched in 2019 with the development and implementation of the “Decisions and Attributions Matrix” tool, has been further reinforced thanks to rigorous management and a review and continuous improvement process. This has led to security, solidity and consistency in the Group’s decision-making process, to the extent that it serves as support to the different instances involved in the decision-making process, while providing a general context for each decision process on the different matters, which allows the process to flow quickly and clearly.

Furthermore, the Relationship Model that was launched during the second semester of 2019, which contains the parameters for interaction between the parent company and the other Group companies in an effort to promote synergies within the Group, made positive progress in its implementation during 2020, closing with 87% compliance in relation to the plans foreseen for 2021. Additionally, **four** new functions were incorporated (Sales and Marketing, Drilling and Projects, Supply Chain Management and Gas), which will begin their implementation plan in 2021.

The Relationship Model has leveraged and enhanced the Group’s value through concrete achievements, of which the following stand out:

- Value synergies and economies of scale resulting from the digital model.
- Improvement in the Group’s cybersecurity maturity level.
- Integrated information flow tools for the Group’s business performance.
- Expansion of diversity and inclusion partnerships for the Group.
- Integrated environmental vision for the Group, resulting from the creation of the Group strategy.
- Self-assessment of the effectiveness of the Group’s Boards of Directors.
- Construction of the Group’s sourcing maturity baseline.
- Improvement in HSE cultural ownership at the Group level and its relationship with TRIF results.
- Coordinated efforts in terms of the Group’s press and crisis management.
- Joint and coordinated work with subsidiaries such as Hocol, Esenttia, Cenit and Reficar in the delivery of COVID-19 emergency aid.
- Standardization of the integrated sustainable management reporting model for Group companies.



For this purpose, we have designed an evaluation instrument known as the “Corporate Governance System Maturity Level Instrument” that considers, among others, the recommendations of different monitors and indicators such as the Dow Jones Sustainability Index-Latin America Integrated Market (DJSI-MILA), Merco, Country Code, and Good Governance Report. The instrument was applied for the first time at the end of 2020 in order to determine the baseline that will enable us to establish goals and gaps to be closed.

Ecopetrol’s entry into the DJSI-MILA, where corporate governance is considered one of the most important elements, confirms the need to continue working towards adhesion, striving towards continuous improvement and maintaining focus on new issues derived from a changing global context. For Ecopetrol and its Group, corporate governance is a key lever of the TESG strategy where governance is exercised through the Corporate Governance System.

Thus, within the framework of Ecopetrol’s TESG strategy, Corporate Governance priorities for 2021 will focus mainly on:

- Continuing with the implementation of tools that enable greater management agility within the corporate bodies.
- Digitalizing information flows and automatizing the decision-making processes.
- Developing dynamic plans for the dissemination of Corporate Governance practices for Group

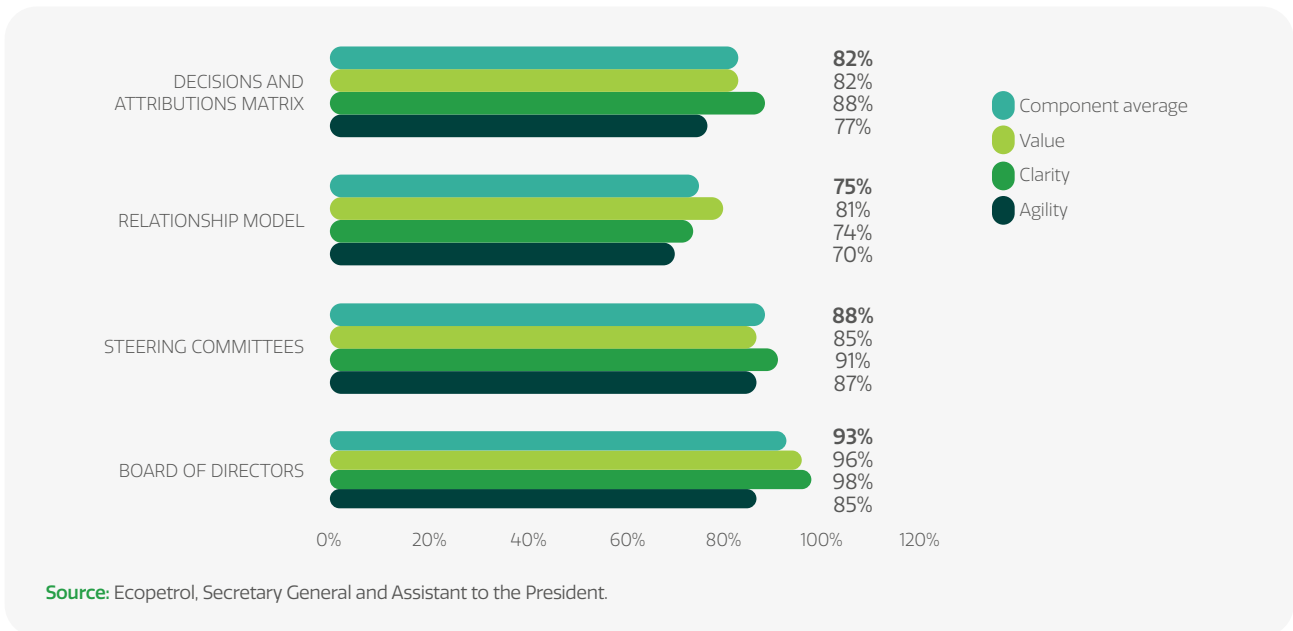


QR CODE EXTERNAL MEASURES RESULTS

companies, within the framework of the Ecopetrol Culture Statement.

- Enhancing the training of Ecopetrol Group companies’ board members.
- Moving forward in the implementation of the formation boards of directors whose board members are appointed based on diversity and inclusion criteria, among other criteria.

During the last quarter of 2020, we focused on closing in on the objectives and monitoring the planned indicators in order to maintain the acquired levels of maturity and adherence to the Corporate Governance Model. In December 2020 we employed a survey to measure the perception level of the organization’s leaders regarding the agility, clarity and value of the Corporate Governance practices with respect to the main components of the Corporate Governance System, the results are shown below:

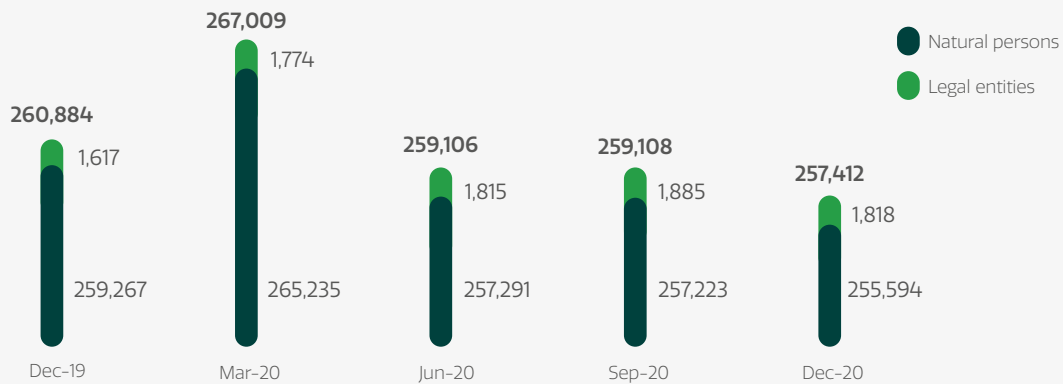


2. Ownership Structure of Ecopetrol S.A

2.1. Capital, ownership and shareholder structure

As of December 31, 2020, the total number of Ecopetrol S.A. shareholders was 257,412, representing a variance of -1.3% with respect to the number of shareholders as of December 2019.

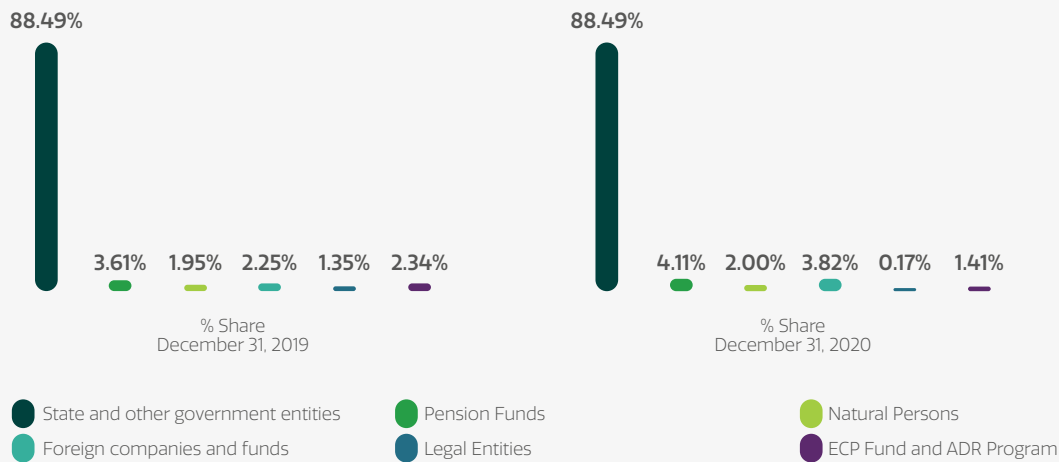
Changes in the number of shareholders



Source: Ecopetrol S.A., Corporate Vice Presidency of Finance

It is worth noting that in Ecopetrol’s shareholder structure as of December 31, 2020, there was a 0.5% increase in the interest held by Colombian Pension and Severance Funds and a 1.5% increase in interest held by Foreign Funds and Companies.

Ecopetrol Shareholding Structure



Source: Ecopetrol S.A., Corporate Vice Presidency of Finance

2.2. Identification of Main Shareholders

The following table lists the twenty-five (25) largest shareholders by number of shares as of December 31, 2020:

INVESTOR	No. of shares December 2020	% Shares December 2020
MINISTERIUM DE HACIENDA COLOMBIA	36,384,788,817	88.49%
JPMORGAN CHASE BANK NA FBO HOLDERS OF DR ECOPETROL	579,313,120	1.41%
FONDO DE PENSIONES OBLIGATORIAS PORVENIR MODERADO	422,749,576	1.03%
FONDO BURSATIL ISHARES COLCAP	338,193,411	0.82%
FDO DE PENSIONES OBLIGATORIAS PROTECCION MODERADO	310,036,828	0.75%
FONDO DE PENSIONES OBLIGATORIAS COLFONDOS MODERADO	142,189,272	0.35%
FONDO PENSIONES OBLIGATOR. PORVENIR MAYOR RIESGO	140,706,559	0.34%
FONDO DE PENSIONES OBLIGATORIAS PROTECCION MAYOR R	114,539,545	0.28%
FONDO BURSATIL HORIZONS COLOMBIA SELECT DE S&P	107,756,364	0.26%
SKANDIA FONDO DE PENSIONES OBLIGATORIAS-MODERADO	82,208,942	0.20%
ABU DHABI INVESTMENT AUTHORITY J.P. MORGAN	75,792,740	0.18%
VANGUARD TOTAL INTERNATIONAL STOCK INDEX FUND	71,166,561	0.17%
FONDO DE CESANTIAS PORVENIR	52,122,636	0.13%
FONDO DE PENSIONES OBLIGATORIAS PROTECCION RETIRO	49,649,274	0.12%
FDO PENS OBLIGATORIAS COLFONDOS MAYOR RIESGO	47,587,269	0.12%
VANGUARD EMERGING MARKETS STOCK INDEX FUND	39,691,902	0.10%
FONDO DE CESANTIAS PROTECCION- LARGO PLAZO	39,220,171	0.10%
ISHARES CORE MSCI EMERGING MARKETS ETF	37,125,753	0.09%
SKANDIA FONDO DE PENSIONES VOLUNTARIAS	35,716,225	0.09%
FONDO ESPECIAL PORVENIR DE RETIRO PROGRAMADO	30,842,953	0.08%
FONDO PENSIONES OBLIGATORIAS PORVENIR CONSERVADOR	28,032,321	0.07%
MSCI EQUITY INDEX FUND B - COLOMBIA	22,272,541	0.05%
FONDO DE PENSIONES OBLIGATORIAS PROTECCION CONSERVADOR	21,877,330	0.05%
SKANDIA FONDO DE PENSIONES OBLIGATORIAS-MAYOR RIESGO	21,847,952	0.05%
THE BANK OF NOVA SCOTIA	20,809,305	0.05%

Source: Ecopetrol S.A., Corporate Vice Presidency of Finance

According to the Code of Best Corporate Practices in Colombia⁴, no shareholder in Ecopetrol other than the State individually holds a “significant interest” therein (equivalent to 10% or more of

the outstanding shares). In accordance with the authorized share capital process, the State must retain at least eighty percent (80%) of the outstanding voting shares⁵.

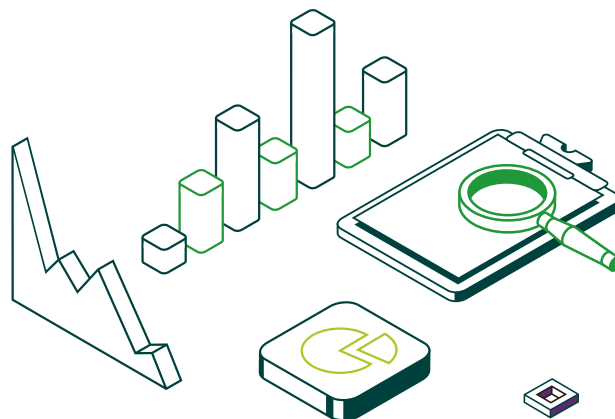
⁴ Financial Superintendence of Colombia, External Circular No. 028 of 2014
⁵ Article 2, Law 118 of 2006.

2.3. Share trading

During 2020, no Ecopetrol Administrator requested authorization from the Board of Directors to sell their Company shares.

2.4. Family, commercial, contractual or corporate relationships between owners of significant shareholdings and the Company, or between owners of significant shareholdings and each other.

Transactions between companies within the Ecopetrol Group may be found in the Special Report of the Ecopetrol Group, pursuant to the provisions set forth in Article 29 of Law 222 of 1995, as well as numerals 7 and 8 of this report titled “Operations with Related Parties” and “Conflicts of Interest”.



2.5. Share Capital

The following table shows Ecopetrol’s share capital as of December 31, 2020, which did not present any variation as of December 31, 2019:

ECOPETROL AUTHORIZED CAPITAL	COP \$36,540,000,000,000*
TOTAL SHARES	60,000,000,000
PAR VALUE	COP \$609**

Source: Ecopetrol S.A., Corporate Vice Presidency of Finance

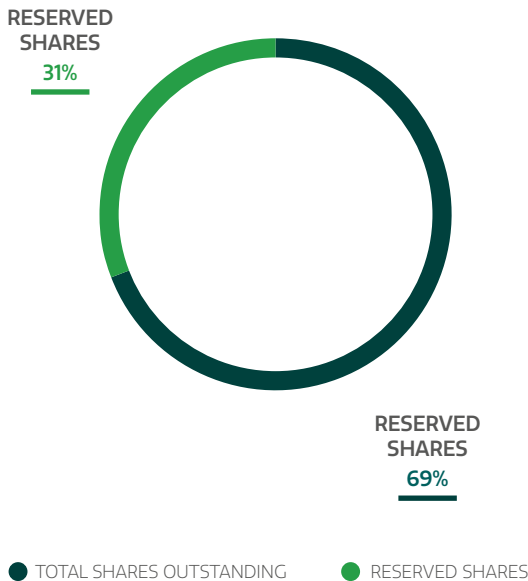
* Equivalent to US\$10,645,302,258

** Equivalent to US\$0.18

These figures were calculated using the Market Exchange Rate as of December 31, 2020: \$3.432,50

Ecopetrol S.A. shares are registered ordinary shares that confer the owner equivalent rights to the corporate assets and benefits distributed thereto; each provides the right to vote in the deliberations of the General Shareholders’ Meeting, within the established legal constraints. There are no company-held shares.

ECOPETROL S.A. SHARES



Source: Ecopetrol S.A., Corporate Vice Presidency of Finance

2.6. Shareholders' Agreement

In accordance with the commitment incorporated in the Declaration of the State, in its capacity as majority shareholder of Ecopetrol S.A., ratified on February 16, 2018 and by the Company's Bylaws in force, the State must include within its candidate ballot list, in the ninth line, an individual chosen by the ten minority shareholders with the greatest shareholding. Consequently and derived from the foregoing, said shareholders must subscribe a Shareholders' Agreement in the years corresponding to

the appointment and election of the Board of Directors members, wherein they nominate the candidate they wish the Ministry of Finance and Public Credit to include in the candidate ballot list it will submit to the General Shareholders' Meeting.

No Board members were appointed and elected in 2020, given the term of the Board of Directors elected in 2019 runs until 2021.

3. General Shareholders' Meeting

3.1. Operation of the General Shareholders' Meeting: Compliance with minimum regulatory requirements and adoption of best corporate governance practices

As a demonstration of its commitment to transparency and the protection of our shareholders, Ecopetrol has implemented the following practices that surpass the minimum legal requirements:



Extended call period:

The call for ordinary meetings is made thirty (30) calendar days in advance of the date in which the meeting will take place, and fifteen (15) calendar days in the case of extraordinary meetings. In this manner, our shareholders have ample time to review the Company's reports in order to make their decisions.

Information related to the call for the General Shareholders' Meeting was circulated on Facebook and Twitter.

Meeting reminder:

On the Sunday prior to the ordinary or extraordinary meeting convened, the Administration reminds its shareholders through a posting on the corporate website and by publishing a reminder in a newspaper with widespread distribution, including the date of the meeting and the proxy representation mechanism therein.

Publishing of documents:

Ecopetrol publishes on its website the supporting documents for the General Shareholders' Meeting, such as the call notice, meeting reminder, agenda, proposals by the Administration and resumes of the candidates nominated to serve as members of the Board of Directors and Statutory Auditor.

Live broadcast:

In 2020, due to the exceptional situation arising from the COVID-19 pandemic, for the first time the Shareholders' Meeting was held virtually. However, our shareholders were able to follow the Meeting through our website and the live broadcast on the national Institutional Channel.

Publishing of minutes:

Our shareholders and the general public may access the complete text of the minutes on the Company's website.



QR CODE OF MINUTES OF THE GENERAL SHAREHOLDER'S MEETING

Commitments of the majority shareholder:

Since July 26, 2007 and to date, the State, as majority shareholder, has committed to:



Deliberating and deciding on the allocation of assets whose amount is equal to or greater than 15% of the market capitalization of Ecopetrol in the General Shareholders' Meeting, and the State voting only in assent thereof if the vote of the minority shareholders is equal to or greater than 2% of the shares held by shareholders other than the State.



Supporting with its vote at the extraordinary meetings of the General Shareholders' Meeting the initiatives aimed at allowing the inclusion of additional topics to those foreseen in the agenda, if these are submitted by one or more shareholders representing by at least two percent (2%) of the outstanding shares.

3.2. General Shareholders' Meeting

The ordinary General Shareholders' Meeting of March 27, 2020 was successfully held for the first time virtually, due to the exceptional situation arising from the COVID-19 pandemic.

To facilitate the adequate representation of its shareholders, Ecopetrol, after review and authorization by the Financial Superintendence of Colombia and the Superintendence of Corporations, provided a digital proxy system through which our shareholders were represented by attorneys that the Company made available to them, and enabled them to issue their voting directives. The instructions for the use of this system, the list of proxies, as well as the forms provided were made available on our website.

The call notice was published on the website and in *El Tiempo*, a newspaper with widespread national circulation, thirty (30) calendar days in advance thereof. Likewise, taking into account the measures adopted by Ecopetrol in response to the pandemic caused by COVID-19, the call notice was published on March 25, 2020 on the website and in *El Tiempo*.

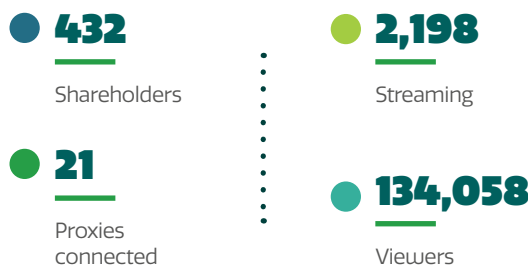


During the 2020 General Shareholders' Meeting, there were 2,198 connections via streaming and 134,048 viewers through the institutional channel.

During the legal and statutory term of fifteen (15) business days prior to the General Shareholders' Meeting, the relevant documents were available to our shareholders for the exercise of their right of inspection.

The ordinary General Shareholders' Meeting met the deliberative and decisive quorum required by law⁶. Our shareholders, through their proxies, exercised their right to vote and the items on the agenda subject to voting were approved. The Chairperson of the Board of Directors of Ecopetrol attended the meeting, two (2) members of the Board of Directors intervened and the other seven (7) followed the broadcast.

In accordance with the securities market regulations applicable to Ecopetrol S.A., a copy of the Minutes was sent to the Financial Superintendence of Colombia within the fifteen (15) business days following the General Shareholders' Meeting.



⁶ In accordance with article 2.2.2.1.16.1 of Decree 398 of 2020, the legal representative must record in the minutes the continuity of the necessary quorum throughout the meeting. Likewise, he must carry out the identity verification of the virtual participants to guarantee that they are indeed the shareholders, their proxies or the members of the board of directors.

Main decisions adopted in the meeting:

- Approval of the amendment of Ecopetrol’s Internal Regulations of the General Shareholders’ Meeting.
- Approval of the Management reports.
- Approval of the separate and consolidated audited Financial Statements as of December 31, 2019.
- Approval of the profit distribution of COP\$180 pesos per share. The dividends of the minority

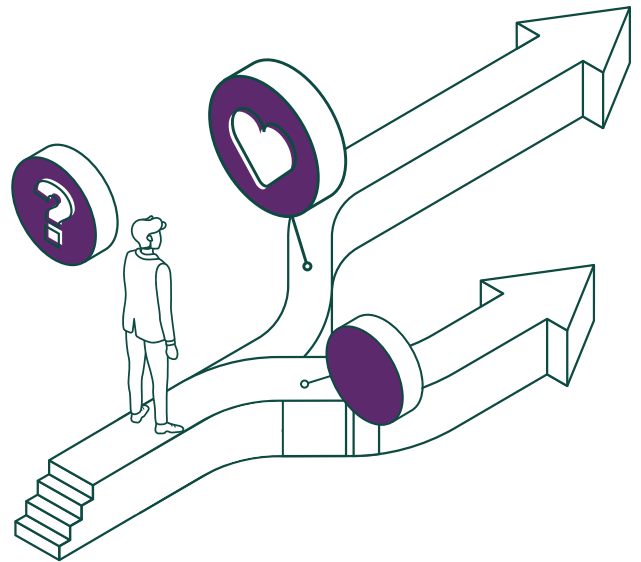
shareholders are to be paid in a single installment on April 23, 2020. The dividends to the majority shareholder are to be paid in two installments, on April 23 (14% of the dividend) and in the second half of 2020 (86% of the dividend).

- Approval of the amendment to the Bylaws.

Measures adopted by Ecopetrol to ensure adequate representation of its shareholders

Through its Board of Directors, Ecopetrol adopted the following measures for the adequate representation of our shareholders, which were disclosed to the market in general through the Financial Superintendence of Colombia and our website:

- Direct the Company’s Administration to inform shareholders on their right to be represented via the appointment of a proxy, and specify the legal requirements for completing the proxy form necessary for granting the latter.
- Direct the Company’s workers who review the proxy forms submitted by shareholders, that they may not accept as valid those that fail to meet the minimum requirements set forth in the law, and that they should not accept proxy forms where the name of the respective proxy is not clearly established.
- Direct the Company’s Administration to inform administrators and workers of the Company that they cannot recommend shareholders to vote on a certain candidate ballot list.
- Direct the Company’s Administration to inform administrators and workers of the Company that they should not offer suggestions, coordinate or come to an agreement with the shareholders regarding the submission of proposals at the Meeting.
- Direct the Company’s Administration to inform the administrators and workers that they should not offer suggestions, coordinate or come to an agreement with the shareholders regarding voting in favor or against any proposal presented at the Meeting.



- Ensure the Administration informs shareholders they may not select as their proxies any person directly or indirectly associated with the administration or the workers of Ecopetrol S.A.
- Ensure the administrators adopt all the necessary measures so that the Company’s workers labor under neutrally in relation to the different shareholders.
- Appoint the General Secretary of Ecopetrol S.A. as the employee responsible for verifying proper compliance with the previous measures.
- Appoint the Legal Vice Presidency as the area responsible for the review of the proxy forms.

3.3. Shareholder and investor engagement and communication

Ecopetrol grants equitable treatment to all shareholders, without favoring the interests of any one over the others, taking into account that each shareholder has the same rights according to the type of share they possess. Therefore, in order to guarantee shareholders the full exercise of their rights and a straightforward fulfillment of the Company’s obligations with their investors and shareholders, it offers them the same treatment in terms of addressing their requests, claims and information requirements, regardless of the worth of their investment or the number of shares it represents.



During 2020 a total of 50,774 shareholder requests were received through our service channels, and 96.79% of these requirements were addressed in a timely manner.

The complete listing of available communication channels with the Company is provided in Corporate Responsibility chapter of our Integrated Sustainable Management Report.

A total of **5,728** satisfaction surveys were conducted regarding the service received from shareholders and investors. The satisfaction levels reached **93.53%** versus a target of **90%**, resulting in a compliance rate of **103.92%**.

Other shareholder loyalty activities carried out during 2020 worth noting include:

- Shareholder Newsletter
- Attended twelve (12) international analyst and institutional investor conferences
- One “Investor Day” in New York and Boston in March and an analyst and institutional investor “Virtual Investor Day” in August

Ecopetrol S.A. has been granted the IR (Investor Relations) recognition by the Colombian Securities Exchange, highlighting our commitment with best practices in terms of information disclosure and investor relations, further information can be accessed on the website of the Colombia Securities Exchange: www.bvc.com.co.

4. Operation of the Board of Directors and its Committees

4.1. Structure of the Board of Directors

In accordance with the provisions set forth in the Bylaws, the Board of Directors of Ecopetrol S.A. is comprised of nine (9) principal members, without alternates, elected by the General Shareholders’ Meeting for periods of two (2) years through the electoral quota system, and they may be re-elected indefinitely.

This term responds to the need to provide greater stability to this Corporate Body, who in addition to their professional experience and suitability, acquire greater knowledge of the industry and the Company’s corporate strategy during the exercise of their duties. Furthermore, this term is consistent with the term of the Board’s Chairperson and Statutory Auditor.

In addition, the structure of the Board of Directors complies with the following legal and statutory criteria, as well as with Corporate Governance best practices:



QR CODE CORPORATE BYLAWS

Profile	<p>Have knowledge and experience in the activities pertaining to the Company's corporate purpose and/or have knowledge and experience in the industrial and/or commercial, financial, securities, administrative, legal or related sciences field;</p> <p>Have over 15 years of professional experience;</p> <p>Have a good reputation and be recognized for their professional competency and integrity;</p> <p>Not belong simultaneously to more than five (5) boards of directors of corporations including that of Ecopetrol.</p>
Appointment	A member of the Board may be appointed in a personal capacity or for a specific position.
Independents	The majority of the candidates to the Board of Directors must be independent.
Experts	At least one candidate must be an expert in financial matters, in accordance with the provisions of the applicable securities market regulations of the US government
Minorities and hydrocarbon producing departments	The eighth (8th) and ninth (9th) candidates in the ballot list for the Board of Directors are individuals nominated by departments that are hydrocarbon producers exploited by Ecopetrol S.A. and by the ten (10) minority shareholders holding the largest interest.
Gender, diversity and inclusion	Shareholders who wish to nominate a list of candidates to the Board of Directors must consider diversity, gender and inclusion criteria thereof.

4.2. Appointment process for the members of the Board of Directors

The current members of the Board of Directors were elected by the General Shareholders' Meeting on March 29, 2019 and their term runs until March 2021. The structure of the Board is the following:

Board of directors

9
Members



Structure as of December 31, 2020

Independent members

- Luis Guillermo Echeverri 
- Orlando Ayala
- Juan Emilio Posada
- Sergio Restrepo 
- Luis Santiago Perdomo 
- Esteban Piedrahita
- Hernando Ramírez
- Carlos Gustavo Cano 

Non-independent member

Secretary general of the ministry of finance and public credit

(Germán Quintero Rojas)

(Until January 12, 2021)



The Chairperson and Vice-Chairperson are independent Board members



Experts in finance

Currently all Members of the Board of Directors are independent

Source: Ecopetrol, Secretary General and Assistant to the President

The candidate list for said election was submitted by the majority shareholder of Ecopetrol S.A., the State, represented by the Ministry of Finance and Public Credit. Without prejudice to the foregoing, the other shareholders have the same right to submit alternate candidate lists to that proposed by the majority shareholder, yet all candidate lists for consideration by the General Shareholders' Meeting must comply with the requirements set forth in the Corporate Bylaws.

It is worth noting that once elected, Board members represent all shareholders, and therefore do not act in the interest of particular shareholders or groups of shareholders. In accordance with their fiduciary duties and obligations, Board members perform their duties in good faith, independently, with due diligence and care, ensuring that their decisions are always in the best interest of Ecopetrol.

The following is a photograph of the Board of Directors of Ecopetrol:



From left to right, standing:
Juan Emilio Posada Echeverri; Hernando Ramirez Plazas; German Quintero Rojas; Esteban Piedrahita Uribe; and Sergio Restrepo Isaza.
From left to right, seated:
Luis Santiago Perdomo Maldonado; Orlando Ayala Lozano; Luis Guillermo Echeverri Vélez; and Carlos Gustavo Cano Sanz.

4.3. Independent members of the Board of Directors

The majority of the members of the Board of Directors must be independent, in accordance with the independence criteria set forth in the paragraph two, Article 44 of Law 964 of 2005⁷.

As of December 31, 2020, none of the independent members of the Board of Directors lost their condition as such, which means that **89%** of the members (3 out of 9) satisfy the requirements for independent members, surpassing the legal minimum set by the Colombian securities market (25%, 3 out of 9 members) and that established in the Corporate Bylaws (majority, 5 out of 9 members).

No member of the Board of Directors of Ecopetrol is a member of the Board of Directors of subordinated companies nor do they hold executive positions therein.

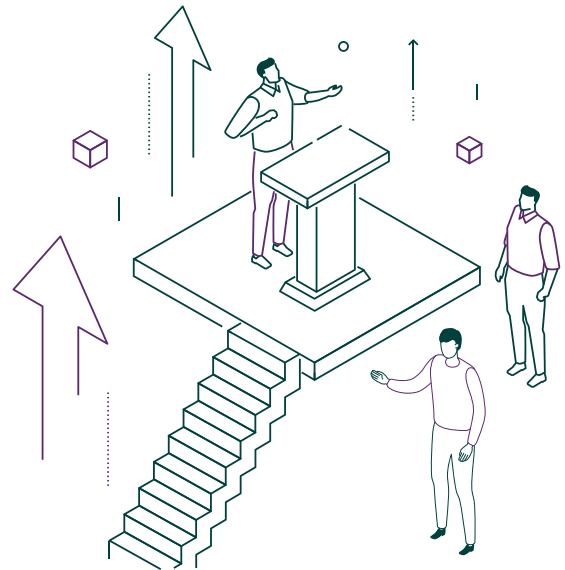
⁷ An independent member will be understood to be:

1. An employee or director of Ecopetrol S.A. or any of its affiliates, subsidiaries or controlling entities, including those who held such a position during the year immediately prior to the appointment, unless it is the re-election of an independent person.
2. A shareholder who directly or under an arrangement directs, guides or controls the majority of the voting rights of the entity or determines the controlling structure of the administrative, management or control bodies thereof.
3. A partner or employee of associations or companies that provide advisory or consulting services to the issuer or to the Companies that belong to the same economic group of which it is a part, when the income from said element represents for these 20% or more of the operational expenses of Ecopetrol S.A. or of the operating income of the advisor, consultant or supplier.
4. An employee or director of a foundation, association or company that receives significant donations from Ecopetrol S.A. Significant donations are those that represent more than 20% of the total donations received by the respective institution.
5. An administrator of an entity whose board of directors includes a legal representative of Ecopetrol S.A.
6. A person who receives from Ecopetrol S.A. any remuneration other than the fees as a member of the Board of Directors, the Audit Committee or any other Board committee.

If for any reason, any member of the Board loses their independent quality, they must notify the Secretary of the Board in writing, who will inform the Board of Directors, and will remain director as long as the minimum number of independent members established in the bylaws regarding the structure of the Board of Directors is not affected. If this number is affected, the President of the Company may call an extraordinary meeting to restructure the Board of Directors.

If the ballot list of nominated candidates submitted includes the minimum number of independent members required by law and the Bylaws, the election of all the members of the Board of Directors will be carried out in a single vote. If not, according to the procedure established in Decree 3923 of 2006 (regulating Law 964 of 2005) the election of independent members of the Board shall be carried out through independent votes of the General Shareholders' Meeting from a list of candidates that includes at minimum the number of independent members required by law and the Bylaws.

Both the Chairperson and the Vice-Chairperson of the Board are independent members.

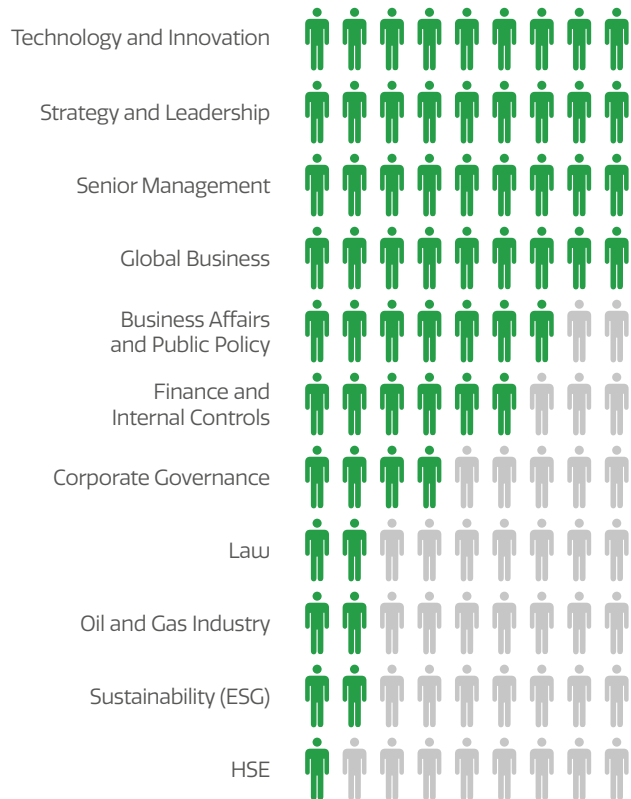


4.4. Profile of the members of the Board

The profiles of the members of the Board of Directors are reviewed and updated by the Board of Directors and the Corporate Governance and Sustainability Committee of the Board in order to attain the medium and long-term goals ascribed to the corporate strategic vision, with the help of their knowledge and diversity.

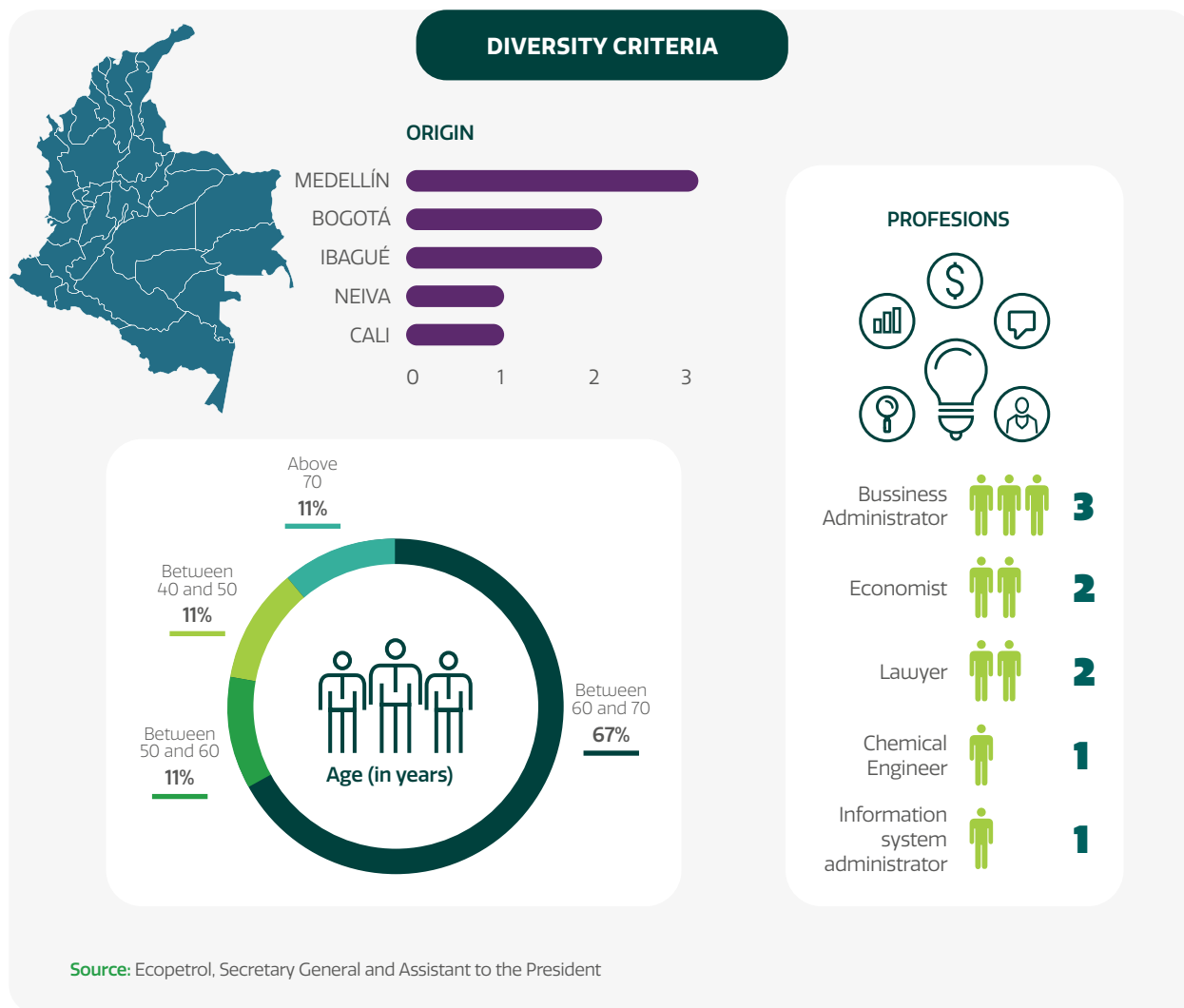
Under these terms, the experience of the members of the Board of Directors reflects the competence of this collegiate body to guide and lead Ecopetrol's current challenges:

EXPERTISE OF THE BOARD OF DIRECTORS



Source: Ecopetrol, Secretary General and Assistant to the President

In turn, the diversity of its structure enriches Board meeting discussions and those of its support committees, their professions, experience, origin and value generation to the discussions:



4.5. Composition of the Board of Directors

Bearing in mind that the current Board of Directors was elected by the General Shareholders’ Meeting at the ordinary meeting of March 29, 2019, six (6) of its nine (9) members will complete their two (2) year tenure in 2021, while Hernando Ramírez Plazas and Carlos Gustavo Cano, who were elected at the meetings of March 31, 2017 and March 23, 2018 will complete their four (4) and three (3) year tenure respectively.

As of December 31, 2020, there were no changes to the composition of the Board of Directors.

QR CODE RESUMES BOARD MEMBERS

The resumes of the members of the Board of Directors are published on our website; the following is a brief description of their academic background and professional experience, as well as their participation in the different Board Committees, and their 2020 attendance to the meetings.



Orlando Ayala Lozano

- Independent
- Information Systems Administrator, Honorary Doctorate degree.
- **Profile:** Expertise in Technology and Innovation, Strategy and Leadership, Global Business and Senior Management.
- Elected by the General Assembly of Shareholders as a member of the Board since March 29, 2019.
- **Committees:** Corporate Governance and Sustainability; Remuneration, Appointment and Culture; Technology and Innovation
- **100% (Governance and Technology) and 80% (Remuneration)** attendance to committees.
- **91%** attendance to Board of Directors meetings (39 of 43 meetings in 2020)
- Holds no shares in Ecopetrol S.A.
- **Other Boards of Directors:** *Centen Corporation and Smithsonian Stateal Museum of Natural History in Washington D.C.*



Luis Guillermo Echeverri Vélez

- Independent
- Lawyer, Masters in Agricultural Economics
- **Profile:** Expertise in Legal, Technology and Innovation, Strategy and Leadership, Corporate Governance, Government and Public Policy Affairs, Global Business and Management.
- **Committees:** Technology and Innovation (**Chairperson**), Corporate Governance and Sustainability
- **100%** attendance to Committee meetings.
- **98%** attendance to Board of Directors meetings (42 of 43 meetings in 2020)
- Holds no shares in Ecopetrol S.A.
- **Other Boards of Directors:** Chairperson of the Board of the Bogotá Chamber of Commerce, member of the Boards of Telefónica S.A. and Pragma S.A.



Germán Quintero Rojas

- Non-independent – Secretary General of the Ministry of Finance and Public Credit
- Lawyer, Specialist in Administrative Law.
- **Profile:** Expertise in Senior Management, Legal, Strategy and Leadership, Corporate Governance, Government and Public Policy Affairs, Global Business and Industry .
- Elected by the General Assembly of Shareholders as a member of the Board since March 29, 2019
- **Committees:** **Remuneration, Appointment and Culture;** HSE; Technology and Innovation
- **100%** attendance to Committee meetings
- **95%** attendance to Board of Directors meetings (40 of 43 meetings in 2020)
- Holds no shares in Ecopetrol S.A.
- **Other Boards of Directors:** Financiera de Desarrollo Nacional (FDN) and Gecelca S.A. E.S.P.



Juan Emilio Posada Echeverri

- Independent
- Business Manager, MBA, title in International Financial Law
- **Profile:** Expertise in Senior Management, Finance and Internal Controls, Strategy and leadership, Corporate Governance, Government and Public Policy Affairs and Global Business.
- Elected by the General Assembly of Shareholders as a member of the Board since March 29, 2019
- **Committees** Remuneration, Appointment and Culture (Chairperson); Audit and Risks; Business; Corporate Governance and Sustainability
- **100%** attendance to Committee meetings
- **100%** attendance to Board of Directors meetings (43 of 43 meetings in 2020)
- Holds no shares in Ecopetrol S.A.
- **Other Boards of Directors:** Financiera de Desarrollo Nacional (FDN) and Sociedad de Acueducto de Alcantarillado y Aseo de Barranquilla S.A. E.S.P.



Sergio Restrepo Isaza

- Independent
- Business Manager, MBA
- **Profile:** Expertise in Senior Management, Strategy and Leadership, Corporate Risks, Finance and Internal Controls, Corporate Governance, Global Business
- Elected by the General Assembly of Shareholders as a member of the Board since March 29, 2019
- **Committees:** Audit and Risks (**Chairperson and expert in financial, audit and corporate risk matters**); Business; and Technology and Innovation.
- **100%** attendance to Committee meetings
- **100%** attendance to Board of Directors meetings (43 of 43 meetings in 2020)
- Holds no shares in Ecopetrol S.A.
- **Oher Boards of Directors:** Odinsa S.A., Grupo BIOS S.A.S., and Consorcio Financiero (Chile).



Luis Santiago Perdomo Maldonado

- Independent
- Business Manager
- **Profile:** Expertise in Senior Management, Finance and Internal Controls, Strategy and Leadership, Industry, Government and Public Policy Issues, Sustainability (ESG), Global Business
- Elected by the General Assembly of Shareholders as a member of the Board since March 29, 2019
- **Committees:** Audit and Risk; Remuneration, Appointment and Culture; Technology and Innovation
- **89%** (Remuneration) **93%** (Audit) and **100%** (Technology) attendance to Committee meetings
- **95%** attendance to Board of Directors meetings (41 of 43 meetings in 2020)
- Hols no shares in Ecopetrol S.A.
- **Other Boards of Directors:** Mineros S.A.



Esteban Piedrahíta Uribe

- Independent
- Economist, Master in Philosophy and History of Science
- **Profile:** Expertise in Senior Management, Finance and Internal Controls, Strategy and Leadership, Government and Public Policy Affairs, and Technology and Innovation.
- Elected by the General Assembly of Shareholders as a member of the Board since March 29, 2019
- **Committees:** Corporate Governance and Sustainability (**Chairperson; Remuneration, Appointment and Culture;** Business.
- **100%** (Governance) attendance to Committee Meetings
- **98%** attendance to Board of Directors meetings (42 of 43 meetings in 2020)
- Holds no shares in Ecopetrol S.A.



Hernando Ramírez Plazas

- Independent - Nominated by the hydrocarbon producing departments
- Chemical Engineer, Masters in Public Health, Specialist in Gas Engineering
- **Profile:** Senior Management, Finance and Internal Controls, HSE, Strategy and Leadership, Government and Public Policy Issues, Technology and Innovation expertise
- Board member since March 23, 2018
- **Committees:** HSE (Chairperson); Audit and Risks; Business
- **100%** attendance to Committee Meetings
- **95%** attendance to Board of Directors meetings (41 of 43 meetings in 2020)
- Holds no shares in Ecopetrol S.A.
- **Boards of Directors:** None.



Carlos Gustavo Cano Sanz

- Independent- Nominated by the minority shareholders
- Economist, Masters in Economics, Government, Business and International Economics
- **Profile:** Senior Management, Finance and Internal Controls, Sustainability (ESG), Government and Public Policy Issues, Global Business expertise
- Board member since March 31, 2017
- **Committees:** Business (Chairperson); Corporate Governance and Sustainability; HSE; Technology and innovation
- **100%** attendance to Committee meetings
- **100%** attendance to Board of Directors meetings (43 of 43 meetings in 2020)
- Holds no shares in Ecopetrol S.A.
- **Other Boards of Directors:** Minka S.A.S

Source: Ecopetrol S.A., Secretary General and Assistant to the President.

Note: All absences were reported to the Secretary General.

Chairperson, Vice-Chairperson and Secretary of the Board of Directors

The duties of the Chairperson, Vice-Chairperson and Secretary of the Board of Directors are provided in the Board's Internal Charter, and are substantially different from those assigned to the President of Ecopetrol S.A. in the Corporate Bylaws

In 2019, the Board of Directors elected Luis Guillermo Echeverri and Carlos Gustavo Cano as Chairperson and Vice-Chairperson of the Board of Directors, respectively, who to date and due to their term of office remain in said positions.

During 2020, the Chairperson of the Board of Directors led and guided the management and communication among the Directors; he established, along with the Secretary, the suggested agenda for each Board meeting,



QR CODE INTERNAL
REGULATION BOARD
OF DIRECTORS

prioritizing those issues considered critical and material for the Company.

During 2020 the Secretary of the Board of Directors was Mónica Jiménez González, General Secretary of Ecopetrol, who fully performed the activities and duties contemplated in the internal charter of the Board of Directors.

4.6. Remuneration for the members of the Board of Directors

The amount of the fees paid to the members of the Board of Directors of Ecopetrol S.A. amounts to six (6) minimum monthly salaries in force (SMLMV for its Spanish acronym), which for 2020 was equivalent to COP \$5,266,818 per session of the Board of Directors and/or its Committees⁸.

The total fees paid out to the Board of Directors during 2020 was COP \$3.101.758.290⁹.

The Board members, as their personal contribution towards the unusual situation experienced this year, waived their fees corresponding to the fifteen (15) extraordinary meetings held to address the crisis. The value of said waiver amounted to COP \$ 689,953,158.

Board members do not receive any sort of variable remuneration.



4.7. Duties and responsibilities of the Board of Directors

In accordance with the provisions set forth in the Bylaws, the Board of Directors is the highest administrative body of Ecopetrol S.A. and is responsible for defining and implementing Ecopetrol Group's strategic direction. It acts in the best interests of its shareholders' rights and the Company's sustainability and growth; all of the above in following with the provisions set forth in the Board of Directors' Internal Charter, which was updated in 2020.

⁸ In accordance with decision recorded in Minutes No. 026 of 2012 issued by the General Shareholders' Meeting.
⁹ COP \$305.077.932 correspond to payment of fees to the year 2019.

4.8. Operation of the Board of Directors, decision-making procedures and data management

During the period a total of forty-three (43) sessions were held, broken down as follows: twelve (12) ordinary, twenty-four (24) extraordinary and in seven (7) of them decisions were deliberated and decided through votes by circulation. Of the extraordinary sessions, fifteen (15) had the sole purpose of addressing the crisis resulting from the COVID-19 pandemic and the fall in international oil prices.

Of the 43 meetings 9% were in person, while of the remaining 91%, 75% were held remotely and 16% were votes by circulation.

Total attendance of Board members to the meetings was 97%. The schedule of the meetings was previously approved by the Board members and their call was ratified by the Secretary General with due notice, who interacted on a permanent basis with the Chairperson of the Board of Directors to determine the suggested agenda for each meeting, prioritizing strategic and critical issues.

Deliberations by the Board of Directors are carried out with five (5) or more of its members present, and decisions were approved unanimously.

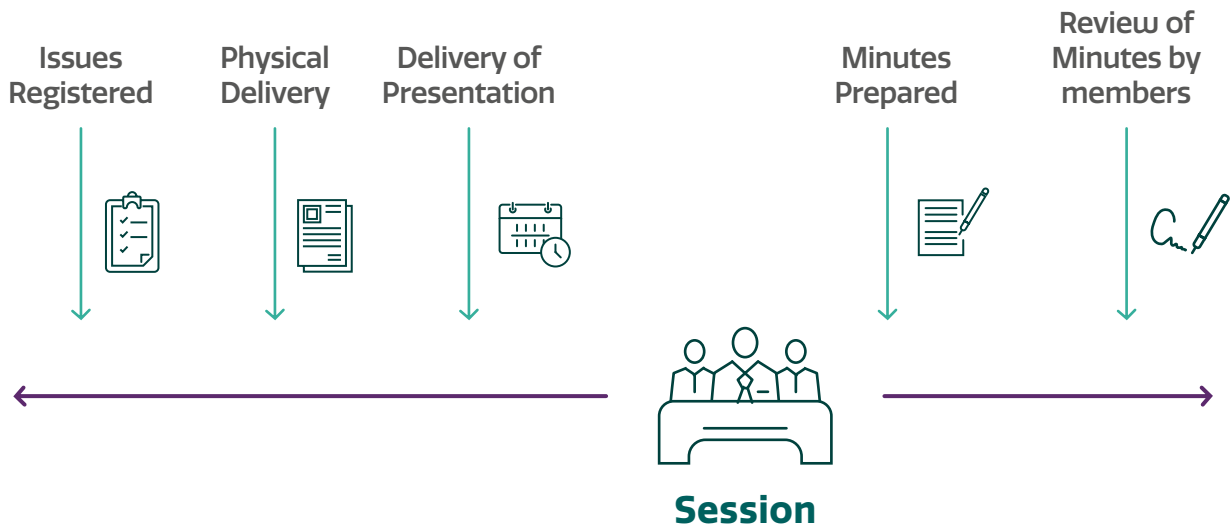
Ecopetrol relies on internal mechanisms and deadlines in order to ensure that the basic information on the matters to be deliberated by the Board is sent to the board members in advance, so as to allow them to be informed and prepared prior to the respective meeting.

During 2020, the Board of Directors and its Committees reviewed 300 matters and approved 100 items, in accordance with their duties.

The decision-making process within the Board of Directors guarantees that in each stage the decisions are made in an informed manner, respecting the powers granted to the different internal bodies, so it may focus on the addressing of strategic issues.

The Secretary General organizes the issues to be addressed according to the corresponding subject matter and assigns them to the different Board of Directors' Supporting Committees, according to the competence of each, as established in the internal regulations that govern them. Each of the Board of Directors' Supporting Committees studies and analyzes the issues submitted for consideration, with the purpose of issuing a recommendation to the Board of Directors, which, after hearing the recommendation of the respective Committee, adopts the necessary decisions.

The following graph illustrates the aforementioned process:



The most relevant issues analyzed by the Board of Directors

The reality of 2020 was markedly different from that of previous years, both for the country and the Company. Therefore, the Board of Directors predominantly focused its efforts on analyzing issues related to the short, medium and long-term strategy in order to ensure Ecopetrol’s sustainability, as follows:



Strategic

- Energy transition and TESG.
- Decarbonization and fugitive emissions.
- Integrated divestment program for Ecopetrol Group.
- Non-strategic asset divestment.
- Human rights.
- Technology and innovation Plan and Digital Agenda.
- Skateholder management.



Financial

- 2020 - 2022 Financial Plan.
- Restatements of 2020 Financial Plan.
- 2020 Financing policy.
- Quarterly and annual financial statements.
- Profit distribution.
- Hedging policy.
- 20F Report.
- Quarterly and annual reports on reserves.
- 2021 - 2023 Financial Plan.



Risk

- Corporate Risk Map.
- Activities for the prevention of Money Laundering and Financing of Terrorism.
- Cybersecurity.
- Updates to the procurement process.



Human Talent

- Cultural Statement.
- 2021 - 2023 Balanced Scorecard (BS).
- 2021 Variable Compensation Plan.
- Long-term incentives and salary increase.
- CEO evaluation.
- Talent review.
- Retirement plan.
- New Normal Office Project.



Corporate Governance

- Policies to ensure Ecopetrol’s sustainability.
- Support and interaction between the Committees and the Board of Directors to structure the decision-making process.
- Corporate policies to address the 2020 crisis.
- Assessment of the Board of Directors.
- Succession policy for the CEO of Ecopetrol S.A. and the Board of Directors.
- Sustainable Management Report.
- Statutory amendment.
- Amendment to the internal Charter of the General Shareholders’ Meeting, the board of Directors and its Supporting Committee.

The Board of Directors, during strategic sessions held in January and February 2019, reviewed and approved the 2020+ Strategy and the 2019-2021 Business Plan, analyzed potential scenarios on global and domestic energy transition, including risks and opportunities for the Ecopetrol Group as groundwork for this transition. It also provided Management guidelines to evaluate strategic businesses other than the core operation (diversification) in terms of entering the renewable energy market and/or affiliated businesses; it addressed the option of establishing a position from a new business perspective, in order to consolidate the Group’s energy, electrification and decarbonization program within the energy transition initiative.

In August 2019 the Board of Directors was briefed on the implications of global energy transition and the different strategies implemented by Oil and Gas companies, including the importance of diversification through the assessment of new business opportunities in addition to those that foster the Company’s core operation.

In January 2020 the Board of Directors held an exclusive meeting to continue the analysis of future scenarios and Ecopetrol’s current plan, energy transition scenarios and the 2020 - 2030 Business Plan. It analyzed the strengths, challenges and alternatives of the different business segments, Ecopetrol’s adaptive challenges going forward and next steps for the Company to move towards energy transition, TESG and digital transformation.

In March 2020, after analyzing the impact of the crisis, the Board of Directors and Management prioritized the following strategic issues: (i) energy transition based on the diversification of activities and risks, focusing on electricity and midstream; (ii) integrated vision of gas, as it is a product resilient to the volatility of crude oil prices; (iii) divestment opportunities in line with the Ecopetrol Group’s integrated divestment program and cash generation; (iv) growth options and opportunities arising from the fall in international oil prices; (v) cultural transformation; and (vi) Technology, Innovation and Digital Agenda Plan.

Within this framework and during the course of 2020, the Board of Directors reviewed the following matters, among others:

- Opportunity to invest in energy infrastructure through the acquisition of 51.4% of ISA, owned by the Ministry of Finance and Public Credit.
- Decarbonization plan and fugitive emissions management strategy.
- Transformation of the Colombian Petroleum Institute with the aim of it becoming a leader in energy transition issues.
- Integral water management strategy.
- Hydrogen technology perspective.
- Strategic Gas and Liquefied Petroleum Gas Plan for the Ecopetrol Group.
- Adoption of ESG (Environmental, Social and Governance) standards, adding the element of Innovation and Technology thereto, in order to define and incorporate TESG to the Corporate Strategy.
- Exercise in materiality and the Company's hopes for TESG.
- Redefinition of the cultural principles in an effort to inspire Ecopetrol and Ecopetrol Group workers to adapt to a new reality by acting with excellence, working as a team, making the impossible possible and putting their lives, their families' lives and the lives of others first.

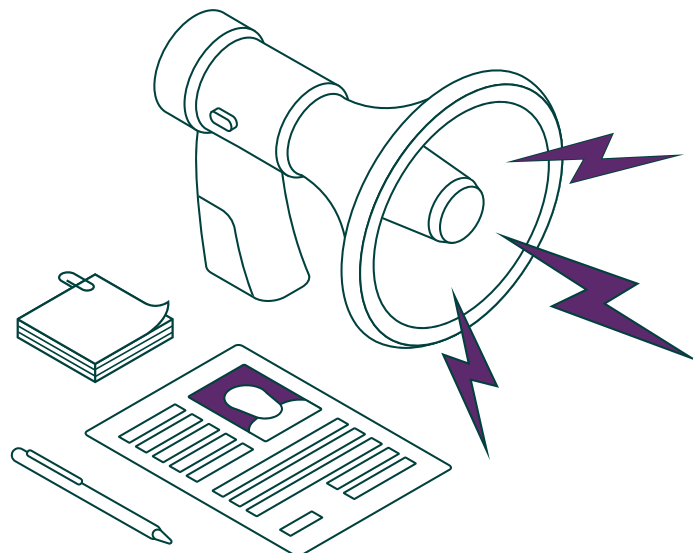
Crisis Management

In addition to the Board of Directors' ordinary course of business, to address the crisis suffered by Ecopetrol arising from the COVID-19 pandemic and the fall in international oil prices, the Board of Directors, within a context of strict capital discipline, protection of cash generation, capture of new value-generating opportunities, and mitigation of risks that materialized during the 2020 crisis, adopted the following decisions in a timely and expeditious manner:

- Activation of the Financial Contingency Plan approved in 2019 to ensure the survival and adaptation of the Ecopetrol Group to oil price volatility and Opex and Capex optimizations and monitoring.
- Update of the hedging policy to create an exceptional regime in the acquisition of strategic hedges, headed by Management.
- Approval of the restatement of the 2020 - 2022 Financial and Investment Plan and update of the Balanced Scorecard (BS).
- Update of the risk retention and transfer strategy and Ecopetrol's entry into Oil Insurance Limited (OIL).
- Approval of the sale of the following assets in order to focus Ecopetrol's financial and operational efforts: (i) Ecopetrol's interest in the OIG Group parent company of Savia Peru; (ii) divestment of nine (9) assets included in the Antares Project - Ecopetrol 2020 Fields Round; among others.

- Updating and approval of the 2040 portfolio and the capital allocation and portfolio rotation guidelines for the 2021-2023 planning cycle to prepare the Ecopetrol Group's Investment Plan.

In addition, the members of the Board of Directors aided Ecopetrol Group's workers by participating in high-level meetings held remotely, where they expressed their solidarity regarding the health emergency derived from COVID-19, providing strategic guidelines, supporting initiatives aimed at the implementation of new ways to work that favor the protection of life and the consolidation of new collaborative work tools while safeguarding productivity standards and the balance between personal and professional life.



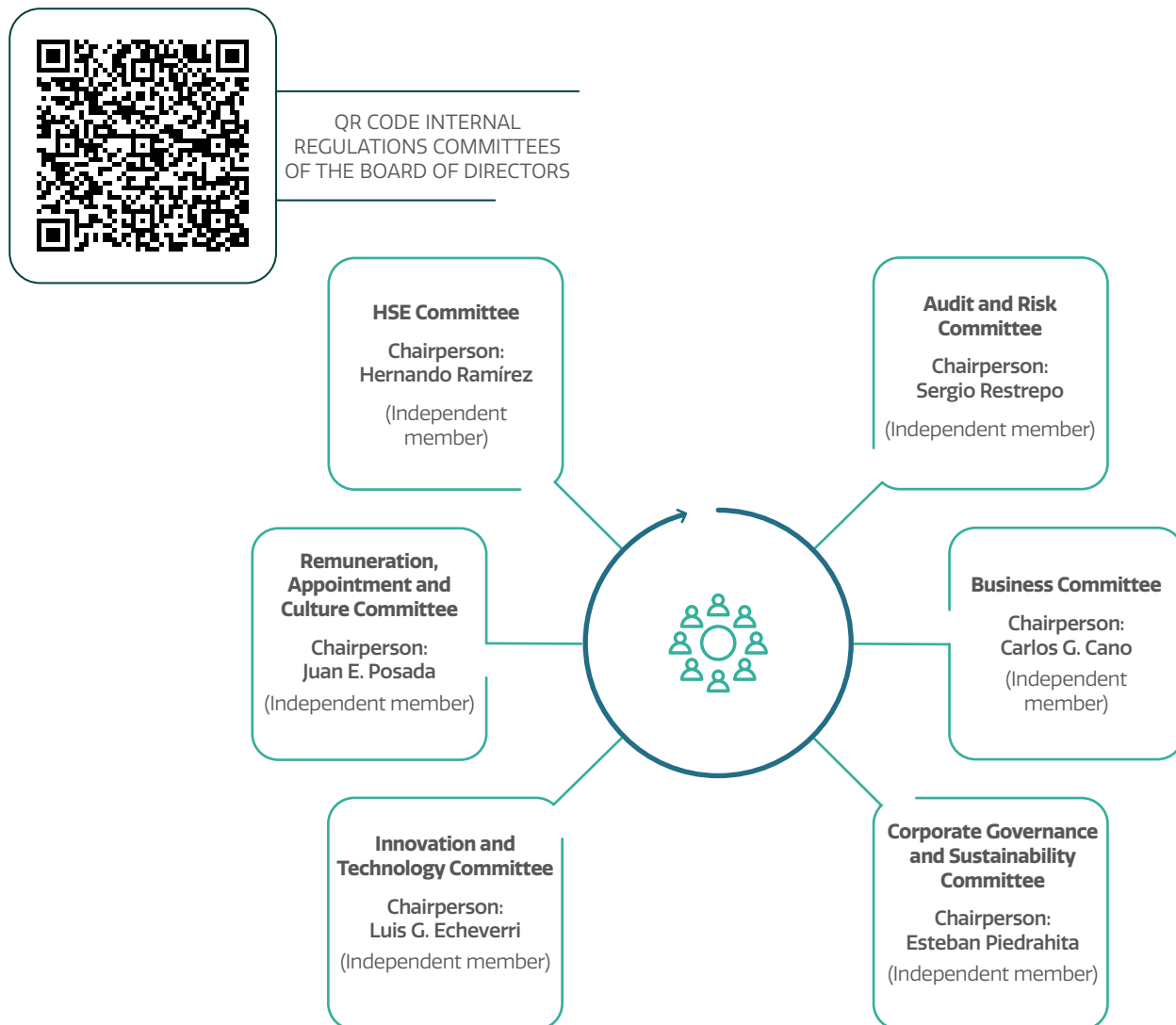
4.9. Updating of relevant issues

The Board of Directors participated in the online course on Ecopetrol’s Code of Ethics and Conduct and some of its members attended the 2020 Directors’ League entitled “Accelerated Evolution of Boards of Directors in the face of the COVID-19 pandemic”, contributing to the constant training of the Board of Directors, and the opening of opportunities for deliberations and the construction of joint knowledge with senior executives of other leading companies in the region to address the crisis generated by COVID-19.

4.10. Board of Director’s Committees

The Committees are bodies that assist the Board of Directors in its duties and are governed by the provisions of the internal regulations thereof, without prejudice to the provisions of the Company’s Bylaws and applicable law, in the specific case of the Audit and Risk Committee.

Within the framework of their functions, the Committees review and analyze the matters to be submitted to the Board of Directors for its consideration. Currently, the Committees are:



4.11. Duties and Stewardship of the Board of Directors’ Committees

During 2020, each of the Committees supporting the Board of Directors met on a regular basis and analyzed and studied the following specific topics, among others:



AUDIT AND RISK COMMITTEE

- Performance assessment of the Statutory Auditor, the internal auditor and the Committee.
- Approval of the General Audit Plan.
- Corporate risk map.
- Reserves.
- Separate and Consolidated Financial Statements and dividend distribution.
- Hedging policy.
- Calculation of 2020 variable remuneration.
- Follow up on the actions carried out by Ecopetrol and the Group's companies regarding their internal control system, risk management system and ethical reports, anti-corruption and anti-fraud.
- Follow up of legal proceedings.

15
meetings



BUSINESS COMMITTEE

- Participation in Parmer South.
- Bioenergy.
- Divestment of strategic resources.
- Release of funds for the Integrated Rubiales Module.
- Renegotiation of the Farm Out Agreement (FAO) entered into 2018, to participate in the Col1, Col2, Col6 and Col7 (Gran Col) Offshore Blocks.
- Monitor investments in the Permian Basin and approval of the release of funds for the 2021 Rodeo Drilling campaign.
- Approval of the re sanction of the 2020-2022 Financial and Investment Plan and Update of the MBS.
- Increase to the Opex budget for 2020 in the amount of \$840 billion.
- 2021 - 2023 Financial Plan.

14
meetings



REMUNERATION, APPOINTMENT AND CULTURE COMMITTEE

- Performance evaluation of the company's CEO.
- Talent review.
- Long-term incentives.
- Salary increase.
- 2021 - 2023 BS.
- 2021 Variable Remuneration Plan.
- Retirement Plan.
- Cultural Declaration.
- New Normal Office Project.
- Analysis of the senior level organizational structure (areas that depend directly from the office of the CEO of Ecopetrol).


9
meetings



CORPORATE GOVERNANCE AND SUSTAINABILITY COMMITTEE

- Performance evaluation of the Board of Directors.
- Sustainable Management Report .
- Annual Corporate Governance Report.
- Statutory Reform.
- Reform to the Internal Charter of the General Shareholder's Meetings, the Board of Directors and all its Committees.
- Operation of the Board of Directors.
- Phase 1 of the Succession Policy for the Company's CEO and the Board of Directors.
- Update of stakeholders.
- Stewardship in Human Rights and Company

4
meetings



HSE COMMITTEE

- Monitor the measure adopted by Ecopetrol to address the emergency arising from the COVID-19 pandemic.
- Analysis of Company processes relating to the environment, industrial safety and operations.
- Analysis of the decarbonization path and fugitive emissions.
- HSE management relating to Ecopetrol and Group contractors.

2 meetings



INNOVATION AND TECHNOLOGY COMMITTEE

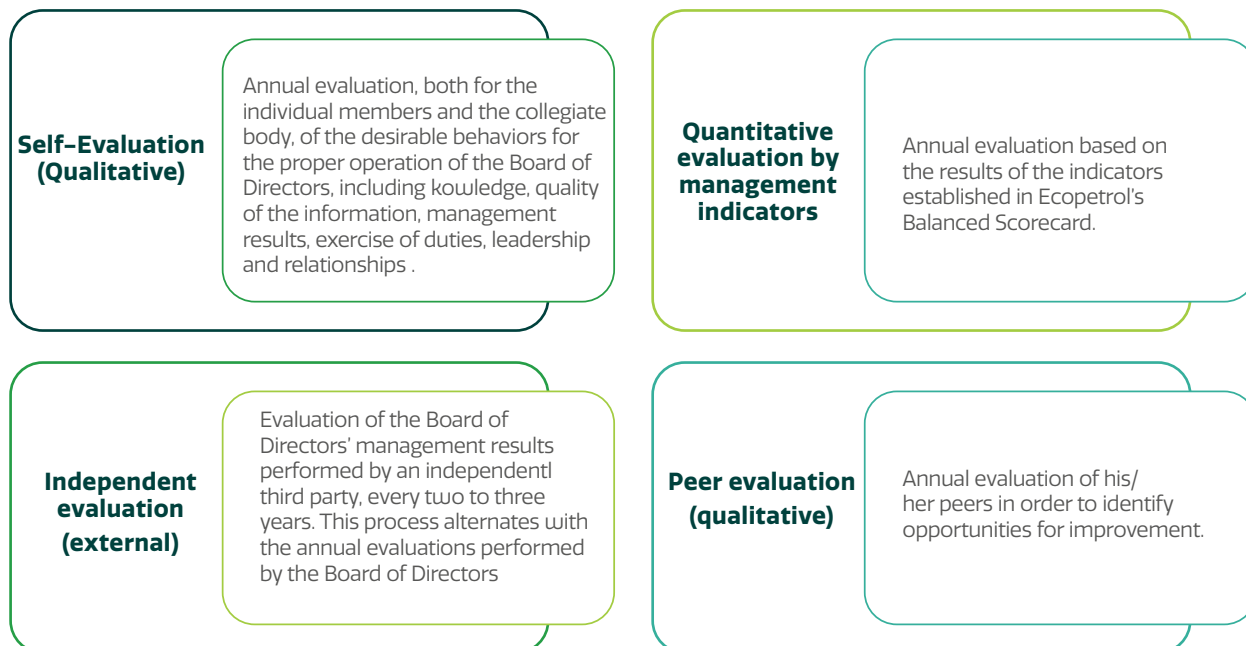
- Optimization of the Technology Plan to address the current crisis.
- Cybersecurity.
- Advances in the Technology and innovation Plan.
- Technology outlook relating to hydrogen.
- Relevant progress in Digital Technology.
- Integral Water Management Strategy.
- Advances initiatives relating to "Misión de Sabios", Ministry of Science, Innovation and Technology.
- Monitoring of the Digital Agenda.

5 meetings

Source: Ecopetrol S.A., Secretary General and Assistant to the President.

4.12. Performance evaluation of the Board of Directors

In order to monitor and assess the performance and stewardship of the Board of Directors, the Company has implemented the following performance evaluation mechanisms for this governing body:



Results of the Board of Director's Performance Evaluation

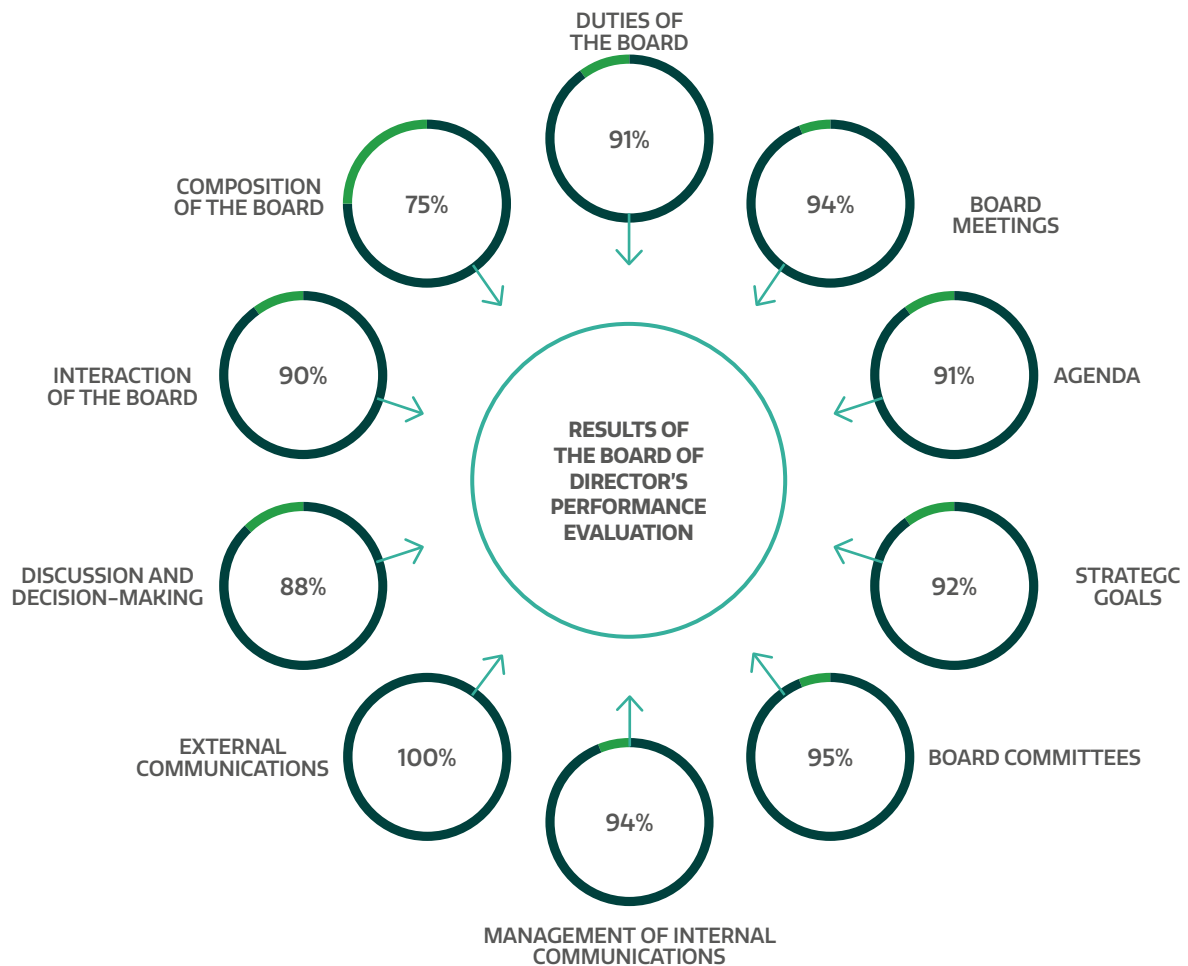
In February 2021, the Board of Directors, through its Corporate Governance and Sustainability Committee, was provided the results of the external evaluation carried out by an independent consultant, the purpose of which was to perform a structural and formal analysis of the performance and corporate governance policies adopted by the Board of Directors of Ecopetrol as a collegiate body during 2019 and 2020.

The methodology used by the consultant grouped the elements recognized by local and international best practices for the optimal operation of a board of directors into four dimensions¹⁰, and from there, the following components were evaluated: (i) composition; (ii) duties of the board of directors; (iii) meetings; (iv) committees; (v) management of internal information;

Nine of the ten components assessed received a score higher than 86 which translates into an excellent performance in terms of local and international standards.

(vi) external communications; (vii) interaction; (viii) agenda; (ix) discussion and decision-making; and (x) strategic goals.

The scores received¹¹ for each component are shown below:



¹⁰ governance structure; (ii) coordination; (iii) interaction; and (iv) focus on strategic issues
¹¹ PScore between 01% and 50%: Indicates that the Board is achieving local standards, best practices and requirements for that component.
 Score between 51% and 85%: Indicates that the Board is achieving international standards, best practices and requirements for that component.
 Score between 86% and 100%: Indicates that the Board exceeds international standards, best practices and requirements for that component, and is achieving the best practices identified in specialized literature and leading global case studies.

The following evaluation results are highlighted:

- A robust induction process that allowed for a successful transition ahead of the change in the composition of the Board of Directors in 2019.
- The Board's performance as a cohesive collegial body, making decisions based on informed deliberation and transparency.
- The appropriate use of external advisors on industry-specific technical or legal issues, facilitating the fulfillment of its duties.
- The definition of an annual action plan organized by topic that allows strategic issues to be addressed in a programmed and proactive manner throughout the year.
- The clear assignment of duties to the support committees, which allows for exhaustive coverage of key issues.
- The quality, depth and relevance of pre-session information that generates value in the deliberations.
- The implementation by the Board of Directors of a working structure with the Steering Committee that, in general, has improved the fluidity and strategic focus of the sessions.
- The Board's relationship with the Steering Committee, which is characterized by a high level of trust, transparency, guidance and mutual support.
- The management of Ecopetrol's crisis caused by COVID-19 and the drop in oil prices and how despite this, the Board kept its long-term strategic agenda on course, up-to-date and under constant oversight.
- The leadership of the Chairman of the Board of Directors, which ensured the agile and efficient functioning of the collegiate body, the management of key stakeholders and the coordination with the President of Ecopetrol and the Steering Committee.
- The positioning of the General Secretary as an exceptional support to the Board in ensuring the proper operation thereof.

Additionally, the evaluation reveals behaviors in the Board of Directors, individually and as a collegiate body, that have a positive impact on the generation of value for Ecopetrol. Among others, these refer to values such as :

- Independence and integrity;
- Degree of openness;
- Accountability;
- Oriented to actions; and
- Trust and mutual respect.

These behaviors are reflected in the interaction with Management and among the Members of the Board of Directors.

Considering that the results of the evaluation place Ecopetrol's Board of Directors in a scenario where its performance surpasses national and international standards, best practices and requirements not only for the proper operation of the Board of Directors, the challenges for 2021 to 2023 is to focus on maintaining this performance and implementing those opportunities for improvement that will bridge the existing gaps to achieve 100% in all of the components evaluated.

Consensus in terms of frank exchange of opinions, active involvement in discussions and encouragement of debate is noted, as well as constructive disagreement, resistance to pressure to agree and not conform to collective thinking.

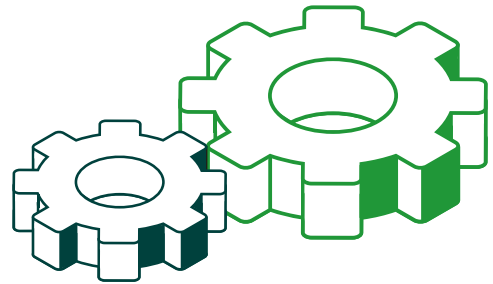
4.13. Relations between the Board of Directors and the statutory auditor, financial analysts, investment banks and rating agencies during 2020.

During 2019, the representative from the Statutory Auditor firm participated in **100%** of the meetings held by the Committee, presented their reports and participated in the discussions relating to the matters under their responsibility.

During this year, the Board of Directors received financial and market analyses as well as credit agency reports; the Company was able to maintain its investment grade rating, as explained in detail in section 6.1 of this report.

4.14. External consulting services employed by the Board of Directors

In 2020, the Board continued to receive external and independent expert assistance in the analysis of Ecopetrol’s **2020+** Strategy and its development, as well as in the design of the TESH Strategy and, in general, in the analysis for the adoption of the corresponding decisions.



5. Senior Management selection, development and remuneration

5.1. Senior Management Selection Policy

The Selection Policy for the position of CEO of Ecopetrol S.A. is included in the powers granted to the Company’s Board of Directors. In 2020, in order for Ecopetrol to establish a plan that guarantees the retention and continuity of senior executives, this corporate body revised the CEO’s Succession Policy to ensure continuity in the implementation of the corporate strategy.

The selection process for all other senior level positions, as well as any position within Ecopetrol, is carried out in accordance with the Human Talent Department’s corporate selection process. All selection processes for positions within Ecopetrol take into consideration the following aspects: academic background, professional experience, technical organizational and leadership competencies associated to each position, independent of gender, race, nationality or family origin, language, religion, disability, political or philosophical opinions.

This guarantees that the process is completed in accordance with the transparency and equal opportunity corporate statements, and based on the guidelines contained in the Company’s Diversity and Inclusion Program, which includes a metric that monitors the advances made in terms of opportunities for women to access leadership positions, with the aim of increasing the probabilities thereof, fostering the practice of nominating at least one female candidate among the finalists to a vacant position, as well as the guidelines set forth in the corporate strategy.

During 2020, the Board of Directors reviewed and encouraged the reflection on the following issues:

- The transformation of human talent, supporting Management in the implementation of strategic initiatives aimed at attracting, developing and retaining the human talent necessary to meet the challenges of the corporate strategy and guarantee Ecopetrol’s sustainability.
- The importance of planning and executing a comprehensive “people retooling” plan, which guarantees the development of the technical skills and competencies that Ecopetrol’s workers will require in the future, which is essential to evolve in the energy transition path, the diversification into businesses such as gas and hydrogen, the reduction of the carbon footprint, the protection of the environment, the development of the digital agenda and the implementation of state-of-the-art technologies, among others.
- The manner in which learning and knowledge is managed in Ecopetrol, providing guidelines to strengthen the work done by Ecopetrol’s Corporate University on issues such as the digital ownership process and the competencies required by workers to consolidate the technological transformation of Ecopetrol.

Details of the Company’s selection policy, including that for senior management, can be found in Chapter 4 of the Sustainable Management Report, under “Social Dimension, Selection and Mobility”.

5.2. Senior Management remuneration policy

The purpose of the Remuneration Policy is:

- Establish a competitive market remuneration that attracts and retains the best talent available, and thus guarantee the Company’s long-term sustainability.
- Position Ecopetrol’s remuneration offer within the average of the energy market in Colombia.
- Conduct an independent salary competitiveness study with a firm specialized in quantitative methodologies for the assessment of positions and best remuneration and organizational practices, in an effort to monitor the Company’s position in the market, and establish a competitive remuneration benchmarking to ensure that it attracts and retains the human talent required for the implementation and completion the Company’s Strategy plan and needs.

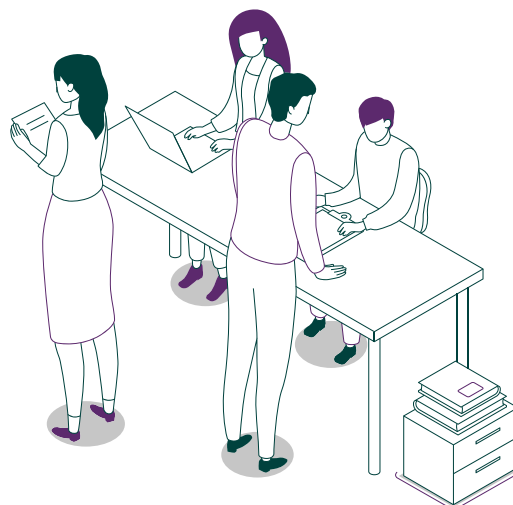
Structure of Total Remuneration:

The main components of Ecopetrol’s total remuneration include:



During 2020, the Board of Directors monitored and reviewed Ecopetrol Group’s senior management and workers’ remuneration on its level of competitiveness and ability to attract and retain the talent required to achieve short and long-term objective. In this context, it approved the 2020-2022 Long-Term Incentive Plan for Group Executives, which was not launched during 2020 as planned because of the impact of the COVID-19 pandemic and the drop in international oil prices, and consequently an update of the Business Plan goals was required, which was completed in December 2020. Consequently, the goal is to implement this plan in 2021, which will be based on long-term business results (3 years).

For 2020, the Fixed Remuneration for the Company’s CEO was eight (8.3) times the average fixed remuneration of a Company employee, and a general salary increase of 5.5 was applied across the board for all workers.



Salary information of Ecopetrol's Senior Management position is as follows:

Position	Basic Salary of Comprehensive Salary*	
	Minimum	Maximum
President (CEO)		
COO		
Vice President of Refining and Industrial Processes	\$ 38	\$ 70
Vice President of Development and Production		
Vice President of Exploration		
Vice President of Operations and Transport Maintenance		
Director of the ICP Center for Innovation and Technology		
Vice President of Sales and Marketing		
Vice President of Corporate Strategy and New Businesses		
Vice President of Corporate Finance		
Vice President of Engineering and Projects		
Vice President for Digital Processes	\$ 29	\$ 46
Vice President of Human Talent		
Vice President of Sustainable Development		
Vice President of Procurement and Services		
Legal Vice President		
Secretary General		
Vice President of Corporate Compliance		

Source: Ecopetrol S.A., Vice Presidency of Human Talent.

* A 70% withholding on benefits is calculated as a fixed component payment over this amount.

Details of the benefits provided to Ecopetrol workers, including senior management, can be found in Chapter 4, Social Dimension, "Compensation" of the Sustainable Management Report.

5.3. Senior Management performance evaluation

In 2020, Ecopetrol Group obtained outstanding results despite a challenging environment resulting from the drop in international oil prices and the unprecedented crisis generated by the COVID-19 pandemic. In this context, the crisis was addressed by prioritizing life and safety; outstanding financial results were achieved, above industry levels; outstanding operational and financial results were achieved in the different business segments; investment projects were executed for close to USD 2,674 billion, which are key to the sustainability of the company; advances were made in the digital and cultural transformation of the Ecopetrol Group; and the Company reinforced its commitment to TESG.

This year, the Group achieved 107% compliance with the business objectives defined for the Group's Balanced Scorecard (TBG GE for its acronym in Spanish), the result of which is a key input for the evaluation of the company's executives.

The 2020 Ecopetrol Group Balanced Scorecard incorporates the relevant topics stated in the 2020-2022 Financial Plan and reflects the main foci for the new reality, which are prioritized as follows: **Life first** (15%), **cash protection** (40%), **sustainability** (35%) and **adaptation** (10%). These foci are associated with safety (HSE), operational, financial, strategic and TESG objectives and metrics.

The following are the most relevant performance results of the Company's executives and their teams in 2020:

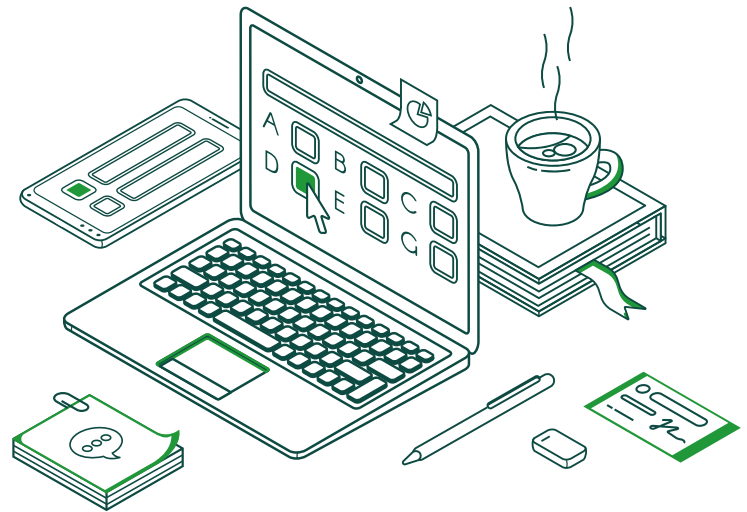
In terms of Life First, the unprecedented challenge of a pandemic marked 2020. In response thereto, a robust plan to provide timely attention to the health emergency was put in place in order to ensure operational continuity. Progress was made in strengthening the HSE culture and the Company reported a total recordable incident frequency (TRIF) of 0.5.

In terms of operations, the Company was able to maintain profitable production of 697 mboed. Gas production increased by 5% compared to 2019, and the target for additional gas supply of 60 GBTUD was reached despite the drop in demand due to the pandemic. The additional proven reserves target was also surpassed, 113 mboe were incorporated and an IRR of 48% was recorded, attributable to lower prices. In 2020, 18 wells were drilled (11 exploratory and 7 appraisal wells). At the international level, drilling of the first exploratory well in Mexico began (Moyote -1) and operations in the Permian basin were consolidated with an average annual production of approximately 5.2 mboed. Additionally, progress was made in terms of unconventional reservoirs, with the Stateal Hydrocarbon Agency (ANH) awarding the implementation of the Kalé comprehensive research pilot project.

Furthermore, the transport operating model was consolidated and progress was made in the development of key projects for the downstream segment, such as the IPCC Cartagena, the expansion of Esenttia and the provision of gasoline with less than 30 parts per million of sulfur at the Cartagena Refinery. In addition, there are significant achievements in sustainability issues attained during 2020, with key environmental and social impact actions.

Advances in the incorporation of renewable energies are noteworthy, with the start of construction of the San Fernando Solar Park (Meta), which will contribute to the goal of 400 MW by 2023 and a reduction of greenhouse gases of more than 199 thousand tCO₂e, for a cumulative reduction of 1.8 million tons of CO₂e by the end of 2020. Likewise, progress was made in the technological and digital transformation of the Group with the launch of Cenit's Integrated Operations Center and the implementation of close to 91 digital products.

These results were primarily supported by the contribution and performance of the following



subsidiaries: Hocol, Permian, Esenttia, Invercolsa and Cenit, and the implementation of a robust sales and marketing strategy.

Solid results were achieved regarding the Company's financial goals, which will further uphold the Company's competitiveness and sustainability: Ecopetrol Group recorded an EBITDA of 16.8 billion pesos (9.3 billion pesos from the midstream segment), positive net results of \$1.7 billion pesos with a total unit cost equivalent of \$27.4 USD/Bl compared to \$35.4 USD/Bl in 2019. Debt prepayments were made for the amount of \$1.6 billion was made and financing was obtained in the amount of USD \$3.1 billion to ensure the Company's liquidity.

Likewise, US\$71 million in benefits from Innovation and Technology were incorporated (led by the Colombian Petroleum Institute, now Econova - Ecopetrol's Center for Innovation and Energy Transition) and US\$39 million from Ecopetrol's digital agenda, and defining with the Board of Directors the Company's TSEG Strategy (*SosTECnibilidad*) and in this manner endorsing its commitment to TSEG.

Regarding the challenge of adapting to the new reality, the Company successfully implemented remote work conditions for over 15,000 workers. Ecopetrol helped mitigate national impact of the pandemic through the Group's Social Program, with contributions of approximately COP\$76 billion, which were allocated to 21 departments.

In addition, the Company was recognized for its entry into the DJSI MILA report, which measures the economic, social and environmental practices of companies in Chile, Peru, Mexico and Colombia. Ecopetrol was recognized as the second most diverse and inclusive company nationwide (PAR Ranking); and our subsidiary Esentia was ranked 13th among the best places to work in Colombia and 20th in Latin America (GPTW).

The above is the result of the resilient leadership and commitment of Ecopetrol’s CEO and his management team, whose timely response to the crisis reflects the collective teamwork of all areas and workers of the Ecopetrol Group, mindful of the principles set forth in the Company’s Culture Statement, which was a collective effort completed in 2020 as a framework for action.

6. Control Environment

6.1. External controls

Statutory Auditor

In the General Shareholders’ Meeting held on March 29, 2019, the appointment of Ernst & Young Audit S.A.S. as the Company’s Statutory Auditor for the 2019 fiscal year was approved in accordance with the Corporate Bylaws, with the option to continue said relationship in the following year, with a fee amounting COP \$4,050,000,000 plus VAT, and \$4,212,000,000 plus VAT, respectively.

During 2019 and 2020, said firm carried out the duties established by law and the Company’s Bylaws, which include evaluating and issuing an independent opinion on the internal control system in general and on the areas that have an impact on the preparation of financial information, as established by the Sarbanes Oxley Act and in accordance with PCAOB (Public Company Accounting Oversight Board) Standard No. 5. The results thereof were periodically presented to the Audit and Risk Committee of the Board of Directors.

Inspection, Oversight and Control Bodies:

In Colombia, the main regulatory authorities for activities related to Ecopetrol S.A.’s corporate purpose are the Ministry of Mines and Energy, the National Hydrocarbons Agency (ANH) and the Energy and Gas Regulation Commission (CREG); the Ministry of the Environment and Sustainable Development; the National Environmental Licensing Authority (ANLA); the Ministry of the Interior and the Regional Autonomous Corporations.

Moreover, the Superintendence of Public Services exercises surveillance and control duties over Ecopetrol S.A.’s main activities, while the Superintendence of Finance, the Superintendence of Ports and Transportation, the Superintendence of Health and the Superintendence of Industry and Commerce exercise concurrent control, and finally the Superintendence of Corporations exercises residual control.

Given the legal nature of Ecopetrol S.A. its workers are bound by controls regarding the activities and responsibilities of public servants, and therefore Company workers are subject to disciplinary control by the Attorney General’s Office. Additionally, given the management of public resources, Ecopetrol S.A. is subject to fiscal control by the Comptroller General of the Republic.

Finally, because Ecopetrol S.A.’s shares are traded in the Colombian Stock Exchange and the New York Stock Exchange in the US, it is subject to Colombian Stock Exchange and the Securities and Exchange Commission (SEC) regulations, respectively. The Superintendence of Finance of Colombia and the Securities Market Self-Regulator jointly exercise oversight of securities market operations.



QR CODE RATING AGENCIES' REPORTS

Ratings Agencies:

The main risk rating agencies highlighted in 2020 the Company’s capacity and resilience to maintaining a sound financial profile despite the sharp drop in international crude oil prices and the contraction in demand caused by the COVID-19 pandemic. They

acknowledged the measures taken in response to the crisis and to protect its liquidity. Despite the downward revisions in the sovereign’s ratings and outlook, in 2020 Ecopetrol managed to maintain its investment grade in all three (3) rating agencies as presented below:

FitchRatings

- In April, Fitch downgraded the Company’s credit rating in line with the sovereign downgrade made to that of the Republic of Colombia. Ecopetrol’s rating changed from BBB (negative outlook) to BBB- (negative outlook), whilst maintaining its investment grade.
- In December the Agency maintained the Company’s credit rating at BBB with a negative outlook and its individual credit rating (Stand-Alone/ without incorporating Government support) at BBB. Fitch highlighted the Company’s strategic importance for the country, its capacity to maintain a solid financial standing.

MOODY’S

- Moody’s kept the Company’s long-term international rating at Baa3, with a stable outlook, and an individual rating at ba1. Moody’s highlighted the Company’s strong performance despite the fall in oil prices and the contraction in demand caused by the pandemic, as well as the suitable liquidity levels required to navigate the current situation.

STANDARD & POOR’S

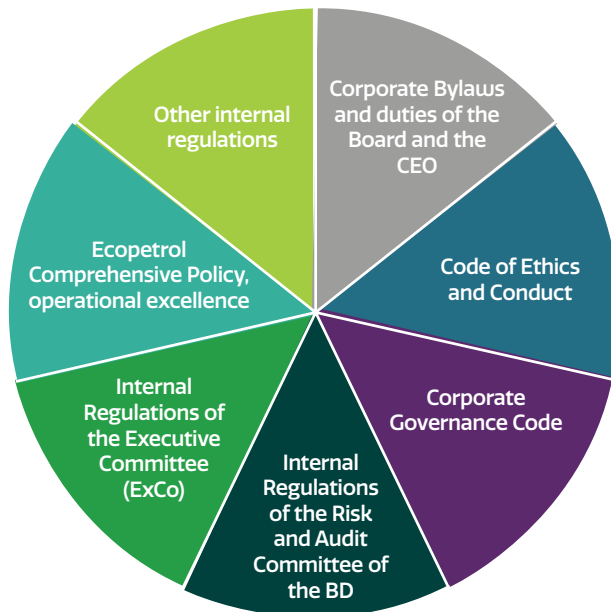
- In March, S&P chaged Ecopetrol’s outlook from Stable to Negative, as a result of the change in the sovereign outlook of Colombia, and confirmed its rating at BBB-, while maintaining its investment grade.
- The agency highlighted the Company’s adequate levels of liquidity and its strategic position for the country.

6.2. Internal controls

Ecopetrol’s integrated risk management and internal control responds to the ISO 31000 standard, COSO (Committee of Sponsoring Organizations of the Treadway Commission) and COBIT (Control Objectives for Information and related Technology), as well as SOX (Sarbanes Oxley Act) and FCPA (Foreign Corrupt and Practices Act) laws, and is governed by the following internal regulations:

These standards establish the elements and general guidelines for the management and administration of risks and internal controls, enabling the Company to make informed decisions, contemplating possible events that may have a positive or negative impact on the objectives of the Company and its Group.

Internal regulations:



With respect to the Ecopetrol Group companies, through its Vice Presidency of Corporate Compliance (VCU for its acronym in Spanish), Ecopetrol exercises governance, advises, issues guidelines, defines practices and monitors risk management and internal control. The purpose of this is to standardize the process, favor synergies and interactions, improve and ensure control, as well as provide timely and appropriate decision-making. The actions taken by the subordinates are documented through periodic compliance reports to Ecopetrol, which monitors them

from the Corporate Risk Assurance and Internal Control Department (GCI for its acronym in Spanish), and submits the respective reports to the Audit and Risk Committee of the Board of Directors, as appropriate.

In 2020, Ecopetrol updated its Code of Ethics and Conduct, the Instructions for the Management and Prevention of Conflicts of Interest and Ethical Conflicts and the internal regulations of the Audit and Risk Committee of the Board of Directors.

Internal Control System (SCI for its acronym in Spanish)

The key pillar in Ecopetrol’s Internal Control System is self-control, understood as the capacity to perform daily work in a self-critical and self-managing manner, promoting transparent and effective performance that facilitates the achievement of organizational goals. Self-control is continuously exercised in order to confirm that the controls operate according to their design and to the reality and context of the organizational process.

As part of the self-control and oversight exercise, certifications and self-assessments are conducted periodically through which the level of effectiveness of controls, the existence of additional risks, relevant risk issues, mitigation measures and monitoring of key risk indicators (KRI’s) are reported.

Everyone within the organization must complete this process which is supervised by the Board of Directors through its Audit and Risk Committee as the

highest control body responsible for overseeing the management and effectiveness of the internal control system. It is governed by the VCU, which articulates all its actions through the Internal Audit Corporate Management.

This system seeks to provide reasonable security in the achievement of strategic, operational, information reporting and regulatory compliance objectives, through the timely management of risks and assurance of the effectiveness of its controls, ensuring separate and consolidated financial statements are prepared in accordance with the FCPA Act (accounting provisions on books, records and internal controls), SOX Act (adequate internal controls over financial reporting) and the COSO standard (internal control framework). The same operates under three (3) lines of defense model that provides for a mechanism to monitor internal control elements, as follows:



Source: Ecopetrol S.A. Corporate Vice Presidency of Compliance

The GCI, as the second line of defense, defines guidelines for risk management and controls and implements prevention and ongoing monitoring structures, verifying the internal control elements in Ecopetrol's processes, as well as monitoring the management of risks and controls of the processes. These activities provide a reasonable security to the achievement of the corporate objectives, guaranteeing T ESG and continuous improvements within Ecopetrol, its affiliates and subsidiaries is being carried out.

During 2020, the Corporate Risk Assurance and Internal Control Department monitored the management of 2,043 risks and 4,228 controls within the Ecopetrol Group.

Integrated Risk Management System

The Integrated Risk Management System (IRS for its Spanish acronym) is defined as the set of principles, frame of reference and process that allow the organization to manage the effects of uncertainty on the fulfillment of its objectives in order to maximize opportunities and assist in determining strategies and

making informed decisions. This system is based on the ISO 31000 standard and is also led by the VCU through the GCI. It is supervised by the Board of Directors through its Audit and Risk Committee.

The layers included within the SRI are detailed below:



The SRI functions by means of the execution of the risk management cycle that analyzes the objectives in order to identify the risks and define the appropriate controls that mitigate their manifestation or their impacts. This cycle includes the following five (5) stages:



Risk management Cycle

- **Plan:** define scope of activities and assessment of internal and external context.
- **Identify:** identify risks based on the viewpoints of those involved and on the analysis of information.
- **Evaluate:** analyze causes and consequences; assessment according to probability and impact.
- **Treat:** select and implement options to address risk.
- **Communicate, follow-up and record:** exchange of information, feedback and continuous monitoring.

Risk management monitoring is carried out permanently by the GCI to identify risk alerts, verify the execution of mitigants (controls and treatment actions), and determine actions should manifestations occur in order to maintain risks within defined tolerance and acceptance levels. These levels are established in the Risk Assessment Matrix (RAM) approved by the Board of Directors and used to carry out the intrinsic and residual assessment of the risks identified by the Company.

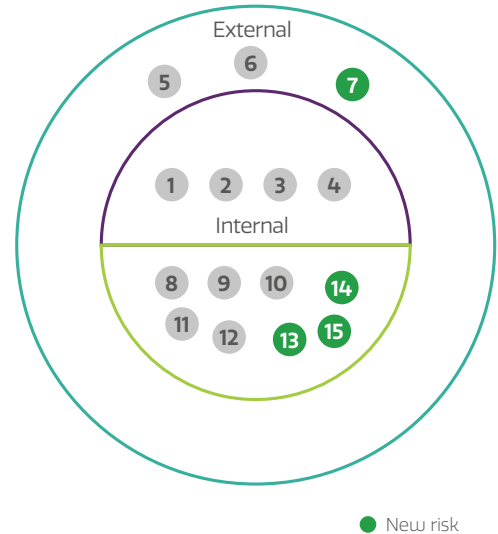
All relevant results from this monitoring, such as the identification of opportunities for improvement in the design of the indicators in issues such as the formulas used, adjustment of alert limits to guarantee their effectiveness and implications or possible additional impacts identified in the horizontal correlation and vertical risks analyzes, are periodically reported to the Executive Committee (ExCo) and the Audit and Risk Committee of the Board of Directors.

Business Risk Map

There are the risks that can sidetrack the Company from fulfilling its strategy and strategic objectives. To define this map, Ecopetrol used as regulatory reference the ERM COSO 2017 and ISO 31000.

The following is Ecopetrol’s current business risk map, which was reviewed and updated by the Board of Directors in 2020:

- 1 Protection and incorporation of unsuccessful resources and reserves
 - 2 Unsuccessful energy transition strategy
 - 3 Affection to financial sustainability and value generation
 - 4 Subordinate companies not complying with their value promise
-
- 5 Operational interruption incidents
 - 6 Changes in the regulatory framework
 - 7 Propagation of epidemics that affect the operation
-
- 8 HSE accidents with to an operational cause
 - 9 Projects which do not meet their value expectation
 - 10 Faults against ethics and compliance
 - 11 Cyber-attacks, data leaks or loss and technological obsolescence
 - 12 Organizational culture which fails to support the strategy
 - 13 Failure to comply with commitments by third parties
 - 14 Affection of operation by control bodies and the State
 - 15 Inadequate management regarding climate change and water



Source: Ecopetrol S.A. Corporate Vice Presidency of Compliance

The construction and updating of the business risk map is a collective process, taking into account the results of a constant environmental and context assessment together with the identification of new emergent risks.

As a result of the analysis of the internal and external environment and context, 62 topics were identified under which Ecopetrol's sustainability could be influenced (in a potential or real way). The following

were identified as the most relevant topics because they are directly related to the industry and the Company: regulatory changes; technological changes; initiatives or projects in progress; factors such as the current national situation and its economic, political, social and cultural conditions that have a direct impact on the operation or the strategy. The topics identified converge in turn into 16 trends that define of the following emergent risks:



The GCI carries out a review of risk profiles of the oil and gas industry, an assessment of the status of the main risks at the Company's process level, as well as interviews and surveys with members of senior management, process owners and heads of the different business areas in order to receive their contributions, among other activities.

The projected business risks are validated at the higher levels of the company, and confirmed in the ExCo, and are also presented to the Audit Committee of the Board of Directors who reviews and recommends their approval to the Board of Directors.

As part of this process and management, Ecopetrol has upheld a continuous review and update of its business risks. The 2020 Business Risk Map was updated as a result of identified and emergent risks, including therein four (4) new risks: i) spread of epidemics that impact the operation; ii) unmet of commitments by third parties; iii) impairments to operations by control and national entities; and iv) inadequate management of climate change and water resources. The latter originated as a result of the alignment of business risks with the TEGS elements incorporated into Ecopetrol's strategy.

Likewise, to manage the 15 Business Risks throughout the Company's different areas, 84 treatment actions and 41 KRIs have been define that undergo continuous follow-up and monitoring by the GCI .

Consequently, both the SCI and the SRI permeate throughout all levels of the organization, are framed within Ecopetrol's culture and comply with regulations for the management thereof. These systems are interdependent and are provided information regularly in such a way that they ensure the horizontal and vertical correlation of risks at a strategic, tactical and operational level; this results in the ability to respond thereto in with the timeliness and effectiveness required to ensure the achievement of Ecopetrol's objectives.



Corporate Internal Audit Management (GCA for its Spanish acronym):

In 2020, auditing was carried out over processes that demonstrated a high-risk assessment for the fulfillment of Ecopetrol's strategic objectives and on high-impact projects due to their level of investment and representativeness regarding the fulfillment of the strategic objectives.

In 2020, the General Audit Plan covered the following topics: improved recovery, new businesses, critical assets, exploratory investments, project governance, product storage, management of transport and refining segments, supply, payroll, foundations, budget, financial hedging, insurance program, autonomous assets, digital transformation, cybersecurity and management of cloud technology and information services.

Compliance with the General Audit Plan during 2020 reached 135%. 27 audits we completed versus the 20 scheduled audits.

The audit work included assurance and advisory projects as well as activities to comply with current external and internal regulations applicable to its duties. As a result of the execution of the General Audit Plan, the responsible areas designed improvement plans aimed at mitigating the observations provided by the GCA, which in turn are subject to constant monitoring conducted by the Board of Directors to ensure their application and effectiveness.

7. Operations with related parties

Ecopetrol's guidelines for transfer pricing between related parties establishes the parameters to govern the payments agreed for operations, whether of goods or services, carried out between Ecopetrol and its subordinates, in order to ensure that the conditions established for the operations subject to said analysis are consistent with those agreed with or between independent third parties, thus avoiding any contrary impact on the income statements arising from control or subsidiary relationships.

In this sense, all economic affairs with the State and the subordinate companies consolidated during 2020 by means of agreements or contracts, were conducted in accordance with the aforementioned parameters. These relationships are not intended to benefit the State or subordinate companies, nor are they detrimental to the interests of minority shareholders.

The details of the operations carried out with subordinate companies belonging to the Ecopetrol Group are disclosed in the financial statements and in the Business Group Annual Report according to Article 29 of Law 222/95

Every semester, the Tax Management and Planning Department submits a report to the Company's Board of Directors regarding the operations, agreements or contracts that the Company has entered into with its subordinates within said period, where it indicates that the conditions thereof are consistent with market conditions.

In the event that a conflict of interest arises between the Ecopetrol Group companies, those involved must comply with the procedure established therefor according to the applicable regulations.

8. Conflicts of interest

The process to report, manage and prevent conflicts of interest involving senior management is contained in the Bylaws, the Code of Ethics and Conduct, the Corporate Governance Code and the Guidelines for the Management and Prevention of Conflicts of Interest and Ethical Conflicts.

The President, the members of the Board of Directors and all Ecopetrol workers must disclose any conflict of interest situation to which they are subject, as well as the direct or indirect relationships that they maintain amongst themselves, or with other entities or structures belonging to the Ecopetrol Group, or with the issuer, or with suppliers, or with clients or with any other stakeholder group from which conflict of interest situations could potentially arise or influence their decision-making and the fulfillment of their duties.

In addition to the above, Ecopetrol extends the conflicts of interest guidelines to its bidders, contractors, suppliers, clients, partners or allies through arrangements established for this purpose with which they ratify the duty to act in accordance with Ecopetrol's ethical principles and not involve themselves in any conflict of interest situations. In addition, the contracts or agreements incorporate ethical clauses on the subject.

The procedure for addressing conflict of interest situations is established in the Guidelines for the Management and Prevention of Conflicts of Interest and Ethical Conflicts.

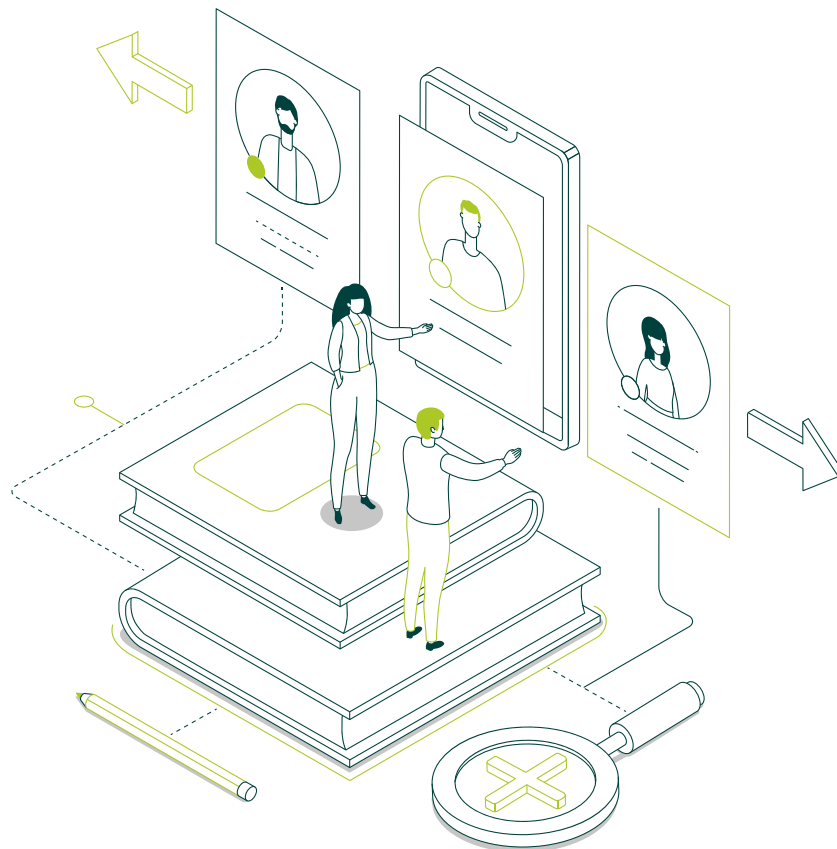
In 2020, **225** reports were submitted regarding potential conflict of interest situations.

Specifically, with regard to significant conflict of interest situations, one of the members of the Board of Directors and a member of senior management revealed a possible conflict of interest, and in these cases the applicable regulations were followed.

All conflicts referred submitted to the Corporate Ethics and Compliance Management of the VCU were dealt with in accordance with the established procedure and are subjected to continuing monitoring and follow-up. The VCU has established for this purpose a matrix of related parties.



QR CODE GUIDELINES FOR THE MANAGEMENT AND PREVENTION OF CONFLICTS OF INTERESTS AND ETHICAL CONFLICTS



9. Dispute resolution mechanisms

Dispute resolution mechanisms foreseen in the Law are applicable to Ecopetrol, including mechanisms such as: direct settlement, conciliation and arbitration.

The following table includes the most significant disputes that took place in 2020 wherein Ecopetrol was a party and were resolved through dispute resolution mechanisms:

Parties	Type	Agreed amount	Effective payout date	
Carlos Enrique Ortega Torres versus Ecopetrol S.A.		\$12,362,664	October 31 st , 2020	
Óscar Eduardo Rodríguez Carranza versus Ecopetrol S.A.		\$16,975,891	October 31 st , 2020	
John Wilmer Cabrera Medina versus Ecopetrol S.A.		\$8,503,627	October 31 st , 2020	
Wilson Correa Jiménez versus Ecopetrol S.A.		\$18,100,188	October 31 st , 2020	
José Ramiro Rojas Vargas versus Ecopetrol S.A.		\$5,438,515	October 31 st , 2020	
Alfonso Gómez Rivera versus Ecopetrol S.A.		\$13,939,477	October 31 st , 2020	
María del Carmen Díaz Vargas versus Ecopetrol S.A.		\$16,485,148	October 31 st , 2020	
Javier Alexander Lozano versus Ecopetrol S.A.	Conciliation labor related claim - Claims Committee	\$21,220,522	October 31 st , 2020	
José Héctor Calderón Amaya versus Ecopetrol S.A.		\$7,665,565	October 31 st , 2020	
Manuel Rubio Bohórquez versus Ecopetrol S.A.		\$12,977,475	October 31 st , 2020	
Edgar Arturo Salamanca versus Ecopetrol S.A.		\$16,240,090	October 31 st , 2020	
Fabio Humberto Celemín versus Ecopetrol S.A.		\$12,823,881	October 31 st , 2020	
Alexander Ochoa Cáceres versus Ecopetrol S.A.		\$19,109,018	November 30 th , 2020	
José Ángel Rico Beltrán versus Ecopetrol S.A.		\$15,061,224	September 30 th , 2020	
Omar Devanni Pinilla versus Ecopetrol S.A.		\$21,938,047	September 30 th , 2020	
Juan Vicente Clavijo Perdomo versus Ecopetrol S.A.			\$20'091,581	November 27 th , 2020
ECOPETROL S.A.- Gefferson Andrade Montero		Out of court conciliation	\$963,500	Pending court approval
Cieus S.A.S. versus Ecopetrol S.A.	Settlement	\$21,409,680	September 30 th , 2020	
Ecopetrol S.A.- Equión and National Agency for Environmental Licenses	Settlement	Mediation National Legal Defense Agency	Date subscribed: October 28 th , 2020	
Ecopetrol S.A. versus ENTERRITORIO	Settlement	\$512,119,422	Pending court approval. Payout in favor of Ecopetrol	
TOTALCO S.A.S. versus Ecopetrol S.A.	Arbitration Tribunal- contractual claims	\$156,624,249 (Reimbursement of funds paid out by Ecopetrol S.A.)	June 2 nd , 2020	
Ecopetrol S.A. versus Offshore Exploration Production, LLC "OEP"	Settlement before the International Arbitration Tribunal	Subscription of Consent Award after OEP's acceptance of Ecopetrol's claims and the recognition of a payment of USD 72,873.08 in favor of Ecopetrol S.A. for 50% of fees paid.	Subscription of Consent Award: November 10 th , 2020. The payout of the amount stated was made on December 10 th , 2020	

Source: Ecopetrol S.A., Legal Vice Presidency

Based on 2020 fourth quarter information, Ecopetrol was sued in **3,641** proceedings and was the plaintiff in **1,720** proceedings. Regarding finalized proceedings, **83.42%** attained favorable outcomes for Ecopetrol.

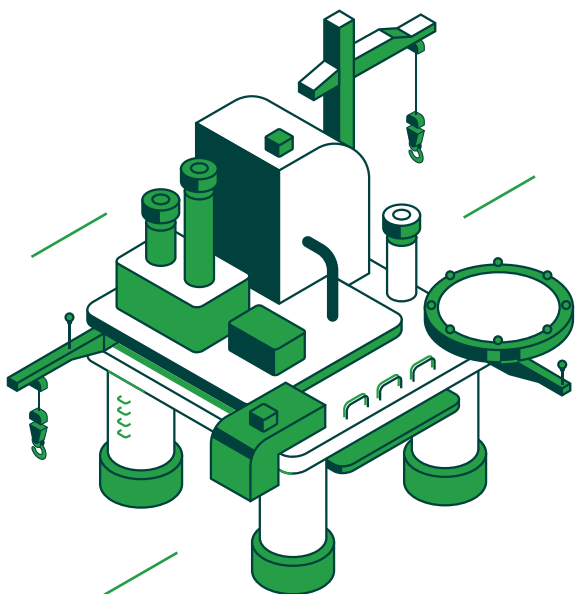
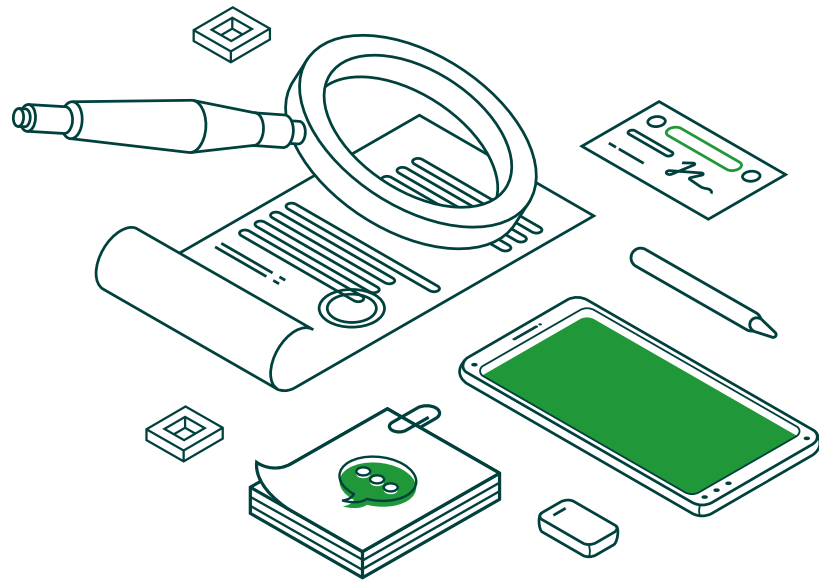
10. Information transparency, fluency and integrity

For Ecopetrol, communication with its stakeholders is of the utmost importance, and as such it employs all the channels enabled for this. That is why, along with traditional communication channels, it has sought to strengthen its participation in channels that facilitate interaction through technological platforms such as Facebook, Twitter, Instagram and LinkedIn, with outstanding results.

The Company registered approximately **624,619** followers on Facebook and Twitter, reaching a total of **1,261,389** followers on all its profiles on social media.

Likewise, during 2020, **51** Material Information releases were published through the Colombian Superintendence of Finance, as well as **365** press releases. In the United States, **31** documents were published under the different formats required by the SEC.

All communications were disclosed in a timely manner to the market and are available on the material information section of the Colombian Superintendence of Finance's website, <https://www.superfinanciera.gov.co>; on the SEC website, <https://www.sec.gov/>, under the "Filings" section, as well as on Ecopetrol S.A.'s website, <https://www.ecopetrol.com.co>.



In 2020, its followers on Facebook and Twitter increase by 4%. LinkedIn had a 44% increase in followers. Instagram followers grew by 139%.

11. Claims by shareholders and investors

During 2020, no claims were filed by shareholders and investors related to compliance with the Corporate Governance Code.



The Board of Directors, after an unprecedented and complex year that has tested us all as human beings, professionals and Colombians, highlights the continued commitment of Ecopetrol S.A. and all its workers in the application of best corporate governance practices, ensuring the Company's governance, transparency and control environment.



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Separate **FINANCIAL REPORT**





Informe del Revisor Fiscal

A la Asamblea de Accionistas de:
Ecopetrol S.A.

Opinión

He auditado los estados financieros separados adjuntos de Ecopetrol S.A., que comprenden el estado de situación financiera al 31 de diciembre de 2020 y los correspondientes estados de resultados, de resultados integrales, de cambios en el patrimonio y de flujos de efectivo por el año terminado en esa fecha, y el resumen de las políticas contables significativas y otras notas explicativas.

En mi opinión, los estados financieros separados adjuntos, tomados de los libros de contabilidad, presentan razonablemente, en todos sus aspectos de importancia, la situación financiera de la Compañía al 31 de diciembre de 2020, los resultados de sus operaciones y los flujos de efectivo por año terminado en esa fecha, de conformidad con las Normas de Contabilidad y de Información Financiera aceptadas en Colombia adoptadas por la Contaduría General de la Nación.

Bases de la opinión

He llevado a cabo mi auditoría de acuerdo con Normas Internacionales de Auditoría aceptadas en Colombia. Mis responsabilidades en cumplimiento de dichas normas se describen en la sección *Responsabilidades del Auditor en la Auditoría de los Estados Financieros* de este informe. Soy independiente de la Compañía, de acuerdo con el Manual del Código de Ética para profesionales de la contabilidad, junto con los requisitos éticos relevantes para mi auditoría de estados financieros en Colombia, y he cumplido con las demás responsabilidades éticas aplicables. Considero que la evidencia de auditoría obtenida es suficiente y apropiada para fundamentar mi opinión.

Asuntos clave de auditoría

Los asuntos clave de auditoría son aquellos asuntos que, según mi juicio profesional, fueron de mayor importancia en mi auditoría de los estados financieros adjuntos. Estos asuntos se abordaron en el contexto de mi auditoría de los estados financieros tomados en su conjunto, y al momento de fundamentar la opinión correspondiente, pero no para proporcionar una opinión separada sobre estos asuntos. Con base en lo anterior, a continuación, detallo la manera en la que cada asunto clave fue abordado durante mi auditoría.

He cumplido con las responsabilidades descritas en la sección Responsabilidades del Auditor en la Auditoría de los Estados Financieros de mi informe, incluso en relación con estos asuntos. En consecuencia, mi auditoría incluyó la realización de los procedimientos diseñados para responder a los riesgos de incorrección material evaluados en los estados financieros. Los resultados de mis procedimientos de auditoría, incluidos los procedimientos realizados para abordar los asuntos que se mencionan a continuación, constituyen la base de mi opinión de auditoría sobre los estados financieros adjuntos.

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Determinación de la Depreciación, Agotamiento y Amortización y el Deterioro de Activos de Larga Vida

Descripción del Asunto Clave de Auditoría

Como se describe en la nota 3.1 y 3.2 de los estados financieros separados, el cálculo del método de unidades de producción que se utilizan en la determinación de la depreciación, agotamiento y amortización (DD&A) de propiedades, planta y equipo relacionados con la exploración y producción, los recursos naturales y ambientales, así como en la determinación de los flujos de efectivo futuros utilizados en los análisis de deterioro de activos de larga vida, dependen de la estimación relacionada con las reservas de petróleo y gas.

La gerencia utiliza ingenieros independientes externos (en adelante "especialistas") al estimar las reservas como factores geológicos, técnicos y económicos. Las estimaciones de las reservas de petróleo y gas dependen de una serie de factores variables y suposiciones clave, incluidas las cantidades de petróleo y gas que se espera recuperar, el momento de la recuperación, la producción, los costos operativos, de capital y el precio de venta, entre otros.

La determinación del DD&A de la Compañía y el cálculo del deterioro de los activos de larga vida es especialmente complejo debido a la naturaleza inherente de ingeniería técnica del proceso de estimación de reservas, el cual requiere el uso de especialistas y la evaluación de la Administración en la determinación de los supuestos descritos anteriormente utilizados por los especialistas en la estimación de las reservas de petróleo y gas.

Respuesta de Auditoría

Obtuvimos un entendimiento del proceso, evaluamos el diseño y probamos la efectividad operativa de los controles sobre el proceso de la Compañía para calcular el DD&A y realizar el análisis de deterioro de los activos de larga vida, incluidos los controles de la Administración sobre la integridad y la precisión de los datos financieros proporcionados a los especialistas para la estimación de reservas de petróleo y gas.

Nuestros procedimientos de auditoría incluyeron, entre otros, evaluar las calificaciones profesionales y la objetividad de las personas responsables de supervisar la preparación de las estimaciones de reserva por parte de los especialistas. Evaluamos la calificación y competencia de los especialistas contratados por la Compañía para desarrollar estas estimaciones. Adicionalmente evaluamos la integridad y precisión de los datos financieros y los supuestos descritos anteriormente utilizados por los especialistas en la estimación de las reservas de petróleo y gas con el fin de obtener documentación y evaluar evidencia corroborativa. Para las reservas probadas no desarrolladas, evaluamos el plan de desarrollo de la administración para cumplir con la regla de la SEC (U.S. Securities and Exchange Commission) de las ubicaciones no perforadas que están programadas para ser perforadas dentro de los cinco años, a menos que circunstancias específicas justifiquen un tiempo más largo, evaluando la consistencia de las proyecciones de desarrollo con el plan de perforación de la Compañía y disponibilidad de capital en relación con el plan de perforación. También probamos la precisión matemática de los cálculos de DD&A y revisamos la consistencia entre la estimación de las reservas de petróleo y gas preparada por los especialistas con las proyecciones de flujo de efectivo utilizadas en los análisis de deterioro de activos de larga vida.



Otra Información

La Administración es responsable de la otra información. La otra información comprende el informe de gestión sostenible, pero no incluye los estados financieros ni mi informe de auditoría correspondiente.

Mi opinión sobre los estados financieros no cubre la otra información y no expreso ninguna forma de conclusión que proporcione un grado de seguridad sobre esta.

En relación con mi auditoría de los estados financieros, mi responsabilidad es leer la otra información y, al hacerlo, considerar si existe una incongruencia material entre la otra información y los estados financieros o el conocimiento obtenido por mí en la auditoría o si parece que existe una incorrección material en la otra información por algún otro motivo. Si, basándome en el trabajo que he realizado, concluyo que existe una incorrección material en esta otra información, estoy obligado a informar de ello. No tengo nada de lo que informar al respecto.

Responsabilidades de la Administración y de los responsables del gobierno de la Compañía en relación con los estados financieros

La Administración es responsable por la preparación y correcta presentación de los estados financieros de acuerdo con las Normas de Contabilidad y de Información Financiera aceptadas en Colombia (NCIF) adoptadas por la Contaduría General de la Nación; de diseñar, implementar y mantener el control interno relevante para la preparación y correcta presentación de los estados financieros libres de incorrección material, bien sea por fraude o error; de seleccionar y de aplicar las políticas contables apropiadas; y, de establecer estimaciones contables razonables en las circunstancias.

Al preparar los estados financieros, la Administración es responsable de evaluar la capacidad de la Compañía para continuar como negocio en marcha, revelando, según corresponda, los asuntos relacionados con este asunto y utilizando la base contable de negocio en marcha, a menos que la Administración tenga la intención de liquidar la Compañía o cesar sus operaciones, o no tenga otra alternativa realista diferente a hacerlo.

Los encargados del gobierno de la Compañía son responsables de la supervisión del proceso de información financiera de la misma.

Responsabilidades del Auditor en la Auditoría de los Estados Financieros

Mi objetivo es obtener una seguridad razonable sobre si los estados financieros tomados en su conjunto están libres de incorrección material, ya sea por fraude o error, y emitir un informe que incluya mi opinión. La seguridad razonable es un alto nivel de aseguramiento, pero no garantiza que una auditoría realizada de acuerdo con las Normas Internacionales de Auditoría aceptadas en Colombia siempre detectará una incorrección material cuando exista. Las incorrecciones pueden surgir debido a fraude o error y se consideran materiales si, individualmente o acumuladas, podría esperarse que influyan razonablemente en las decisiones económicas que los usuarios tomen con base en los estados financieros.



Como parte de una auditoría de acuerdo con las Normas Internacionales de Auditoría aceptadas en Colombia, debo ejercer mi juicio profesional y mantener mi escepticismo profesional a lo largo de la auditoría, además de:

- Identificar y evaluar los riesgos de incorrección material en los estados financieros, ya sea por fraude o error, diseñar y ejecutar procedimientos de auditoría que respondan a esos riesgos, y obtener evidencia de auditoría que sea suficiente y apropiada para fundamentar mi opinión. El riesgo de no detectar una incorrección material debido a fraude es mayor que la resultante de un error, ya que el fraude puede implicar colusión, falsificación, omisiones intencionales, declaraciones falsas o sobrepaso del sistema de control interno.
- Obtener un entendimiento del control interno relevante para la auditoría, para diseñar procedimientos de auditoría que sean apropiados en las circunstancias.
- Evaluar lo adecuado de las políticas contables utilizadas, la razonabilidad de las estimaciones contables y las respectivas revelaciones realizadas por la Administración.
- Concluir sobre si es adecuado que la Administración utilice la base contable de negocio en marcha y, con base en la evidencia de auditoría obtenida, si existe una incertidumbre material relacionada con eventos o condiciones que puedan generar dudas significativas sobre la capacidad de la Compañía para continuar como negocio en marcha. Si concluyo que existe una incertidumbre importante, debo llamar la atención en el informe del auditor sobre las revelaciones relacionadas, incluidas en los estados financieros o, si dichas revelaciones son inadecuadas, modificar mi opinión. Las conclusiones del auditor se basan en la evidencia de auditoría obtenida hasta la fecha de mi informe, sin embargo, eventos o condiciones posteriores pueden hacer que una entidad no pueda continuar como negocio en marcha.
- Evaluar la presentación general, la estructura, el contenido de los estados financieros, incluyendo las revelaciones, y si los estados financieros representan las transacciones y eventos subyacentes de manera que se logre una presentación razonable.

Comuniqué a los responsables del gobierno de la Compañía, entre otros asuntos, el alcance planeado y el momento de realización de la auditoría, los hallazgos significativos de la misma, así como cualquier deficiencia significativa del control interno identificada en el transcurso de la auditoría.

También proporcioné a los responsables del gobierno de la Compañía una declaración de que he cumplido los requerimientos de ética aplicables en relación con la independencia y comunicado con ellos acerca de todas las relaciones y demás cuestiones de las que se podría esperar razonablemente que pudieran afectar mi independencia y, en su caso, las correspondientes salvaguardas.

Entre los asuntos que han sido objeto de comunicación con los responsables del gobierno de la Compañía, determiné los que han sido de la mayor significatividad en la auditoría de los estados financieros del período actual y que son, en consecuencia, asuntos clave de la auditoría. Describí esos asuntos en mi informe de auditoría salvo que las disposiciones legales o reglamentarias prohíban revelar públicamente el asunto o, en circunstancias extremadamente poco frecuentes, se determine que un asunto no se debería comunicar en mi informe porque cabe razonablemente esperar que las consecuencias adversas de hacerlo superarían los beneficios de interés público del mismo.



Otros Asuntos

Los estados financieros separados bajo normas de contabilidad y de información financiera aceptadas en Colombia (NCIF) adoptadas por la Contaduría General de la Nación de Ecopetrol S.A. al 31 de diciembre de 2019, que hacen parte de la información comparativa de los estados financieros adjuntos, fueron auditados por mí, de acuerdo con normas internacionales de auditoría aceptadas en Colombia, sobre los cuales expresé mi opinión el 21 de febrero de 2020.

Otros Requerimientos Legales y Reglamentarios

Fundamentado en el alcance de mi auditoría, no estoy enterado de situaciones indicativas de inobservancia en el cumplimiento de las siguientes obligaciones de la Compañía: 1) Llevar los libros de actas, registro de accionistas y de contabilidad, según las normas legales y la técnica contable; 2) Desarrollar las operaciones conforme a los estatutos y decisiones de la Asamblea de Accionistas y de la Junta Directiva, y a las normas relativas a la seguridad social integral; y 3) Conservar la correspondencia y los comprobantes de las cuentas. Adicionalmente, existe concordancia entre los estados financieros adjuntos y la información contable incluida en el informe de gestión preparado por la Administración de la Compañía, el cual incluye la constancia por parte de la Administración sobre la libre circulación de las facturas con endoso emitidas por los vendedores o proveedores. El informe correspondiente a lo requerido por el artículo 1.2.1.2 del Decreto 2420 de 2015 lo emití por separado el 22 de febrero de 2021.

A handwritten signature in black ink, appearing to read 'Victor Hugo Rodriguez Vargas', with a checkmark at the end.

Victor Hugo Rodriguez Vargas
Revisor Fiscal y Socio a cargo
Tarjeta Profesional 57851 -T
Designado por Ernst & Young Audit S.A.S. TR-530

Bogotá, Colombia
22 de febrero de 2021



Certificación del Representante legal y Contador de la Compañía

A los señores Accionistas de Ecopetrol S.A.:

22 de febrero de 2021

Los suscritos Representante legal y Contador de la Compañía certificamos que los estados financieros separados de la Compañía al 31 de diciembre de 2020 y por el periodo de doce meses terminado en esa fecha, han sido fielmente tomados de los libros, y que antes de ser puestos a su disposición y de terceros, hemos verificado las siguientes afirmaciones contenidas en ellos:

1. Todos los activos y pasivos, incluidos en los estados financieros separados al 31 de diciembre de 2020, existen y todas las transacciones incluidas en dichos estados se han realizado durante el año terminado en esta fecha.
2. Todos los hechos económicos realizados por la Compañía, durante el año terminado al 31 de diciembre de 2020 se han reconocido en los estados financieros separados.
3. Los activos representan probables derechos económicos futuros y los pasivos representan probables obligaciones actuales y futuras, obtenidos a cargo de la Compañía al 31 de diciembre de 2020.
4. Todos los elementos han sido reconocidos por sus valores apropiados, de acuerdo con las normas de contabilidad y de información financiera aceptadas en Colombia.
5. Todos los hechos económicos que afectan a la Compañía han sido correctamente clasificados, descritos y revelados en los estados financieros separados.

(Original firmado)
Felipe Bayón Pardo
Presidente – Representante legal

(Original firmado)
Javier Leonardo Cárdenas Laiton
Contador Público
T.P. 116770-T

Estados de situación financiera separados

	Nota	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Activos			
Activos corrientes			
Efectivo y equivalentes de efectivo	6	1,259,553	1,477,493
Cuentas comerciales y otras cuentas por cobrar, neto	7	4,920,654	5,177,568
Inventarios, neto	8	3,333,529	3,821,906
Otros activos financieros	9	1,926,810	2,444,824
Activos por impuestos corrientes	10	3,583,183	1,210,988
Otros activos	11	1,166,783	1,109,725
		16,190,512	15,242,504
Activos mantenidos para la venta		25,955	6,025
Total activos corrientes		16,216,467	15,248,529
Activos no corrientes			
Cuentas comerciales y otras cuentas por cobrar, neto	7	515,741	637,631
Otros activos financieros	9	557,308	2,789,135
Inversiones en compañías	12	55,530,366	52,643,915
Propiedades, planta y equipo	14	23,312,097	21,183,092
Recursos naturales y del medio ambiente	15	22,989,691	22,217,138
Activos por derecho de uso	16	3,178,617	3,481,271
Intangibles	17	210,248	231,501
Activos por impuestos no corrientes	10	4,680,446	3,557,160
Otros activos	11	1,153,389	967,281
Total activos no corrientes		112,127,903	107,708,124
Total activos		128,344,370	122,956,653
Pasivos			
Pasivos corrientes			
Préstamos y financiaciones	19	3,244,552	3,283,987
Cuentas comerciales y otras cuentas por pagar	20	7,260,197	8,878,626
Provisiones por beneficios a empleados	21	1,934,694	1,855,549
Pasivos por impuestos corrientes	10	408,253	1,198,097
Provisiones y contingencias	22	1,087,431	671,286
Otros pasivos		410,108	752,544
		14,345,235	16,640,089
Pasivos asociados a activos mantenidos para la venta		10,939	-
Total pasivos corrientes		14,356,174	16,640,089
Pasivos no corrientes			
Préstamos y financiaciones	19	42,116,443	33,014,135
Provisiones por beneficios a empleados	21	10,401,530	9,551,977
Pasivos por impuestos no corrientes	10	330,301	176,218
Provisiones y contingencias	22	8,996,641	7,144,226

Otros pasivos	48,031	17,678
Total pasivos no corrientes	61,892,946	49,904,234
Total pasivos	76,249,120	66,544,323
Patrimonio	23	
Capital suscrito y pagado	25,040,067	25,040,067
Prima en emisión de acciones	6,607,699	6,607,699
Reservas	9,635,136	3,784,658
Otros resultados integrales	7,921,462	6,702,221
Utilidades acumuladas	2,890,886	14,277,685
Total patrimonio	52,095,250	56,412,330
Total pasivos y patrimonio	128,344,370	122,956,653

Las notas adjuntas son parte integral de los estados financieros separados.

(Original firmado)
Felipe Bayón Pardo
Presidente

(Original firmado)
Javier Leonardo Cárdenas Laiton
Contador Público
T.P. 116770-T

(Original firmado)
Víctor Hugo Rodríguez Vargas
Revisor Fiscal
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Estados de ganancias y pérdidas separados

	Nota	Por los años terminados el 31 de diciembre de	
		2020	2019
Ingresos por ventas	24	43,528,927	62,615,849
Costos de ventas	25	(40,341,766)	(47,218,412)
Utilidad bruta		3,187,161	15,397,437
Gastos de administración	26	(2,389,125)	(1,362,190)
Gastos de operación y proyectos	26	(1,431,662)	(1,337,760)
Impairment de activos a largo plazo	18	(424,829)	(2,082,725)
Otros ingresos operacionales, neto	27	979,478	1,077,516
(Pérdida) utilidad operacional		(78,977)	11,692,278
Resultado financiero, neto	28		
Ingresos financieros		1,694,344	2,468,872
Gastos financieros		(4,428,984)	(4,247,655)
(Pérdida) utilidad por diferencia en cambio, neta		(286,037)	152,817
		(3,020,677)	(1,625,966)
Participación en los resultados de compañías	12	3,905,136	6,283,608
Utilidad antes de impuesto a las ganancias		805,482	16,349,920
Ingreso (gasto) por impuesto a las ganancias	10	882,595	(3,098,437)
Utilidad neta del periodo		1,688,077	13,251,483
Utilidad básica por acción (pesos)		41.1	322.3

Las notas adjuntas son parte integral de los estados financieros separados.

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Estados de otros resultados integrales separados

	Nota	Por los años terminados el 31 de diciembre de	
		2020	2019
Utilidad neta del periodo		1,688,077	13,251,483
Otros resultados integrales:			
Elementos que pueden ser reclasificados posteriormente a ganancias o pérdidas, neto de impuestos:			
Utilidad (pérdida) no realizada en operaciones de cobertura:			
Flujo de efectivo para futuras exportaciones	29.1	131,752	668,299
Flujo de efectivo instrumentos derivados		1,914	3,311
Inversión neta en negocio en el extranjero	29.1	(364,343)	(61,267)
Utilidad método de participación patrimonial	12	1,353,697	47,368
		1,123,020	657,711
Elementos que no pueden ser reclasificados posteriormente a ganancias o pérdidas, neto de impuestos:			
Ganancias (pérdidas) actuariales		96,221	(1,799,829)
Otros resultados integrales		1,219,241	(1,142,118)
Total resultado integral		2,907,318	12,109,365

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Estados de cambios en el patrimonio separados

	Nota	Capital suscrito y pagado	Prima en emisión de acciones	Reserva legal
Saldo al 31 de diciembre de 2019		25,040,067	6,607,699	3,243,832
Utilidad neta del periodo		-	-	-
Liberación de reservas	23.3	-	-	-
Dividendos decretados	23.4	-	-	-
Otros movimientos		-	-	-
Apropiación de reservas				
Legal		-	-	1,325,148
Fiscales y estatutarias		-	-	-
Ocasionales		-	-	-
Otros resultados integrales				
Utilidad (pérdida) no realizada en operaciones de cobertura:				
Flujo de efectivo para futuras exportaciones		-	-	-
Inversión neta en negocio en el extranjero		-	-	-
Flujo de efectivo instrumentos derivados		-	-	-
Método de participación patrimonial	12	-	-	-
Ganancias actuariales	21.1	-	-	-
Saldo al 31 de diciembre de 2020		25,040,067	6,607,699	4,568,980

		Capital suscrito y pagado	Prima en emisión de acciones	Reserva legal
Saldo al 31 de diciembre de 2018		25,040,067	6,607,699	2,088,192
Utilidad neta del periodo		-	-	-
Liberación de reservas	23.3	-	-	-
Dividendos decretados	23.4	-	-	-
Apropiación de reservas				
Legal		-	-	1,155,640
Fiscales y estatutarias		-	-	-
Ocasionales		-	-	-
Otros resultados integrales				
Utilidad (pérdida) no realizada en operaciones de cobertura:				
Flujo de efectivo para futuras exportaciones		-	-	-
Inversión neta en negocio en el extranjero		-	-	-
Flujo de efectivo instrumentos derivados		-	-	-
Método de participación patrimonial	12	-	-	-
Pérdidas actuariales	21.1	-	-	-
Saldo al 31 de diciembre de 2019		25,040,067	6,607,699	3,243,832

Las notas adjuntas son parte integral de los estados financieros separados.

Otras reservas	Otros resultados integrales	Utilidades acumuladas	Total Patrimonio
540,826	6,702,221	14,277,685	56,412,330
-	-	1,688,077	1,688,077
(540,826)	-	540,826	-
-	-	(7,401,005)	(7,401,005)
-	-	176,607	176,607
-	-	(1,325,148)	-
509,082	-	(509,082)	-
4,557,074	-	(4,557,074)	-
-	131,752	-	131,752
-	(364,343)	-	(364,343)
-	1,914	-	1,914
-	1,353,697	-	1,353,697
-	96,221	-	96,221
5,066,156	7,921,462	2,890,886	52,095,250
Otras reservas	Otros resultados integrales	Utilidades acumuladas	Total Patrimonio
3,050,703	7,844,339	12,582,607	57,213,607
-	-	13,251,483	13,251,483
(3,050,703)	-	3,050,703	-
(3,659,386)	-	(9,251,256)	(12,910,642)
-	-	(1,155,640)	-
509,082	-	(509,082)	-
3,691,130	-	(3,691,130)	-
-	668,299	-	668,299
-	(61,267)	-	(61,267)
-	3,311	-	3,311
-	47,368	-	47,368
-	(1,799,829)	-	(1,799,829)
540,826	6,702,221	14,277,685	56,412,330

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Estados de flujos de efectivo separados

		Por los años terminados el 31 de diciembre de	
	Nota	2020	2019
Flujos de efectivo de las actividades de operación:			
Utilidad neta del periodo		1,688,077	13,251,483
Ajustes para conciliar la utilidad neta con el efectivo provisto por las operaciones:			
(Ingreso) gasto por impuesto a las ganancias	10	(882,595)	3,098,437
Depreciación, agotamiento y amortización	14,15,16, 17	6,451,152	5,933,826
Pérdida (utilidad) por diferencia en cambio	28	286,037	(152,817)
Costo financiero de préstamos y financiaciones	28	2,358,918	1,832,765
Costo financiero de beneficios post-empleo y costos de abandono	28	828,255	713,312
Pozos secos	15	237,553	146,054
Pérdida en venta o retiro de activos no corrientes		201,229	83,289
Impairment de activos a largo plazo	18	424,829	2,082,725
Gasto por impairment de activos corrientes	27	1,245	6,768
Utilidad en combinaciones de negocios	13	(1,284,372)	(1,048,924)
Utilidad por método de participación patrimonial	12	(3,905,136)	(6,283,608)
Pérdida por diferencia en cambio realizada sobre coberturas de exportación	24	390,206	1,028,516
Pérdida por ineffectividad de coberturas	29.1	9,779	5,173
(Utilidad) pérdida por valoración de activos financieros	19.8	(33,162)	30,051
Cambios netos en operaciones con activos y pasivos:			
Cuentas comerciales y otras cuentas por cobrar		(87,221)	2,060,484
Inventarios		555,169	(363,345)
Cuentas comerciales y otras cuentas por pagar		(1,871,176)	1,116,997
Activos y pasivos por impuestos corrientes		(1,150,236)	(1,318,234)
Provisiones por beneficios a empleados		451,634	(244,867)
Provisiones y contingencias		(76,269)	(415,043)
Otros activos y pasivos		(518,627)	250,713
		4,075,289	21,813,755
Impuesto de renta pagado		(2,050,555)	(2,232,226)
Efectivo neto provisto por las actividades de operación		2,024,734	19,581,529
Flujos de efectivo de las actividades de inversión:			
Aportes de capital en inversiones en compañías	12	(1,822,387)	(4,123,298)
Inversión en propiedades, planta y equipo	14	(3,304,896)	(2,824,030)
Inversión en recursos naturales y del medio ambiente	15	(2,907,652)	(5,488,867)
Adquisiciones de intangibles	17	(41,637)	(47,883)
Venta de otros activos financieros, neto		2,571,033	3,914,108
Intereses recibidos		179,328	300,494
Dividendos recibidos	12	4,319,254	3,812,520
Producto de la venta de activos		-	14,651

Efectivo neto usado por actividades de inversión		(1,006,957)	(4,442,305)
Flujo de efectivo en actividades de financiación:			
Adquisición de préstamos y financiaciones	19	11,742,319	-
Pagos de capital		(2,666,932)	(913,449)
Pagos de intereses		(2,182,863)	(1,737,854)
Pagos por arrendamientos (capital e intereses)	16	(542,937)	(505,811)
Dividendos pagados	20	(7,369,499)	(12,910,611)
Efectivo neto usado en actividades de financiación		(1,019,912)	(16,067,725)
Efecto de la variación en tasas de cambio sobre efectivo y equivalentes de efectivo		(215,805)	146,675
Disminución neta en el efectivo y equivalentes de efectivo		(217,940)	(781,826)
Efectivo y equivalentes de efectivo al inicio del periodo		1,477,493	2,259,319
Efectivo y equivalentes de efectivo al final del periodo		6	1,259,553
Transacciones no monetarias:			
Valor razonable por adquisición de participación adicional en Guajira	13	1,101,686	-
Reconocimiento de activos por derecho de uso y pasivos por arrendamiento	16	4,210	3,770,554
Valor razonable por cambio en la participación en Invercolsa		-	1,325,943

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1. Entidad reportante

Ecopetrol S.A. es una Compañía de economía mixta pública por acciones, de carácter comercial constituida en 1948 en Bogotá - Colombia, casa matriz del grupo empresarial Ecopetrol, dedicada a actividades comerciales o industriales relacionadas con la exploración, explotación, refinación, transporte, almacenamiento, distribución y comercialización de hidrocarburos, sus derivados y productos, directamente o por medio de sus subordinadas (denominadas en conjunto "Ecopetrol" o la "Compañía").

El 11.51% de las acciones de Ecopetrol se cotizan públicamente en las bolsas de valores de Colombia y Nueva York. Las acciones restantes (88.49% de las acciones en circulación) le pertenecen al Ministerio de Hacienda y Crédito Público de Colombia.

El domicilio de la oficina principal de Ecopetrol es Bogotá - Colombia, Carrera 13 No. 36 - 24.

2. Bases de presentación

2.1. Declaración de cumplimiento y autorización de los estados financieros

Los estados financieros separados de Ecopetrol S.A. han sido preparados de acuerdo con los principios y normas de contabilidad e información financiera, aceptados en Colombia (NCIF), reglamentadas en el Decreto 2420 de 2015, modificado por los Decretos 2496 de 2015, 2131 de 2016, 2170 de 2017, 2483 de 2018 y 2270 de 2019. Estas normas están fundamentadas en las Normas Internacionales de Información Financiera - NIIF y sus Interpretaciones emitidas por el Consejo de Normas Internacionales de Contabilidad (IASB, por sus siglas en inglés) al segundo semestre de 2017 y otras disposiciones legales aplicables para las entidades vigiladas y/o controladas por la Contaduría General de la Nación, que pueden diferir en algunos aspectos de los establecidos por otros organismos de control del Estado.

Estos estados financieros separados fueron preparados para cumplir con las disposiciones legales colombianas a que está sujeta la Compañía como entidad legal independiente, y no incluyen los ajustes ni eliminaciones necesarias para la presentación de la situación financiera y resultados integrales consolidados de Ecopetrol y sus subordinadas; por consiguiente, los estados financieros separados deben leerse conjuntamente con los estados financieros consolidados del Grupo Empresarial Ecopetrol.

Estos estados financieros fueron autorizados para su emisión por la Junta Directiva el 22 de febrero del 2021.

Las políticas contables descritas en la Nota 4 han sido aplicadas de manera consistente.

Para propósitos de presentación, la Compañía reclasificó algunos rubros en las cifras comparativas a 31 de diciembre de 2019. Lo anterior, no tuvo impacto en las partidas en los estados de situación financiera, ganancias y pérdidas, resultados integrales, cambios en el patrimonio ni flujos de efectivo.

2.2 Bases de medición

Los estados financieros de la Compañía han sido preparados sobre la base de costo histórico, excepto por activos y pasivos financieros a valor razonable con cambios en resultados y/o cambios en otro resultado integral que se valúan a sus valores razonables al cierre de cada periodo, como se explica en las políticas contables incluidas más adelante.

Por lo general, el costo histórico se basa en el valor razonable de la contraprestación otorgada a cambio de los bienes y servicios.

El valor razonable es el precio que se recibiría al vender un activo o se pagaría al transferir un pasivo en una transacción ordenada entre participantes del mercado a la fecha de la medición. Al estimar el valor razonable, la Compañía utiliza los supuestos que los participantes del mercado utilizarían al fijar el precio del activo o pasivo en condiciones de mercado presentes, incluyendo supuestos sobre el riesgo.

2.3. Moneda funcional y de presentación

Los estados financieros separados son presentados en pesos colombianos, la cual es la moneda funcional de la Compañía y se determina en función al entorno económico principal en el que opera.

Los estados financieros se presentan en pesos colombianos redondeados a la unidad de un millón (COP \$000,000) más cercana, excepto cuando se indique lo contrario.

2.4. Moneda extranjera

Las transacciones en moneda extranjera son registradas utilizando los tipos de cambio vigentes en las fechas en que se efectúan las operaciones. Las partidas monetarias denominadas en moneda extranjera son convertidas a las tasas de cambio vigentes a la fecha de reporte. Las variaciones presentadas en la conversión son reconocidas en el resultado financiero, neto, excepto las resultantes de la conversión de préstamos y financiaciones

designadas como instrumentos de cobertura de flujo de efectivo o de inversión neta de un negocio en el extranjero, las cuales se reconocen en el otro resultado integral, dentro del patrimonio. Cuando las partidas cubiertas afectan el resultado, las diferencias en cambio acumuladas en el patrimonio se reclasifican al estado de ganancias y pérdidas como parte del resultado de la operación.

Las partidas no monetarias registradas al valor razonable que están denominadas en moneda extranjera son convertidas a las tasas de cambio vigentes a la fecha en que se determinó el valor razonable. La ganancia o pérdida que surge de la conversión de partidas no monetarias medidas a valor razonable se reconoce de la misma manera que la ganancia o pérdida por valor razonable del bien.

2.5. Clasificación de activos y pasivos entre corrientes y no corrientes

La Compañía presenta activos y pasivos en el estado de situación financiera separado con base en la clasificación corriente o no corriente.

Un activo o un pasivo se clasifica como corriente cuando:

- Se espera que se realice o se pretenda vender o consumir en el ciclo normal de la operación
- Se mantiene principalmente con el propósito de negociar
- Se espera que se realice dentro de los doce meses posteriores al período de reporte
- Es efectivo o equivalente a menos que se restrinja el intercambio o se use para liquidar un pasivo durante al menos doce meses después del período de reporte
- En el caso de un pasivo, no existe el derecho incondicional de diferir su liquidación durante al menos doce meses después del período de reporte

Los demás activos y pasivos se clasifican como no corrientes.

Los activos y pasivos por impuestos diferidos se clasifican como activos y pasivos no corrientes.

2.6. Utilidad neta por acción

La utilidad neta por acción se calcula como el cociente entre el resultado neto del período atribuible a los accionistas de Ecopetrol y el promedio ponderado

de acciones ordinarias en circulación durante dicho período. No existe dilución potencial de acciones.

2.7. Impacto del Covid-19 sobre los Estados Financieros

El brote del Covid-19 fue informado por primera vez a finales de 2019 en China, posteriormente, teniendo en cuenta el nivel de expansión, el 11 de marzo de 2020, la Organización Mundial de la Salud (OMS) declaró el brote como una pandemia, la cual se mantiene en la actualidad.

Esta situación ha tenido un impacto significativo en la economía mundial y por consiguiente en la industria petrolera. Las prohibiciones de viajes impuestas por varios países y las medidas de cuarentena establecidas han reducido los niveles de demanda de petróleo y sus derivados en 2020.

La pandemia del Covid-19 también ha provocado una volatilidad significativa en los mercados financieros y de materias primas de todo el mundo. Los gobiernos han anunciado ayudas a las personas más afectadas y han tomado medidas de orden macroeconómico para afrontar la crisis.

En este contexto, Ecopetrol tomó las siguientes acciones durante el 2020 para afrontar los impactos de la pandemia:

- Recorte de \$2 billones de pesos en costos y gastos incluidas medidas de austeridad, priorización de actividades operativas y administrativas, y control sobre gastos operativos, tales como restricciones de viajes, patrocinios y participación en eventos, entre otros.
- Uso de las líneas de financiamiento por USD\$665 millones, así como una emisión y colocación de bonos de deuda pública externa en el mercado internacional de capitales por USD\$2,000 millones a las tasas de mercado establecidas en las condiciones actuales (Nota 19).
- Registro contable de un gasto por impairment al corte del 31 de marzo de 2020 por \$467,598, luego de ajustar algunos de los supuestos utilizados (precios y tasas de descuento) en la evaluación realizada al 31 de diciembre de 2019, reconociendo el impacto sobre los principales activos a largo plazo (únicamente sobre algunos activos productivos del segmento de exploración y producción y sobre la planta de la Refinería de Cartagena). (Nota 18 – Impairment de activos a largo plazo).

- Publicación de un nuevo plan de inversiones orgánicas para el Grupo Ecopetrol (GE) aprobado por la Junta Directiva el 17 de julio, considerando: (i) una detallada revisión del portafolio del Grupo, (ii) el avance en las intervenciones realizadas, y (iii) la paulatina recuperación de la actividad económica.

Estas medidas tuvieron el objetivo de asegurar la sostenibilidad del negocio en un entorno de precios bajos, priorizando las oportunidades generadoras de caja y con mejores precios de equilibrio, manteniendo la dinámica de crecimiento con foco en la ejecución de los planes de desarrollo de los activos estratégicos, y en la preservación del valor de los activos mediante inversiones que permitan dar confiabilidad, integridad y continuidad a la operación actual en refinerías, sistemas de transporte y campos de producción. Así mismo, estas acciones estuvieron enmarcadas en las políticas y procedimientos para la administración de riesgos de Ecopetrol (Nota 29).

Los impactos más significativos para el desempeño de Ecopetrol durante el año se reflejan principalmente en una reducción de los ingresos (Nota 24), mayores

costos financieros producto de la adquisición de deuda (Nota 28), el reconocimiento de impairment al cierre del primer trimestre del año conforme al análisis y actualización de las variables en los modelos respectivos (Nota 18) y un mayor gasto por depreciaciones (Notas 14, 15, 16 y 17), en parte generado por la actualización del balance de reservas (Nota 32).

Producto de las medidas tomadas, del monitoreo constante a la situación de pandemia, de los programas de vacunación en curso y de la evolución de los resultados de la Compañía, no se espera que el Covid-19 tenga un impacto significativo sobre la entidad en el futuro.

Así mismo, Ecopetrol S.A. continuará monitoreando la evolución de la pandemia y del mercado para determinar la necesidad de poner en marcha etapas subsecuentes del plan de intervención. De igual forma, estará revisando indicadores de impairment sobre los activos de larga duración y sobre las inversiones en compañías.

3. Estimaciones y juicios contables significativos

La preparación de los estados financieros requiere que la Gerencia de la Compañía realice juicios, estimaciones y suposiciones para cuantificar algunos de los activos, pasivos, ingresos, gastos y compromisos reconocidos en los estados financieros y sus revelaciones. Estas estimaciones se han realizado en función de la mejor información disponible sobre los hechos analizados, la experiencia de la gerencia y otros factores. La incertidumbre sobre los supuestos y las estimaciones podría resultar en cambios materiales futuros que afecten el valor de activos o pasivos. Los cambios en estas estimaciones son reconocidos prospectivamente en el periodo en el cual se revisan.

En el proceso de aplicación de las políticas contables, la Gerencia ha realizado los siguientes juicios y estimaciones, los cuales han tenido el efecto más significativo en los montos reconocidos en los estados financieros:

3.1. Reservas de petróleo y gas natural

Las reservas de petróleo y gas natural son estimadas del monto de hidrocarburos que pueden ser económica

y legalmente extraídos de las facilidades de producción de la Compañía.

La estimación de reservas se realiza anualmente al 31 de diciembre, de conformidad con las definiciones y reglas de la Securities and Exchange Commission (SEC), establecidas en la Regla 4-10(a) del Reglamento S-X y las directrices de divulgación contenida en la regla final SEC de Modernización de Reporte de Petróleo y Gas.

Tal como lo exige la normatividad vigente, la fecha futura estimada en la que un campo dejará de producir por razones económicas se basa en los costos actuales y en el promedio de los precios del crudo (calculado como el promedio aritmético de los precios del primer día de los últimos 12 meses). La fecha estimada en que terminará la producción afectará el monto de las reservas, a menos que los precios fueran definidos por acuerdos contractuales, por lo tanto si los precios y los costos cambian de un año a otro, la estimación de las reservas probadas también cambia. Generalmente, las reservas probadas disminuyen en la medida en que los precios bajan y aumentan cuando los precios suben.

La estimación de reservas es un proceso complejo e involucra el uso de juicios profesionales.

Estas estimaciones se preparan usando factores geológicos, técnicos y económicos, incluyendo proyecciones futuras de tasas de producción, precios del petróleo, datos de ingeniería y la duración y monto de futuras inversiones con cierto grado de incertidumbre.

Estas estimaciones reflejan las condiciones regulatorias y de mercado existentes a la fecha de reporte, las cuales podrían diferir significativamente de otras condiciones a lo largo del año o en periodos futuros. Cualquier cambio en los factores regulatorios y/o de mercado y en los supuestos utilizados, puede impactar materialmente la estimación de las reservas.

Impacto de las reservas de petróleo y gas natural en la depreciación y agotamiento

Los cambios en las estimaciones de reservas probadas afectan los importes del valor en libros de los activos de exploración y producción, de los recursos naturales y del medio ambiente, del goodwill, los pasivos por abandono y desmantelamiento y de la depreciación, agotamiento y amortización. Manteniendo las demás variables constantes, una reducción en la estimación de reservas probadas aumentaría, de forma prospectiva, el valor de los gastos por depreciación y amortización, mientras que un aumento en las reservas resultaría en una reducción del gasto. La depreciación, agotamiento y amortización es calculada usando el método de unidades de producción.

La información sobre el valor en libros de los activos de exploración y producción y los montos registrados con cargo a resultados, incluyendo la depreciación, agotamiento y amortización, es presentada en las Notas 14 y 15.

3.2. Impairment (recuperación) del valor de los activos de largo plazo

La Gerencia utiliza su juicio profesional al evaluar la existencia de indicios de un gasto o recuperación de impairment, con base en factores internos y externos.

Cuando exista un indicador de gasto o recuperación de impairment de períodos anteriores, la Compañía estima el importe recuperable de las unidades generadoras de efectivo (UGE), el cual corresponde al mayor entre el valor razonable menos los costos de disposición y el valor en uso.

La evaluación requiere el uso de estimados y supuestos, entre los que se incluyen: (1) estimación

de volúmenes y valor de mercado de las reservas de petróleo y gas natural; (2) perfiles de producción de los campos petroleros y producción futura de productos refinados y químicos; (3) inversiones, impuestos y costos futuros; (4) vida útil de los activos; (5) precios futuros, (6) tasa de descuento, la cual es revisada anualmente, y es determinada como el costo promedio ponderado del capital (WACC, por sus siglas en inglés) y (7) cambios en la regulación ambiental; entre otros factores. El importe recuperable es comparado con el valor neto en libros del activo, o de la unidad generadora de efectivo para determinar si es sujeto de reconocimiento de impairment o si debe recuperarse algún monto de periodos anteriores.

Una pérdida por impairment reconocida previamente se revierte solo si ha habido un cambio en los supuestos utilizados para determinar el importe recuperable de los activos o UGEs desde que se reconoció la última pérdida por impairment. La reversión está limitada de modo que el valor en libros de un activo o UGE, diferente al goodwill, no exceda su importe recuperable, o el valor en libros que se hubiera determinado (neto de amortización o depreciación) si no se hubiera reconocido una pérdida en periodos anteriores.

Los precios futuros se estiman bajo las condiciones actuales del mercado. Los volúmenes de producción esperados, que comprenden reservas probadas y no probadas, se utilizan para pruebas de impairment debido a que la gerencia considera que este es el indicador más apropiado de los flujos de efectivo futuros esperados, los cuales también serían considerados por los participantes del mercado. Las estimaciones de las reservas son intrínsecamente imprecisas y sujetas a riesgo e incertidumbre. Además, las proyecciones sobre reservas no probadas se basan en información que es necesariamente menos robusta que la disponible para reservorios maduros.

Estas estimaciones y supuestos están sujetos a riesgo e incertidumbre. Por lo tanto, existe la posibilidad de que los cambios en las circunstancias afecten las proyecciones, lo que también puede afectar el monto recuperable de los activos y/o UGE, por lo tanto, también puede afectar el reconocimiento de una pérdida por impairment o la reversión de los montos registrados en periodos anteriores.

3.3. Costos de exploración y evaluación

La aplicación de la política contable de la Compañía para los costos de exploración y evaluación requiere juicio para determinar si los beneficios económicos futuros son probables, ya sea por una explotación

futura o una venta, o si las actividades no han alcanzado una etapa que permita una evaluación razonable de la existencia de reservas. Ciertos costos de exploración y evaluación se capitalizan inicialmente cuando se espera que surjan reservas comercialmente viables. Ecopetrol utiliza su juicio profesional sobre eventos y circunstancias futuras y realiza estimaciones para evaluar anualmente la generación de beneficios económicos futuros para la extracción de recursos petroleros, así como análisis técnicos y comerciales para confirmar su intención de continuar su desarrollo.

Los cambios con respecto a la información disponible, tal como el nivel de éxito de perforación o los cambios en la economía del proyecto, los costos de producción y los niveles de inversión, así como otros factores, pueden dar lugar a que los costos de perforación de exploración capitalizados se reconozcan en los resultados del período. Ecopetrol emplea el método de esfuerzos exitosos para el registro de las actividades de exploración y evaluación. Los gastos por pozos secos se incluyen en las actividades de operación en el estado de flujos de efectivo.

3.4. Determinación de las unidades generadoras de efectivo (UGEs)

La asignación de activos en UGEs requiere juicio significativo, así como también la evaluación con respecto a la integración entre los activos, la existencia de mercados activos, la exposición similar a los riesgos de mercado, las infraestructuras compartidas y la forma en la que la gerencia monitorea las operaciones. Ver Nota 4.11 – Impairment del valor de los activos de largo plazo.

3.5. Abandono y desmantelamiento de campos y otras facilidades

De acuerdo con la reglamentación ambiental y de petróleos, la Compañía debe reconocer los costos por el abandono de instalaciones de extracción y transporte de petróleo, los cuales incluyen el costo de taponamiento y abandono de pozos, desmantelamiento de instalaciones y recuperación ambiental de las áreas afectadas.

Los costos de abandono y desmantelamiento son registrados cuando se tienen obligaciones ya sean legales o implícitas relacionadas con el desmantelamiento de componentes de pozos, ductos, inmuebles y equipo. Estas estimaciones son revisadas anualmente.

Los cálculos de estos montos son complejos e involucran juicios significativos por parte de la Gerencia. Los costos finales de cierre son inciertos y las estimaciones pueden variar en respuesta a muchos factores, incluidos los cambios en los requisitos legales pertinentes, el surgimiento de nuevas técnicas de restauración o la experiencia en otros sitios de producción. El tiempo esperado, la extensión y el monto de los gastos también pueden cambiar, por ejemplo, en respuesta a cambios en las proyecciones de costos internos, cambios en las estimaciones de reservas, tasas de inflación futuras y tasas de descuento. La Compañía considera que los costos de abandono y desmantelamiento son razonables, según la experiencia y las condiciones del mercado; sin embargo, las variaciones significativas en los factores externos utilizados para el cálculo de la estimación podrían afectar significativamente los montos registrados en los estados financieros. Ver Nota 4.12 – Provisiones y pasivos contingentes (Obligación de retiro de activos).

3.6. Planes de pensión y otros beneficios

La determinación de gastos, pasivos y ajustes relacionados con los planes de pensión y otros beneficios de retiro definidos requieren que la gerencia utilice el juicio en la aplicación de los supuestos actuariales utilizados en el cálculo actuarial. Los supuestos actuariales incluyen estimaciones de la mortalidad futura, retiros, cambios en la remuneración y la tasa de descuento para reflejar el valor del dinero en el tiempo; así como la tasa de rendimiento de los activos del plan. Debido a la complejidad de la valoración, así como a su naturaleza de largo plazo, las obligaciones que se definan son muy sensibles a cualquier cambio en las variables que se utilizan.

Estos supuestos se revisan anualmente para propósitos de las valuaciones actuariales y pueden diferir en forma material de los resultados reales debido a cambios en las condiciones económicas y de mercado, cambios en la regulación, decisiones judiciales, tasas de retiro más altas o más bajas, o a expectativas de vida de los empleados más largas o más cortas.

3.7. Litigios

La Compañía está sujeta a reclamaciones por procedimientos regulatorios y de arbitraje, liquidaciones de impuestos y otras que surgen dentro del curso ordinario de los negocios. La gerencia evalúa estas situaciones con base en su naturaleza, la probabilidad de que se materialicen y las sumas involucradas, para decidir sobre los importes reconocidos y/o revelados en los estados financieros.

Este análisis, el cual puede requerir juicios considerables, incluye revisar procesos legales instaurados en contra y reclamos aún no iniciados. Una provisión se reconoce cuando la Compañía tiene una obligación presente como resultado de un evento pasado y es probable que se genere una salida de recursos para liquidar la obligación y, asimismo, se puede hacer una estimación confiable del monto de dicha obligación.

3.8. Impuestos

El cálculo de la provisión por impuesto de renta requiere la interpretación de la normativa fiscal en las jurisdicciones donde opera la Compañía. Se requieren realizar juicios significativos para la determinación de las estimaciones del impuesto a las ganancias y para evaluar la recuperabilidad de los activos por impuestos diferidos, los cuales se basan en la habilidad de generar suficientes resultados fiscales durante los periodos en los cuales tales impuestos diferidos podrían ser usados o deducidos. Los pasivos por impuestos diferidos se registran de acuerdo con las estimaciones realizadas de los activos netos que en un futuro no serán fiscalmente deducibles.

En la medida en que los flujos de efectivo futuros y la renta gravable difieran significativamente de las estimaciones, la capacidad de la Compañía para utilizar los impuestos diferidos activos registrados, podría verse afectada.

Adicionalmente, los cambios en las normas fiscales podrían limitar la capacidad de la Compañía para obtener deducciones fiscales en ejercicios futuros, así como el reconocimiento de nuevos pasivos por impuestos producto de cuestionamientos por parte de la auditoría del organismo fiscalizador.

Las posiciones fiscales implican una evaluación cuidadosa por parte de la Gerencia, y se revisan y ajustan en respuesta a circunstancias como caducidad en la aplicación de la legislación, cierre de auditorías fiscales, revelaciones adicionales ocasionadas por algún tema legal o alguna decisión de la Corte en un tema tributario en particular. La Compañía registra provisiones con base en la estimación de la posibilidad de una decisión negativa que pueda surgir de una auditoría fiscal. El monto de estas provisiones depende de factores como la experiencia previa en auditorías fiscales y las interpretaciones de las normas tributarias. Los resultados reales pueden diferir de las estimaciones registradas.

3.9. Contabilidad de coberturas

El proceso de identificación de las relaciones de cobertura entre las partidas cubiertas y los instrumentos de cobertura derivados y no derivados (tales como la deuda de largo plazo en moneda extranjera), y su correspondiente efectividad, requiere juicios de la gerencia. La Compañía evalúa periódicamente la alineación entre las coberturas identificadas y su política de gestión de riesgos. Ver Nota 29.

4. Políticas contables

Las políticas contables que se indican a continuación se han aplicado consistentemente para los periodos presentados.

4.1. Instrumentos financieros

Un instrumento financiero es cualquier contrato que dé lugar a un activo financiero, a un pasivo financiero o a un instrumento de patrimonio en otra entidad.

La clasificación depende de su naturaleza y propósito por el cual el activo o pasivo financiero fue adquirido y se determina al momento del reconocimiento inicial. Todos los activos y pasivos financieros se miden inicialmente a su valor razonable.

Los costos de transacción que son directamente atribuibles a la adquisición o emisión de activos y pasivos financieros, distintos a los medidos a valor razonable con cambios en resultados, se suman o

deducen del valor razonable de los activos y pasivos financieros, en el reconocimiento inicial. Los costos de transacción directamente atribuibles a la adquisición de activos y pasivos financieros medidos a valor razonable con cambios en resultados se reconocen inmediatamente en resultados.

Los préstamos y cuentas por cobrar comerciales, otras cuentas por cobrar y activos financieros mantenidos hasta su vencimiento, se miden posteriormente al costo amortizado utilizando el método de tasa de interés efectiva. Los instrumentos de patrimonio se miden a valor razonable.

Mediciones a valor razonable

El valor razonable es el precio que se espera recibir al vender un activo o se pagaría para transferir un pasivo en una transacción ordenada entre participantes del

mercado en la fecha de valoración. La medición del valor razonable se basa en la presunción de que la transacción para vender el activo o transferir el pasivo tiene lugar en el mercado principal del activo o pasivo o en ausencia de un mercado principal en el mercado más ventajoso.

El valor razonable de un activo o un pasivo es medido utilizando los supuestos que los participantes del mercado utilizarían para fijar su precio, suponiendo que los participantes del mercado actúan en su mejor interés económico.

La medición del valor razonable de un activo no financiero tiene en cuenta la capacidad de generar beneficios económicos mediante la utilización del activo en su máximo y mejor uso o mediante la venta de éste a otro participante del mercado quien utilizaría el activo en su máximo y mejor uso.

La Compañía utiliza las técnicas de valoración más apropiadas para las circunstancias y con la mejor información disponible, maximizando el uso de los datos de entrada observables y minimizando los no observables.

Todos los activos y pasivos cuyo valor razonable se mide o revela en los estados financieros se clasifican dentro de la jerarquía, con base en la entrada de nivel más bajo que es significativa para la medición del valor razonable en su conjunto, de la siguiente manera:

- **Nivel 1:** Precios de cotización (no ajustados) de mercados activos para activos y pasivos idénticos. El valor razonable de los instrumentos negociables la Compañía se basa en entradas de nivel 1.
- **Nivel 2:** Técnicas de valoración para las cuales se observa directa o indirectamente la entrada de nivel más bajo que es significativa para la medición del valor razonable. Las entradas del nivel 2 incluyen precios de activos similares, precios obtenidos a través de cotizaciones de corredores de bolsa, y los precios que pueden ser corroborados substancialmente con otros datos observables con los mismos términos contractuales.
- Para los contratos de derivados que no dispongan de un precio de mercado cotizado, las estimaciones del valor razonable generalmente se determinan utilizando modelos y otros métodos de valoración basados técnicas de valor presente, cuyos insumos clave incluyen precios futuros, estimaciones de volatilidad, correlación de precios, riesgo de crédito de contraparte y liquidez del mercado, según corresponda.

- **Nivel 3:** Técnicas de valoración para las cuales la entrada de nivel más bajo que es significativa para la medición del valor razonable no es observable. La Compañía no utiliza entradas a nivel 3 para sus mediciones de activos y pasivos financieros. Para el cálculo del valor recuperable de ciertos activos no financieros para propósitos de determinación del impairment, Ecopetrol puede utilizar entradas de nivel 3.

Método de la tasa de interés efectiva

El método de la tasa de interés efectiva es una forma de cálculo del costo amortizado de un instrumento financiero y de registro del ingreso o gasto financiero a lo largo del período relevante. La tasa de interés efectiva es la tasa de descuento que iguala exactamente los flujos de efectivo por cobrar o por pagar estimados (incluyendo todas las comisiones, costos de transacción y otras primas o descuentos) a lo largo de la vida esperada del instrumento financiero (o, cuando sea adecuado, en un periodo más corto) con el importe neto en libros en el reconocimiento inicial.

Impairment de activos financieros

La Compañía reconoce el valor de las pérdidas crediticias esperadas durante el tiempo de vida del activo de acuerdo con el enfoque simplificado. Las pérdidas crediticias del activo se reconocen antes que un instrumento pase a estar en mora. Para determinar el riesgo crediticio se utiliza la información razonable y sustentable que se refiera al comportamiento histórico y variables que indiquen que exista riesgo en el futuro.

Al final de cada periodo sobre el que se informa la Compañía evalúa si hay evidencia objetiva que un activo o un grupo de activos están deteriorados como resultado de uno o más eventos ocurridos desde el reconocimiento inicial para determinar si los flujos de efectivo futuros han sido afectados.

Para los activos financieros medidos al costo amortizado, el importe de la pérdida por impairment es la diferencia entre el importe en libros y el valor presente de los flujos de efectivo futuros estimados, descontados a la tasa de interés efectiva original del activo financiero.

4.1.1. Efectivo y equivalentes de efectivo

El efectivo y equivalentes de efectivo comprende recursos en caja, inversiones financieras altamente líquidas, depósitos bancarios y depósitos especiales con vencimiento dentro de los noventa días desde la fecha

de su adquisición y con bajo nivel de riesgo a cambios significativos en su valor.

4.1.2. Activos financieros

La Compañía clasifica sus activos financieros en las siguientes categorías:

- a) Activos financieros a valor razonable con cambios en resultados

Incluyen activos financieros mantenidos para negociar y activos financieros designados al momento del reconocimiento inicial a valor razonable con cambios en resultados. Se clasifican como mantenidos para negociar si son adquiridos con el propósito de vender o recomprar en el corto plazo. Estos activos se reconocen a su valor razonable y las ganancias o pérdidas que surgen en la re-medición son reconocidas en el resultado del periodo.

- b) Activos financieros medidos al valor razonable con cambios en el otro resultado integral

Son instrumentos de patrimonio de otras Compañías no controladas y no estratégicas que no permiten ejercer ningún tipo de control o influencia significativa sobre las mismas y donde la gerencia la Compañía no tiene propósito de negociarlos en el corto plazo. Estos instrumentos se reconocen por su valor razonable y las ganancias o pérdidas no realizadas se reconocen en el otro resultado integral.

- c) Activos financieros a costo amortizado

Esta categoría es la más relevante para la Compañía. Los activos financieros a costo amortizado incluyen las cuentas por cobrar comerciales, otras cuentas por cobrar, préstamos y préstamos a empleados.

Los préstamos y cuentas por cobrar son activos financieros no derivados con pagos fijos o determinables, que no cotizan en un mercado activo. Los préstamos y cuentas por cobrar, incluyen cuentas comerciales y otras cuentas por cobrar que, son medidas inicialmente a su valor razonable y posteriormente a su costo amortizado, utilizando el método de interés efectivo, menos impairment.

Los préstamos a empleados son inicialmente reconocidos al valor presente de los flujos de efectivo futuros, descontados a una tasa de mercado para un préstamo similar. Si la tasa de interés del préstamo es inferior a la tasa de interés de mercado, el valor razonable será menor que la cuantía del préstamo. Esta diferencia inicial se reconoce como beneficio a empleados.

La Compañía mide los activos financieros a costo amortizado si se cumplen las siguientes condiciones:

1. El activo es mantenido dentro de un modelo de negocio cuyo objetivo es beneficiarse de los flujos contractuales, y,
2. Los términos contractuales dan lugar a fechas específicas de pago y los flujos de efectivo corresponden únicamente a pagos del principal e intereses.

Los activos financieros a costo amortizado son posteriormente medidos usando el método de interés efectivo menos impairment. Las ganancias o pérdidas son reconocidas en el resultado cuando el activo es dado de baja, ha sido modificado o deteriorado.

Bajas de activos financieros

La Compañía da de baja un activo financiero únicamente al vencimiento de los derechos contractuales sobre los flujos de efectivo del activo o, cuando ha transferido sus derechos de recibir dichos flujos o ha asumido la obligación de pagar los flujos recibidos en su totalidad sin demora material a un tercero y: (a) ha transferido sustancialmente todos los riesgos y beneficios inherentes a la propiedad o (b) no ha transferido ni retenido sustancialmente todos los riesgos y beneficios del activo, sino que ha transferido el control del mismo.

Cuando la Compañía no ha transferido ni retenido sustancialmente todos los riesgos y beneficios del activo o transferido el control del activo, continúa reconociendo el activo sobre la base de la participación continuada, y también reconoce el pasivo asociado.

4.1.3. Pasivos financieros

Los pasivos financieros corresponden a las fuentes de financiación obtenidas por la Compañía a través de créditos bancarios y emisiones de bonos, cuentas por pagar a proveedores y acreedores.

Los bonos y los créditos bancarios se reconocen inicialmente a su valor razonable, neto de los costos de transacción incurridos. Después del reconocimiento inicial, se miden posteriormente a costo amortizado, utilizando el método de tasa de interés efectiva. La amortización se incluye como gasto financiero en el estado de ganancias y pérdidas. El gasto de amortización es calculado teniendo en cuenta todos los descuentos o primas de adquisición y honorarios o costos que forman parte integral de la tasa de interés efectiva.

Las cuentas por pagar a proveedores y acreedores son pasivos financieros a corto plazo registrados por su valor nominal, toda vez que no difieren significativamente de su valor razonable.

Bajas de pasivos financieros

Un pasivo financiero se da de baja cuando la obligación especificada en el correspondiente contrato sea pagada o vencida. Cuando un pasivo existente haya sido reemplazado por otro pasivo proveniente del mismo prestamista bajo condiciones sustancialmente diferentes, o si las condiciones de un pasivo existente se modifican de manera sustancial, tal modificación se trata como una baja del pasivo original y el reconocimiento de un nuevo pasivo. La diferencia entre los importes respectivos, se reconoce en el estado de ganancias y pérdidas.

4.1.4. Instrumentos financieros derivados y operaciones de cobertura

Los instrumentos financieros derivados se reconocen inicialmente en el estado de situación financiera como activos o pasivos y se miden a su valor razonable en la fecha en que se registra el derivado y posteriormente se miden a valor razonable. Los cambios en el valor razonable se registran como resultados en el estado de ganancias y pérdidas, excepto la porción efectiva de las coberturas de flujos de efectivo, las cuales se reconocen en otros resultados integrales y posteriormente se reclasifican a resultados cuando el elemento cubierto afecte ganancias y pérdidas.

Las ganancias o pérdidas de los contratos derivados, que no están calificados ni designados como coberturas, incluidos los contratos de forward para la compra y venta de commodities en negociación para la entrega o recibo físico del commodity son registrados en el resultado.

Los derivados implícitos en contratos que aún no requieren ser reconocidos a valor razonable y que no están directamente relacionados con el contrato anfitrión en términos de características económicas y riesgos se separan de su contrato principal y son reconocidos a valor razonable; las ganancias o pérdidas asociadas se reconocen en resultados.

4.1.5 Operaciones de cobertura

Para propósitos de contabilidad de cobertura, estas operaciones son clasificadas como:

- Coberturas de valor razonable, cuyo propósito es cubrir la exposición a los cambios en el valor razonable de activos o pasivos reconocidos que se atribuye a un riesgo particular.
- Coberturas de flujo de efectivo, cuyo propósito es cubrir la exposición a la fluctuación de los flujos de efectivo, que se atribuye a un riesgo particular asociado con un activo o pasivo reconocido o a una transacción prevista altamente probable.
- Coberturas de una inversión neta de un negocio en el extranjero.

Al inicio de la relación de cobertura, la Compañía designa y documenta formalmente la relación entre el instrumento de cobertura y el elemento cubierto, junto con sus objetivos de gestión de riesgo y su estrategia para llevar a cabo las transacciones de cobertura. Se espera que tales coberturas sean altamente efectivas para lograr compensar los cambios en el valor razonable o en los flujos de efectivo; igualmente, se evalúan continuamente para determinar que realmente han sido altamente efectivos a lo largo de los períodos de reporte financiero, para los cuales fueron designados.

4.1.5.1. Cobertura de flujo de efectivo

La porción efectiva de las ganancias o pérdidas de los instrumentos de cobertura se reconocen en otro resultado integral, mientras que la porción inefectiva se reconoce en el resultado del periodo, en la línea del resultado financiero, neto.

Los montos previamente reconocidos en otro resultado integral se transfieren a resultados cuando la partida cubierta afecta los resultados del ejercicio. Cuando la partida cubierta es un activo o pasivo no financiero, los importes previamente reconocidos en otro resultado integral se transfieren y se incluyen en el importe en libros inicial del costo del activo o pasivo no financiero.

Si el instrumento de cobertura expira o se vende, finaliza o se ejerce sin reemplazo o transferencia, o si se revoca su designación como cobertura o cuando la cobertura ya no cumple con los criterios para la contabilidad de coberturas, cualquier ganancia o pérdida acumulada previamente reconocida en otro resultado integral se mantiene por separado en el patrimonio hasta que la transacción se reconozca en el estado de ganancias y pérdidas. Cuando ya no se espera que ocurra la transacción cubierta inicialmente, cualquier monto acumulado en el patrimonio se reconoce inmediatamente en el resultado del periodo.

Ecopetrol designa préstamos a largo plazo como instrumento de cobertura para su exposición al riesgo tipo de cambio en exportaciones futuras de crudo. Ver Nota 29 para mayor información.

4.1.5.2. Cobertura de inversión neta en un negocio en el extranjero

Son contabilizadas de manera similar a las coberturas de flujo de efectivo.

Las ganancias y pérdidas del instrumento de cobertura relativa a la porción efectiva se reconocen en el otro resultado integral; mientras que los montos relativos a la porción inefectiva en el resultado del periodo. Las ganancias o pérdidas acumuladas en el patrimonio son reclasificadas al estado de ganancias y pérdidas cuando se disponga parcial o totalmente del negocio en el extranjero.

Ecopetrol designó préstamos a largo plazo como instrumento de cobertura para su exposición al riesgo de tipo de cambio en sus inversiones en subsidiarias cuya moneda funcional es dólar. Ver Nota 29 para mayor información.

4.2. Inventarios

Los inventarios se registran al más bajo entre el costo y el valor neto realizable.

Comprenden principalmente petróleo crudo, combustibles y productos petroquímicos e inventarios de bienes de consumo (repuestos y suministros).

El costo del petróleo crudo es el costo de producción, incluido el costo de transporte.

El costo de otros inventarios se determina según el método del promedio ponderado, el cual incluye los costos de adquisición (descuentos comerciales, reembolsos y otros similares), transformación y otros costos incurridos para llevar el inventario a su ubicación y condición actual, como los costos de transporte.

Los inventarios de consumibles (repuestos y suministros) se reconocen como inventario y luego se registran como gastos, mantenimiento o proyectos en la medida en que se consuman.

La Compañía estima el valor neto realizable de los inventarios al final de cada período. Cuando las circunstancias que previamente causaron que los inventarios estuvieran por debajo de su costo ya no existan, o cuando se presenta una clara evidencia de un aumento en el valor neto realizable debido a un

cambio en las circunstancias económicas, el monto provisionado se revierte. La reversión no puede ser mayor al valor registrado originalmente, de modo que el nuevo importe en libros siempre será el menor entre el costo y el valor neto realizable revisado.

4.3. Partes relacionadas

Se consideran partes relacionadas aquellas en donde una de las partes tiene la capacidad de controlar a la otra, tiene control conjunto, o ejerce influencia significativa en la toma de decisiones financieras u operativas de la participada o es un miembro del personal clave de la gerencia (o familiar cercano del personal clave). La Compañía ha considerado como partes relacionadas las compañías subsidiarias, asociadas, negocios conjuntos, directivos clave de la gerencia, las entidades administradoras de los recursos para pago de planes de beneficios post-empleo para empleados y algunas transacciones relevantes celebradas con entidades del Gobierno Colombiano, como son la compra de hidrocarburos y el fondo de estabilización petrolera. (Ver Nota 30 – Partes relacionadas).

4.3.1. Compañías subsidiarias

Las subsidiarias son todas las compañías sobre las que Ecopetrol tiene el poder de gobernar sus políticas operativas y financieras. Generalmente estas entidades son aquellas donde Ecopetrol tiene más de la mitad de sus acciones con derecho de voto. Estas inversiones se reconocen en el estado de situación financiera separado por el método de participación y tienen incluido el goodwill generado en el momento de su adquisición.

4.3.2 Inversiones en asociadas

Una asociada es una entidad sobre la cual la Compañía ejerce influencia significativa pero no control. La influencia significativa es el poder de intervenir en las decisiones de política financiera y operativa de la participada, sin llegar a tener control o control conjunto sobre las mismas. En general, estas entidades son aquellas en las que se mantiene una participación accionaria del 20% al 50% de los derechos de voto.

Las inversiones en asociadas se contabilizan utilizando el método de la participación. Bajo este método, la inversión se reconoce inicialmente al costo, posteriormente es ajustada para reconocer la participación de la Compañía en los activos netos de la asociada. El goodwill relacionado se incluye en el importe en libros y no se evalúa su impairment de forma separada.

La participación en los resultados de las operaciones de la asociada se reconoce en el estado de ganancias y pérdidas. Cualquier cambio en otro resultado integral se registra también en el otro resultado integral de Ecopetrol.

Después de la aplicación del método de participación, la Compañía determina si es necesario reconocer una pérdida por impairment de la inversión. En cada fecha de presentación, la Compañía determina si existe evidencia objetiva de que la inversión está deteriorada, si existe tal evidencia, se calcula el monto del impairment como la diferencia entre el importe recuperable y el valor en libros, y luego reconoce la pérdida en el estado de ganancias y pérdidas.

Cuando es necesario, se realizan ajustes a las políticas contables de las asociadas para garantizar la consistencia con las adoptadas por la Compañía. Adicionalmente, el método de participación se calcula con sus estados financieros más recientes.

4.3.3. Negocios conjuntos

Un negocio conjunto es un acuerdo mediante el cual dos o más partes ejercen control conjunto y tienen derecho a los activos netos del acuerdo conjunto. El control conjunto se presenta cuando las decisiones sobre las actividades relevantes requieren el consentimiento unánime de las partes que comparten el control. El tratamiento contable para el reconocimiento de los negocios conjuntos es el mismo que el de las inversiones en asociadas.

4.4. Operaciones conjuntas

Una operación conjunta es un tipo de acuerdo conjunto mediante el cual las partes ejercen derechos sobre los activos y obligaciones sobre los pasivos, en relación con el acuerdo.

Los contratos de operación conjunta se celebran entre Ecopetrol y terceros para compartir el riesgo, asegurar el capital, maximizar la eficiencia operativa y optimizar la recuperación de las reservas. En estas operaciones, una parte se designa como el operador para ejecutar el presupuesto de gastos e inversiones e informar a los socios de acuerdo con sus intereses de participación. Así mismo, cada uno toma su parte de los hidrocarburos producidos (petróleo crudo o gas) de acuerdo con su participación en la producción.

Cuando Ecopetrol participa como socio no operador, registra los activos, pasivos, ingresos, costos y gastos en función del informe de los operadores. Cuando Ecopetrol es el operador directo de los contratos, registra su porcentaje de activos, pasivos, ingresos,

costos y gastos, con base en la participación de cada socio en las líneas correspondientes a activos, pasivos, gastos, costos e ingresos.

Cuando la Compañía adquiere o aumenta una participación en una operación conjunta en la cual la actividad constituye un negocio, dicha transacción se registra aplicando el método de adquisición de acuerdo a la NIIF 3 – Combinación de negocios. El costo de adquisición es la suma de la contraprestación transferida, la cual corresponde al valor razonable, en la fecha de adquisición, de los activos transferidos y los pasivos incurridos. Cualquier costo de transacción relacionado con la adquisición o aumento de participación de la operación conjunta que constituye un negocio, se reconoce en el estado de otros resultados integrales del periodo.

El exceso del valor de la contraprestación transferida y el importe pagado en la operación se reconoce como goodwill. Si resulta en un exceso el valor razonable de los activos netos adquiridos sobre el importe pagado en la operación, la diferencia se reconoce como un ingreso en el estado de ganancias y pérdidas en la fecha de reconocimiento de la operación.

4.5. Activos no corrientes mantenidos para la venta

Los activos no corrientes se clasifican como mantenidos para la venta si sus valores en libros se recuperarán principalmente a través de una transacción de venta y no mediante su uso continuado. Asimismo, se clasifican en esta categoría solo cuando la venta es altamente probable dentro de un año desde la fecha de clasificación y el activo (o grupo de activos) está disponible para su venta inmediata en su condición actual. Estos activos se miden al menor entre su valor en libros y el valor razonable menos los costos de disposición relacionados.

4.6. Propiedades, planta y equipo

Reconocimiento y medición

Las propiedades, planta y equipo se presentan al costo menos la depreciación acumulada y las pérdidas acumuladas por impairment. Los componentes tangibles de los activos relacionados con recursos naturales y del medio ambiente forman parte de las propiedades, planta y equipo.

El costo inicial de un activo comprende su precio de compra o costo de construcción, incluyendo impuestos de importación e impuestos no reembolsables, cualquier costo directamente atribuible a la puesta

en operación del activo, costos de beneficios a los empleados que surjan directamente de la construcción o adquisición, costos de endeudamiento incurridos que son atribuibles a la adquisición y/o construcción de activos calificables y la estimación inicial de los costos de desmantelamiento y abandono.

Las piezas de repuesto y suministros se registran como inventarios, y se reconocen como gasto cuando se consumen. Las piezas de repuesto importantes y el equipo de mantenimiento permanente, que la Compañía espera usar durante más de un período, son reconocidos como propiedades, planta y equipo.

Cualquier ganancia o pérdida en el retiro de algún elemento de propiedades, planta y equipo es reconocida en los resultados del periodo respectivo.

Desembolsos posteriores

Corresponden a todos los desembolsos que se realicen sobre activos existentes con el fin de aumentar o prolongar la vida útil inicial esperada, aumentar la productividad o eficiencia productiva, permitir una reducción significativa de los costos de operación, aumentar el nivel de reservas en áreas de explotación o desarrollo o reemplazar una parte o componente de un activo que sea considerado crítico para la operación.

Los gastos de reparación, conservación y mantenimiento de carácter ordinario se imputan a resultados del ejercicio en que se producen. No obstante, los desembolsos asociados a mantenimientos mayores son capitalizados.

Depreciación

Las propiedades, planta y equipo se deprecian siguiendo el método lineal, excepto los activos asociados a las actividades de exploración y producción, los cuales se deprecian según el método de unidades técnicas de producción. Las vidas útiles técnicas se actualizan anualmente considerando razones tales como: adiciones o mejoras (por reposición de partes o componentes críticos para la operación del activo), avances tecnológicos, obsolescencia u otros factores; el efecto de estos cambios se reconoce a partir del periodo contable en el cual se efectúa.

La depreciación de los activos comienza cuando los mismos están en condiciones de uso.

La vida útil se define bajo los criterios de utilización prevista del activo, su desgaste físico esperado, la obsolescencia técnica o comercial y los límites legales

o restricciones sobre su uso. Las vidas útiles promedio ponderado son las siguientes:

Planta y equipo	10 - 55 años
Ductos, redes y líneas	10 - 40 años
Edificaciones	10 - 42 años
Otros	3 - 35 años

Los terrenos se registran de forma independiente de los edificios o instalaciones y tienen una vida útil indefinida y por lo tanto no son objeto de depreciación.

Los métodos de depreciación y vidas útiles se revisan anualmente y se ajustan, si corresponde.

4.7. Recursos naturales y del medio ambiente

Reconocimiento y medición

Ecopetrol emplea el método de esfuerzos exitosos para el registro de las actividades de exploración y producción de petróleo crudo y gas, considerando a su vez, lo establecido en la NIIF 6 - Exploración y evaluación de recursos minerales.

Costos de exploración

Los costos de adquisición y exploración son registrados como activos de exploración y evaluación en curso hasta el momento en que se determine si la perforación de exploración resultó exitosa o no; de no ser exitosa, todos los costos incurridos son reconocidos en resultados.

Los costos de exploración relacionados con geología y geofísica, sísmica, viabilidad y otros, se reconocen como gastos cuando se incurren. Los desembolsos asociados con la perforación de pozos exploratorios y aquellos relacionados con pozos estratigráficos de naturaleza exploratoria se cargan como activos hasta que se determine si son comercialmente viables; de lo contrario, se cargan a resultados como gasto de pozos secos. Otros gastos se reconocen en resultados cuando se incurre en ellos.

Un activo de exploración y evaluación ya no se clasificará como tal cuando se demuestre la factibilidad técnica y la viabilidad comercial de extraer un recurso mineral. Los activos de exploración y evaluación se revisarán por impairment y se reconocerá cualquier pérdida antes de su reclasificación.

Todos los costos capitalizados están sujetos a revisiones técnicas y comerciales al menos una vez al año para confirmar la continuidad para desarrollar y producir dichos campos; de lo contrario, estos costos se transfieren a ganancias y pérdidas.

Los costos de exploración se presentan netos de los ingresos obtenidos de la venta de petróleo crudo durante el periodo de pruebas extensas, neto de los costos de ventas, ya que se consideran necesarios para completar el activo.

Costos de desarrollo

Los costos de desarrollo corresponden a aquellos costos incurridos para acceder a las reservas probadas de hidrocarburos y de proporcionar las instalaciones necesarias para la extracción, tratamiento, recogida y almacenamiento. Cuando un proyecto es aprobado para desarrollo, el valor acumulado de los costos de adquisición y exploración se clasifican como recursos naturales y del medio ambiente, los costos posteriores a la etapa de exploración son capitalizados como costos de desarrollo de las propiedades que comprendan tales activos de recursos naturales. Todos los costos de desarrollo se capitalizan, incluidos los costos de perforación sin éxito de pozos de desarrollo.

Costos de producción

Son aquellos incurridos para operar y mantener los pozos productivos así como el equipo e instalaciones correspondientes. La actividad de producción incluye la extracción del crudo y del gas a la superficie, su recolección, tratamiento y procesamiento y el almacenamiento en el campo. Los costos de producción son gastos en el momento en que se incurren a menos que adicionen reservas, en tal caso son capitalizados.

Los equipos de producción y apoyo se contabilizan con base en su costo y hacen parte de las propiedades, planta y equipo sujetos a depreciación.

Los costos capitalizados también incluyen el costo de abandono y desmantelamiento, así como el valor estimado por obligaciones ambientales futuras. La estimación incluye los costos de taponamiento y abandono de pozos, desmonte de facilidades y recuperación ambiental de áreas y pozos. Los cambios resultantes de nuevas estimaciones del pasivo por abandono y desmantelamiento, son llevados al activo correspondiente.

Los costos capitalizados también incluyen el valor de los ingresos obtenidos netos de los costos por la venta de crudo de pruebas extensas, por cuanto se consideran necesarios para completar el activo.

Amortización

La amortización de los elementos de recursos naturales y del medio ambiente es determinada según el método de unidades de producción por campo, utilizando como base las reservas probadas desarrolladas, excepto en casos excepcionales limitados que requieren un mayor juicio por parte de la Gerencia para determinar un mejor factor de amortización de los beneficios económicos futuros durante la vida útil del activo. Los factores de amortización se revisan anualmente, con base en el estudio de reservas y el impacto sobre cambios de dichos factores sobre el gasto por amortización, se reconoce de manera prospectiva en los estados financieros.

Las reservas son estimadas y certificadas por consultores externos reconocidos internacionalmente y aprobadas por la Junta Directiva de la Compañía. Las reservas probadas consisten en las cantidades estimadas de petróleo crudo y gas natural demostradas con certeza razonable por los datos geológicos y de ingeniería que serán recuperables en años futuros a partir de reservas conocidas bajo condiciones económicas y de operación existentes, es decir, a los precios y costos que se aplican a la fecha de la estimación.

Impairment

Los activos asociados a exploración, evaluación y producción están sujetos a revisión por posible impairment en su valor recuperable. Ver Notas 3.2 – Impairment (recuperación) del valor de los activos de largo plazo y 4.11 - Impairment del valor de los activos de largo plazo.

4.8. Capitalización de costos por préstamos

Los costos por préstamos relacionados con la adquisición, construcción o producción de un activo calificado, el cual requiera un período de tiempo sustancial para estar listo para su uso, se capitalizan como parte del costo de ese activo cuando sea probable que los beneficios económicos futuros retornen a la Compañía y puedan ser medidos con fiabilidad. Los demás costos por intereses se reconocen como gastos financieros. Los proyectos que han sido suspendidos, pero que la Compañía pretende continuar a futuro con su ejecución, no son considerados activos calificados para propósitos de capitalización de costos por préstamos.

4.9. Activos intangibles

Los activos intangibles con vida útil definida son registrados al costo menos la amortización acumulada y pérdidas acumuladas por impairment. Los activos

intangibles son amortizados sobre una base de línea recta de acuerdo con sus vidas útiles estimadas. La vida útil estimada y el método de amortización son revisados al final de cada período de reporte; cualquier cambio en la estimación es registrada sobre una base prospectiva.

Los desembolsos originados por las actividades de investigación se reconocen como un gasto en el período en el cual se incurren.

4.10. Arrendamientos

Ecopetrol aplicó NIIF 16 – Arrendamientos a partir del 1 de enero de 2019, utilizando el enfoque retrospectivo modificado.

Al inicio de un contrato, la Compañía evalúa si un contrato es, o contiene, un arrendamiento. Esta situación se presenta si el contrato transfiere el derecho de controlar el uso de un activo identificado por un período de tiempo a cambio de una contraprestación. Para llevar a cabo dicha evaluación, se utiliza la definición de arrendamiento contenido en la NIIF 16.

Arrendamiento como arrendatario

En la fecha de inicio de un arrendamiento, Ecopetrol reconoce una obligación correspondiente al total de pagos del arrendamiento y un activo que representa el derecho de usar el activo subyacente durante el término del arriendo. Se reconocen separadamente el gasto por intereses sobre la obligación y el gasto por depreciación del activo por derecho de uso.

En el reconocimiento posterior, la Compañía remide la obligación de arrendamiento ante la ocurrencia de acontecimientos como: a) cambios del término del arrendamiento, b) cambios de los pagos futuros pagos de arrendamiento que resulten de variaciones en un índice o en la tasa utilizada para determinar los pagos. El monto de la nueva medición de la obligación se reconocerá como un ajuste al activo por derecho de uso.

Arrendamiento como arrendador

Ecopetrol clasifica como financieros aquellos contratos en los cuales los términos del arrendamiento transfieren sustancialmente a los arrendatarios todos los riesgos y beneficios inherentes a la propiedad del activo. Los demás arrendamientos se clasifican como operativos.

Si el arrendamiento es clasificado como financiero, se registra una cuenta por cobrar en el estado de situación

financiera, por monto igual a la inversión neta en el arrendamiento.

Para los arrendamientos clasificados como operativos se reconocen los ingresos por los pagos de forma lineal en el estado de resultados.

Activos por derecho de uso

Ecopetrol reconoce los activos por derecho de uso en la fecha de inicio del arrendamiento (es decir, la fecha en que el activo subyacente está disponible para su uso). Los activos por derecho de uso se miden al costo, menos cualquier depreciación acumulada y pérdidas por impairment, y se ajustan si existe alguna nueva medición de los pasivos por arrendamiento. Se amortizan en línea recta durante el plazo del arrendamiento y están sujetos a evaluación por impairment.

Pasivos por arrendamiento

En la fecha de inicio del arrendamiento, la Compañía reconoce los pasivos al valor presente de los pagos por arrendamiento que se realizarán durante el plazo del contrato. Los pagos variables que no dependan de un índice o una tasa se reconocen como gasto en el período en el que un evento o condición indiquen que el pago ocurrirá.

Para el cálculo del valor presente de los pagos, Ecopetrol utiliza la tasa de endeudamiento incremental en la fecha de inicio del arrendamiento. El valor en libros de los pasivos se vuelve a medir si hay un cambio en el plazo, en los pagos fijos o en la evaluación para comprar el activo subyacente.

Arrendamientos de corto plazo y arrendamientos de activos de bajo valor

Ecopetrol aplica la exención de reconocimiento a sus arrendamientos para los contratos que tienen un plazo de ejecución de 12 meses o menos a partir de la fecha de inicio y no contienen una opción de compra y los contratos en los cuales el activo subyacente se considera de bajo valor.

Contratos de asociación (JOA)

En los contratos de asociación JOA se analiza quien controla el uso del activo y de acuerdo a ello se determina el método de reconocimiento de los derechos de uso. Si quien controla el uso del activo es el operador, este deberá reconocer en sus estados financieros el 100% del derecho. Si quien controla

es el JOA, se analiza si el contrato cumple con las características de un subarrendamiento, y en ese caso cada parte deberá reconocer proporcionalmente a su participación el derecho de uso. Ecopetrol reconoce al 100% los derechos de uso en los contratos de asociación (JOA) en los que participa como operador.

4.11 Impairment del valor de los activos de largo plazo

Con el fin de evaluar si los activos tangibles e intangibles están deteriorados, la Compañía compara el valor en libros de los mismos con el importe recuperable por lo menos en cada fecha de cierre del período, para identificar indicios de que algún activo pudiera estar deteriorado.

Para efectuar el análisis de impairment, los activos se agrupan en unidades generadoras de efectivo (UGEs) siempre que los mismos, individualmente considerados, no generen flujos de efectivo que, en buena medida, sean independientes de los generados por otros activos o UGEs. La agrupación de los activos en diferentes UGEs, implica la realización de juicio profesional y la consideración, entre otros parámetros, de los segmentos de negocio. En este sentido, en el segmento de Exploración y Producción, una UGE corresponde a cada una de las distintas áreas contractuales comúnmente denominadas “campos”; por excepción, en aquellos casos en que los flujos de caja generados por varios campos son interdependientes entre sí, dichos campos se agrupan en una única UGE. En el caso del segmento Refinación y Petroquímica, las UGE corresponden a cada una de las refinerías de la Compañía y para el segmento de Transporte cada línea es considerada como una UGE independiente.

El valor recuperable es el mayor entre el valor razonable menos los costos de disposición y el valor en uso. Si el importe recuperable de un activo (o de una UGE) es inferior a su valor neto contable, se reconoce una pérdida por impairment de valor en los resultados del período.

El valor razonable menos los costos de disposición es usualmente mayor que el valor en uso para el segmento de producción debido a algunas restricciones significativas en la estimación de los flujos de caja futuros, como son: a) futuras inversiones de capital que mejoren el desempeño de la UGE y que pueden resultar en un incremento esperado de los flujos netos de efectivo, b) partidas antes de impuestos que reflejan riesgos de negocio específicos, lo que resulta en una mayor tasa de descuento.

El valor razonable menos los costos de disposición, se determina como la suma de los flujos de caja futuros descontados, ajustados al riesgo estimado. Las estimaciones de los flujos de caja futuros se realizan con proyecciones de los precios de los productos básicos, estimaciones de la oferta y la demanda y los márgenes de los productos.

El valor razonable menos los costos de disposición, descrito arriba, es comparado con múltiplos de valoración y precios de cotización de las acciones en empresas comparables a Ecopetrol, con el objetivo de determinar si es adecuado. En el caso de los activos o UGEs que participan en la evaluación y exploración de reservas, se consideran reservas probadas, probables y posibles, con un factor de riesgo asociado a las mismas.

Una vez que se ha registrado una pérdida por impairment, el gasto por amortización futura se calcula sobre la base del importe recuperable ajustado. Las pérdidas por impairment solo pueden revertirse si la recuperación está relacionada con un cambio en las estimaciones utilizadas después de que se reconoció la pérdida. Estas reversiones no deberán exceder el valor en libros de los activos netos de depreciación o amortización que se habrían determinado si el impairment nunca se hubiera registrado.

El valor en libros de los activos no corrientes clasificados como activos mantenidos para la venta, se compara con el valor razonable menos los costos de disposición. No se registra ninguna otra provisión por depreciación o amortización, si el valor razonable menos los costos de disposición es menor que el valor en libros.

4.12. Provisiones y pasivos contingentes

Las provisiones son reconocidas cuando la Compañía tiene una obligación presente (legal o implícita) como resultado de un evento pasado y que sea probable que se requiera un desembolso futuro para pagar la obligación y su estimación pueda ser medida con fiabilidad. En los casos aplicables, se registran a su valor presente, utilizando una tasa que refleje el riesgo específico del pasivo.

Los desembolsos relacionados con la conservación del ambiente, vinculados con ingresos por operaciones actuales o futuras, son contabilizados como gastos o activos, según corresponda. Los desembolsos relacionados con operaciones del pasado, que no contribuyan a la obtención de ingresos corrientes o futuros, son registrados como gastos.

El reconocimiento de estas provisiones coincide con la identificación de una obligación relacionada con remediación ambiental y la Compañía utiliza toda la

información disponible para determinar un estimado razonable de su respectivo costo.

Los pasivos contingentes no son reconocidos, pero están sujetos a revelación en las notas explicativas cuando es posible la salida de recursos; incluyendo aquellos cuyos valores no pueden estimarse.

En los casos en que se espera que la provisión se reembolse en todo o en parte, por ejemplo, en virtud de un contrato de seguros, el reembolso se reconoce como un activo separado únicamente en los casos en que tal reembolso sea prácticamente cierto. El importe reconocido para el activo no debe exceder el importe de la provisión

Si el efecto del valor temporal del dinero en el tiempo es significativo, las provisiones son descontadas utilizando una tasa actual de mercado antes de impuestos que refleje, cuando corresponda, los riesgos específicos del pasivo. Cuando se reconoce el descuento, el aumento de la provisión se reconoce como gasto financiero en el estado de ganancias y pérdidas.

Obligación de retiro de activos

Los pasivos asociados al retiro de activos se reconocen cuando se tienen obligaciones ya sean legales o implícitas, relacionadas con el abandono y desmantelamiento pozos, ductos, inmuebles y equipo.

La obligación generalmente se contrae cuando los activos son instalados o cuando la superficie o el ambiente son alterados en los sitios a operar. Estos pasivos son reconocidos utilizando la técnica de flujos de caja descontados a una tasa antes de impuestos que refleje las evaluaciones actuales de mercado de un pasivo de riesgo similar y tomando en consideración el límite económico del campo o vida útil del activo respectivo. En el caso en que no se pueda determinar una estimación fiable en el periodo en que se origina la obligación, la provisión debe reconocerse cuando se tenga suficiente información disponible para realizar la mejor estimación.

El valor en libros de la provisión es revisado y ajustado anualmente considerando cambios en las variables utilizadas para su estimación, utilizando una tasa libre de riesgo ajustada por una prima que refleja el riesgo y calificación crediticia de la compañía bajo las condiciones actuales de mercado. Cualquier cambio en el valor presente del gasto estimado se refleja como un ajuste a la provisión y su correspondiente propiedad, planta y equipo o recursos naturales y ambientales.

Cuando se presenta una disminución en la obligación de retiro de activos relacionada con un activo

productivo que excede el valor en libros del activo, el exceso se reconoce en el estado de ganancias y pérdidas. El costo financiero de actualización de estos pasivos es reconocido en el resultado del periodo, como gasto financiero.

4.13. Impuesto a las ganancias y otros impuestos

El gasto por impuesto a las ganancias está compuesto por el impuesto a la renta por pagar del periodo corriente y el efecto del impuesto diferido en cada periodo.

El impuesto a las ganancias es registrado en resultados, excepto cuando estén relacionados con partidas reconocidas en otros resultados integrales, en cuyo caso el impuesto es registrado en el otro resultado integral. Los activos y pasivos por impuestos son presentados de manera separada en los estados de situación financiera, excepto cuando exista un derecho de compensación dentro de las jurisdicciones fiscales y la intención para cruzar tales saldos sobre una base neta.

4.13.1. Impuesto corriente

La Compañía determina la provisión del impuesto a las ganancias con base en el mayor valor entre la utilidad gravable y la renta presuntiva (el valor mínimo estimado de rentabilidad que la ley prevé para cuantificar y liquidar el impuesto a las ganancias). La utilidad fiscal difiere de la utilidad reportada en el estado de ganancias y pérdidas, debido a: partidas de ingresos o gastos impositivos o deducibles en diferentes periodos fiscales, deducciones tributarias especiales, pérdidas fiscales y partidas contabilizadas que conforme a las normas tributarias aplicables en cada jurisdicción se consideren no gravables o no deducibles.

4.13.2. Impuesto diferido

El impuesto diferido se contabiliza de acuerdo con el método del pasivo. Los activos y pasivos por impuestos diferidos se reconocen por las consecuencias impositivas futuras atribuibles a las diferencias entre los importes en libros de los activos y pasivos existentes en los estados financieros y sus bases impositivas respectivas. Se reconoce un pasivo por impuesto diferido para todas las diferencias temporarias impositivas. Se reconoce un activo por impuesto diferido para todas las diferencias temporarias deducibles y para todas las

pérdidas fiscales a amortizar, en la medida en que exista una expectativa razonable de que la Compañía tendrá ganancias fiscales futuras con las que pueda compensar dichas diferencias temporales.

Los impuestos diferidos sobre los activos y pasivos se calculan sobre la base de las tasas impositivas que se esperan aplicar durante los años en los que se revertan las diferencias temporales entre los importes en libros y las bases impositivas.

El valor en libros de los activos por impuestos diferidos está sujeto a revisión al final de cada período de presentación y se disminuye en la medida en que se estima probable que no habrá suficientes ganancias fiscales futuras para realizar el activo en términos individuales para cada entidad que tributa en Colombia.

En el estado de situación financiera, los activos por impuestos diferidos se compensan con los pasivos por impuestos diferidos, dependiendo de la posición fiscal en la entidad que los genera.

Los impuestos diferidos no se reconocen cuando surgen en el reconocimiento inicial de un activo o pasivo en una transacción (excepto en una combinación de negocios) y por tanto, en el momento de la transacción, no afecta la utilidad contable o fiscal. Tampoco se reconocen sobre la posible distribución futura de utilidades acumuladas de subsidiarias o inversiones contabilizadas por el método de participación, si al momento de la distribución puede ser controlado por Ecopetrol y es probable que las ganancias acumuladas sean reinvertidas y, por lo tanto, no será distribuido a Ecopetrol.

4.13.3. Otros impuestos

La Compañía reconoce en el resultado del periodo costos y gastos por otros impuestos diferentes al impuesto a las ganancias, tales como el impuesto a la riqueza, el cual se determina con base en el patrimonio fiscal, el impuesto de industria y comercio que grava los ingresos obtenidos en los municipios por el desarrollo de actividades comerciales, industriales y de servicios, y el impuesto de transporte que grava los volúmenes cargados en los sistemas de transporte. Los impuestos son calculados de acuerdo con la normatividad fiscal vigente. Para mayor detalle ver Nota 10.

4.14. Beneficios a empleados

El régimen salarial y prestacional para el personal de Ecopetrol se rige por la Convención Colectiva de Trabajo (Acuerdo 01 de 1977) y, en su defecto, por el Código Sustantivo de Trabajo. Además de beneficios determinados por la legislación laboral,

los empleados de Ecopetrol tienen derecho a los beneficios adicionales convenidos, los cuales dependen tanto del lugar, clase de trabajo, tiempo de servicio, como del salario básico. Se reconocen intereses al 12% anual sobre los montos acumulados por cesantías a favor de cada trabajador y se prevé el pago de indemnizaciones cuando se presenten circunstancias especiales que den lugar a la terminación del contrato, sin justa causa, y en períodos diferentes al de prueba.

Ecopetrol pertenecía al régimen especial de pensiones. Bajo este régimen las mesadas pensionales estaban a cargo de Ecopetrol y no a cargo de una Administradora de Pensiones. Sin embargo, la Ley 797 del 29 de enero de 2003 y el acto legislativo 001 de 2005 establecieron que Ecopetrol no pertenecería más a dicho régimen sino que en adelante sus empleados estarían vinculados al Sistema General de Pensiones. En consecuencia, los empleados que se jubilaron con Ecopetrol hasta el 31 de julio de 2010 siguen recibiendo mesadas a cargo de la Compañía. De igual manera, estos empleados tienen derecho a dicho bono pensional si trabajaron con Ecopetrol antes del 29 de enero de 2003, pero cuyo contrato de trabajo terminó, sin renovación antes de esa fecha.

Todas las prestaciones sociales de empleados ingresados con anterioridad a 1990 son responsabilidad de Ecopetrol sin intervención de organismo o institución de seguridad social. El costo de los servicios de salud del empleado y de sus familiares inscritos se determina mediante la tabla de morbilidad, preparada con base en los hechos acaecidos durante el año.

Para los trabajadores que ingresaron a partir de la vigencia de la Ley 50 de 1990, la Compañía hace aportes periódicos para cesantías, pensiones y riesgos profesionales a los respectivos fondos que asumen en su totalidad estas obligaciones.

En 2008, Ecopetrol conmutó parcialmente el valor correspondiente a mesadas de su pasivo pensional, trasladando dichas obligaciones y los dineros que las soportan a patrimonios autónomos de carácter pensional (PAP's). Los fondos trasladados, al igual que sus rendimientos, no pueden cambiar su destinación ni ser reintegrados a la Compañía hasta que se hayan cumplido todas las obligaciones pensionales. La obligación conmutada cubre el pago de las mesadas y bonos pensionales; lo concerniente a salud y educación permanece dentro del pasivo laboral a cargo de Ecopetrol.

Los beneficios a empleados se dividen en cuatro grupos así:

- (1) Beneficios a empleados a corto plazo y beneficios post-empleo de aportaciones definidas

Los beneficios a empleados a corto plazo corresponden principalmente a aquellos cuyo pago será totalmente atendido en el término de los doce meses siguientes al cierre del periodo en el cual los empleados han prestado sus servicios. Esto incluye principalmente salarios, cesantías, vacaciones, bonos y otros beneficios.

Los beneficios post-empleo de aportaciones definidas corresponden a los pagos periódicos para cesantías, pensiones y riesgos profesionales que la Compañía realiza a los respectivos fondos privados que asumen en su totalidad estas obligaciones.

Los anteriores beneficios se reconocen como un gasto con su pasivo asociado después de deducir cualquier valor ya pagado.

(2) Beneficios a empleados post-empleo por beneficios definidos

En los planes de beneficios definidos, la Compañía suministra los beneficios acordados a los empleados actuales y anteriores, y asume los riesgos actuariales y de inversión.

Los siguientes conceptos son clasificados como planes de beneficios definidos de largo plazo y son registrados en los estados financieros, de acuerdo con los cálculos realizados anualmente por un actuario independiente:

- Pensiones
- Bonos pensionales
- Salud
- Plan educativo
- Cesantías retroactivas

El pasivo reconocido en el estado de situación financiera en relación con estos planes de beneficios, corresponde al valor presente de las obligaciones por prestaciones definidas en la fecha del balance, menos el valor razonable de los activos del plan.

La obligación por prestaciones definidas es calculada anualmente por actuarios independientes utilizando el método de la unidad de crédito proyectada, el cual tiene en cuenta los años de servicio de los empleados y para pensiones, la remuneración promedio o final. Dicha obligación se descuenta al valor presente utilizando las tasas de interés de los bonos del Gobierno de alta calidad, denominados en la moneda en que se pagarán los beneficios y con una duración similar a cada plan.

Estas valuaciones actuariales involucran varios supuestos que podrían diferir de los acontecimientos que efectivamente tendrán lugar en el futuro. Estos supuestos incluyen la determinación de la tasa de descuento, los aumentos salariales futuros, los índices de mortalidad y los aumentos futuros de las pensiones. Debido a la complejidad de la valuación y los supuestos subyacentes, y a la naturaleza de largo plazo de estos planes, las obligaciones por beneficios definidos son extremadamente sensibles a los cambios en estos supuestos. Todos estos supuestos clave se revisan a cada fecha de cierre del período sobre el que se informa.

Al determinar la tasa de descuento apropiada, ante la ausencia de un amplio mercado de bonos de alta calidad, la Gerencia considera las tasas de interés correspondientes a los bonos TES clase B negociables emitidos por el Gobierno Colombiano como su mejor referencia a una tasa de descuento apropiada con vencimientos extrapolados en línea con el plazo de duración esperado para cada plan de beneficios. El índice de mortalidad se basa en las tablas de mortalidad del país en particular, su última versión es la tabla RV08 publicada en la resolución 1555 de octubre de 2010. Los incrementos futuros de salarios y pensiones se vinculan con los índices de inflación futuros esperados para cada país. La Nota 20 – Provisiones por beneficios a empleados provee más detalles sobre los supuestos clave utilizados.

Los valores reconocidos en el estado de ganancias y pérdidas de los planes de beneficios definidos comprenden principalmente el costo del servicio y los intereses netos. El costo del servicio comprende principalmente el aumento en el valor presente de la obligación de los beneficios resultantes durante el período (costo del servicio corriente) y los valores resultantes de un nuevo plan de beneficios. Las modificaciones de los planes corresponden a los cambios en los beneficios y generalmente se reconocen cuando se han recibido todas las aprobaciones legales y reglamentarias y los efectos se han comunicado a los empleados involucrados. El interés neto se calcula utilizando el pasivo neto por beneficios definidos comparado con la curva de rendimiento de la tasa de descuento al inicio de cada año para cada plan. Las remediones del pasivo neto por beneficios definidos resultante de ganancias y pérdidas actuariales, el efecto del techo de los activos y la rentabilidad de los activos del plan, excluyendo el valor reconocido en el resultado, se reconocen en el otro resultado integral.

Cuando los activos del plan exceden la obligación bruta, el activo reconocido se limita al menor entre el superávit del plan de beneficios definidos y el techo de los activos determinado usando una tasa de descuento basada en los bonos del Gobierno Colombiano.

(3) Otros beneficios a largo plazo

Los otros beneficios a largo plazo incluyen la prima por quinquenio que hace parte del cálculo actuarial de la Compañía. Este beneficio es un bono en efectivo que se acumula sobre una base anual y se paga al final de cada cinco años a los empleados. La Compañía reconoce en el estado de ganancias y pérdidas el costo del servicio, el costo financiero neto y los ajustes a la obligación del plan de beneficio definido.

(4) Beneficios por terminación

Un plan de beneficio por terminación laboral es reconocido sólo cuando existe un plan detallado para dicho proceso y no exista posibilidad de retirar la oferta. La Compañía reconoce un pasivo y un gasto por beneficios de terminación en la fecha más temprana entre la fecha en donde no se puede retirar la oferta de dichos beneficios o aquella en la que se reconocen los costos de reestructuración.

4.15. Reconocimiento de ingresos de actividades ordinarias

El negocio de la Compañía se fundamenta en tres fuentes principales de ingresos de contratos con clientes: 1) venta de crudo y gas, 2) servicios de la operación y 3) venta de productos refinados, petroquímicos y biocombustibles. Estas fuentes de ingresos obedecen a modalidades de contratos tales como suministro de productos, nominaciones y órdenes de venta. El ingreso de contratos con clientes generado es reconocido cuando el control de los bienes o servicios son transferidos al cliente en un valor que refleje la contraprestación que Ecopetrol espera recibir a cambio de tales productos o servicios.

Venta de crudo y gas

Los ingresos por las ventas de petróleo crudo y gas, se reconocen en el momento de la transferencia de dominio al comprador, esto generalmente ocurre cuando los productos son físicamente entregados a través de carro-tanques, ductos u otros métodos de entrega, considerando sus riesgos y beneficios, en cumplimiento con las obligaciones de desempeño que tiene la Compañía con sus clientes.

Para algunos contratos de suministro de gas con periodo de reposición, se discrimina entre las cantidades de gas consumidas y no consumidas, para reconocer el respectivo ingreso o pasivo por las cantidades que se solicitarán a futuro. Una vez el cliente reclame este gas, se reconoce el ingreso.

Los contratos take or pay de venta de gas especifican cantidades mínimas de producto que pagará un cliente, incluso si este no los recibe o los usa. Para algunos contratos de suministro de gas con periodo de reposición, se discrimina entre las cantidades de gas consumidas y no consumidas, para reconocer el respectivo ingreso ó pasivo por las cantidades que se solicitarán a futuro. Una vez el cliente reclame este gas, se reconoce el ingreso.

Servicios de la operación

Los ingresos por servicios se reconocen en la medida en que se prestan al cliente y no existan condiciones contractuales que impidan reconocer el ingreso. Ecopetrol asume un rol de principal en estas operaciones.

Productos refinados, petroquímicos y biocombustibles

En el caso de productos refinados, petroquímicos y biocombustibles, tales como combustóleos, asfaltos, polietilenos, G.L.P. y propanos y gasolinas entre otros, los ingresos se reconocen cuando los productos son despachados y entregados por la refinería; posteriormente, son ajustados por cambio de precios, en el caso de productos con precios regulados.

En los demás casos, Ecopetrol reconoce los ingresos en el momento en que se satisface la obligación de desempeño y nace el derecho cierto, probable y cuantificable de exigir su pago.

En cumplimiento con la normatividad local vigente, Ecopetrol comercializa gasolina regular y ACPM a precio regulado.

De conformidad con el Decreto 1068 de 2015, corresponde al Ministerio de Minas y Energía calcular y liquidar la posición neta semestral de Ecopetrol y para cada combustible a ser estabilizado por el Fondo de Estabilización de Precios de los Combustibles (FEPC). La posición neta corresponde a la sumatoria de los diferenciales a lo largo del semestre, cuyo resultado será el monto en pesos a favor de la Compañía con cargo a los recursos del FEPC. El diferencial corresponde al producto entre el volumen reportado Ecopetrol al momento de la venta y la diferencia entre el precio de paridad y el precio de referencia, siendo el precio de paridad aquel que corresponde a los precios diarios de la gasolina motor y ACPM observados durante el mes, expresados en pesos, referenciados al mercado del golfo de los Estados Unidos de América, calculado aplicando la Resolución 18 0522 de 2010 y el precio de referencia es el Ingreso al Productor definido por el Ministerio de Minas y Energía para estos

efectos. Por consiguiente, este diferencial constituye un mayor o menor valor del ingreso por ventas.

De acuerdo con los perfiles de riesgo, Ecopetrol maneja sistemas de pago anticipado para algunos de sus contratos con clientes.

Componente financiero significativo

Generalmente los pagos recibidos de clientes son en el corto plazo. Haciendo uso de la solución práctica la Compañía no ajusta el valor comprometido como contraprestación para dar cuenta de los efectos de un componente de financiación si se espera, al comienzo del contrato, que el periodo entre el momento en que se transfiere el bien o servicio comprometido al cliente y el momento en que el cliente paga por ese bien o servicio sea de un año o menos.

Consideraciones variables

Al momento cumplir con las obligaciones establecidas en los contratos con clientes, vía la entrega del producto o la prestación del servicio, pueden existir componentes variables del precio de la transacción tales como el tipo de cambio en las exportaciones de crudo o la fluctuación de precios internacionales. En estos casos, Ecopetrol efectúa la mejor estimación del precio de la transacción que refleje los bienes y servicios transferidos a los clientes.

En cuanto a las cláusulas de los contratos firmados con clientes, no se contemplan consideraciones variables asociadas a derechos de reembolso, rebajas o descuentos.

Consideraciones no monetarias

Ecopetrol establece dentro de sus contratos con clientes que la contraprestación será monetaria en todos sus casos, por lo cual no hay consideraciones asociadas a pagos en especie.

Anticipos de clientes

Corresponden a obligaciones contractuales en las cuales la Compañía recibe recursos monetarios de clientes para efectuar posteriormente la transferencia de los bienes y servicios. Estos anticipos realizados por los clientes hacen parte de las políticas y evaluación de riesgo definidas Ecopetrol.

4.16. Costos y gastos

Los costos y gastos se presentan de acuerdo a su naturaleza, detallando en las respectivas notas la composición del costo de ventas y los gastos asociados a las actividades de administración, operación, proyectos y otros gastos.

4.17. Ingresos (gastos) financieros

Los ingresos y gastos financieros incluyen principalmente: a) costos por intereses de préstamos y financiaciones, excepto los que son capitalizados como parte del costo del activo, b) valoración de ganancias y pérdidas de instrumentos financieros medidos a valor razonable con cambio a resultados, c) diferencias en cambio de activos y pasivos financieros, excepto los instrumentos de deuda designados como instrumento de cobertura, d) gastos por actualización financiera de pasivos a largo plazo (costos de abandono y pasivo pensional), y e) rendimientos e intereses de activos financieros.

4.18. Información por segmento de negocio

El Grupo Empresarial Ecopetrol presenta las correspondientes revelaciones relacionadas con sus segmentos de negocio en los estados financieros consolidados, de acuerdo a lo dispuesto en la NIIF 8 – Segmentos de operación.

5. Nuevos estándares y cambios normativos

5.1. Nuevos estándares adoptados por la Compañía, efectivos a partir del 1 de enero de 2020

Ecopetrol aplicó por primera vez ciertas normas y enmiendas, que son efectivas para períodos anuales

que comenzaron a partir del 1 de enero de 2020. No ha adoptado anticipadamente ninguna otra norma, interpretación o enmienda que haya sido emitida pero que aún no sea efectiva a la fecha de este informe:

- Modificaciones a la NIIF 3 – Definición de un negocio: para ayudar a las compañías a determinar si un conjunto de actividades y activos adquiridos se consideran un negocio o no. Se

aclaran los requisitos mínimos para determinar si es un negocio, se elimina la evaluación de si los participantes del mercado son capaces de reemplazar cualquier elemento faltante, se incluye una orientación para ayudar a las compañías a evaluar si un proceso adquirido es sustantivo, se restringen las definiciones de un negocio y de productos; y se introduce una prueba de concentración de valor razonable opcional. Se proporcionan nuevos ejemplos ilustrativos junto con estas modificaciones.

Estos cambios se aplican a las transacciones consideradas combinaciones de negocios o adquisiciones de activos, para las cuales la fecha de adquisición sea 1 de enero de 2020 o posterior. En consecuencia, las compañías no tienen que revisar transacciones ocurridas en periodos anteriores. (Nota 13 – Combinaciones de negocios).

- Modificaciones a las NIIF 7, NIIF 9 y NIC 39 Reforma de la tasa de interés de referencia: se proporciona un número de exenciones, que se aplican a todas las relaciones de cobertura directamente afectadas por los cambios en los índices de referencia de tasas de interés. Una relación de cobertura se ve afectada si el cambio en los índices genera incertidumbre sobre el momento y/o cantidad de flujos de efectivo de la partida cubierta o del instrumento de cobertura.

Estas modificaciones no tienen impacto en los estados financieros separados ya que al 31 de diciembre de 2020 no se tienen coberturas de tasas de interés.

- Modificaciones a la NIC 1 y NIC 8 – Definición de material: La nueva definición establece que, “La información es material si se espera que su omisión o distorsión influya en las decisiones que los usuarios principales de los estados financieros toman”. Las modificaciones aclaran que la importancia relativa dependerá de la naturaleza y/o la magnitud de la información, ya sea individualmente o en combinación con otra información, en el contexto de los estados financieros. Una representación errónea de información es material si se puede esperar razonablemente que influya en las decisiones tomadas por los usuarios principales.

Estas modificaciones no han tenido ningún impacto en los estados financieros.

- Marco conceptual para la información financiera revisado: El IASB emitió el Marco Conceptual revisado en marzo de 2018. El mismo establece un conjunto integral de conceptos para la

presentación de informes financieros, el establecimiento de estándares, la orientación para los preparadores en la definición de políticas contables coherentes y la asistencia a otros para comprender e interpretar los estándares. El Marco conceptual incluye algunos conceptos nuevos, proporciona definiciones actualizadas y criterios de reconocimiento para activos y pasivos y aclara algunos conceptos importantes. Los cambios en el Marco conceptual pueden afectar la aplicación de las NIIF en situaciones en las que no se aplica una norma a una transacción o evento en particular. Para los preparadores que desarrollan políticas contables basadas en el Marco Conceptual, es efectivo para periodos anuales que comienzan en o después del 1 de enero de 2020.

Estas modificaciones no han tenido impacto en los estados financieros separados.

- Modificaciones a la NIIF 16 Concesiones de alquiler relacionadas con Covid-19: El 28 de mayo de 2020, el IASB emitió la enmienda a la NIIF 16 - Concesiones de alquiler relacionadas con Covid-19, la cual proporciona alivio a los arrendatarios. Como solución práctica, un arrendatario puede optar por no evaluar si una concesión de alquiler relacionada con Covid-19 de un arrendador es una modificación de arrendamiento. Un arrendatario que realiza esta elección contabiliza cualquier cambio en los pagos de arrendamiento que resulten de la concesión de la misma manera que contabilizaría el cambio según la NIIF 16, si el cambio no fuera una modificación del arrendamiento. La enmienda se aplica a los periodos anuales de presentación de informes que comiencen a partir del 1 de junio de 2020. Se permite la aplicación anticipada.

Esta enmienda no fue aplicada dado que el número de contratos que estarían en su alcance es reducido y evaluando su impacto, no es material. En consecuencia, la compañía garantizará que los cambios en los contratos de arrendamiento bajo NIIF 16, cumplan con los lineamientos actuales de la norma, lo cual establece que las modificaciones sean registradas como mayor o menor valor del activo en uso.

5.2. Nuevos estándares emitidos por el IASB que entrarán en vigencia en periodos futuros

- Se han publicado algunas normas e interpretaciones nuevas que no son obligatorias para los periodos de presentación al 31 de diciembre de 2020, sin embargo aplican para vigencias futuras:

Entrada en vigencia 1 de enero de 2021:

- Reforma a la tasa de interés de referencia fase 2: En agosto de 2020 el IASB publicó este proyecto de norma, el cual complementa la emitida en 2019 y se centra en los efectos en los estados financieros cuando una empresa reemplaza la tasa de interés de referencia anterior por una tasa de referencia alternativa. Las modificaciones de esta fase se refieren a los cambios en los flujos de efectivo contractuales, contabilidad de coberturas y revelaciones de riesgos.

Las tasas de interés de referencia tales como las tasas de oferta interbancarias (IBOR por sus siglas en inglés) juegan un papel importante en los mercados financieros globales, siendo la “LIBOR”, una de las más utilizadas por varias compañías para negociación de deudas corporativas, instrumentos derivados, entre otros. El G20 solicitó al Consejo de Estabilidad Financiera (FSB por sus siglas en inglés) que llevara a cabo una revisión de las principales tasas de interés de referencia. Producto de la revisión se espera que la LIBOR y otras tasas sean reemplazadas con unas nuevas que den una mayor confianza a los mercados en general.

- Dentro del análisis contable, Ecopetrol estableció que los flujos de efectivo contractuales de activos o pasivos financieros medidos a costo amortizado cambiarían como resultado de la reforma del IBOR. De acuerdo con la norma, los contratos que cambien la base para la determinación de los flujos contractuales como resultado de la reforma a la tasa de interés no deberán tener un recalcule en la TIR y por lo tanto ningún impacto contable en el Estado de Resultados, aplicando el párrafo B5.4.5 de la IFRS 9. Los gastos financieros mensuales serán medidos con la nueva tasa de interés sin que implique una remediación en la tasa que pueda afectar el costo actual del activo y/o pasivo financiero.

Entrada en vigencia 1 de enero de 2022 con posibilidad de adopción anticipada en 2021:

- NIC 16 – Propiedades, planta y equipo: enmienda que expresa la prohibición de deducir del costo de la propiedad, planta y equipo el valor de las ventas de artículos producidos, mientras la

compañía prepara el activo para su uso previsto. Ecopetrol planea aplicar la enmienda a la NIC 16 de forma anticipada a partir del 2021 (previa aprobación para su implementación en Colombia), para el tratamiento de la venta a terceros de las pruebas extensas de producción, las cuales son las ventas del petróleo obtenido por pruebas en un pozo de desarrollo antes de entrar en plena producción; revelando por separado los montos de los ingresos y los costos relacionados con los ítems producidos.

Cabe mencionar que para aplicar las enmiendas mencionadas (reforma a la tasa de interés Fase 2 y NIC 16) es necesario que las mismas estén incorporadas en la normatividad contable en Colombia mediante decreto, para recoger así los efectos contables y evitar diferencias entre las normas vigentes en Colombia y las Normas emitidas por el IASB.

Ecopetrol aplicará esta enmienda de forma anticipada a partir del 2021 (sujeto a aprobación mediante decreto), revelando por separado los montos de los ingresos y los costos relacionados con los ítems producidos. Para dicha adopción se deberá reflejar el efecto acumulado de los ingresos obtenidos por pruebas extensas en los proyectos vigentes al 1 de enero de 2020 como punto de partida el primer día del año comparativo.

- NIIF 3 – Combinaciones de negocios: en la cual actualizan una referencia de la norma al Marco Conceptual.
- NIC 37 – Provisiones, pasivos contingentes y activos contingentes: en la cual detalla qué costos deberá incluir una entidad al determinar si un contrato es oneroso.

Entrada en vigencia a partir del 1 de enero de 2022 o periodos posteriores:

- Ciclo de mejoras anuales 2018 – 2020 que involucran ajustes a la NIIF 1, NIIF 9, NIC 41 y NIIF 16.

La Compañía monitorea constantemente las nuevas normas contables, actualizaciones o enmiendas que el IASB emite, para validar su aplicación e impactos en los Estados Financieros.

6. Efectivo y equivalentes de efectivo

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Bancos y corporaciones	450,834	1,465,274
Inversiones financieras de corto plazo (1)	808,706	12,206
Caja	13	13
	1,259,553	1,477,493

(1) Durante el segundo trimestre de 2020 se invirtieron recursos en los fondos en USD con parte de los bonos de deuda pública externa emitidos por Ecopetrol en abril.

El valor razonable del efectivo y equivalentes se aproxima a su valor registrado en libros debido a su naturaleza de corto plazo (menos de tres meses) y su alta liquidez.

La rentabilidad acumulada de los bancos y corporaciones en pesos colombianos y dólares al 31 de diciembre de 2020 fue de 3.3% (2019 - 4.1%) y 0.7% (2019 - 2.5%), respectivamente. Así mismo, para las inversiones financieras de corto plazo en pesos colombianos y

dólares, la rentabilidad fue de 4.2% (2019 - 4.3%) y 0.6% (2019 - 2.5%), respectivamente.

A 31 de diciembre de 2020 y 2019 ningún recurso del efectivo y equivalentes de efectivo se encontraba restringido.

La siguiente tabla refleja la calidad crediticia de los emisores y contrapartes en transacciones relacionadas con el efectivo y equivalentes:

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
F1+	1,175,883	221,448
BRC1+	70,235	673,343
F1	13,422	-
AAA	-	12,206
A-1	-	570,483
Sin calificación disponible	13	13
	1,259,553	1,477,493

Ver política de riesgo de crédito en la Nota 29.4.

7. Cuentas comerciales y otras cuentas por cobrar, neto

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Corriente		
Cientes		
Exterior	1,398,644	2,032,496
Nacionales	680,804	685,555
Partes relacionadas (Nota 30)	2,260,003	1,668,509
Servicios industriales	28,680	33,597
Cuentas por cobrar a empleados	91,034	89,338
Fondo de estabilización de precios (1)	287,453	219,921
Deudores varios	174,036	448,152
	4,920,654	5,177,568
No corriente		
Cuentas por cobrar a empleados	465,508	497,908
Partes relacionadas (Nota 30)	-	93,657
Deudores varios	50,233	46,066
	515,741	637,631

- (1) Corresponde a la aplicación de la Resolución 180522 del 29 de marzo de 2010 y demás normas que la modifican y adicionan (Decreto 1880 de 2014 y Decreto 1068 de 2015), donde se establece el procedimiento para reconocer el subsidio para refinadores e importadores de la gasolina motor corriente y ACPM, y la metodología para el cálculo de la posición neta (valor generado entre el precio de paridad y el precio regulado, el cual puede ser positivo o negativo). Durante 2020 Ecopetrol pagó al Fondo de Estabilización un valor de \$50,131, correspondiente a la liquidación del cuarto trimestre de 2019 y primer semestre de 2020.

El valor contable de las cuentas comerciales y otras cuentas por cobrar se aproxima a su valor razonable.

8. Inventarios, neto

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Crudo	1,577,387	1,767,735
Combustibles y petroquímicos	898,434	1,249,858
Materiales para producción de bienes	857,708	804,313
	3,333,529	3,821,906

El siguiente es el movimiento de la provisión de inventarios:

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Saldo inicial	41,347	32,124
Adiciones	4,013	5,540
Traslados/reclasificaciones (1)	(11,846)	3,683
Saldo final	33,514	41,347

Los inventarios de crudo, combustibles y petroquímicos se ajustan al menor entre el costo y el valor neto de realización, producto de las fluctuaciones de los precios internacionales del crudo. El monto registrado por este concepto en 2020 ascendió a \$5,241 (2019 – \$13,625).

(1) Incluye principalmente la actualización de la provisión en operaciones con socios.

9. Otros activos financieros

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Activos medidos a valor razonable con cambio a resultados		
Portafolio de inversiones – Moneda extranjera	1,878,186	2,628,089
Portafolio de inversiones – Moneda nacional	471,896	1,630,080
Inversiones en títulos en compañías del grupo (1) (Nota 30)	123,106	967,555
	2,473,188	5,225,724
Activos medidos a costo amortizado	3,358	3,367
Activos financieros derivados (2)	7,572	4,868
	2,484,118	5,233,959
Corriente	1,926,810	2,444,824
No corriente	557,308	2,789,135
	2,484,118	5,233,959

(1) Corresponde a recursos invertidos por Ecopetrol en depósitos de Ecopetrol Capital AG denominados en dólares.

(2) Correspondiente a contratos swaps (Nota 29.2).

La rentabilidad del portafolio de inversiones en pesos colombianos y dólares al 31 de diciembre de 2020 fue de 5.6% (2019 - 5.4%) y 1.9% (2019 – 3.3%), respectivamente.

La medición a valor razonable es reconocida contra el resultado financiero (Nota 28).

9.1. Restricciones

A 31 de diciembre de 2020 y 2019 ningún recurso del portafolio de inversiones se encontraba restringido.

9.2. Vencimientos

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
< 1 año	1,926,810	2,444,824
1 - 2 años	36,350	766,613
2 - 5 años	376,450	1,512,181
> 5 años	144,508	510,341
	2,484,118	5,233,959

9.3. Valor razonable

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Nivel 1	2,704	472,547
Nivel 2 (1)	2,478,056	4,758,045
	2,480,760	5,230,592

(1) Incluye títulos del portafolio de inversiones medidos a valor razonable y activos financieros derivados.

No se presentaron transferencias entre niveles de jerarquía durante los años.

Los títulos del portafolio de Ecopetrol se valoran de manera diaria siguiendo lo estipulado por la Superintendencia Financiera de Colombia. Para lo anterior, se utiliza la información provista por entidades autorizadas para dicho fin, las cuales recogen los datos de mercados activos. Para aquellos casos en los cuales no se cuente con datos de mercado, se recurre a otros datos observables directa o indirectamente.

Para las inversiones denominadas en dólares se tiene como proveedor de información a Bloomberg y para las denominadas en pesos a Precia, entidad autorizada por la Superintendencia Financiera de Colombia para la prestación de este servicio.

Dentro del proceso de jerarquización de las inversiones, adicional a la información utilizada para la valoración, se tienen en cuenta otros aspectos relevantes tales como la calificación del emisor, clasificación de la inversión, liquidez, mercado activo y el análisis de riesgos del emisor realizado por Ecopetrol, lo que permite llegar a la clasificación de nivel de jerarquía adecuada de las inversiones.

9.4. Calificación crediticia

La siguiente tabla refleja la calidad crediticia de los emisores y contrapartes en transacciones relacionadas con los otros activos financieros:

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
A-1	960,955	13,219
BBB-	710,878	967,555
F1+	551,626	350,325
A-3	127,861	-
AAA	121,753	2,676,886
A+	-	712,934
AA-	-	186,325
AA+	-	155,012
A	-	145,807
Otras calificaciones	11,045	25,896
	2,484,118	5,233,959

Ver política de riesgo de crédito en la Nota 29.4.

10. Impuestos

10.1 Activos y pasivos por impuestos

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Activos por impuestos corrientes		
Impuesto a las ganancias (1)	1,625,618	-
Saldo a favor en impuestos (2)	1,233,101	569,755
Otros impuestos (3)	724,464	641,233
	3,583,183	1,210,988
Activos por impuestos no corrientes		
Impuesto diferido	4,282,625	3,557,160
Impuesto a las ganancias (4)	397,821	-
	4,680,446	3,557,160
Pasivos por impuestos corrientes		
Impuesto de industria y comercio	152,551	197,357
Impuesto a las ganancias (5)	94,185	722,134
Impuesto nacional y sobretasa a la gasolina	92,846	108,759
Impuesto al carbono	51,624	41,530
Otros impuestos (6)	17,047	128,317
	408,253	1,198,097

Pasivos por impuestos no corrientes		
Impuesto diferido	142,832	141,971
Impuesto a las ganancias (7)	187,469	34,247
	330,301	176,218

- (1) El impuesto sobre la renta para 2020 fue determinado bajo el sistema de renta presuntiva. Dado el pago por autorretenciones durante el año, se genera saldo a favor para la vigencia.
- (2) Corresponde principalmente al saldo a favor por el impuesto al valor agregado (IVA).
- (3) Incluye principalmente el descuento tributario potencial por IVA pagado en adquisición de activos fijos reales productivos establecido en las Leyes 1943 de 2018 y 2010 de 2019 y las autorretenciones por impuesto de industria y comercio.
- (4) Corresponde al descuento tributario efectivo por el IVA pagado en activos fijos reales productivos, el cual, dadas las limitantes establecidas por la ley será utilizado en las declaraciones del impuesto de renta en vigencias futuras.
- (5) Incluye la porción de corto plazo del pasivo por obras por impuestos, mecanismo de pago del impuesto de renta del año 2017, establecido en la Ley 1819 de 2016.
- (6) Incluye principalmente saldo por pagar por concepto de impuestos aduaneros e impuesto de transporte.
- (7) Corresponde al valor de largo plazo del pasivo de obras por impuestos de los años 2018 y 2019.

10.2. Impuesto a las ganancias

De conformidad con la Ley 2010/2019 las disposiciones fiscales aplicables en Colombia para el año gravable 2020 y siguientes, son:

- La tarifa general del impuesto de renta aplicable para sociedades nacionales, establecimientos permanentes y entidades extranjeras será del 32% para el año 2020, 31% para el año 2021 y 30% para el año 2022 y siguientes.
- Para los años 2019 y 2020, la tarifa aplicable para efectos de calcular el impuesto sobre la renta bajo el sistema de renta presuntiva será del 1.5% y 0.5%, respectivamente, del patrimonio líquido del contribuyente del año inmediatamente anterior. A partir del año 2021 la tarifa aplicable será 0%.
- Se ajustan los sistemas de depreciación fiscal a los contables y establece un límite al porcentaje de depreciación anual con base en la tabla establecida en la Ley 1819 de 2016; por otra parte, la amortización de las inversiones petrolíferas se reconoce con base en unidades técnicas de producción, tal y como se hace contablemente.
- Los gastos de adquisición de derechos de exploración, geología y geofísica, perforaciones exploratorias, entre otros, son capitalizables hasta que se determine la factibilidad técnica y la viabilidad comercial de extraer el recurso.
- Las fluctuaciones de las partidas expresadas en moneda extranjera, sólo tendrán efectos fiscales en el momento de la enajenación o abono en el caso de

los activos, o liquidación o pago parcial en el caso de los pasivos.

- Las pérdidas fiscales generadas a partir del 1 de enero de 2017 se podrán compensar con las rentas líquidas generadas en los siguientes 12 años.

El Gobierno Nacional expidió normas fiscales, relacionadas con el impuesto sobre la renta, tendientes a mejorar el flujo de caja de las Compañías, ampliando el plazo para el pago y presentación de la declaración del año gravable 2019, reducción del anticipo para el año gravable 2020, entre otras. Dado que Ecopetrol se acogió al mecanismo para extinguir obligaciones tributarias de obras por impuestos, no puede adoptar las normas mencionadas de ampliación de plazos, pero sí aprovecho la reducción del anticipo del 75% al 25% contemplada en el Decreto 766 de 2020, para generar un menor pago de impuestos.

Firmeza de las declaraciones del impuesto sobre la renta y CREE

Las declaraciones de impuestos de 2014, 2015, 2016, 2017, 2018 y 2019 se encuentran sujetas a aceptación y revisión por parte de las autoridades tributarias; en el evento que ello ocurra la Compañía no espera diferencias significativas que impliquen la modificación del impuesto liquidado, ni de la imposición de sanciones que conlleven el reconocimiento de contingencias en los estados financieros.

A partir del año 2017, el término general de firmeza de las declaraciones tributarias es de 3 años a partir

de la fecha de su vencimiento o de la fecha de su presentación, cuando estas hayan sido presentadas de forma extemporánea. En el caso de Ecopetrol, por estar sujeto al cumplimiento de las reglas de precios de transferencia, el término de firmeza es de 6 años. La Ley 2010 de 2019 estableció que este término será de 5 años, para las declaraciones que se presenten a partir del 1 de enero de 2020.

Respecto de aquellas declaraciones en las cuales se presenten saldos a favor, el término de firmeza es de 3 años, desde la fecha de la presentación de la solicitud de devolución o compensación.

Ingreso (gasto) por impuesto a las ganancias

	Por los años terminados el 31 de diciembre de	
	2020	2019
Corriente (1)	(63,432)	(3,877,260)
Corriente - ejercicios anteriores	269,278	(4,603)
Diferido (2)	922,799	771,752
Diferido - ejercicios anteriores	(246,050)	11,674
	882,595	(3,098,437)

- (1) La variación corresponde principalmente a la diferencia entre las bases para la determinación del impuesto (\$11,246,240 en 2019 y \$199,103 en 2020).
- (2) Incluye \$383,346 de impuesto relacionado con la adquisición de la participación que poseía Chevron en el contrato de Asociación Guajira (Nota 13). Adicionalmente, el impuesto generado por las pérdidas fiscales, los excesos de renta presuntiva, la actualización de los costos de abandono, entre otros.

Conciliación del gasto por impuesto a las ganancias

La conciliación entre el gasto por impuesto a las ganancias y el impuesto determinado con base en la tarifa legal aplicable a la Compañía es la siguiente:

	Por los años terminados el 31 de diciembre de	
	2020	2019
Utilidad antes de impuestos	805,482	16,349,920
Tasa de renta nominal	32%	33%
Impuesto a las ganancias a tasa nominal	(257,754)	(5,395,474)
Ajustes para el cálculo de la tasa efectiva:		
Método de participación en compañías	1,249,643	2,073,590
Ingresos no gravados	-	362,583
Efecto por impuesto de renta y sobretasa 2018 y siguientes 3%	(59,659)	(26,418)
Gastos de renta años anteriores	23,228	7,071
Otros	539	(36,307)
Deducciones fiscales	1,017	3,562
Descuentos tributarios	281	89,360
Aplicación tarifa ganancia ocasional	1,894	(4,545)
Gastos no deducibles	(76,594)	(171,859)

Impuesto a las ganancias calculado	882,595	(3,098,437)
Corriente	205,846	(3,881,864)
Diferido	676,749	783,427
	882,595	(3,098,437)

La tasa efectiva de tributación al 31 de diciembre de 2020 calculada antes de impuestos y de la participación en las utilidades de las compañías del Grupo, asociadas y negocios conjuntos es de 28.5% (2019 - 30.8%). La variación de la tasa frente al periodo anterior se debe principalmente a la disminución en

la utilidad contable, la reducción en la tarifa nominal del impuesto sobre la renta al pasar del 33% en el 2019 al 32% en el 2020, la limitante en la utilización del descuento tributario, entre otros.

Impuesto diferido

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Activo por impuesto diferido	4,282,625	3,557,160
Pasivo por impuesto diferido	(142,832)	(141,971)
	4,139,793	3,415,189

Las proyecciones financieras de la Compañía permiten deducir que a futuro se generarán suficientes utilidades que permitirán la recuperabilidad del impuesto diferido.

El detalle de los impuestos diferidos activos y pasivos, es el siguiente:

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Impuesto diferido activo		
Provisiones (1)	2,991,579	2,296,786
Beneficios a empleados (2)	1,874,242	1,875,872
Préstamos por pagar	1,869,474	1,949,644
Pérdidas fiscales (3)	1,189,973	-
Cuentas por cobrar	97,944	79,405
Inventarios	86,993	67,947
Excesos de renta presuntiva (4)	61,722	-
Inversiones e instrumentos derivados	35,429	(47,941)
Activos intangibles	(4,712)	(1,980)
Cuentas por pagar	(6,648)	712,900
Propiedades, planta y equipo (5)	(22,890)	380,767
Otros activos	(42,558)	(57,512)
Cargos diferidos	(51,218)	(63,941)
Goodwill (6)	(294,203)	(288,095)
Activos por derecho de uso	(934,366)	(1,034,497)
Recursos naturales y del medio ambiente (5)	(2,568,136)	(2,312,195)
	4,282,625	3,557,160

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Impuesto diferido pasivo		
Propiedades, planta y equipo (7)	(142,832)	(141,971)
	(142,832)	(141,971)

- (1) Corresponde a las provisiones contables no procedentes fiscalmente, principalmente la provisión para abandono de pozos.
- (2) Cálculos actuariales por salud, pensiones de jubilación, educación, bonos pensionales y otros beneficios a empleados a largo plazo.
- (3) Se genera pérdida fiscal producto de una menor utilidad generada principalmente por la disminución de los precios del crudo y el efecto de la pandemia del COVID-19. Conforme a las proyecciones más recientes éstas pérdidas se esperan recuperar dentro de los dos próximos años.
- (4) Como resultado de la depuración del impuesto de renta del año gravable 2020, la Compañía generó pérdida fiscal y en consecuencia, liquidó su impuesto por el sistema de renta presuntiva.
- (5) La variación se presenta principalmente debido al registro del impuesto diferido por la adquisición de la participación que tenía Chevron en el contrato de Asociación Guajira (Nota 13) y el incremento en los costos de abandono, entre otros.
- (6) De acuerdo con la ley tributaria en Colombia hasta el 2016, el goodwill era susceptible de amortización fiscal, mientras que bajo NCIF solo puede estar sujeto a pruebas de impairment, diferencia que genera como resultado un impuesto diferido pasivo.
- (7) Corresponde al impuesto diferido generado por los terrenos, al cual aplica la tarifa de 10% de ganancias ocasionales.

El siguiente es el detalle del impuesto diferido por los años terminados al 31 de diciembre:

Activo:

	Provisiones y Contingencias	Beneficios a empleados	Préstamos y financiaciones	Pérdidas fiscales	PPE y recursos naturales
A 31 de diciembre de 2018	1,838,261	1,161,860	827,452	-	(1,354,949)
Gasto del año	458,525	(57,343)	1,427,277	-	(576,479)
Otros Resultados integrales	-	771,355	(305,085)	-	-
A 31 de diciembre de 2019	2,296,786	1,875,872	1,949,644	-	(1,931,428)
Gasto del año	694,793	39,608	(169,263)	1,189,973	(659,598)
Otros Resultados integrales	-	(41,238)	89,093	-	-
A 31 de diciembre de 2020	2,991,579	1,874,242	1,869,474	1,189,973	(2,591,026)

	Excesos de renta presuntiva	Activos por derecho de uso	Goodwill	Otros	Total
A 31 de diciembre de 2018	-	-	(324,061)	160,877	2,309,440
Gasto del año	-	(1,034,497)	35,966	528,001	781,450
Otros Resultados integrales	-	-	-	-	466,270
A 31 de diciembre de 2019	-	(1,034,497)	(288,095)	688,878	3,557,160
Gasto del año	61,722	100,131	(6,108)	(573,648)	677,610
Otros Resultados integrales	-	-	-	-	47,855
A 31 de diciembre de 2020	61,722	(934,366)	(294,203)	115,230	4,282,625

Pasivo:

	Propiedad planta y equipo	Total
A 31 de diciembre de 2018	(143,947)	(143,947)
Gasto del año	1,976	1,976
A 31 de diciembre de 2019	(141,971)	(141,971)
Gasto del año	(861)	(861)
A 31 de diciembre de 2020	(142,832)	(142,832)

Los movimientos del impuesto diferido activo y pasivo a las ganancias por el periodo terminado el 31 de diciembre son los siguientes:

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Saldo inicial	3,415,189	2,165,492
Impuesto diferido reconocido en el resultado del periodo	676,749	783,427
Impuesto diferido reconocido otros resultados integrales (a)	47,855	466,270
Saldo final	4,139,793	3,415,189

(a) La siguiente es la composición del impuesto a las ganancias registrado contra otros resultados integrales:

A 31 de diciembre de 2020	Base	Impuesto diferido	Total
Ganancias actuariales sobre beneficios a empleados	(137,459)	41,238	(96,221)
Cobertura de flujo de efectivo instrumentos derivados	(2,703)	789	(1,914)
Cobertura de flujo de efectivo para exportaciones de crudo	(198,017)	66,265	(131,752)
Cobertura de inversión neta en negocio en el extranjero	520,490	(156,147)	364,343
	182,311	(47,855)	134,456

A 31 de diciembre de 2019	Base	Impuesto diferido	Total
Ganancias actuariales sobre beneficios a empleados	2,571,184	(771,355)	1,799,829
Cobertura de flujo de efectivo instrumentos derivados	(4,869)	1,558	(3,311)
Cobertura de flujo de efectivo para exportaciones de crudo	(998,083)	329,784	(668,299)
Cobertura de inversión neta en negocio en el extranjero	87,524	(26,257)	61,267
	1,655,756	(466,270)	1,189,486

Impuestos diferidos pasivos no reconocidos

Al 31 de diciembre de 2020, no se reconocen pasivos por impuesto diferido sobre la diferencia entre las bases contables y fiscales asociadas a las inversiones en subsidiarias, negocios conjuntos de Ecopetrol (Base: \$1,396,052- Impuesto: \$139,605), ya que conforme fue documentado, la Compañía no tiene en el futuro previsible intención de venta de ninguna de estas inversiones.

No hay efectos en el impuesto sobre la renta relacionados con los pagos de dividendos realizados por la Compañía a sus accionistas durante 2020 y 2019.

10.3. Otros impuestos

Impuesto a los dividendos

Sobre las utilidades generadas a partir del año 2017, aplica a las personas naturales residentes, sociedades nacionales y entidades extranjeras el impuesto a los dividendos.

La ley 1943 de 2018 estableció que, a partir del 1 de enero de 2019 los dividendos y participaciones pagados o abonados en cuenta provenientes de distribuciones realizadas entre compañías colombianas, están sometidos a una retención en la fuente a título del impuesto a los dividendos a una tarifa del 7,5%. Esta retención es trasladable al beneficiario final, entidad del exterior o persona natural residente fiscal en Colombia. De otra parte, si las utilidades con cargo a las cuales se distribuyeron los dividendos no estuvieron sujetas a imposición al nivel de la sociedad, dichos dividendos están gravados con el impuesto sobre la renta aplicable en el período de distribución. En este supuesto, la retención del 7,5% aplicará sobre el valor del dividendo una vez disminuido con el impuesto sobre la renta (32% para el año 2020).

Los dividendos no gravados que recibirá la Compañía, no estarán sujetos a retención en la fuente por expresa disposición de la norma la cual señala que los dividendos distribuidos dentro de los grupos empresariales debidamente registrados ante la Cámara de Comercio y a entidades descentralizadas, no estarán sujetos a la retención en la fuente por este concepto.

Precios de transferencia

Los contribuyentes del impuesto sobre la renta que celebren operaciones con vinculados económicos o partes relacionadas del exterior y ubicadas en zonas francas o con residentes ubicados en países considerados jurisdicciones no cooperantes de baja o nula imposición, están obligados a determinar para efectos del impuesto de renta y complementarios sus ingresos ordinarios y extraordinarios, activos y pasivos, sus costos y deducciones, considerando para estas operaciones los precios y márgenes de utilidad que se hubieran utilizado en operaciones comparables con o entre no vinculados económicos.

Ecopetrol presentó en el año 2020 la información de precios de transferencia del año 2019 correspondiente a la declaración informativa, la documentación comprobatoria, el reporte país por país y el archivo maestro, de acuerdo con la normatividad tributaria vigente.

Para el año gravable 2020, las transacciones efectuadas con vinculados económicos del exterior, así como las condiciones de negocio bajo las cuales se desarrollaron tales operaciones y la estructura general, no variaron significativamente respecto del año anterior. Por esta razón, es posible inferir que dichas transacciones fueron llevadas a cabo de acuerdo con el principio de plena competencia. Se estima que no se requerirán ajustes derivados del análisis de precios de transferencia del año 2020, que impliquen modificaciones en la provisión de renta del año gravable 2020.

Reforma tributaria Ley 2010 del 27 de diciembre de 2019

La Corte Constitucional declaró la inexecutable de la Ley 1943 de 2018 (Reforma Tributaria de 2018) debido a vicios de procedimiento en su aprobación en el Congreso. La Corte señaló que el efecto de su pronunciamiento sería aplicable a partir del 1 de enero de 2020, por lo que la Ley 1943 fue aplicable en su totalidad hasta el 31 de diciembre de 2019. La Corte otorgó al ejecutivo la posibilidad de presentar un nuevo proyecto legislativo para el periodo 2020, fruto de esta facultad el gobierno presentó proyecto de ley que fue sancionada y se materializó en la Ley 2010 del 27 de diciembre de 2019. En términos generales se presentaron modificaciones puntuales como los siguientes:

Tarifa del impuesto de renta para el año gravable 2020 y siguientes:

Año	Tarifa general (1)
2020	32%
2021	31%
2022 y siguientes	30%

(1) Tarifa aplicable para sociedades nacionales, establecimientos permanentes y entidades extranjeras.

De otra parte, para el año 2020, la tarifa aplicable para efectos de calcular el impuesto sobre la renta bajo el sistema de renta presuntiva será del 0.5% del patrimonio líquido del contribuyente del año inmediatamente anterior. A partir del año 2021 la tarifa aplicable será del 0%.

Se mantuvo la regla de subcapitalización contenida en el artículo 118-1 del E.T. que había sido modificado por la Ley 1943/2018. En este sentido, a partir del año 2019 la regla de subcapitalización sólo será aplicable con respecto a intereses generados en la adquisición de deudas contraídas, directa o indirectamente, con vinculados económicos

nacionales o extranjeros. Así mismo, se modificó la proporción capital – deuda a 2:1 (anteriormente era 3:1) con lo cual no sólo se podrán deducir intereses generados con ocasión a deudas adquiridas con vinculados económicos cuando el monto total promedio de tales deudas no exceda a dos (2) veces el patrimonio líquido del contribuyente determinado al 31 de diciembre del año gravable inmediatamente anterior.

Impuesto a los dividendos

A partir del 1 de enero de 2020, los dividendos y participaciones pagados o abonados en cuenta provenientes de distribuciones realizadas entre compañías colombianas, estarán sometidos a una retención en la fuente a título del impuesto a los dividendos a una tarifa del 7.5%. De otra parte, si las utilidades con cargo a las cuales se distribuyen los dividendos no estuvieron sujetas a imposición al nivel de la sociedad, dichos dividendos están gravados con el impuesto sobre la renta aplicable en el período de distribución (para el año 2020 la tarifa será del 32%). En este supuesto, la retención del 7.5% aplicará sobre el valor del dividendo una vez disminuido con el impuesto sobre la renta (32% para el año 2020).

La tarifa de retención del 7.5%, se causará sólo en la primera distribución de dividendos entre compañías colombianas y podrá ser acreditada contra el impuesto a los dividendos una vez a cargo del accionista persona natural residente o al inversionista residente en el exterior.

Debe resaltarse que la retención del 7.5% no aplica para: (i) compañías holding colombianas, incluyendo entidades descentralizadas; y (ii) entidades que hagan parte de un grupo empresarial dentro de sociedades en situación de control debidamente registrados ante la Cámara de Comercio, de acuerdo con la normativa mercantil.

Impuesto de normalización

Se crea el nuevo impuesto de normalización tributaria por el año 2020, complementario del impuesto sobre la renta y del impuesto al patrimonio, a cargo de los contribuyentes del impuesto sobre la renta o de regímenes sustitutivos del impuesto sobre la renta que tengan activos omitidos o pasivos inexistentes al 1ro de enero de 2020. La tarifa aplicable para este período gravable es del 15% y la declaración independiente debió ser presentada hasta el 25 de septiembre de 2020, la cual, no permite corrección o presentación extemporánea, al igual que 2019

la base gravable podrá reducirse al 50% cuando el contribuyente repatrié activos normalizados del exterior y los invierta con vocación de permanencia en el país por un período no inferior a dos años contados a partir del 1ro de enero de 2021.

Impuesto sobre las ventas

En materia de impuesto sobre las ventas se excluyó de la base para liquidar el IVA en las importaciones de bienes desde Zona Franca, aquellos elementos (servicios o materia prima) sobre los que el usuario de zona franca ya hubiere pagado IVA. Se revive el artículo 491 del Estatuto Tributario, que prohíbe expresamente la posibilidad de tomar como impuesto descontable el IVA pagado en la adquisición de activos fijos. Se establecen tres días al año de exención de IVA para ciertos productos, con límites en función de las unidades adquiridas.

En materia de Impuesto sobre las ventas, se modificó el listado de bienes y servicios excluidos de IVA consagrados en los artículos 424, 426 y 476 del Estatuto Tributario, se adicionó al artículo 437 del Estatuto Tributario, en lo referente a directrices sobre el cumplimiento de deberes formales en materia de IVA por parte de prestadores de servicios desde el exterior y se indicó que la retención de IVA podrá ser hasta del 50% del valor del impuesto, sujeto a reglamentación del Gobierno Nacional. La tarifa de IVA se mantiene en 19%. (Art. 424, Art. 426, Art. 476 Estatuto Tributario).

Procedimiento tributario

En materia de procedimiento existen modificaciones: (i) declaraciones de retención en la fuente que a pesar de ser ineficaces serán título ejecutivo, (ii) notificación electrónica de actos administrativos; y (iii) pago de glosas en pliego de cargos para evitar intereses moratorios y utilizar los corrientes más dos puntos; (iv) eliminación de extensión de la firmeza a tres (3) años adicionales por compensación de pérdidas fiscales y (v) frente a los años que se tiene obligación de cumplir con el régimen de precios de transferencia, el término de la firmeza será de 5 años.

De igual forma, se incluyó un beneficio de auditoría para los años gravables 2020 y 2021. En virtud de este beneficio, la liquidación privada de los contribuyentes del impuesto sobre la renta y complementarios que incrementen su impuesto neto de renta en por lo menos un porcentaje mínimo del 30%, en relación con el impuesto neto de renta del año inmediatamente anterior, quedará en firme

dentro de los seis (6) meses siguientes a la fecha de su presentación si no se hubiere notificado emplazamiento para corregir o requerimiento especial o emplazamiento especial o liquidación provisional y , siempre que la declaración sea presentada en forma oportuna y el pago se realice en los plazos establecidos.

Si el incremento del impuesto neto de renta es de al menos del 20%, en relación con el impuesto neto de renta del año inmediatamente anterior, la declaración quedará en firme dentro de los doce (12) meses siguientes a la presentación de la declaración si no se hubiere notificado emplazamiento para corregir o requerimiento especial o emplazamiento especial o

liquidación provisional y siempre que se presente la declaración de manera oportuna y el pago se realice en los plazos establecidos.

El anterior beneficio no aplica para: (i) contribuyentes que gocen de beneficio tributarios en razón a su ubicación en una zona geográfica determinada; (ii) cuando se demuestre que retenciones en la fuente declaradas son inexistentes; (iii) cuando el impuesto neto de renta sea inferior a 71 UVT (\$2.5 millones). El término previsto en esta norma no se extiende para las declaraciones de retención en la fuente ni para el impuesto sobre las ventas las cuales se registrarán por las normas generales.

11. Otros activos

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Corriente		
Asociados en operaciones conjuntas (1)	492,736	555,038
Gastos pagados por anticipado	197,468	136,833
Anticipos a contratistas y proveedores	196,841	70,540
Partes relacionadas (Nota 30)	155,465	180,411
Depósitos entregados en administración (2)	94,185	144,798
Depósitos judiciales y embargos	23,962	22,105
Derechos	6,126	-
	1,166,783	1,109,725
No corriente		
Fondo de abandono y pensiones (3)	342,613	397,441
Partes relacionadas (Nota 30)	265,524	196,310
Diferencial de tasas en préstamos a empleados (4)	221,658	220,998
Depósitos entregados en administración (2)	216,844	61,866
Anticipos, avances y depósitos	54,390	54,433
Depósitos judiciales	38,363	36,233
Derechos	13,997	-
	1,153,389	967,281

- (1) Corresponde al neto de los anticipos y legalizaciones generados con relación a las operaciones realizadas a través de los contratos de asociación para Exploración y Producción (E&P), Evaluación Técnica (TEA), contratos y acuerdos firmados con la Agencia Nacional de Hidrocarburos (ANH) y otro tipo de contratos afines.
- (2) Incluye principalmente los recursos invertidos en encargo fiduciario con destinación a obras por impuestos, mecanismo de pago del impuesto de renta de 2017 y 2018, constituido en cumplimiento con el artículo 238 de la Ley 1819 de 2016 – Reforma tributaria.
- (3) Corresponde a la participación de Ecopetrol en fiducias constituidas para respaldar los costos de abandono de pozos y desmantelamiento de instalaciones; así como el pago de futuras pensiones de jubilación, relacionados con algunos contratos de asociación.
- (4) Corresponde al beneficio de menores tasas a las del mercado en préstamos a empleados, otorgado por Ecopetrol.

12. Inversiones en compañías

12.1. Composición y movimientos

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Subsidiarias		
Refinería de Cartagena S.A.S	17,740,166	18,185,277
CENIT transporte y logística de hidrocarburos S.A.S.	17,094,252	16,192,139
Ecopetrol Global Energy S.L.U. (1)	9,260,388	7,826,355
Hocol Petroleum Limited	4,031,224	3,614,184
Ecopetrol Capital AG	1,872,129	1,630,044
Andean Chemical Limited (2)	1,451,983	1,248,167
Inversiones de Gases de Colombia S.A. y subsidiarias (3)	1,302,014	1,335,006
Esenttia S.A.	1,082,200	972,778
Black Gold Re Limited	837,693	751,916
Ecopetrol Energía S.A.S. E.S.P.	12,535	7,332
	54,684,584	51,763,198
Menos impairment Hocol Petroleum Limited	(537,598)	(537,598)
	54,146,986	51,225,600
Negocios conjuntos		
Equion Energía Limited (4)	1,642,735	1,527,502
Offshore International Group	613,259	709,871
Ecodiesel Colombia S.A.	51,672	46,095
	2,307,666	2,283,468
Menos impairment:		
Equion Energía Limited	(314,460)	(334,823)
Offshore International Group (5)	(609,826)	(530,330)
	1,383,380	1,418,315
	55,530,366	52,643,915

- (1) **ECP Germany Oil and Gas GmbH:** el proceso de liquidación de esta subordinada culminó el 17 de diciembre de 2020 con la anotación de este hecho en el registro mercantil de Alemania.
- (2) **Bioenergy:** El 24 de junio de 2020 la Superintendencia de Sociedades decretó la terminación del proceso de reorganización y apertura del proceso de liquidación judicial de Bioenergy S.A.S. y Bioenergy Zona Franca S.A.S., respectivamente. Este último se realizará según la ley de insolvencia empresarial, 1116 del 2006, y bajo la dirección de la mencionada Superintendencia. Como consecuencia, a partir de esta fecha Ecopetrol y Andean ya no poseen el control en estas compañías y los saldos no incluyen estas inversiones ni su correspondiente método de participación. Igualmente, en el Estado Financiero consolidado se reconoció la baja de los activos netos por la pérdida de control con un impacto en los resultados del Grupo Empresarial por \$65,570.
- (3) **Inversiones de Gases de Colombia S.A. y subsidiarias:** A 31 de diciembre de 2020, se actualizaron los valores razonables provisionales de propiedad, planta y equipo, intangibles e impuesto diferido relacionados con la adquisición de la participación adicional en Invercolsa. Como resultado de esta actualización, se reclasificaron de propiedad, planta y equipo a Goodwill \$434,357.
- (4) **Equion:** El 29 de febrero de 2020 se cumplió la vigencia del contrato de asociación del campo Piedemonte y a partir de esta fecha Ecopetrol asumió la operación de este campo.
- (4) **Offshore International Group:** Ver Nota 33 - Eventos subsecuentes. El siguiente es el movimiento de las inversiones en compañías:

El siguiente es el movimiento de las inversiones en compañías:

	Compañías subsidiarias	Negocios conjuntos	Total
Saldo al 31 de diciembre de 2019	51,225,600	1,418,315	52,643,915
Capitalizaciones (1)	1,822,387	-	1,822,387
Método de participación reconocido en:			
Resultado del periodo	3,931,489	(26,353)	3,905,136
Patrimonio	1,296,657	57,040	1,353,697
Dividendos decretados (2)	(4,310,237)	(9,017)	(4,319,254)
Impairment (Nota 18)	-	(56,606)	(56,606)
Traslados	181,090	1	181,091
Saldo al 31 de diciembre de 2020	54,146,986	1,383,380	55,530,366

- (1) Corresponde a las capitalizaciones realizadas a través de Ecopetrol Global Energy a: Ecopetrol Oleo e Gas do Brasil Ltda por \$1,365,777, Ecopetrol Permian LLC por \$390,531 y ECP Hidrocarburos de México S.A. de C.V. por \$66,079.
- (2) Durante el 2020, Ecopetrol recibió dividendos por \$4,319,254 (2019 - \$3,812,520) de sus inversiones en Cenit, Invercolsa, Esentia y Ecodiesel.

	Compañías subsidiarias	Asociadas (1)	Negocios conjuntos	Total
Saldo al 31 de diciembre de 2018	43,299,476	243,294	1,599,674	45,142,444
Capitalizaciones (2)	4,123,298	-	-	4,123,298
Método de participación reconocido en:				
Resultado del periodo	6,052,924	108,285	122,399	6,283,608
Patrimonio	41,722	1,115	4,531	47,368
Utilidad en adquisición de participación adicional en inversiones en compañías (Nota 27)	1,048,924	-	-	1,048,924
Dividendos decretados	(3,621,894)	(75,675)	(4,192)	(3,701,761)
Impairment (Nota 18)	-	-	(304,097)	(304,097)
Traslados	281,150	(277,019)	-	4,131
Saldo al 31 de diciembre de 2019	51,225,600	-	1,418,315	52,643,915

- (1) En noviembre de 2019 Ecopetrol fue notificado sobre el fallo de la Corte Suprema de Justicia confirmando la decisión del Tribunal Superior de Bogotá, consistente en declarar la ineficacia de la adquisición de 145 millones de acciones ordinarias de Inversiones de Gases de Colombia S.A. y subsidiarias (Invercolsa) por parte del señor Fernando Londoño Hoyos en 1997, las cuales, hasta antes del fallo, eran propiedad de la Arrendadora Financiera Internacional Bolivariana (AFIB). Esto significó que tales acciones son nuevamente de propiedad de Ecopetrol S.A. Resultado de lo anterior, la participación accionaria en Invercolsa pasó de 43,35% a 51,88%. Como producto de esta transacción, Ecopetrol S.A. realizó una valoración de los activos de esta inversión, la cual se reconoce a partir de esa fecha como compañía subsidiaria.
- (2) Principalmente a Ecopetrol Global Energy S.L.U. para la capitalización de Ecopetrol Permian LLC.

12.2. Información adicional sobre negocios conjuntos

El detalle de activos, pasivos y resultados de las dos principales inversiones en negocios conjuntos al 31 de diciembre es el siguiente:

	2020		2019	
	Equion Energía Limited	Offshore International Group	Equion Energía Limited	Offshore International Group
Estado de situación financiera				
Activo corriente	2,616,813	266,240	2,530,453	284,591
Activo no corriente	13,538	1,302,555	106,050	1,481,680
Total Activo	2,630,351	1,568,795	2,636,503	1,766,271
Pasivo corriente	81,259	154,086	315,002	310,561
Pasivo no corriente	49,773	871,089	63,053	718,863
Total Pasivo	131,032	1,025,175	378,055	1,029,424
Total Patrimonio	2,499,319	543,620	2,258,448	736,847
Otra información complementaria				
Efectivo y equivalente de efectivo	36,601	110,622	188,820	48,752
Estado de pérdidas y ganancias				
Ingresos de actividades ordinarias y otros	257,066	325,812	1,285,891	529,167
Costos	(127,672)	(364,750)	(671,179)	(690,484)
Gastos de administración y otros	(612)	(234,597)	(624)	(64,115)
Resultado financiero	60,374	(24,034)	(3,660)	(31,288)
Impuesto de renta	(21,429)	59,818	(348,477)	208,473
Resultado del ejercicio	167,727	(237,751)	261,951	(48,247)
Otros resultados integrales	1,213,155	-	1,140,010	-
Otra información complementaria				
Depreciación y amortización	41,536	205,243	404,482	226,654

A continuación se presenta una conciliación entre el patrimonio de las participaciones más significativas y el valor en libros de las inversiones al 31 de diciembre:

	2020		2019	
	Equion Energía Limited	Offshore International Group	Equion Energía Limited	Offshore International Group
Patrimonio de la Compañía	2,499,319	543,620	2,258,448	736,847
% Participación de Ecopetrol	51%	50%	51%	50%
Participación en patrimonio	1,274,653	271,810	1,151,808	368,424
Mayor valor de la inversión	375,694	341,447	375,694	341,447
Impairment	(314,460)	(609,826)	(334,823)	(530,330)
Utilidad no realizada	(7,612)	-	-	-
Valor en libros de la inversión	1,328,275	3,431	1,192,679	179,541

13. Combinaciones de negocios

El 22 de noviembre de 2019, Hocol S.A., filial 100% del Grupo Empresarial Ecopetrol, firmó un Acuerdo de Compra y Venta de Activos con “Chevron”, con el fin de adquirir la totalidad de la participación poseída por este último en la Asociación Guajira (43% del contrato de asociación) y su posición como operador. El restante 57% de participación en esta asociación ha sido siempre de Ecopetrol S.A. La transacción estaba sujeta a la aprobación de la Superintendencia de Industria y Comercio (SIC), la cual fue oficializada el 2 de abril de 2020, mediante la resolución 12785 de 2020. Según se estableció en el acuerdo, el inicio de la operación por parte de Hocol sería el primer día hábil del mes siguiente a la fecha de esta aprobación, es decir el 1 de mayo de 2020, por lo tanto, esta es la fecha de adquisición para efectos de reconocimiento contable.

El precio de la transacción se determinó con base en un valor de referencia fijo a 1 de enero de 2019 más o menos ajustes al precio que dependían directamente de variables asociadas al activo Guajira entre el 1 de enero de 2019 y el 1 de mayo de 2020. Las cláusulas del acuerdo de compra indican que se cuenta con 180 días para terminar de ajustar las diferencias que surjan del movimiento sobre los activos adquiridos y los pasivos asumidos. Durante el proceso de revisión y aprobación para la determinación del precio final, Chevron y Hocol suscribieron un otrosí para ampliar el plazo del cierre de la transacción, el cual se espera finalizar el primer semestre de 2021, estos plazos están en cumplimiento con los requerimientos de la norma.

Tanto Hocol como Ecopetrol midieron los activos adquiridos y los pasivos asumidos en proporción a su participación de acuerdo con lo establecido en las NIIF 11 – Acuerdos conjuntos y NIIF 3 – Combinaciones de negocios.

Para Ecopetrol esta transacción se configura como una adquisición por etapas. El valor razonable se determinó usando el enfoque de ingresos aplicando la metodología de flujos de caja descontados. Los valores razonables de propiedades, planta y equipo, recursos naturales y del medio ambiente e impuesto diferido han sido determinados provisionalmente, por lo tanto, pueden tener ajustes asociados al capital de trabajo, en cumplimiento con las cláusulas del acuerdo de compra y los lineamientos definidos en la NIIF 3.

Respecto a la participación de Ecopetrol, los valores razonables de los activos adquiridos y los pasivos asumidos identificados en el “Contrato de Asociación Guajira” a la fecha de la adquisición son los siguientes:

	A 31 de diciembre de 2020
Activos	
Propiedades, planta y equipo	819,669
Recursos naturales y del medio ambiente	607,691
Construcciones en curso	9,452
Activo de abandono	7,951
Fondo de pensiones	28,355
Otros activos	84,751
Total activos	1,557,869
Pasivos	
Cuentas comerciales y otras cuentas por pagar	(584)
Otros pasivos	(34,455)
Impuesto diferido	(383,346)
Provisiones	(37,798)
Total pasivos	(456,183)
Valor razonable de la participación pre-existente	1,101,686

Igualmente, el efecto en los resultados de Ecopetrol es el siguiente:

	A 31 de diciembre de 2020
Valor razonable de la participación pre-existente	1,101,686
Valor contable de la participación pre-existente	(200,660)
Utilidad neta de la adquisición después de impuesto diferido	901,026
Reconocida en:	
Propiedades, planta y equipo (Nota 14)	720,670
Recursos naturales y del medio ambiente (Nota 15)	563,546
Intangibles (Nota 17)	156
Utilidad en la adquisición antes de impuesto diferido (Nota 26)	1,284,372
(-) Gasto por impuesto de renta diferido (Nota 10)	(383,346)
Utilidad neta de la adquisición después de impuesto diferido	901,026

Los mencionados valores razonables no tienen efectos fiscales.

Los costos relacionados con la adquisición por \$4,704 millones fueron excluidos de la participación pre-existente y fueron reconocidos como gastos operacionales en el período.

14. Propiedades, planta y equipo

El movimiento de propiedades, planta y equipo por el periodo finalizado el 31 de diciembre de 2020 con sus correspondientes depreciaciones e impairment, ha sido el siguiente:

	Planta y equipo	Ductos, redes y líneas
Costo		
Saldo al 31 de diciembre de 2019	16,348,090	12,072,515
Adquisiciones/capitalizaciones	1,020,731	750,579
Aumento costos de abandono	67,443	-
Intereses financieros capitalizados (2)	42,052	31,511
Diferencia en cambio capitalizada	1,338	1,002
Bajas por retiro o venta	(323,062)	(55,630)
Ajuste al valor razonable en combinaciones de negocios (Nota 13)	547,965	44,538
Reclasificaciones/traslados	(11,514)	(34,108)
Saldo al 31 de diciembre de 2020	17,693,043	12,810,407
Depreciación acumulada y pérdida por impairment		
Saldo al 31 de diciembre de 2019	(8,646,782)	(8,297,628)
Depreciación del periodo	(1,132,893)	(682,696)
Recuperación (pérdidas) por impairment (Nota 18)	42,057	(4,204)
Bajas por retiro o venta	312,772	52,013
Reclasificaciones/traslados (3)	(28,614)	17,287
Saldo al 31 de diciembre de 2020	(9,453,460)	(8,915,228)
Saldo neto al 31 de diciembre de 2019	7,701,308	3,774,887
Saldo neto al 31 de diciembre de 2020	8,239,583	3,895,179

Proyectos en curso (1)	Edificaciones	Terrenos	Otros	Total
5,014,452	4,851,442	2,172,406	1,671,848	42,130,753
938,261	362,561	18,231	214,533	3,304,896
-	-	-	-	67,443
38,756	14,965	753	8,324	136,361
1,233	476	24	265	4,338
(58,605)	(14,000)	(2,363)	(47,677)	(501,337)
-	54,413	-	73,754	720,670
71,941	1,667	38,208	(103,562)	(37,368)
6,006,038	5,271,524	2,227,259	1,817,485	45,825,756
(1,114,104)	(2,369,911)	(48,936)	(470,300)	(20,947,661)
-	(230,282)	-	(66,526)	(2,112,397)
(328,498)	24,755	6,148	2,110	(257,632)
3,492	12,734	11	45,142	426,164
425,348	(40,238)	(268)	4,352	377,867
(1,013,762)	(2,602,942)	(43,045)	(485,222)	(22,513,659)
3,900,348	2,481,531	2,123,470	1,201,548	21,183,092
4,992,276	2,668,582	2,184,214	1,332,263	23,312,097

- (1) El saldo de proyectos en curso al 31 de diciembre del 2020, incluye principalmente: Modernización de la Refinería Barranca, Facilidades Castilla y Caño Sur Este Módulo 3 y Escalado de Desasfaltado del ICP.
- (2) Los intereses financieros se capitalizan en función a la tasa promedio ponderada de los costos por préstamos. Ver Nota 19 – Préstamos y financiaciones.
- (3) Para propósitos de presentación, Ecopetrol reclasificó a recursos naturales y del medio ambiente un valor de \$390,988, correspondiente al valor acumulado por impairment de proyectos que se encontraba registrados como propiedades, planta y equipo. Lo anterior no tuvo impacto material en las partidas de los activos ni en el estado de situación financiera.

	Planta y equipo	Ductos, redes y líneas
Costo		
Saldo al 31 de diciembre de 2018	15,014,147	11,439,531
Adquisiciones/capitalizaciones	1,509,889	634,662
Aumento costos de abandono	75,228	-
Intereses financieros capitalizados (2)	77,627	32,630
Diferencia en cambio capitalizada	4,208	1,769
Bajas por retiro o venta	(351,592)	(49,435)
Reclasificaciones/traslados	18,583	13,358
Saldo al 31 de diciembre de 2019	16,348,090	12,072,515
Depreciación acumulada y pérdida por impairment		
Saldo al 31 de diciembre de 2018	(7,853,093)	(7,591,875)
Depreciación del periodo	(995,409)	(683,751)
Pérdidas por impairment (Nota 18)	(117,509)	(53,186)
Bajas por retiro o venta	340,531	39,719
Reclasificaciones/traslados	(21,302)	(8,535)
Saldo al 31 de diciembre de 2019	(8,646,782)	(8,297,628)
	7,701,308	3,774,887
Saldo neto al 31 de diciembre de 2018	7,161,054	3,847,656
Saldo neto al 31 de diciembre de 2019	7,701,308	3,774,887

Proyectos en curso (1)	Edificaciones	Terrenos	Otros	Total
4,769,097	4,525,416	2,137,887	1,678,193	39,564,271
305,590	307,317	20,098	46,474	2,824,030
-	-	-	-	75,228
12,831	15,800	1,033	2,389	142,310
696	857	56	130	7,716
(73,762)	(15,673)	-	(38,114)	(528,576)
-	17,725	13,332	(17,224)	45,774
5,014,452	4,851,442	2,172,406	1,671,848	42,130,753
(497,441)	(2,106,064)	(34,302)	(440,828)	(18,523,603)
-	(219,398)	-	(73,303)	(1,971,861)
(616,663)	(48,523)	(14,634)	(6,408)	(856,923)
-	13,223	-	34,404	427,877
-	(9,149)	-	15,835	(23,151)
(1,114,104)	(2,369,911)	(48,936)	(470,300)	(20,947,661)
3,900,348	2,481,531	2,123,470	1,201,548	21,183,092
4,271,656	2,419,352	2,103,585	1,237,365	21,040,668
3,900,348	2,481,531	2,123,470	1,201,548	21,183,092

- (1) El saldo de proyectos en curso al 31 de diciembre del 2019, incluye principalmente: Modernización de la Refinería Barranca, Facilidades Castilla y Escalado de Desasfaltado del ICP.
- (2) Los intereses financieros se capitalizan en función a la tasa promedio ponderada de los costos por préstamos. Ver Nota 19 – Préstamos y financiaciones.

15. Recursos naturales y del medio ambiente

El movimiento de recursos naturales y del medio ambiente por el periodo finalizado el 31 de diciembre de 2020, con sus correspondientes amortizaciones, calculados con base en unidades de producción, e impairment ha sido el siguiente:

	Inversiones petrolíferas	Costo de abandono y taponamiento	Inversiones petrolíferas en curso (1)	Total
Costo				
Saldo al 31 de diciembre de 2019	49,308,260	4,595,177	4,837,575	58,741,012
Adquisiciones/capitalizaciones (2)	3,439,803	-	(532,151)	2,907,652
Aumento costos de abandono	-	2,075,736	28,097	2,103,833
Bajas por retiro o venta	(1,806)	-	(224,185)	(225,991)
Pozos secos (3)	-	-	(237,553)	(237,553)
Intereses financieros capitalizados (4)	111,140	-	-	111,140
Diferencia en cambio capitalizada	3,535	-	-	3,535
Ajuste al valor razonable en combinaciones de negocios (Nota 13)	563,546	-	-	563,546
Reclasificaciones/traslados	(47,762)	5,449	(71,941)	(114,254)
Saldo al 31 de diciembre de 2020	53,376,716	6,676,362	3,799,842	63,852,920
Amortización acumulada y pérdida por impairment				
Saldo al 31 de diciembre de 2019	(34,607,569)	(1,916,305)	-	(36,523,874)
Amortización del periodo	(3,175,214)	(815,487)	-	(3,990,701)
Recuperación (pérdidas) por impairment (Nota 18)	223,521	-	(334,112)	(110,591)
Bajas por retiro o venta	213	-	93,975	94,188
Reclasificaciones/traslados (5)	(124,583)	(2,537)	(205,131)	(332,251)
Saldo al 31 de diciembre de 2020	(37,683,632)	(2,734,329)	(445,268)	(40,863,229)
Saldo neto al 31 de diciembre de 2019	14,700,691	2,678,872	4,837,575	22,217,138
Saldo neto al 31 de diciembre de 2020	15,693,084	3,942,033	3,354,574	22,989,691

- (1) El saldo de inversiones petrolíferas en curso, incluye principalmente inversiones realizadas en los proyectos: Llanito, Purple Angel, Tayrona, Rubiales y Castilla.
- (2) Para inversiones petrolíferas en curso, los \$532,151 corresponden a una menor ejecución de proyectos respecto a los activos puestos en operación.
- (3) Incluye principalmente los pozos Nafta 1, Caronte, Alqamari, Boranda Sur y Coyote.
- (4) Los intereses financieros se capitalizan en función a la tasa promedio ponderada de los costos por préstamos. Ver Nota 19 – Préstamos y financiaciones.
- (5) Para propósitos de presentación, Ecopetrol reclasificó a recursos naturales y del medio ambiente un valor de \$390,988, correspondiente al valor acumulado por impairment de proyectos que se encontraba registrados como propiedades, planta y equipo. Lo anterior no tuvo impacto material en las partidas de los activos ni en el estado de situación financiera.

	Inversiones petrolíferas	Costo de abandono y taponamiento	Inversiones petrolíferas en curso (1)	Total
Costo				
Saldo al 31 de diciembre de 2018	44,561,973	2,633,391	4,266,174	51,461,538
Adquisiciones/capitalizaciones	4,732,326	-	756,541	5,488,867
Aumento (disminución) costos de abandono	-	1,965,309	(49,625)	1,915,684
Bajas por retiro o venta	(83,552)	(5,868)	-	(89,420)
Pozos secos (2)	-	-	(146,054)	(146,054)
Intereses financieros capitalizados (3)	94,995	-	10,834	105,829
Diferencia en cambio capitalizada	5,150	-	587	5,737
Reclasificaciones/traslados	(2,632)	2,345	(882)	(1,169)
Saldo al 31 de diciembre de 2019	49,308,260	4,595,177	4,837,575	58,741,012
Amortización acumulada y pérdida por impairment				
Saldo al 31 de diciembre de 2018	(30,541,398)	(1,536,357)	-	(32,077,755)
Amortización del periodo	(3,220,849)	(385,735)	-	(3,606,584)
Pérdidas por impairment (Nota 18)	(921,705)	-	-	(921,705)
Bajas por retiro o venta	83,511	5,868	-	89,379
Reclasificaciones/traslados	(7,128)	(81)	-	(7,209)
Saldo al 31 de diciembre de 2019	(34,607,569)	(1,916,305)	-	(36,523,874)
Saldo neto al 31 de diciembre de 2018	14,020,575	1,097,034	4,266,174	19,383,783
Saldo neto al 31 de diciembre de 2019	14,700,691	2,678,872	4,837,575	22,217,138

- (1) El saldo de inversiones petrolíferas en curso, incluye principalmente inversiones realizadas en los proyectos: Purple Angel, Rubiales y Castilla.
- (2) Incluye principalmente los pozos Tibirita, Provenza 1, Cira 7000 y Ávila 1.
- (3) Los intereses financieros se capitalizan en función a la tasa promedio ponderada de los costos por préstamos. Ver Nota 19 – Préstamos y financiacines.

16. Activos por derecho de uso

El movimiento de activos por derecho de uso y pasivos por arrendamiento por el periodo finalizado el 31 de diciembre con sus correspondientes amortizaciones, ha sido el siguiente:

	Activos por derecho de uso					Pasivos por arrendamiento
	Oleoductos	Edificaciones	Maquinaria y equipo	Vehículos	Total	
Saldo neto al 31 de diciembre de 2019	3,313,057	73,019	26,579	68,616	3,481,271	(3,995,837)
Adiciones	-	1,935	-	2,275	4,210	(4,210)
Bajas	-	(105)	-	-	(105)	-
Remediciones (1)	13,646	(43,884)	(4,003)	12,551	(21,690)	21,690
Amortización del periodo	(225,312)	(23,296)	(12,321)	(24,140)	(285,069)	-
Costo financiero	-	-	-	-	-	(265,084)
Diferencia en cambio	-	-	-	-	-	(147,885)
Pagos de capital e intereses	-	-	-	-	-	542,937
Saldo neto al 31 de diciembre de 2020	3,101,391	7,669	10,255	59,302	3,178,617	(3,848,389)

- (1) Corresponden principalmente a una menor obligación por arrendamientos resultado de la no ejecución de las cláusulas de renovación en contratos de inmuebles, compensada parcialmente con un aumento por la actualización de las tarifas mensuales de arrendamiento en los contratos de oleoductos.

Activos por derecho de uso

	Oleoductos	Edificaciones	Maquinaria y equipo	Vehículos	Total	Pasivos por arrendamiento
Saldo al 31 de diciembre de 2018 (1)	-	-	-	-	-	(446,168)
Reconocimiento inicial NIIF 16 (1 de enero de 2019)	3,617,829	95,535	23,156	37,040	3,773,560	(3,773,560)
Adiciones	-	2,223	18,681	57,173	78,077	(78,077)
Bajas	(81,079)	(4)	-	-	(81,083)	83,143
Amortización del periodo	(223,693)	(24,735)	(15,258)	(25,597)	(289,283)	-
Costo financiero	-	-	-	-	-	(261,922)
Diferencia en cambio	-	-	-	-	-	(25,064)
Pagos de capital e intereses	-	-	-	-	-	505,811
Saldo neto al 31 de diciembre de 2019	3,313,057	73,019	26,579	68,616	3,481,271	(3,995,837)

(1) Corresponde al saldo de las obligaciones reconocidas como arrendamiento financiero bajo NIC 17.

17. Intangibles

	Licencias y software	Otros intangibles	Total
Costo			
Saldo al 31 de diciembre de 2019	607,659	76,554	684,213
Adquisiciones	38,942	2,695	41,637
Ajuste al valor razonable en combinaciones de negocios (Nota 13)	156	-	156
Bajas por retiro o venta	(3,594)	(11)	(3,605)
Reclasificaciones/traslados	-	(62)	(62)
Saldo al 31 de diciembre de 2020	643,163	79,176	722,339
Amortización acumulada			
Saldo al 31 de diciembre de 2019	(392,690)	(60,022)	(452,712)
Amortización del periodo	(60,092)	(2,893)	(62,985)
Bajas por retiro o venta	3,594	12	3,606
Saldo al 31 de diciembre de 2020	(449,188)	(62,903)	(512,091)
Saldo neto al 31 de diciembre de 2020	193,975	16,273	210,248
Vida útil			
	< 5 años	< 7 años	
	Licencias y software	Otros intangibles (1)	Total
Costo			
Saldo al 31 de diciembre de 2018	658,353	72,236	730,589
Adquisiciones	43,565	4,318	47,883
Bajas por retiro o venta	(94,259)	-	(94,259)
Saldo al 31 de diciembre de 2019	607,659	76,554	684,213

Amortización acumulada			
Saldo al 31 de diciembre de 2018	(427,396)	(53,431)	(480,827)
Amortización del periodo	(59,507)	(6,591)	(66,098)
Bajas por retiro o venta	94,213	-	94,213
Saldo al 31 de diciembre de 2019	(392,690)	(60,022)	(452,712)
Saldo neto al 31 de diciembre de 2019	214,969	16,532	231,501
Vida útil	< 5 años	< 7 años	

(1) Corresponde principalmente a servidumbres.

18. Impairment de activos a largo plazo

La Compañía está expuesta a determinados riesgos futuros, producto de variaciones en: a) precios del petróleo, b) márgenes de refinación y de rentabilidad, c) perfiles de costos, d) inversión y mantenimiento, e) monto de las reservas recuperables, f) riesgo de mercado y país que se reflejan en la tasa de descuento y g) cambios en la regulación local e internacional, entre otros. Cualquier cambio en las anteriores variables para calcular el monto recuperable puede tener un efecto material en el reconocimiento o recuperación de los cargos por impairment. Por ejemplo, el segmento exploración y producción es altamente sensible a las variaciones del precio de hidrocarburos, el segmento de refinación a la tasa de descuento así como a los márgenes de refinación y el segmento transporte y logística a los volúmenes transportados.

Durante 2020, tal como se describió en la Nota 2.7, la pandemia del Covid-19 generó un impacto

significativo en la economía mundial y por consiguiente en la industria petrolera, así mismo también ha provocado una volatilidad significativa en los mercados financieros y de materias primas de todo el mundo. Situación que ha venido mejorando durante los últimos meses, como resultado de la reapertura de diferentes sectores de la economía y el avance de los programas de vacunación.

Ecopetrol actualizó el análisis de impairment de activos a largo plazo, teniendo en cuenta los factores descritos. Al 31 de marzo de 2020, se registró un impairment neto de \$467,598; para el cierre de 2020, se generó una recuperación, resultando en un impairment neto para el año de \$424,829.

El siguiente es el detalle:

	Por los años terminados el 31 de diciembre	
	2020	2019
Campos de producción	(27,223)	(1,553,535)
Inversiones en compañías	(56,606)	(304,097)
Refinación y petroquímica	(341,000)	(225,093)
	(424,829)	(2,082,725)
Reconocido en:		
Propiedades, planta y equipo (Nota 14)	(257,632)	(856,923)
Recursos naturales y del medio ambiente (Nota 15)	(110,591)	(921,705)
Inversiones en compañías (Nota 12)	(56,606)	(304,097)
	(424,829)	(2,082,725)

18.1 Campos de producción

De acuerdo a lo mencionado anteriormente, en 2020 se registró un impairment, principalmente en los campos: Occidente B, Sur, Teca y Tibú y una recuperación en: Casabe (asociado a un incremento importante en sus reservas), Provincia (incrementó el valor razonable debido a mayores volúmenes por ampliación en su límite económico), Lisama, Orito y Jazmín.

En 2019, como resultado del actual contexto económico del sector de hidrocarburos, el

comportamiento de las variables de mercado, diferenciales de precio versus la referencia a Brent, información técnica y operacional disponible, se generó un impairment. Los principales campos fueron: Tibú, Casabe, Provincia y Underriver.

El siguiente es el detalle de la recuperación (gasto) por impairment de las unidades generadoras de efectivo relacionadas con los campos de producción por los años terminados al 31 de diciembre:

	Valor neto en libros	Valor recuperable	Recuperación (Gasto)
2020			
Campos de producción			
Gasto	2,190,860	1,221,628	(969,232)
Recuperación	24,616,726	60,730,800	942,009
			(27,223)
2019			
Campos de producción			
Gasto	4,742,698	3,114,586	(1,628,112)
Recuperación	3,842,819	6,047,345	74,577
			(1,553,535)

Los supuestos utilizados en el modelo para determinar los valores recuperables incluyen:

1. El valor razonable menos los costos de disposición de los activos del segmento de exploración y producción fue determinado con base en flujos de efectivo después de impuestos que se derivan de los planes de negocios aprobados por la gerencia de la Compañía, los cuales son desarrollados sobre variables macroeconómicas de largo plazo y supuestos fundamentales de oferta y demanda. El nivel de jerarquía de valor razonable 3.
2. Balance de reservas de crudo y gas, además de las reservas probadas incluidas en la Nota 32, las reservas probables y posibles también fueron consideradas ajustadas por diferentes factores de riesgo.
3. La tasa de descuento en términos reales fue determinada como el costo promedio ponderado de capital (WACC, por sus siglas en inglés) y corresponde a un 3.67% (2019: 6.31%).
4. Precio de petróleo – Brent: Las proyecciones incluyen USD\$46.36/barril para el primer año,

USD\$57.00/barril promedio para el mediano plazo y USD\$67.77/barril a partir de 2032. En 2019, los supuestos realizados tomaron un precio de USD\$55.61/barril para el primer año, USD\$56.50/barril promedio para el mediano plazo y USD\$71.6/barril a partir de 2030. La proyección de precios internacionales de crudos es realizada por una agencia independiente y especializada en Oil & Gas, la cual tiene en cuenta los actuales escenarios de los acuerdos de cuotas petroleras de la OPEP (Organización de Países Exportadores de Petróleo) y el impacto de los cambios en especificaciones emitidos por el convenio Internacional para prevenir la contaminación por los buques (Marpol) a partir de 2020 sobre crudos y combustibles con alto contenido de azufre.

La agrupación de los activos, para identificar las UGEs es consistente con relación al periodo anterior.

18.2 Inversiones en asociadas y negocios conjuntos

Las inversiones en compañías asociadas y negocios conjuntos, son registradas a través del método de participación. Ecopetrol evalúa si existe alguna evidencia objetiva para determinar si el valor de dichas inversiones se ha deteriorado en el periodo, en especial, aquellas compañías que fueron adquiridas con Goodwill.

Como resultado, Ecopetrol reconoció el siguiente impairment en el valor de sus inversiones en compañías, de la siguiente manera:

	Por los años terminados a 31 de diciembre de	
	2020	2019
Equion Energía Limited	20,363	(119,888)
Offshore International Group	(76,969)	(184,209)
	(56,606)	(304,097)

Los supuestos empleados para determinar el valor recuperable de las compañías evaluadas son los descritos en la sección anterior, excepto por la utilización de una tasa de descuento en términos reales en 2019 para Offshore International Group de 5.79% (2019 – 8.50%).

Para 2020 se registró una recuperación sobre la inversión en Equion originada principalmente por la actualización de las tarifas de transporte por ductos donde tiene participación.

En 2019, se registró gasto por impairment tanto para Offshore International Group y Equion Energía dadas las variables actuales del mercado, disminución en los precios internacionales, posición conservadora frente a proyectos y aumento en costos.

18.3 Activos de refinación

Al 31 de diciembre de 2020, como resultado de la actualización de los análisis para el Proyecto de

Modernización de la Refinería de Barrancabermeja, se reconoció un gasto por impairment de \$341,000, relacionado con trabajos de ingeniería a partir de las evaluaciones realizadas y el contexto actual de la industria.

Durante 2019, se reconocieron \$225,093 por impairment, asociados a los trabajos de ingeniería para el desarrollo integral del Proyecto de Modernización de la Refinería de Barrancabermeja, lo anterior considerando el avance en los análisis técnicos de alternativas para el eventual incremento de conversión en la refinería.

Una vez reactivado el proyecto, Ecopetrol evaluará nuevamente si cualquier pérdida por impairment reconocida en años anteriores, estaría sujeta a recuperación.

19. Préstamos y financiaciones

19.1 Composición de los préstamos y financiaciones

	Tasa de interés efectiva 31 de diciembre 2020 / 31 de diciembre 2019 2020		A 31 de diciembre de 2019	A 31 de diciembre de
Moneda nacional				
Bonos	6.4%	8.7%	1,084,461	1,567,598
Pasivos por arrendamiento (1)	6.8%	6.7%	1,035,024	1,158,394
			2,119,485	2,725,992
Moneda extranjera				
Bonos (2)	6.1%	5.8%	32,217,069	24,188,523
Crédito comercial - Reficar	3.6%	4.1%	5,925,509	6,546,164
Créditos comerciales (3)	1.6%	-	2,285,567	-
Pasivos por arrendamiento (1)	6.2%	6.2%	2,813,365	2,837,443
			43,241,510	33,572,130
			45,360,995	36,298,122
Corriente			3,244,552	3,283,987
No corriente			42,116,443	33,014,135
			45,360,995	36,298,122

Durante el 2020, Ecopetrol adquirió nuevos préstamos y financiaciones por un monto equivalente en pesos de \$11,742,319.

1. Corresponde al valor presente de los pagos a ser realizados durante el plazo. Corresponde al valor presente de los pagos a ser realizados durante el plazo de los contratos de arrendamiento operativo de oleoductos, tanques, bienes inmuebles y vehículos, reconocidos como resultado de la implementación de la NIIF 16 - Arrendamientos.
2. El 29 de abril de 2020 Ecopetrol realizó la emisión y colocación de bonos de deuda pública externa por un monto de USD 2,000 millones, a un plazo de 10 años y una tasa cupón de 6.875%.
3. Incluye desembolso línea de crédito contingente por US\$665 millones con Scotiabank y Mizuho Bank.

19.2 Otros movimientos

En septiembre de 2020 se realizó el pago anticipado de las obligaciones de corto plazo con la banca local

(COP\$775,000) e internacional (USD\$221.5 millones) suscritos en marzo y abril del mismo año.

19.3 Valor razonable

El valor razonable de las obligaciones financieras es de \$52,485,432 y \$40,358,442 al 31 de diciembre de 2020 y al 31 de diciembre de 2019, respectivamente.

Para la medición a valor razonable, los bonos en moneda local fueron valorados utilizando los precios de referencia de Precia, mientras que para los bonos denominados en dólares se tomó como fuente Bloomberg. Respecto a las demás obligaciones financieras para las que no existe un referente de mercado se utilizó una técnica de descuento a valor presente. Las tasas de descuento incorporan el riesgo de mercado mediante algún referente (Libor, DTF, IPC, entre otros) y el riesgo de crédito de la Compañía (spread).

19.4 Perfil de vencimientos

El siguiente es el perfil de vencimientos de los préstamos y financiaciones al 31 de diciembre de 2020:

	Hasta 1 año	1 - 5 años	5-10 años	> 10 años	Total
Moneda nacional					
Bonos	65,829	354,081	370,899	293,652	1,084,461
Pasivos por arrendamiento	104,446	404,818	487,097	38,663	1,035,024
	170,275	758,899	857,996	332,315	2,119,485
Moneda extranjera					
Bonos	1,836,675	14,418,252	10,725,630	5,236,512	32,217,069
Crédito comercial - Reficar	1,063,786	4,277,164	584,559	-	5,925,509
Créditos comerciales	34,736	2,250,831	-	-	2,285,567
Pasivos por arrendamiento	139,080	572,355	679,788	1,422,142	2,813,365
	3,074,277	21,518,602	11,989,977	6,658,654	43,241,510
Saldo al 31 de diciembre de 2020	3,244,552	22,277,501	12,847,973	6,990,969	45,360,995

19.5 Clasificación según tipo de interés

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Moneda nacional		
Tasa fija	1,035,024	1,158,394
Tasa variable	1,084,461	1,567,598
	2,119,485	2,725,992
Moneda extranjera		
Tasa fija	39,544,438	32,027,813
Tasa variable	3,697,072	1,544,317
	43,241,510	33,572,130
	45,360,995	36,298,122

19.6 Deuda designada como instrumento de cobertura

Al 31 de diciembre de 2020, la Compañía tiene designados USD\$8,549 millones de la deuda en moneda extranjera como instrumento de cobertura; de los cuales, USD\$7,249 millones corresponden a la cobertura de inversiones en compañías con moneda funcional dólar y USD\$1,300 millones a la cobertura de flujo de efectivo para futuras exportaciones de crudo. Ver Nota 29 – Gestión de riesgos.

19.7 Garantías y covenants

El financiamiento obtenido por Ecopetrol en los mercados de capital no tiene garantías otorgadas ni restricciones de covenants financieros.

19.8 Movimiento de la deuda financiera neta

El siguiente es el movimiento de la deuda financiera neta:

	Efectivo y equivalentes	Otros activos financieros	Préstamos y Financiaciones	Deuda financiera neta
Saldo al 31 de diciembre de 2018	2,259,319	9,012,854	(33,293,662)	(22,021,489)
Flujos de efectivo	(928,501)	(3,914,108)	3,157,114	(1,685,495)
Diferencia en cambio en resultados	146,675	165,264	(174,271)	137,668
Diferencia en cambio en OCI	-	-	(118,262)	(118,262)
Costo financiero reconocido en resultados	-	-	(1,832,765)	(1,832,765)
Intereses y diferencia en cambio capitalizada	-	-	(261,592)	(261,592)
Valoración reconocida en resultados	-	(30,051)	-	(30,051)
Traslados (1)	-	-	(3,774,684)	(3,774,684)
Saldo al 31 de diciembre de 2019	1,477,493	5,233,959	(36,298,122)	(29,586,670)
Flujos de efectivo	(2,135)	(2,571,033)	(6,349,587)	(8,922,755)
Diferencia en cambio en resultados	(215,805)	(197,129)	610,457	197,523
Diferencia en cambio en OCI	-	2,703	(722,458)	(719,755)
Costo financiero reconocido en resultados	-	-	(2,358,918)	(2,358,918)
Intereses y diferencia en cambio capitalizada	-	-	(255,374)	(255,374)
Valoración reconocida en resultados	-	33,162	-	33,162
Traslados	-	(17,544)	13,007	(4,537)
Saldo al 31 de diciembre de 2020	1,259,553	2,484,118	(45,360,995)	(41,617,324)

1. Corresponde al reconocimiento de activos por derecho de uso y pasivos por arrendamiento por la adopción inicial al 1 de enero de 2019 de la NIIF 16 – Arrendamientos.

20. Cuentas comerciales y otras cuentas por pagar

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Proveedores	4,977,856	5,910,452
Partes relacionadas (Nota 30)	1,384,645	1,361,368
Anticipos asociados	404,424	891,247
Retención en la fuente	362,000	505,902
Acuerdos en contratos de transporte (1)	37,941	71,239
Operaciones de cobertura (2)	6,405	-
Dividendos por pagar (3)	3,754	3,767
Acreedores varios	83,172	134,651
	7,260,197	8,878,626

El valor contable de las cuentas comerciales y otras cuentas por pagar es muy cercano a su valor razonable debido a su naturaleza de corto plazo.

1. Corresponde al valor de la deuda por acuerdos pactados en los contratos de transporte por oleoductos y poliductos, calculados en la compensación volumétrica por calidad y otros acuerdos de manejo de inventarios.
2. Corresponde al saldo por pagar por la liquidación de contratos swaps adquiridos para cubrir el riesgo de precio de crudo exportación.
3. La Asamblea General de Accionistas realizada el 27 de marzo de 2020, decretó dividendos sobre la utilidad del año 2019, por valor de \$7,401,005. Durante 2020 se realizaron pagos de dividendos por un monto de \$7,369,499, neto de retenciones cuando fueren aplicables.

21. Provisiones por beneficios a empleados

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Beneficios post-empleo		
Salud	7,193,527	6,908,799
Pensión	2,819,985	2,853,718
Educación	485,792	458,441
Bonos	342,669	352,917
Otros planes	102,632	98,729
Beneficios por terminación – Plan de retiro voluntario (1)	713,407	124,186
	11,658,012	10,796,790
Prestaciones sociales y salarios		
Otros beneficios a largo plazo	586,637	514,058
	91,575	96,678
	12,336,224	11,407,526
Corriente		
Corriente	1,934,694	1,855,549
No corriente	10,401,530	9,551,977
	12,336,224	11,407,526

1. Incluye para 2020 obligación por nuevo plan de retiro voluntario, sobre el cual la Compañía realizó los ofrecimientos a una parte de sus trabajadores durante el año. Este plan fue aprobado a finales de 2019 por la Junta Directiva de la Compañía (Nota 21.6).

21.1 Movimiento de las obligaciones actuariales

La siguiente tabla muestra el movimiento de los pasivos y activos, netos por beneficios post-empleo y beneficios por terminación al 31 de diciembre de:

	Pensión y bonos (1)		Otros		Total	
	2020	2019	2020	2019	2020	2019
Pasivos por beneficios post-empleo						
Saldo inicial	15,916,472	14,131,943	7,593,171	6,212,118	23,509,643	20,344,061
Costo del servicio actual	-	-	118,105	76,478	118,105	76,478
Costo del servicio pasado (2)	-	-	631,761	-	631,761	-
Costos por intereses	882,785	920,622	439,682	418,553	1,322,467	1,339,175
Pérdidas actuariales	418,187	1,755,300	87,311	1,273,409	505,498	3,028,709
Beneficios pagados	(897,061)	(891,393)	(359,436)	(387,387)	(1,256,497)	(1,278,780)
Saldo final	16,320,383	15,916,472	8,510,594	7,593,171	24,830,977	23,509,643
Activos del plan						
Saldo inicial	12,709,838	12,348,557	3,015	3,954	12,712,853	12,352,511
Rendimiento de los activos	700,168	801,065	136	217	700,304	801,282
Aportes a los fondos	-	-	370,090	83,071	370,090	83,071
Beneficios pagados	(897,061)	(891,393)	(358,199)	(84,243)	(1,255,260)	(975,636)
Ganancias actuariales	644,784	451,609	194	16	644,978	451,625
Saldo final	13,157,729	12,709,838	15,236	3,015	13,172,965	12,712,853
Pasivo neto	3,162,654	3,206,634	8,495,358	7,590,156	11,658,012	10,796,790

(1) No existe costo por el servicio de pensiones y planes de pensiones, debido a que los beneficiarios fueron retirados al 31 de julio de 2010.

(2) Incluye lo relacionado con el nuevo plan de retiro voluntario.

La siguiente tabla muestra el movimiento en los resultados y otros resultados integrales de los beneficios post-empleo, por los periodos finalizados el 31 de diciembre de 2020:

	Por los años terminados el 31 de diciembre	
	2020	2019
Resultado del periodo		
Intereses, neto	622,163	537,893
Costo del servicio actual	118,035	76,478
Remediones	-	10,213
	740,198	624,584
Otros resultados integrales		
Pensión y bonos	226,598	(1,303,693)
Salud	(33,325)	(1,268,379)
Educación y cesantías	(55,693)	922
Beneficios por terminación - Plan de retiro voluntario	(121)	(34)
	137,459	(2,571,184)
Impuesto diferido	(41,238)	771,355
	96,221	(1,799,829)

21.2 Activos de plan

Los activos del plan están representados por los recursos entregados a Patrimonios Autónomos Pensionales para el pago del pasivo pensional de las obligaciones por mesadas y bonos pensionales; lo concerniente a salud y educación está a cargo de Ecopetrol. La destinación de los recursos de los patrimonios autónomos, así como sus rendimientos,

no puede cambiarse de destinación ni restituirse a la Compañía hasta tanto se cumpla con la totalidad de las obligaciones.

La siguiente es la composición de los activos del plan por tipo de inversión al 31 de diciembre de:

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Títulos emitidos por el Gobierno Nacional	4,958,612	4,301,961
Bonos deuda privada	3,177,531	3,122,630
Otros moneda local	1,502,349	1,899,787
Otros moneda extranjera	1,992,800	870,859
Otros bonos públicos	777,562	1,082,815
Renta variable	679,448	823,977
Otros	84,663	610,824
	13,172,965	12,712,853

El 23.3% (2019 - 26.6%) del saldo de los activos del plan corresponde a nivel 1 de valor razonable y el 76.7% (2019 - 73.4%) están bajo nivel de jerarquía 2.

El valor razonable de los activos del plan se calcula utilizando el precio cotizado en los mercados de activos. La Compañía obtiene estos precios por intermedio de proveedores de datos financieros confiables reconocidos en Colombia o en el extranjero dependiendo de la inversión.

Para los títulos emitidos en moneda local, el valor razonable de los activos del plan se calcula utilizando la información publicada por Precia. De acuerdo con su metodología, los precios pueden ser calculados a partir de información de mercado del día de valoración o estimados a partir de insumos históricos de acuerdo con los criterios establecidos para el cálculo de cada uno de los tipos de precios.

El precio promedio es calculado principalmente del mercado más representativo de las transacciones llevadas a través de plataformas electrónicas aprobadas y supervisadas por el regulador.

Por otro lado, el precio estimado se calcula para las inversiones que no reflejan la información suficiente para estimar un precio promedio de mercado, replicando los precios cotizados para activos similares o precios obtenidos a través de cotizaciones de

corredores de bolsa. Este precio estimado también está dado por Precia como resultado de la aplicación de metodologías robustas aprobadas por el regulador financiero y ampliamente utilizado por el sector financiero en Colombia.

La siguiente tabla refleja la calidad crediticia de los emisores y contrapartes en transacciones relacionadas con los patrimonios autónomos:

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Nación	5,102,222	4,448,221
AAA	4,369,805	5,138,279
AA+	570,716	837,009
BBB-	458,273	455,201
BBB	201,163	319,514
AA	134,454	6,679
F1+	61,192	56,728
BRC1+	52,296	68,313
A3	11,633	17,267
BBB+	10,328	22,113
AA-	4,014	16,067
BAA3	-	219,830
SP1+	-	84,933
A-1+	-	78,156
BAA1	-	15,538
A	5,307	11,841
Otras calificaciones	297,048	30,129
Sin calificaciones disponibles	1,894,514	887,035
	13,172,965	12,712,853

Ver política de riesgo de crédito en la Nota 29.4.

21.3 Supuestos actuariales

Supuestos actuariales utilizados para determinar el valor presente de la obligación neta por beneficios definidos utilizados para los cálculos actuariales al 31 de diciembre:

2020	Pensión	Bonos	Salud	Educación	Otros beneficios (1)
Tasa de descuento	5.50%	4.75%	6.00%	5.00%	4.09%
Incremento salarial	N/A	N/A	N/A	N/A	4.70%
Inflación esperada	3.00%	3.00%	3.00%	3.00%	3.00%
Tasa de incremento de pensiones	3.00%	N/A	N/A	N/A	N/A
Tendencia del costo					
Tasa inmediata	N/A	N/A	6.67%	4.00%	N/A
Tasa final	N/A	N/A	4.00%	4.00%	N/A

2019	Pensión	Bonos	Salud	Educación	Otros beneficios (1)
Tasa de descuento	5.75%	5.25%	6.00%	5.50%	4.83%
Incremento salarial	N/A	N/A	N/A	N/A	5.50% / 4.70%
Inflación esperada	3.00%	3.00%	3.00%	3.00%	3.00%
Tasa de incremento de pensiones	3.00%	N/A	N/A	N/A	N/A
Tendencia del costo					
Tasa inmediata	N/A	N/A	7.00%	4.00%	N/A
Tasa final	N/A	N/A	4.00%	4.00%	N/A

N/A: No es aplicable para este beneficio

1. Tasa de descuento promedio ponderada.

La tendencia del costo es el incremento proyectado para el año inicial y la tasa incluyen la inflación esperada.

La tabla de mortalidad usada para los cálculos fue la tabla de rentistas para hombres y mujeres tomando

la experiencia obtenida para el periodo 2005-2008 del Instituto Colombiano de Seguridad Social.

21.4 Perfil de vencimientos de la obligación

Flujos de caja futuros para pago de las obligaciones post-empleo:

Periodo	Pensión y bonos	Otros beneficios	Total
2021	967,810	482,953	1,450,763
2022	996,869	493,791	1,490,660
2023	1,019,379	507,009	1,526,388
2024	1,034,972	511,627	1,546,599
2025	1,069,252	514,556	1,583,808
2026yss	5,607,391	2,602,556	8,209,947

21.5 Análisis de sensibilidad de pasivos y activos actuariales

El siguiente análisis de sensibilidad muestra el valor de la obligación por beneficios definidos considerando el efecto de posibles cambios sobre

las variables del modelo, manteniendo los demás supuestos constantes, al 31 de diciembre de 2020:

	Pensión	Bonos	Salud	Educación	Otros beneficios
Tasa de descuento					
-50 puntos básicos	16,139,465	1,147,350	7,798,461	515,004	846,709
+50 puntos básicos	14,368,856	1,072,868	6,715,899	464,394	812,726
Tasa de inflación					
-50 puntos básicos	14,314,193	1,072,094	N/A	N/A	717,069
+50 puntos básicos	16,193,316	1,147,825	N/A	N/A	740,501
Tasa de incremento de salarios					
-50 puntos básicos	N/A	N/A	N/A	N/A	96,530
+50 puntos básicos	N/A	N/A	N/A	N/A	105,392
Tasa tendencia del costo					
-50 puntos básicos	N/A	N/A	6,720,777	464,319	N/A
+50 puntos básicos	N/A	N/A	6,720,777	514,849	N/A

N/A: No es aplicable para este beneficio.

21.6 Planes de retiro voluntario

En agosto de 2016, la Compañía ofreció un plan de retiro voluntario, al cual se acogieron 125 trabajadores que cumplieran con determinados requisitos. Este plan incluye beneficios de renta mensual, educación y salud hasta que el empleado logre su pensión de jubilación.

En mayo de 2020, Ecopetrol inició los ofrecimientos de un nuevo plan de retiro voluntario, al cual se han acogido 421 trabajadores. Este plan incluye la desvinculación de empleados a partir de enero de 2020 y hasta diciembre de 2023, mediante 4 modalidades: Cumplimiento del ciclo laboral (pensión), Plan de

Retiro A (Renta), Plan de Retiro B (Bonificación) e Indemnización mejorada.

Al 31 de diciembre de 2020 el monto de obligación neta asociada a planes de retiro es de \$713,407 (2019 - \$124,186).

21.7 Pasivo pensional local

La siguiente es la comparación entre la obligación por pasivos pensionales (pensiones y bonos) determinada bajo el marco normativo NCIF y el fiscal:

Variable (1)	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Pasivo pensional bajo NCIF	16,320,383	15,916,472
Pasivo pensional fiscal	14,345,212	14,219,638
Diferencia	1,975,171	1,696,834

La diferencia entre el saldo del pasivo pensional bajo NICF y fiscal se genera principalmente por la tasa de descuento, la cual para efectos fiscales es establecida por ley y bajo NICF calculada según la política contable 4.14 - Beneficios a empleados.

Los supuestos utilizados en cada año fueron los siguientes:

Variable (1)	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Tasa de interés técnico	4.00%	4.00%
Tasa de descuento nominal	7.79%	8.07%
Tasa de incremento pensional	3.64%	3.91%
Tasa de inflación	3.64%	3.91%
Mortalidad	RV08	RV08

1. Los supuestos del cálculo actuarial NCIF pueden verse en la Nota 21.3

22. Provisiones y contingencias

	Costos de abandono	Litigios	Contingencias ambientales y otros	Total
Saldo al 31 de diciembre de 2019	7,114,059	70,671	630,782	7,815,512
Costo financiero (Nota 28)	213,733	-	-	213,733
Utilizaciones	(254,107)	(9,777)	(60,589)	(324,473)
Aumento de abandono	2,171,276	-	-	2,171,276
Adiciones	75,704	29,137	143,343	248,184
Traslados	(30,003)	-	(10,157)	(40,160)
Saldo al 31 de diciembre de 2020	9,290,662	90,031	703,379	10,084,072
Corriente	857,025	35,229	195,177	1,087,431
No corriente	8,433,637	54,802	508,202	8,996,641
	9,290,662	90,031	703,379	10,084,072

	Costos de abandono	Litigios	Otros	Total
Saldo al 31 de diciembre de 2018	5,348,469	69,427	639,743	6,057,639
Costo financiero	182,605	-	-	182,605
Utilizaciones	(407,927)	(8,228)	(43,901)	(460,056)
Aumento costos abandono	1,990,912	-	-	1,990,912
Adiciones	-	9,472	34,940	44,412
Saldo al 31 de diciembre de 2019	7,114,059	70,671	630,782	7,815,512
Corriente	520,379	9,173	141,734	671,286
No corriente	6,593,680	61,498	489,048	7,144,226
	7,114,059	70,671	630,782	7,815,512

22.1 Costos de abandono y desmantelamiento

El pasivo estimado por costos de abandono y desmantelamiento corresponde a la obligación futura que tiene la Compañía de restaurar las condiciones ambientales similares a las existentes antes del inicio de proyectos o actividades, de acuerdo con lo descrito en la política contable sección 4.12 – Provisiones y pasivos contingentes. Por tratarse de obligaciones a largo plazo, este pasivo se estima proyectando los pagos futuros esperados y descontando a valor presente con una tasa referenciada a las obligaciones financieras de la Compañía, teniendo en cuenta la temporalidad y riesgos

de esta obligación. Las tasas de descuento utilizadas en la estimación al 31 de diciembre de 2020 fueron: Producción 2.65% (2019-3.01%), Refinación 2.71% (2019-3.31%) y Transporte 2.69% (2019-3.30%).

22.2 Litigios

El siguiente cuadro detalla los principales litigios reconocidos en el estado de situación financiera separado al 31 de diciembre, cuyas expectativas de pérdidas son de alta probabilidad y podrían implicar una salida de recursos:

Pretensiones	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Perjuicios a terceros en razón a servidumbre de hidrocarburos en inmueble cercano a la Refinería de Cartagena.	11,019	11,019
Lucro cesante en resultado de concurso abierto para la administración de un patrimonio autónomo.	5,774	4,157
Demanda por parte del consorcio Sincco por perjuicios en las condiciones contractuales para el proyecto de la modernización del llenadero de productos del centro industrial de Barrancabermeja.	5,347	5,347

22.3 Contingencias ambientales y otros

Corresponde principalmente a las obligaciones de compensación ambiental e inversión forzosa del 1% por el uso, aprovechamiento o afectación de los recursos naturales impuestas por las autoridades ambientales nacionales, regionales y locales. La inversión forzosa del 1% se genera por el uso del agua tomada directamente de fuentes naturales de acuerdo con lo establecido en la Ley 99 de 1993, artículo 43, el Decreto 1900 de 2006, los Decretos 2099 de 2017 y 075 y 1120 de 2018 y artículo 321 de la Ley 1955 de 2019 con relación a los proyectos que Ecopetrol desarrolla en las regiones.

El Gobierno Nacional a través del Ministerio de Ambiente y Desarrollo Sostenible, expidió en diciembre de 2016 y en enero de 2017 los Decretos

2099 y 075, mediante los cuales modifica el Decreto Único Reglamentario del sector ambiente y desarrollo sostenible, Decreto 1076 de 2015, en lo relacionado con la inversión forzosa por la utilización del agua tomada directamente de fuentes naturales. Los principales cambios que establecieron estos decretos se dieron con relación a las áreas de implementación, líneas de inversión y la base de liquidación de las obligaciones. Igualmente, se definió el 30 de junio de 2017 como fecha máxima para modificar los Planes de Inversión que se encuentran en ejecución.

En el año 2019 se expidió la Ley 1955/2019, que en su Artículo 321 unifica la base de liquidación de esta obligación y exige la actualización a valor presente de las obligaciones de inversión del 1%. Ecopetrol realizó la re-

certificación de la base de liquidación y el acogimiento al porcentaje de actualización de los valores de inversión del 1% en más de 90 de licencias ambientales, generando una menor provisión de esta obligación. Actualmente, se están recibiendo los pronunciamientos de la ANLA con relación al artículo 321 de la Ley 1955, unos a través de oficios y otros a través de resoluciones. Ecopetrol ha interpuesto recurso de reposición ante la ANLA en la mayoría de los casos, los cuales están en revisión por parte de esta autoridad.

22.4 Contingencias

Oleoducto Bicentenario de Colombia S.A.S.

Disputas bajo los Contratos de Transporte iniciados por Bicentenario

Durante el mes de julio de 2018, los remitentes que no hacen parte del Grupo Ecopetrol (Frontera Energy Colombia Corp., Vetra Exploración y Producción Colombia S.A.S. y Canacol Energy Colombia S.A.S.), en adelante, los “Remitentes”, enviaron comunicaciones a la Compañía donde manifestaron pretender dar por terminados de forma anticipada sus respectivos Contratos de Transporte Ship or Pay celebrados en el año 2012 (los “Contratos de Transporte”).

Conforme a lo anterior, esos Remitentes han dejado de cumplir sus obligaciones bajo dichos Contratos de Transporte. La Compañía rechazó los términos de las comunicaciones señalando que no hay lugar a una terminación anticipada y ha reiterado a los Remitentes que los Contratos de Transporte se encuentran vigentes y que sus obligaciones deben ser oportunamente cumplidas.

Bajo el convencimiento de que los Contratos de Transporte continúan vigentes y que los Remitentes antes mencionados continuaron y continúan incumpliendo sus obligaciones bajo los mismos del Acuerdo Marco de Inversión suscrito en diciembre de 2010 (en adelante, el “AMI”), la Compañía constituyó en mora a los Remitentes por el no pago de las cuentas de cobro por concepto del servicio de transporte y ejecutó las cartas de crédito stand-by previstas como garantías en los Contratos de Transporte.

Agotadas las etapas de arreglo directo con cada Remitente, la Compañía presentó demandas arbitrales en contra de cada uno de ellos en el primer semestre de 2019, y posteriormente estas demandas fueron retiradas y presentadas unas nuevas durante el último trimestre de 2019.

Los tres procesos arbitrales se encuentran en curso.

Disputa bajo los Contratos de Transporte iniciada por Frontera

El 13 de julio de 2020, Bicentenario fue notificado de la presentación por parte de Frontera de una demanda al amparo del pacto arbitral contenido en el Contrato de Transporte ante el Centro de Arbitraje y Conciliación de la Cámara de Comercio de Bogotá D.C. El valor total de las pretensiones incluidas en la demanda presentada por Frontera asciende a \$481.577. Este proceso arbitral iniciado por Frontera fue acumulado el 10 de agosto de 2020 al trámite iniciado por Bicentenario en noviembre de 2019.

En paralelo a lo anterior, la Compañía continúa ejerciendo sus derechos en los términos de los Contratos de Transporte y sus acuerdos relacionados, para garantizar su cumplimiento y reclamar cualquier compensación, indemnización o restitución derivada de la alegada terminación anticipada de dichos contratos, junto con otros incumplimientos.

Disputa bajo el Contrato de Almacenamiento con Canacol Energy Colombia S.A.S.

En el marco de la disputa derivada de los contratos de transporte entre la Compañía con los Remitentes, desde el 18 de septiembre de 2018 Canacol Energy Colombia S.A.S. ha sostenido a la Compañía que el Contrato de Almacenamiento suscrito entre ambas el 20 de junio de 2012 se encuentra terminado, con fundamento en los mismos hechos que habrían dado lugar a la terminación de los Contratos de Transporte.

Conforme a lo anterior, Canacol Energy Colombia S.A.S. ha dejado de cumplir sus obligaciones bajo el Contrato de Almacenamiento. La Compañía ha rechazado el comportamiento de Canacol Energy Colombia S.A.S. bajo el Contrato de Almacenamiento y ha reiterado a dicha sociedad que el Contrato de Almacenamiento se encuentra vigente y que sus obligaciones deben ser oportunamente cumplidas.

Bajo el convencimiento que el Contrato de Almacenamiento con Canacol Energy Colombia S.A.S. continúa vigente y que Canacol Energy Colombia S.A.S. ha incumplido sus obligaciones bajo el Contrato de Almacenamiento, la Compañía constituyó en mora a Canacol Energy Colombia S.A.S. por el no pago de las cuentas de cobro por concepto del Servicio de Almacenamiento.

El 10 de enero de 2020, Bicentenario demandó a Canacol Energy Colombia S.A.S. al amparo del pacto arbitral contenido en el Contrato de Almacenamiento ante el Centro de Arbitraje y Conciliación de la Cámara de Comercio de Bogotá D.C. solicitando el pago, indemnización y/o cualquier otra restitución a la que la

Compañía tenga derecho por la indebida terminación del Contrato de Almacenamiento.

Este trámite arbitral se encuentra en curso, en el cual se llevó a cabo la designación de los árbitros que integrarán el tribunal. Pendiente de que se realice la Audiencia de Instalación y haya pronunciamiento sobre la admisión de la demanda.

En paralelo, la Compañía continúa ejerciendo sus derechos en los términos del Contrato de Almacenamiento y sus acuerdos relacionados para garantizar su cumplimiento y reclamar cualquier compensación, indemnización o restitución derivada de la alegada terminación anticipada de dicho contrato y otros incumplimientos.

Disputas bajo el Acuerdo Marco de Inversión iniciada por Bicentenario

El 3 de diciembre de 2019, la Compañía demandó a Frontera Energy Colombia Corp., Pacific OBC Corp., Pacific OBC 1 Corp., Pacific OBC 4 Corp., Canacol Energy Colombia S.A.S. y a Vetra Exploración y Producción Colombia S.A.S. al amparo del pacto arbitral contenido en el del Acuerdo Marco de Inversión suscrito en diciembre de 2010 (en adelante, el "AMI"), ante el Centro de Arbitraje y Conciliación de la Cámara de Comercio de Bogotá D.C., argumentando el incumplimiento de (i) el pago del aporte solicitado a cada una de ellas como acto conducente o necesario respecto de las operaciones de endeudamiento de la Compañía y; (ii) el incumplimiento bajo el AMI, con ocasión de la declaratoria de incumplimiento de sus obligaciones bajo el Contrato de Transporte.

El 22 de octubre de 2020 la Compañía presentó ante el Centro de Arbitraje y Conciliación de la Cámara de Bogotá un memorial retirando la demanda presentada el 3 de diciembre de 2019, con el objetivo de formular sus pretensiones en el arbitraje descrito.

Disputa bajo el AMI iniciada por Frontera

El 3 de diciembre de 2019, Frontera y Pacific OBC, Corp., Pacific OBC 1, Corp., Pacific OBC 4, Corp., presentaron una solicitud de arbitraje internacional en contra de Bicentenario y Cenit en donde pretenden, entre otras que: (i) se declare terminado el Contrato de Transporte con Bicentenario y (ii) se declare que Bicentenario ejecutó ilegalmente las garantías de Frontera.

Acuerdo de Conciliación

El 17 de noviembre de 2020, Bicentenario, Frontera, las Pacific OBC y Cenit Transporte y Logística de Hidrocarburos S.A.S. presentaron ante la Procuraduría General de la Nación una solicitud de conciliación para poner fin a sus controversias. En el caso de

Bicentenario y Frontera junto con las Pacific OBC, la solicitud de conciliación tiene como fin, solucionar las disputas bajo los Contratos de Transporte y bajo el AMI y, en el caso de Cenit y Frontera junto con las Pacific OBC, las controversias bajo los respectivos contratos de transporte celebrados y la disputa tarifaria que sostienen Cenit y Frontera.

La solicitud conjunta de acuerdo de conciliación y el Acuerdo de Obligaciones Interinas establecieron un periodo entre la suscripción de la conciliación y hasta la fecha del eventual cierre, durante el cual se suspende el derecho al cobro de las tarifas de transporte y almacenamiento a partir del 1 de enero del 2020.

La solicitud de conciliación está pendiente de que surta el procedimiento en la Procuraduría General de la Nación de cara a la obtención de un concepto favorable, luego de lo cual el Tribunal Administrativo de Cundinamarca deberá ejercer el respetivo control de legalidad para efectos de su aprobación.

Cenit Transporte y Logística de Hidrocarburos S.A.S.

En 2018 la Compañía interpuso demanda arbitral en contra del Grupo Frontera por: - La indebida terminación de los contratos de transporte por el Oleoducto Caño Limón Coveñas. Cenit considera que al 31 de diciembre de 2020 los valores adeudados por este concepto son de \$334,583.

Por desacuerdo tarifario originado en la oposición manifestada por el Grupo Frontera frente a la aplicación de las tarifas definidas por el Ministerio de Minas y energía para el periodo 2015-2019. El diferencial tarifario se encuentra en un fideicomiso que asciende a \$114,075, mientras el saldo de la deuda de acuerdo con los registros contables de Cenit a la misma fecha asciende a \$99,734, evidenciando que los valores por cobrar se encuentran fondeados.

Frontera no ha pagado el componente de la tarifa relacionado con el Fondo de Abandono al que Cenit considera que tienen derecho en virtud de la aplicación de las resoluciones 31480 y 31661 expedidas por el Ministerio de Mina y Energía. Los valores adeudados por el Grupo Frontera Energy ascienden a \$9,663.

Acuerdo 2020

Cenit y Oleoducto Bicentenario de Colombia, llegaron a un acuerdo con el grupo Frontera y presentaron una solicitud de conciliación, en la que se acordó: - Que Frontera transferirá a Cenit su participación del 43.03% en Oleoducto Bicentenario - Que Frontera entregará a Cenit los recursos del encargo fiduciario correspondientes al desacuerdo tarifario - Frontera entregará a Bicentenario

el lleno de línea del Oleoducto Bicentenario, además de permitirle a la compañía compensar una porción de su deuda sindicada de Bicentenario contra los dividendos pendientes por decretar y cuentas por cobrar existentes a favor de Frontera. Una vez el acuerdo tenga las aprobaciones requeridas por la Ley Colombiana, se darán por terminado los procesos arbitrales vigentes con ocasión a los desacuerdos existentes.

Refinería de Cartagena S.A.S

El 8 de marzo de 2016, Reficar presentó una solicitud de arbitraje ante la Cámara de Comercio Internacional en contra de las sociedades Chicago Bridge & Iron Company N.V., CB&I (UK) Limited y CBI Colombiana S.A. (colectivamente, "CB&I"), relacionada con los incumplimientos de los contratos de ingeniería, procura y construcción celebrados por Reficar y CB&I para la ampliación y modernización de la Refinería de Cartagena, ubicada en Cartagena, Colombia. En su solicitud de Arbitraje, Reficar reclama no menos de USD \$2 mil millones a CB&I.

El 25 de mayo de 2016, CB&I presentó su respuesta a la Solicitud de Arbitraje y la versión preliminar de su contrademanda contra Reficar, la cual asciende a un valor aproximado de USD \$213 millones. El 27 junio de 2016, Reficar contestó la contrademanda de CB&I, oponiéndose a todas las pretensiones de CB&I.

El 28 de abril de 2017, Reficar presentó su demanda no detallada y, en la misma fecha, CB&I presentó su contrademanda no detallada, reclamando una suma de aproximadamente USD \$116 millones y COP\$387,558 millones, incluyendo USD \$ 70 millones de una carta de crédito de cumplimiento. Posteriormente, el 16 de marzo de 2018, CB&I presentó su contrademanda detallada, actualizando el valor reclamado a las sumas de USD \$129 millones y COP\$432,303 millones, incluyendo intereses. En esta misma fecha, Reficar presentó su demanda detallada, en la cual reclama, entre otras pretensiones, la suma aproximada de USD \$ 139 millones por concepto de facturas pagadas provisionalmente en el marco de los acuerdos MOA y PIP y el Contrato EPC.

El 28 de junio de 2019, Chicago Bridge and Iron Company (CB&I) presentó respuesta a la defensa no detallada de Reficar por la demanda de reconvención, actualizando el valor de su reclamación aproximadamente USD \$137 millones y COP\$503,241 millones, incluyendo intereses. Asimismo, CB&I presentó su defensa detallada a la demanda de Reficar.

Reficar presentó defensa detallada a la contrademanda de CB&I y su respuesta al memorial de defensa no detallado de CB&I, actualizando su reclamación por concepto de facturas pagadas provisionalmente en el marco de los acuerdos MOA y PIP y el Contrato EPC a aproximadamente US\$ 137 millones.

En posible relación con esta materia, a 31 de diciembre de 2020 existe un saldo de USD \$122 millones aproximadamente, en facturas pagadas por Reficar a CB&I, bajo los Acuerdos PIP y MOA del contrato EPC, cuyos soportes suministrados hasta la fecha por CB&I no cuentan con la aceptación de AMEC Foster Wheeler – PCIB.

En enero de 2020, McDermott International Inc., matriz de CB&I se declaró en insolvencia y anunció que iniciará una reorganización a instancias del Capítulo 11 de la legislación de Estados Unidos.

Ante esta situación, Refinería de Cartagena ha adelantado acciones para proteger sus intereses y cuenta con un grupo de expertos con quienes continuará evaluando otras medidas que pueda adoptar ante esta nueva circunstancia.

Como consecuencia del inicio del proceso de reorganización, el arbitraje estuvo suspendido hasta el 1 de julio de 2020, como se describe a continuación.

El 21 de enero de 2020, Comet II B.V., sucesora en interés de Chicago Bridge & Iron Company N.V., comenzó un proceso de insolvencia bajo el Capítulo 11 de la legislación de los Estados Unidos ante la Corte del Distrito Sur de Texas (Corte). Ante el inicio del proceso de insolvencia de Comet II B.V. se hizo efectiva una suspensión automática del inicio o continuación de cualquier acción, proceso o ejecución de sentencia o laudo, en contra de Comet II B.V., lo que suspendió el arbitraje. El 23 de enero de 2020, Comet II B.V., obtuvo una orden de la Corte en la que le permitió a su discreción modificar la suspensión automática de los procesos. El 14 de marzo de 2020, la Corte emitió una orden confirmando el plan de reorganización, en el cual se estableció que la suspensión del arbitraje terminaría en la fecha efectiva del plan de reorganización o el 30 de agosto de 2020, lo que ocurra primero. El 30 de junio de 2020, McDermott International Inc. notificó la ocurrencia de la fecha efectiva del plan de reorganización, por lo cual la suspensión del arbitraje se levantó el 1 de julio de 2020.

El 6 de mayo de 2020, la Superintendencia de Sociedades ordenó la liquidación judicial de CBI Colombiana S.A., uno de los demandados en el arbitraje CB&I. El 22 de octubre de 2020, Reficar solicitó su reconocimiento como acreedora de CBI Colombiana S.A., hasta por el monto máximo de sus pretensiones en el arbitraje. El 15 de enero de 2021, el liquidador de CBI Colombiana S.A. aceptó la solicitud de Reficar.

El 22 de septiembre de 2020, el tribunal programó el inicio de las audiencias para mayo de 2021. Hasta el momento en que se profiera el Laudo, el resultado del arbitraje es incierto.

22.5. Investigaciones de entes de control

1. Fiscalía General de la Nación (FGN):

A la fecha se adelantan 3 procesos penales derivados de los hechos relacionados con el proyecto de ampliación y modernización de la refinería de Cartagena.

Proceso 1 – No. 110016000101201600023 – MOA – PIP y EPC

Este proceso se adelanta en contra de algunos ex miembros de Junta Directiva de Reficar, ex trabajadores de Reficar, trabajadores de Chicago Bridge and Iron Company (CB&I) y el Revisor Fiscal de Reficar entre 2013 y 2015; por los delitos de interés indebido en la celebración de contratos, peculado por apropiación en favor de terceros, enriquecimiento ilícito de particulares en favor de terceros y falsedad ideológica en documento público.

El 31 de mayo de 2018 se instaló la respectiva Audiencia de Formulación de Acusación.

El 22 de agosto de 2019 finalizó la audiencia de acusación y se reconoció oficialmente como víctimas a Reficar y Ecopetrol.

El 25 de noviembre de 2019 se instaló la audiencia preparatoria de juicio y a la fecha el proceso se encuentra para desarrollar la mencionada audiencia preparatoria.

Proceso 2 – No. 110016000101201800132 Línea de negocio

Este proceso se adelanta por los delitos de administración desleal agravada, obtención de documento público falso, en contra de ex miembros de Junta Directiva de Refinería de Cartagena y un ex presidente de la Sociedad.

El 5 de agosto de 2019, se instaló la Audiencia de Formulación de Acusación y se reconoció oficialmente como víctimas a Reficar y Ecopetrol.

El 18 de noviembre de 2019 se instaló la audiencia preparatoria de juicio y a la fecha el proceso se encuentra para desarrollar la audiencia preparatoria.

Proceso 3 – No. 110016000101201800134 – Celebración contrato PMC - Foster Wheeler

Este proceso se adelanta en contra de dos ex trabajadores de la Sociedad. Estas personas actuaron en calidad de ex presidente en propiedad y ex presidente encargado para el periodo por el cual se realiza la acusación por el delito de celebración de contrato sin requisitos legales.

2. Contraloría General de la República (CGR)

Auditoría Financiera para la vigencia 2018

La CGR adelantó una auditoría financiera a la Sociedad entre el 28 de enero de 2020 y el 20 de mayo de 2020. En el Informe Final de Auditoría, se indica que la ejecución presupuestal es razonable puesto que el presupuesto fue preparado y ejecutado de conformidad con la normatividad aplicable, se indica también que el control interno financiero fue eficiente porque el mismo es adecuado y los controles efectivos frente a los riesgos que le son inherentes; sin embargo, la opinión contable es negativa pues la CGR consideró que los EEFF no representan en todos los aspectos de importancia la situación financiera a 31 de diciembre de 2019. Debido a lo anterior, la CGR no feneció la cuenta fiscal para la vigencia 2019.

Proceso de Responsabilidad Fiscal

Mediante Auto No. 773 del 5 de junio de 2018, la CGR dictó auto de archivo e imputación de responsabilidad fiscal dentro del proceso No. PRF-2017-00309_UCC-PRF-005-2017 e imputó responsabilidad a:

- I. Nueve (9) ex miembros de la Junta Directiva de Reficar
- II. Cinco (5) ex trabajadores de Reficar
- III. Un (1) ex trabajador de Ecopetrol
- IV. Cinco (5) compañías contratistas que prestaron sus servicios durante la ejecución del proyecto de ampliación y modernización de la Refinería de Cartagena y,
- V. Compañías aseguradoras y 2 reaseguradoras, en calidad de tercero civilmente responsable.

Actualmente la CGR se encuentra practicando las pruebas solicitadas por los sujetos imputados, dentro de los descargos presentados por ellos.

Adicionalmente, en el mencionado auto se ordenó conformar un proceso independiente en relación con el hecho generador de la entrada tardía en operación de la refinería, que da lugar a un lucro cesante; es decir, la ganancia neta dejada de percibir por Reficar.

A la fecha de este reporte, los estados financieros continúan revelando de manera adecuada la situación financiera y operacional del Grupo en todos los aspectos materiales y sus controles internos se mantienen vigentes.

22.6 Detalle de los pasivos contingentes

El siguiente es un resumen de los pasivos contingentes no reconocidos en el estado de situación financiera separado, cuya valoración cualitativa está definida como eventual:

Tipo de proceso	2020		2019	
	Cantidad de procesos	Pretensiones	Cantidad de procesos	Pretensiones
Acción constitucional	14	1,092,228	14	1,092,228
Administrativo ordinario	153	706,520	160	780,150
Laboral ordinario	636	45,387	593	49,055
Civil ordinario	52	4,612	52	16,269
Laboral especial	15	3,106	13	720
Penal	2	595	1	595
Administrativo ejecutivo	1	525	1	28
Tutela	234	47	112	10
Civil ejecutivo	1	-	1	-
	1,108	1,853,020	947	1,939,055

22.7. Detalle de los activos contingentes

A continuación se presenta un resumen de los activos contingentes, cuya entrada de beneficios económicos a la Compañía es probable, pero no prácticamente cierta:

Tipo de proceso	2020		2019	
	Cantidad de procesos	Pretensiones	Cantidad de procesos	Pretensiones
Administrativo ordinario	96	388,592	35	373,555
Arbitramento	2	138,386	1	67,232
Civil ordinario	114	82,572	75	86,363
Penal	149	61,466	156	60,177
Civil ejecutivo	57	5,299	61	4,912
Laboral ordinario	48	3,129	50	3,295
Administrativo ejecutivo	10	2,450	11	4,028
Laboral especial	84	426	57	307
Tutela	5	-	4	-
	565	682,320	450	599,869

23. Patrimonio

23.1 Capital suscrito y pagado

El capital autorizado de Ecopetrol es \$36,540,000 dividido en 60,000,000,000 de acciones nominativas ordinarias, de las cuales se han suscrito 41,116,694,690 acciones representadas en un 11.51% (4,731,906,273 acciones) en personas naturales y jurídicas no

estatales y 88.49% (36,384,788,417 acciones) en accionistas correspondientes a entidades estatales. El valor de las acciones en reserva asciende a \$11,499,933 conformada por 18,883,305,310 acciones. Al 31 de diciembre de 2020 y 31 de diciembre de 2019, el capital suscrito y pagado ascendía a \$25,040,067. No existe dilución potencial de acciones.

23.2 Prima en emisión de acciones

Al 31 de diciembre de 2020, el saldo de la prima en emisión de acciones es \$6,607,699 y está compuesto por: (i) exceso con respecto a su valor nominal originado en la venta de acciones en el momento de efectuarse la capitalización en el año 2007 por \$4,457,997, (ii) al exceso con respecto a su valor nominal originado en la venta de acciones adjudicadas en la

segunda ronda, efectuada en septiembre de 2011 por \$2,118,468, (iii) \$31,377, al valor generado en el proceso de colocación de acciones en el mercado secundario, originado por la ejecución de garantías a los deudores morosos, de conformidad con lo establecido en el Artículo 397 del Código de Comercio y (iv) prima en colocación de acciones por cobrar \$(143).

23.3 Reservas patrimoniales

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Reserva legal	4,568,980	3,243,832
Reservas fiscales y obligatorias	509,082	509,082
Reservas ocasionales	4,557,074	31,744
	9,635,136	3,784,658

El movimiento de las reservas patrimoniales es el siguiente:

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Saldo inicial	3,784,658	5,138,895
Liberación de reservas	(540,826)	(3,050,703)
Apropiación de reservas	6,391,304	5,355,852
Dividendos decretados	-	(3,659,386)
Saldo final	9,635,136	3,784,658

23.4 Ganancias acumuladas y pago de dividendos

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Saldo inicial	14,277,685	12,582,607
Utilidad atribuible a los accionistas de Ecopetrol	1,688,077	13,251,483
Liberación de reservas	540,826	3,050,703
Apropiación de reservas	(6,391,304)	(5,355,852)
Dividendos decretados (1)	(7,401,005)	(9,251,256)
Otros movimientos	176,607	-
Saldo final	2,890,886	14,277,685

1. La Asamblea General de Accionistas realizada el 27 de marzo de 2020, aprobó el proyecto de distribución de utilidades sobre el ejercicio 2019 y definió distribuir dividendos por valor de \$7,401,005 (2019 - \$9,251,256).

23.5 Otros resultados integrales

La siguiente es la composición de los otros resultados integrales, netos de impuesto de renta diferido:

	A 30 de diciembre de 2020	A 31 de diciembre de 2019
Método de participación en compañías (1)	12,075,562	10,721,865
Cobertura de inversión neta en negocio en el extranjero	(1,494,926)	(1,130,583)
Ganancias y pérdidas derivadas del plan de beneficio definido	(2,260,989)	(2,357,210)
Coberturas flujo de efectivo para futuras exportaciones	(403,410)	(535,162)
Coberturas flujo de efectivo con instrumentos derivados	5,225	3,311
	7,921,462	6,702,221

- La Compañía reconoce como método de participación en compañías el efecto resultante del ajuste por conversión de sus inversiones en subsidiarias, asociadas y negocios conjuntos cuya moneda funcional sea diferente al peso colombiano, así como las variaciones en los conceptos del otro resultado integral de dichas compañías. El efecto acumulado por ajuste por conversión (diferencia en cambio en conversiones), será transferido al resultado del periodo como una ganancia o pérdida en el momento de la liquidación o venta de dichas inversiones.

23.6 Utilidad básica por acción

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Utilidad neta atribuible a los accionistas	1,688,077	13,251,483
Promedio ponderado de acciones en circulación	41,116,694,690	41,116,694,690
Ganancia neta por acción (pesos)	41.1	322.3

24. Ingresos de actividades ordinarias

	Por los años terminados al 31 de diciembre	
	2020	2019
Ventas nacionales		
Destilados medios (1)	7,212,000	12,051,998
Gasolinas (1)	5,621,263	7,990,153
Gas natural	2,516,498	2,038,733
Asfaltos	526,100	544,200
Servicios	462,364	584,302
G.L.P. y propano	338,155	305,741
Crudos	242,410	366,160
Aromáticos	155,740	228,552
Otros ingresos ventas de gas (2)	100,040	102,845
Polietileno	83,629	139,966
Combustóleo	37,001	97,907
Otros productos	214,028	247,426
	17,509,228	24,697,983

Ventas zona franca		
Crudos	5,676,930	8,592,634
Servicios	395,145	374,870
Gas natural	294,859	308,707
Propileno	63,138	84,100
Otros productos	4,315	7,493
	6,434,387	9,367,804
Ventas al exterior		
Crudos	19,573,825	27,770,902
Combustóleo	968,429	1,802,010
Coberturas de flujo de efectivo (3)	(977,797)	(1,028,516)
Otros productos y servicios (4)	20,855	5,666
	19,585,312	28,550,062
	43,528,927	62,615,849

1. Incluye lo correspondiente a la aplicación de la Resolución 180522 del 29 de marzo de 2010 y demás normas que la modifican y adicionan (Decreto 1880 de 2014 y Decreto 1068 de 2015), donde se establece el procedimiento para reconocer el subsidio para refinadores e importadores de la gasolina motor corriente y ACPM, y la metodología para el cálculo de la posición neta (valor generado entre el precio de paridad y el precio regulado, el cual puede ser positivo o negativo). A 31 de diciembre de 2020, el valor reconocido por diferencial de precios corresponde a \$17,401 (2019 \$1,489,046).
2. Corresponde al ingreso facturado sobre la participación en las utilidades de las ventas de gas, en el marco del acuerdo suscrito entre Ecopetrol y Hocol (considerando el acuerdo de compra venta de activos suscrito con Chevron para adquirir la participación poseída por este último en la Asociación Guajira el 1 de mayo de 2020), para la extensión del contrato de asociación para la explotación de gas en la Guajira. Anterior a esta adquisición el acuerdo estaba suscrito entre Ecopetrol y Chevron desde el 2004.
3. Incluye coberturas para futuras exportaciones (Nota 29.1) por \$390,206 (2019 \$1,028,516) y coberturas con instrumentos derivados por \$587,591.
4. Incluye importaciones de diésel por valor de \$12,546 que Ecopetrol no recibió debido a los altos inventarios en el país y la crisis sanitaria del COVID-19. Tales volúmenes tuvieron que ser vendidos a Panamá.

25. Costo de ventas

	Por los años terminados a 31 de diciembre	
	2020	2019
Costos variables		
Servicios de transporte de hidrocarburos	5,751,981	6,045,219
Productos importados (1)	5,591,553	9,989,733
Depreciaciones, amortizaciones y agotamientos	5,303,531	4,807,368
Compras de crudo asociación y concesión	4,538,841	5,679,326
Compras de hidrocarburos - ANH (2)	2,798,432	5,437,177
Compras de otros productos y gas	2,347,710	2,385,135
Energía eléctrica	798,719	503,683
Regalías de gas en dinero	744,903	746,516
Materiales de proceso	336,761	454,569
Servicios contratados asociación	269,771	267,773
Inventario inicial menos final y otras asignaciones (3)	403,260	(644,047)
	28,885,462	35,672,452

Costos fijos		
Servicios de transporte de hidrocarburos	4,184,908	3,661,942
Costos laborales	2,075,010	2,104,034
Mantenimiento	1,199,425	1,413,226
Servicios contratados	1,193,940	1,451,122
Servicios contratados en asociación	1,019,394	976,906
Depreciaciones y amortizaciones	966,056	954,527
Impuestos y contribuciones	526,994	473,956
Materiales y suministros	349,007	391,110
Costos generales (4)	(58,430)	119,137
	11,456,304	11,545,960
	40,341,766	47,218,412

1. Los productos importados corresponden principalmente a ACPM, diluyente para facilitar el transporte de crudo pesado y gasolina.
2. Corresponde principalmente a las compras de crudo de regalías que realiza Ecopetrol a la Agencia Nacional de Hidrocarburos (ANH), derivadas de la producción nacional.
3. Corresponde a: i) capitalización a los inventarios, producto del proceso de costeo, ii) medición al valor neto de realización (VNR) y iii) los préstamos de inventarios por transporte.
4. Incluye el traslado a gastos operacionales de los costos relacionados con las unidades de la refinería de Barranca sin producción por ocasión de la disminución de la capacidad de carga por efectos de la emergencia sanitaria.

26. Gastos de administración, operación y proyectos

	Por los años terminados a 31 de diciembre	
	2020	2019
Gastos de administración		
Gastos laborales (1)	1,236,499	418,276
Gastos generales	962,848	763,578
Depreciaciones y amortizaciones	181,565	171,931
Impuestos	8,213	8,405
	2,389,125	1,362,190
Gastos de operación y proyectos		
Gastos de exploración	436,115	290,244
Servicio logístico de transporte	342,468	241,620
Impuestos	315,298	361,979
Gastos laborales	245,487	375,373
Cuota de fiscalización	122,924	74,166
Comisiones, honorarios, fletes y servicios	85,441	118,884
Proyectos capitalizables y otros (2)	(116,071)	(124,506)
	1,431,662	1,337,760

1. Incluye para 2020 reconocimiento del nuevo plan de retiro voluntario de 421 trabajadores.
2. Incluye los cargos de costos relacionados con proyectos operativos y corporativos que son trasladados a las cuentas de construcciones en curso.

27. Otros ingresos (gastos) operacionales, neto

	Por los años terminados a 31 de diciembre	
	2020	2019
Utilidad en combinaciones de negocios (Nota 13)	1,284,372	1,048,924
Pérdida en venta de activos	(211,503)	(111,799)
Gasto provisiones por litigios	(172,500)	(45,013)
Gasto impairment de activos corrientes	(1,245)	(6,768)
Otros ingresos, netos	80,354	192,172
	979,478	1,077,516

28. Resultado financiero, neto

	Por los años terminados a 31 de diciembre	
	2020	2019
Ingresos financieros		
Valoración e ingresos de activos financieros	1,388,247	2,042,609
Rendimientos e intereses	179,328	300,494
Utilidad en liquidación de derivados	108,838	-
Dividendos (1)	-	117,238
Otros ingresos	17,931	8,531
	1,694,344	2,468,872
Gastos financieros		
Costo financiero de préstamos y financiaciones (2)	(2,358,918)	(1,832,765)
Valoración y gastos de activos financieros	(1,204,563)	(1,678,924)
Costo financiero de otros pasivos (3)	(828,255)	(713,312)
Otros gastos	(15,039)	(12,052)
Inefectividad de coberturas	(22,064)	(10,602)
Valoración de instrumentos de cobertura	(145)	-
	(4,428,984)	(4,247,655)
(Pérdida) utilidad por diferencia en cambio, neta	(286,037)	152,817
	(3,020,677)	(1,625,966)

- En el año 2007, Arrendadora Financiera Internacional Bolivariana (AFIB) y Ecopetrol S.A. suscribieron un acuerdo, mediante el cual se constituyó un encargo fiduciario, en el que se depositaron los dividendos correspondientes al 8.53% de la participación en disputa respecto a las acciones de Invercolsa adquiridas en su momento por Fernando Londoño. En 2019, como resultado del fallo de la Corte Suprema de Justicia, Ecopetrol recibió el monto de los dividendos que se encontraban en la fiducia.
- Al 31 de diciembre de 2020 se capitalizaron intereses en recursos naturales y propiedades, planta y equipo por \$247,501 (2019 \$248,139).
- Incluye el gasto financiero por la actualización del pasivo por costos de abandono por valor de \$213,733 (Nota 22.1), y el interés neto de los beneficios post-empleo y otros beneficios a empleados a largo plazo (Nota 21).

29. Gestión de riesgos

29.1 Riesgo de tipo de cambio

Ecopetrol opera principalmente en Colombia y realiza ventas en el mercado local e internacional, por tal razón, está expuesta al riesgo de tipo de cambio, el cual surge de diversas exposiciones en moneda extranjera debido a transacciones comerciales y a saldos de activos y pasivos en moneda extranjera. El impacto de las fluctuaciones en las tasas de cambio, especialmente la tasa de cambio peso/dólar de los Estados Unidos, ha sido material, considerando eventos presentados durante el año 2020 como el desacuerdo entre los miembros de la Organización de Países Exportadores de Petróleo (OPEP) y Rusia para mantener los recortes en la producción y los efectos de la pandemia del Covid-19.

La tasa de cambio del dólar estadounidense frente al peso colombiano ha fluctuado durante los últimos

años. Al 31 de diciembre de 2020, el peso colombiano se depreció 4.7% al pasar de una tasa de cierre al 31 de diciembre de 2019 de \$3,277.14 a \$3,432.5 pesos por dólar.

Cuando el peso colombiano se revalúa contra el dólar estadounidense, los ingresos por exportaciones bajan al convertirse a pesos; así mismo, los bienes importados, servicios petroleros e intereses sobre la deuda externa denominada en dólares se tornan menos costosos. Por el contrario, cuando el peso se deprecia, los ingresos por exportaciones, al ser convertidos a pesos, aumentan, y las importaciones y servicio de la deuda externa se vuelven más costosos.

Los valores en libros de los activos y pasivos financieros denominados en moneda extranjera se presentan en la siguiente tabla:

(Millones de USD)	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Efectivo y equivalentes de efectivo	264	203
Cuentas comerciales y otras cuentas por cobrar	1,024	1,102
Otros activos financieros	583	1,097
Otros activos	145	140
Total activos	2,016	2,542
Préstamos y financiaciones	(12,598)	(10,244)
Cuentas comerciales y otras cuentas por pagar	(938)	(1,193)
Otros pasivos	(68)	(161)
Total pasivos	(13,604)	(11,598)
Posición pasiva neta	(11,588)	(9,056)

Del total de la posición neta, USD\$8,549 millones corresponden a instrumentos de cobertura cuyas variaciones cambiarias se reconocen en el otro resultado integral dentro del patrimonio, y USD\$3,039 millones corresponden a pasivos netos en moneda extranjera cuya valoración impacta el resultado del periodo.

La estrategia de gestión de riesgos de la Compañía implica el uso de instrumentos financieros no derivados relacionados con coberturas de flujo de efectivo para

futuras exportaciones para reducir al mínimo la exposición de divisas al riesgo de tipo de cambio.

1. Análisis de sensibilidad para riesgo de tipo de cambio

El siguiente es el efecto que tendría una variación del 1% y 5% en tipo de cambio de pesos colombianos frente al dólar de los Estados Unidos, relacionado con la exposición de activos y pasivos financieros en moneda extranjera a 31 de diciembre de 2020:

Escenario/ Variación TRM	Efecto en resultados antes de impuestos (+/-)	Efecto en otros resultados integrales (+/-)
1%	(104,382)	293,444
5%	(521,912)	1,467,222

2. Cobertura de flujo de efectivo para futuras exportaciones

Con el objetivo de expresar en los estados financieros el efecto de la cobertura natural existente entre exportaciones y endeudamiento, entendiéndose que el riesgo por tasa de cambio se materializa cuando se realizan las exportaciones, el 30 de septiembre de 2015, la Junta Directiva designó la suma de USD\$5,440 millones de la deuda de Ecopetrol como instrumento de cobertura de sus ingresos futuros por exportación de

crudo, para el periodo 2015 - 2023, de acuerdo con NIIF 9 – Instrumentos financieros.

De acuerdo con la Resolución 509 de 2015 de la Contaduría General de la Nación, esta política contable de reconocimiento de coberturas fue adoptada por Ecopetrol a partir del 1 de enero del 2015.

A continuación, se presenta el movimiento de este instrumento de cobertura no derivado:

(Millones de USD)	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Saldo inicial	1,300	1,300
Reasignación de instrumentos de cobertura	1,230	5,551
Realización de las exportaciones	(1,230)	(5,551)
Saldo final	1,300	1,300

El siguiente es el movimiento en el otro resultado integral:

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Saldo inicial	535,162	1,203,461
Diferencia en cambio	201,968	35,606
Realización de exportaciones (Nota 24)	(390,206)	(1,028,516)
Inefectividad	(9,779)	(5,173)
Impuesto de renta diferido	66,265	329,784
Saldo final	403,410	535,162

La reclasificación esperada de la diferencia en cambio acumulada en el estado de otros resultados integrales al Estado de Ganancias y Pérdidas es la siguiente:

Año	Antes de impuestos	Impuestos	Después de impuestos
2021	551,387	(170,930)	380,457
2022	12,537	(3,761)	8,776
2023	12,376	1,801	14,177
	576,300	(172,890)	403,410

3. Cobertura de inversión neta en negocio en el extranjero

La Junta Directiva aprobó la aplicación de contabilidad de coberturas de inversión neta a partir del 8 de junio de 2016. La medida busca disminuir la volatilidad del resultado no operacional por efecto de la diferencia en cambio. La cobertura de inversión neta se aplicará a una porción de las inversiones que la Compañía tiene en moneda extranjera,

en este caso a las inversiones en filiales con moneda funcional dólar y tiene como instrumento de cobertura una porción de la deuda denominada en dólares.

Ecopetrol designó como partida cubierta las inversiones netas en Oleoducto Central S.A. (Ocensa), Ecopetrol América LLC., Hocol Petroleum Ltd. (HPL) y Refinería de Cartagena S.A.S. (Reficar) y como instrumento de cobertura una porción de su deuda denominada en

dólares americanos, en un monto total equivalente a USD \$5,200 millones. Durante el 2019 y el transcurso del 2020 Ecopetrol S.A. realizó una ampliación de esta cobertura por USD \$2,275 millones para incluir en la designación las inversiones en Ecopetrol Permian LLC y Ecopetrol Brasil y adicionar un mayor monto en Reficar.

El valor total cubierto al 31 de diciembre de 2020 es de USD\$7,475 millones.

El siguiente es el movimiento en el otro resultado integral:

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Saldo inicial	1,130,583	1,069,316
Diferencia en cambio	520,490	87,524
Impuesto de renta diferido	(156,147)	(26,257)
Saldo final	1,494,926	1,130,583

4. Coberturas con instrumentos financieros derivados

Durante el año 2020, Ecopetrol suscribió operaciones de forward non-delivery de venta de dólares con el fin de mitigar la volatilidad de la tasa de cambio en el flujo de caja requerido para operaciones de la Compañía por alrededor de USD\$420 millones. A 31 de diciembre de 2020, la Compañía no tiene posiciones abiertas de contratos forward, todos los contratos fueron liquidados durante el año.

Al 31 de diciembre de 2020 Ecopetrol S.A. generó una utilidad neta por operaciones con derivados de \$108,693. Este saldo corresponde a las liquidaciones de forward.

29.2 Riesgo de precio de commodities

El riesgo de precio de las materias primas está asociado con las operaciones de la Compañía, tanto exportaciones como importaciones de crudo, gas natural y productos refinados. Con el fin de mitigar este riesgo, Ecopetrol ha implementado coberturas para proteger parcialmente los resultados de las fluctuaciones de los precios, teniendo en cuenta que parte de la exposición financiera bajo contratos de compra de crudo y productos refinados depende de los precios internacionales del petróleo.

El riesgo de dicha exposición está parcialmente cubierto de forma natural, debido a que Ecopetrol es un grupo integrado (con operaciones en los segmentos de exploración y producción, transporte y logística y refinación) y realiza tanto exportaciones de crudo a precios del mercado internacional como ventas de productos refinados a precios correlacionados con los precios internacionales.

Ecopetrol cuenta con una política para la ejecución de coberturas (estratégicas y tácticas) e implementó procesos, procedimientos y controles para su gestión.

El programa de coberturas estratégicas tiene como propósito principal proteger los estados financieros consolidados del Grupo ante la volatilidad de las variables de mercado en un periodo de tiempo determinado, proteger los ingresos y así el flujo de caja. Por su parte, las coberturas tácticas permiten capturar valor en operaciones de trading y Asset Backed Trading (ABT), mitigando el riesgo de mercado de operaciones específicas.

El siguiente es el detalle de las operaciones realizadas durante 2020:

1. Coberturas estratégicas

Las operaciones estuvieron orientadas a proteger específicamente los ingresos y el flujo de caja, limitar las pérdidas, cubrir los costos de producción y evitar potenciales cierres de campos de producción (Apiay, Caño Sur y Chichimene) y por ende una posible aceleración en la declinación de la curva básica. Con este propósito se gestionaron coberturas por cerca de 30 millones de barriles (MMBLS).

Las operaciones ejecutadas durante 2020 se gestionaron considerando los procesos de análisis, aprobación, seguimiento y cumplimiento, definidos en las políticas y procedimientos vigentes, alcanzando los objetivos definidos para la cobertura y fueron clasificadas como efectivas de acuerdo con las normas IFRS. El beneficio de estos contratos fue de USD\$42.7 millones.

2. Coberturas tácticas

En la actividad de comercialización, los compromisos en contratos físicos spot y a término suponen una exposición al riesgo de precio de commodities, en particular el riesgo asociado a la volatilidad del precio del crudo y productos refinados. Si bien, dicha exposición hace parte del riesgo natural de la actividad de producción, refinación y comercialización que realiza Ecopetrol, en ocasiones la

comercialización, con el fin de maximizar la captura de valor, puede concentrar la exposición al riesgo en términos de plazo y/o indicador que difiere del perfil natural al riesgo de precio de la Compañía.

En el último año tuvieron vencimiento operaciones swaps por 18 MMBLS para mitigar riesgos asociados a estrategias de comercialización de almacenamiento, compras anticipadas de materia prima, suministro a refinerías y ventas internacionales entregadas en puerto de destino. Tales estrategias junto con su cobertura permitieron capturar beneficios de alrededor de USD\$15 millones.

Igualmente, en 2020 se realizaron coberturas sobre las exportaciones de combustóleo pesado (fuel oil) correspondientes a 3.7 MMBLS, operación que permitió asegurar USD\$25.5 millones de beneficio.

A la fecha de este informe Ecopetrol registra una posición activa en Swaps por \$7,572 (Nota 9). La constitución de estas operaciones con derivados está reconocida bajo contabilidad de coberturas de flujo de efectivo.

29.3 Riesgo de tasa de interés

El riesgo de tasa de interés se ocasiona debido a que existen instrumentos indexados a tasas flotantes tanto en el portafolio de inversiones, como en algunas deudas financieras (LIBOR, DTF e IPC). Por lo tanto, la

volatilidad en las tasas de interés puede afectar el costo amortizado, el valor razonable y los flujos de efectivo relacionados con el portafolio de inversiones, la deuda y los patrimonios autónomos pensionales.

Ecopetrol establece controles para la exposición de tasa de interés, implementando controles límites en la duración del portafolio de inversiones, el Valor en Riesgo - VAR y tracking error.

Los patrimonios autónomos vinculados a los pasivos pensionales de la Compañía están expuestos a cambios en las tasas de interés, debido a que incluyen instrumentos de tasa fija y tasa variable. La regulación colombiana establece lineamientos sobre patrimonios autónomos destinados a la garantía y pago de pensiones (Decretos 941 de 2002 y 1861 de 2012), donde se indica que el régimen aplicable será el mismo establecido para el Fondo Moderado de los Fondos de Pensiones Obligatorias.

Al 31 de diciembre de 2020 el 10.5% (2019 8.6%) del endeudamiento tiene tasa flotante. Con lo cual, si la tasa de interés de mercado sube, los gastos de financiación aumentarán, lo que genera un efecto adverso en los resultados de las operaciones.

La siguiente tabla detalla el impacto en resultados y en el otro resultado integral, para los 12 meses siguientes, ante una variación en las tasas de interés de 100 puntos básicos:

	Efecto en resultados (+/-)		Efecto en ORI (+/-)
	Activos financieros	Pasivos financieros	Patrimonios autónomos
+100 puntos básicos	(25,878)	47,616	(557,002)
-100 puntos básicos	25,878	(47,164)	557,901

La sensibilización ante variación de las tasas de descuento de los pasivos por pensiones se muestra en la Nota 21.5 - Provisiones por beneficios a empleados.

29.4 Riesgo de crédito

El riesgo de crédito es el riesgo de que la Compañía pueda sufrir pérdidas financieras como consecuencia del incumplimiento en los pagos por parte de: i) clientes en la venta de crudo, gas, productos o servicios; ii) instituciones financieras en las que se mantienen inversiones; o iii) contrapartes con las que se tienen contratados instrumentos financieros.

Riesgo de crédito para clientes

En el proceso de venta de crudos, gas, refinados y productos petroquímicos y prestación de servicios de transporte, la

Compañía puede estar expuesta al riesgo de crédito en el evento que los clientes incumplan sus compromisos de pago. La gestión de este riesgo ha demandado el diseño de mecanismos y procedimientos que han permitido minimizar su probabilidad de materialización, salvaguardando así el flujo de efectivo de la empresa.

La Compañía realiza un análisis continuo de la fortaleza financiera de las contrapartes, el cual implica su clasificación de acuerdo con su nivel de riesgo y respaldos financieros ante una posible cesación de pagos. Asimismo, se realiza un monitoreo constante de las condiciones del mercado nacional e internacional para establecer alertas tempranas de cambios importantes que puedan impactar las obligaciones de pago oportuno de los clientes con la Compañía.

Para la cartera que es considerada deteriorada, se realiza un análisis individual que permite analizar la situación de cada cliente y así definir las provisiones que haya a lugar. La Compañía lleva a cabo las acciones administrativas y legales necesarias para recuperar las cuentas por cobrar vencidas, así como el reconocimiento de intereses de clientes que no cumplan con las políticas de pago.

Ecopetrol no mantiene concentraciones significativas de riesgo de crédito. El siguiente es el análisis de antigüedad de la cartera por clientes en mora pero no considerada deteriorada al 31 de diciembre:

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Vencidos con menos de tres meses	24,050	4,327
Vencidos entre tres y seis meses	170	-
Total	24,220	4,327

Calidad crediticia de recursos en instituciones financieras

Siguiendo el Decreto 1525 de 2008, que provee las normas generales sobre inversiones para entidades públicas, Ecopetrol estableció las directrices para la gerencia del portafolio de inversión. Estas directrices determinan que las inversiones de portafolio en dólares de Ecopetrol están limitadas a inversiones del excedente de efectivo en títulos de renta fija emitidos por entidades con calificación A o superior a largo plazo y A1 / P1 / F1 o superior en el corto plazo (escala internacional) por Standard & Poor's Ratings Services, Moody's Investors Service o Fitch Ratings.

Adicionalmente, Ecopetrol también puede invertir en valores emitidos o garantizados por el Gobierno de los Estados Unidos o el Gobierno colombiano, sin tener en cuenta las calificaciones asignadas a dichos valores. Ecopetrol debe invertir su exceso de efectivo en títulos de renta fija de emisores calificados AAA a largo plazo, y F1 + / BRC1 + en el corto plazo (escala local) por Fitch Ratings Colombia, BRC o Standard & Poor's. Además, la Compañía también podrá invertir en valores emitidos o garantizados por el Gobierno Nacional sin restricciones de calificación.

Para diversificar el riesgo en la cartera de pesos, Ecopetrol no invierte más del 10% del exceso de efectivo en un determinado emisor. En el caso de portafolio en dólares, no se invierte más del 5% del exceso de efectivo en un emisor específico a corto plazo (hasta 1 año), o 1% a largo plazo.

La calidad crediticia de los emisores y contrapartes en transacciones relacionadas con instrumentos financieros puede verse en: Nota 6 – Efectivo y equivalentes, Nota 9 – Otros activos financieros y Nota 21.2 – Activos del plan.

29.5 Riesgo de liquidez

La habilidad para acceder a los mercados de crédito y de capitales para obtener financiación bajo términos favorables para el plan de inversiones de la Compañía, puede verse limitada debido a las condiciones de estos mercados. Una nueva crisis financiera podría empeorar la percepción de riesgo en los mercados emergentes.

Por otro lado, la ocurrencia de situaciones que afecten el entorno político y regional de Colombia, podrían dificultar el acceso a los mercados de capitales. Estas condiciones, junto con potenciales pérdidas significativas en el sector de servicios financieros y cambios en las valoraciones del riesgo crediticio, pueden dificultar la obtención de financiación. Como resultado, la Compañía se puede ver forzada a revisar la oportunidad y alcance de las inversiones según sea necesario, o acceder a los mercados financieros bajo términos menos favorables, afectando por lo tanto, negativamente los resultados y la situación financiera.

El riesgo de liquidez se gestiona de acuerdo con las políticas destinadas para garantizar que haya fondos netos suficientes para cumplir con los compromisos financieros de la Compañía dentro de su cronograma de vencimientos, sin costos adicionales. El principal método para la medición y seguimiento de la liquidez es la previsión de flujo de efectivo.

El siguiente es un resumen de la madurez de los préstamos y financiaciones al 31 de diciembre de 2020; los montos presentados en la tabla son los flujos de efectivo contractuales sin descontar; los pagos previstos en moneda extranjera fueron re expresados tomando como tasa de cambio \$3,432.50 pesos por dólar:

	Hasta 1 año	1-5 años	5-10 años	> 10 años	Total
Préstamos (Pago de principal e intereses)	3,103,167	24,684,258	18,756,400	19,504,685	66,048,511
Cuentas comerciales y otras cuentas por pagar	7,260,197	-	-	-	7,260,197
	10,363,364	24,684,258	18,756,400	19,504,685	73,308,708

29.6 Gestión del capital

El principal objetivo de la Gestión del Capital de Ecopetrol es asegurar una estructura financiera que optimice el costo de capital de la Compañía, que maximice el rendimiento a sus accionistas y permita el acceso a los mercados financieros a un costo competitivo para cubrir sus necesidades de financiación.

El siguiente es el índice de endeudamiento sobre los periodos informados:

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Préstamos y financiaciones (Nota 19)	45,360,995	36,298,122
Efectivo y equivalentes de efectivo (Nota 6)	(1,259,553)	(1,477,493)
Otros activos financieros (Nota 9)	(2,484,118)	(5,233,959)
Deuda financiera neta	41,617,324	29,586,670
Patrimonio	52,095,250	56,412,330
Apalancamiento (1)	44.41%	34.40%

1. Deuda financiera neta / (Deuda financiera neta + Patrimonio)

30. Partes relacionadas

30.1 Compañías subsidiarias, asociadas y negocios conjuntos

Los saldos con compañías subsidiarias, asociadas y negocios conjuntos al 31 de diciembre de 2020 y 31 de diciembre de 2019 son los siguientes:

	Cuentas por cobrar	Cuentas por cobrar - Préstamos	Otros activos financieros	Otros activos	Cuentas por pagar	Otros pasivos
Subsidiarias						
Refinería de Cartagena S.A.S.	2,020,460	-	-	-	478,154	2,742
Cenit Transporte y Logística de Hidrocarburos S.A.S	35,879	-	-	23,687	304,209	21,817
Oleoducto Central S.A. - Ocesa	26,654	-	-	10,879	352,425	7,917
Hocol S.A.	20,373	-	-	76,679	64,421	12
Inversiones de Gases de Colombia S.A. y subsidiarias	17,542	-	-	-	1,093	295
Esentia S.A.	11,022	-	-	-	-	-
Esentia Masterbatch Ltda	7,383	-	-	-	-	-
Oleoducto de los Llanos Orientales S.A.	5,224	-	-	-	60,013	-
Ecopetrol Permian LLC	3,375	-	-	-	-	-
Ecopetrol Oleo & Gas do Brasil Ltda	2,260	-	-	-	-	3
Oleoducto de Colombia S.A. - ODC	1,642	-	-	52,706	47,980	48,256

Ecopetrol America LLC	1,612	-	-	-	1,573	-
Oleoducto Bicentenario de Colombia S.A.S.	727	-	-	250,115	1,634	3
Ecopetrol Global Energy S.L.U	11	-	-	-	-	-
Ecopetrol Energía S.A.S. E.S.P.	321	-	-	-	7,801	-
Black Gold Re Limited	321	-	-	-	-	-
Ecopetrol Costa Afuera	92	-	-	-	-	-
Andean Chemicals Limited	40	-	-	-	-	-
Hocol Petroleum Limited	17	-	-	-	-	-
Ecopetrol Capital AG	-	-	123,106	-	-	-
Negocios conjuntos						
Equion Energía Limited	1,950	-	-	6,923	32,241	1,663
Ecodiesel Colombia S.A.	1,345	-	-	-	31,186	1
Offshore International Group Inc (1)	-	97,300	-	-	-	-
Asociadas						
E2 Energía Eficiente S.A. E.S.P.	4,453	-	-	-	967	-
Serviport S.A.	-	-	-	-	948	-
Saldo al 31 de diciembre de 2020	2,162,703	97,300	123,106	420,989	1,384,645	82,709
Corriente	2,162,703	97,300	123,106	155,465	1,384,645	82,709
No corriente	-	-	-	265,524	-	-
	2,162,703	97,300	123,106	420,989	1,384,645	82,709
	(Nota 7)		(Nota 9)	(Nota 11)	(Nota 20)	

Cuentas por cobrar – Préstamos:

- Offshore International Group Inc: Préstamo otorgado por Ecopetrol S.A. por USD\$57 millones en el año 2016, con una tasa de interés del 4.99% E.A. pagaderos semestralmente a partir del 2017 y vencimiento en el 2021. El saldo en valor nominal de este crédito al 31 de diciembre de 2020 es de USD\$28 millones (2019 - USD\$28).

	Cuentas por cobrar	Cuentas por cobrar – Préstamos	Otros activos financieros	Otros activos	Cuentas por pagar	Otros pasivos
Subsidiarias						
Refinería de Cartagena S.A.S.	1,482,845	-	-	-	179,054	26,713
Cenit Transporte y Logística de Hidrocarburos S.A.S	84,683	-	-	15,893	259,460	11,139
Oleoducto de los Llanos Orientales S.A.	24,707	-	-	-	107,244	-
Oleoducto Central S.A.	17,124	-	-	9,294	404,561	3,923
Inversiones de Gases de Colombia S.A. y subsidiarias	12,485	-	-	-	1,006	-
Esenttia Masterbatch Ltda	8,061	-	-	-	-	-
Oleoducto Bicentenario de Colombia S.A.S.	3,180	-	-	248,822	17,203	-
Oleoducto de Colombia S.A.	2,798	-	-	42,508	40,927	32,309
Esenttia S.A.	2,695	-	-	-	-	-
Hocol S.A.	1,908	-	-	5,136	76,560	43
Ecopetrol Energía S.A.S. E.S.P.	199	-	-	-	80,728	-

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Ecopetrol Costa Afuera	303	-	-	-	-	-
Black Gold Limited	96	-	-	-	-	-
Hocol Petroleum Limited	134	-	-	-	-	-
Andean Chemicals Limited	136	-	-	-	-	-
Ecopetrol Capital AG	324	-	967,555	-	-	-
Ecopetrol America LLC	338	-	-	-	7,048	-
Bioenergy S.A.	356	-	-	-	-	48
Ecopetrol del Perú	11	-	-	-	-	-
Negocios conjuntos						
Equion Energía Limited	24,010	-	-	55,068	153,462	794
Ecodiesel Colombia S.A.	2,116	-	-	-	29,447	1
Offshore International Group Inc	-	93,657	-	-	-	-
Asociadas						
Serviport S.A.	-	-	-	-	4,668	-
Saldo al 31 de diciembre de 2019	1,668,509	93,657	967,555	376,721	1,361,368	74,970
Corriente	1,668,509	-	967,555	180,411	1,361,368	74,970
No corriente	-	93,657	-	196,310	-	-
	1,668,509	93,657	967,555	376,721	1,361,368	74,970
	(Nota 7)		(Nota 9)	(Nota 11)	(Nota 20)	

Las principales transacciones con partes relacionados por los periodos de doce meses finalizados el 31 de diciembre se detallan como sigue:

	2020		2019	
	Ingresos	Costos y gastos	Ingresos	Costos y gastos
Subsidiarias				
Refinería de Cartagena S.A.S.	6,509,377	1,859,467	9,299,448	1,921,344
Ecopetrol Capital AG	754,056	730,829	1,099,164	1,040,144
Cenit Transporte y Logística de Hidrocarburos S.A.S.	319,555	3,347,641	417,183	3,108,557
Inversiones de Gases de Colombia S.A. - Invercolsa S.A.	174,050	7,202	12,967	518
Hocol S.A.	77,126	352,337	8,600	452,355
Esenttia Masterbatch Ltda	63,171	-	84,106	-
Oleoducto Central S.A. - Ocesa	21,377	4,124,468	23,360	3,936,684
Esenttia S.A.	15,195	-	25,975	-
Oleoducto de Colombia S.A. - ODC	12,957	500,137	11,176	371,564

Oleoducto Bicentenario de Colombia S.A.S.	7,266	675,970	7,633	875,761
Ecopetrol Permian LLC	3,510	-	4,586	-
Ecopetrol Oleo & Gas do Brasil Ltda	2,875	-	397	-
Ecopetrol America LLC	2,473	16,668	1,479	22,424
Oleoducto de los Llanos Orientales S.A.	2,012	782,324	6,488	843,019
Black Gold Limited	1,615	-	1,312	-
Ecopetrol Energía S.A.S ESP	424	417,623	822	378,829
Ecopetrol Costa Afuera	416	-	2,813	-
Andean Chemicals Limited	161	-	257	-
Hocol Petroleum Limited	110	-	116	-
Ecopetrol Global Energy S.L.U.	31	-	-	-
Ecopetrol Germany GMBH (1)	-	-	5	-
Bioenergy S.A. (2)	32	-	1,544	-
Ecopetrol del Perú S.A.	-	9	10	-
Negocios conjuntos				
Equion Energía Limited	22,070	332,780	50,866	568,696
Ecodiesel Colombia S.A.	8,268	283,822	8,614	280,649
Offshore International Group Inc	4,461	-	3,245	-
Asociadas				
E2 Energía Eficiente S.A. E.S.P.	49,860	2,244	-	-
	8,052,448	13,433,521	11,072,166	13,800,544

1. A 31 de diciembre de 2020 Ecopetrol Germany GMBH culminó su proceso de liquidación, por lo cual deja de ser considerada como parte relacionada de Ecopetrol S.A.
2. Bioenergy S.A.S. y Bioenergy Zona Franca S.A.S. se encuentran en proceso de liquidación judicial, por tanto, para 2020 se deja de considerar como parte relacionada para Ecopetrol S.A. (ver Nota 12 – Inversiones en compañías).

30.2 Directivos clave de la gerencia

De acuerdo con la aprobación impartida por la Asamblea General de Accionistas del año 2012, que quedó consignada en el Acta No. 026, los honorarios de los directores por asistencia a las reuniones de la Junta Directiva y/o del Comité aumentan de cuatro a seis salarios mínimos mensuales legales vigentes cada año. Por otra parte, en la Asamblea General de Accionistas del año 2018, se aprobó la reforma de los Estatutos Sociales que consta en el Acta No. 036, en virtud de la cual, se eliminó el parágrafo cuarto del artículo 23 que hacía la

diferenciación entre los honorarios de reuniones presenciales y no presenciales. Los miembros de la Junta Directiva no tienen ninguna clase de remuneración variable. El monto cancelado en el año 2020 por concepto de honorarios a miembros de Junta Directiva ascendió a \$3,102 (2019 - \$1,847).

La compensación total pagada a los miembros del Comité Directivo activos al 31 de diciembre del 2020 ascendió a \$22,127 (2019 - \$22,632). Los directores no son elegibles para recibir los beneficios de pensión y jubilación. El importe total reservado al 31 de diciembre

de 2020 para proporcionar los beneficios de pensión y jubilación a nuestros funcionarios ejecutivos elegibles ascendió a \$13,413 (2019 - \$18,740).

Al 31 de diciembre de 2020, los siguientes Directivos Clave de la gerencia poseían menos del 1% de las acciones en circulación de Ecopetrol S.A así:

Personal clave de la gerencia	% acciones
Felipe Bayón	<1% acciones en circulación
Jaime Caballero	<1% acciones en circulación
Orlando Díaz	<1% acciones en circulación
Jorge Calvache	<1% acciones en circulación

30.3 Planes de beneficios post-empleo

La administración y el manejo de los recursos para el pago de la obligación pensional de Ecopetrol están a cargo de los patrimonios autónomos pensionales (PAP's), los cuales sirven como garantía y fuente de pago. En el año 2008, Ecopetrol S.A. recibió la autorización para conmutar parcialmente el valor correspondiente a mesadas, bonos y cuotas partes, trasladando dichas obligaciones y los dineros que las soportan a patrimonios autónomos de carácter pensional, de acuerdo a lo estipulado en el Decreto 1833 de 2016.

Desde noviembre de 2016, las entidades que administran los recursos son: Fiduciaria Bancolombia, Fiduciaria de Occidente y Consorcio Ecopetrol PACC (conformado por Fiduciaria La Previsora, Fiduciaria Bancoldex, Fiduagraria y Fiduciaria Central). Estas fiduciarias gestionarán los recursos pensionales por un periodo de cinco años (2016-2021) y como contraprestación reciben una remuneración con componentes fijos y variables, éstos últimos se liquidan sobre los rendimientos brutos de los portafolios y con cargo a los recursos administrados.

30.4 Entidades relacionadas del Gobierno

El Gobierno Colombiano posee el control de Ecopetrol con una participación del 88.49 %. Las transacciones más significativas con entidades gubernamentales se detallan a continuación:

a. Compra de hidrocarburos a la Agencia Nacional de Hidrocarburos – ANH

La Agencia Nacional de Hidrocarburos (ANH), entidad adscrita al Ministerio de Minas y Energía, tiene por

objetivo administrar integralmente las reservas y recursos de hidrocarburos de propiedad de la Nación.

De acuerdo a la naturaleza del negocio, Ecopetrol compra el crudo que la ANH recibe de todos los productores de Colombia a los precios fijados de acuerdo con una fórmula establecida, la cual refleja los precios de venta, con ajuste a la calidad de la gravedad API, contenido de azufre, tarifas de transporte a los puertos de exportación, el costo del proceso de refinado y una cuota de comercialización (cuando aplique). El contrato entre Ecopetrol y la ANH finalizó el 30 de octubre 2020 y se inició uno nuevo con vigencia 1 de noviembre de 2020 al 31 de octubre de 2022.

Hasta diciembre de 2013, la Compañía comercializó, en nombre de la ANH, el gas natural recibido por ésta en especie de los productores. Desde enero de 2014, la ANH recibe las regalías de producción de gas natural en efectivo.

El valor de compra de hidrocarburos a la ANH se detalla en la Nota 25 - Costo de ventas.

Adicionalmente, Ecopetrol al igual que las demás compañías petroleras, participa en rondas para asignación de bloques exploratorios en territorio colombiano, sin que ello implique un tratamiento especial para Ecopetrol por ser una entidad cuyo accionista mayoritario es el Ministerio de Hacienda y Crédito Público.

b. Diferencial de precios

Los precios de venta de gasolina regular y ACPM son regulados por el Gobierno Nacional. En este evento, se presentan diferenciales entre volumen reportado por las Compañías al momento de la venta y la diferencia entre el precio de paridad y el precio de referencia, siendo el precio de paridad

aquel que corresponde a los precios diarios de la gasolina motor y ACPM observados durante el mes. Este diferencial puede ser a favor o en contra de los productores. El valor de este diferencial se encuentra detallado en las Notas 24 - Ingresos de actividades ordinarias y 7 - Cuentas comerciales y otras cuentas por cobrar, neto.

c. Dirección de Impuestos y Aduanas Nacionales

Ecopetrol como cualquier otra compañía en Colombia, tiene obligaciones de tipo tributario que debe cumplir ante esta entidad, no se tiene

ninguna otra clase de vínculo ni relación de carácter comercial con la misma.

d. Contraloría General de la República

Ecopetrol al igual que las demás entidades estatales en Colombia, tiene la obligación de atender los requerimientos de esta entidad de control y realizar el pago anualmente de la cuota de sostenimiento a dicha entidad. No existe ninguna otra clase de vínculo ni relación de carácter comercial con la misma.

31. Operaciones conjuntas

La Compañía realiza parte de sus operaciones a través de los contratos de exploración y producción, evaluación técnica, contratos y acuerdos firmados con la Agencia Nacional de Hidrocarburos, así como a través de contratos de asociación y otro tipo de contratos. Las principales operaciones conjuntas al cierre de 2020 son:

31.1 Contratos en los cuales Ecopetrol no es el operador

Socios	Contrato	Tipo	% Participación	Zona geográfica de operación
Occidental de Colombia LLC Occidental Andina LLC	Chipirón	Producción	30-41%	Colombia
	Cosecha		30%	
	Cravo Norte		55%	
	Rondón		50%	
Mansarovar Energy Colombia Ltd	Nare	Producción	50%	Colombia
Frontera Energy Colombia Corp	Quifa	Producción	40%	Colombia
	Guajira	Producción	57%	Colombia
Perenco Colombia Limited	Casanare	Producción	74.40%	Colombia
	Corocora		83.91%	
	Estero		95.98%	
	Garcero		91.22%	
	Orocúe		86.47%	
ONGC Videsh Limited Sucursal Colombiana	Ronda Caribe RC-10	Exploración	50%	Offshore Caribe Norte
Petrobras, Repsol & Statoil	Tayrona	Exploración	50%	Offshore Caribe Norte
Shell EP Offshore Ventures Limited	Fuerte Sur Purple Angel Col-5	Exploración	50%	Offshore Caribe Norte

31.2 Contratos en los cuales Ecopetrol es operador

Socios	Contrato	Tipo	% Participación	Zona geográfica de operación
ExxonMobil Exploration Colombia	VMM29 CR2 C62	Exploración	50%	Colombia
Repsol Colombia Oil & Gas Limited	CPO9	Exploración	55%	Colombia
ONGC Videsh Limited Sucursal Colombia	RC9	Exploración	50%	Colombia
CPVEN E&P Corp Sucursal Colombia	VMM32	Exploración	51%	Colombia
Shell Exploration and Production	CR4	Exploración	50%	Colombia
Hocol S.A.	AMA4	Exploración	50%	Colombia
SK Innovation Co Ltd.	San Jacinto	Exploración	70%	Colombia
Repsol Exploración Colombia S.A.	Catleya	Exploración	50%	Colombia
Emerald Energy PLC Suc. Colombia	Cardon	Exploración	50%	Colombia
Parex Resources Colombia Ltd.	ORC401 CRC-2004-01	Exploración	50%	Colombia
Repsol Colombia Oil & Gas Limited	CPO9 - Akacias	Producción	55%	Colombia
Occidental Andina LLC	La Cira Infantas	Producción	58%	Colombia
	Teca		76%	Colombia
Ramshorn International Limited	Guariques I	Producción	50%	Colombia

31.3 Operaciones relevantes

Durante el 2020 se presentaron los siguientes hechos relevantes en los contratos de operaciones conjuntas:

1. El 7 de febrero de 2020, Ecopetrol informó que en conjunto con Shell, a través de su subsidiaria Shell EP Offshore Ventures Limited (“Shell”), suscribieron un acuerdo mediante el cual Shell adquirirá el 50% de participación en los bloques Fuerte Sur, Purple Angel y COL-5, localizados en aguas profundas del Caribe colombiano, donde se

realizó el descubrimiento de una nueva provincia gasífera con los pozos Kronos (2015), Purple Angel y Gorgon (2017). Tras el acuerdo comercial, Shell asumirá la operación de los bloques y se realizará la perforación de un pozo delimitador en el área a finales del 2021 y la realización de la primera prueba de producción, una vez se surtan las respectivas aprobaciones de las autoridades. El 23 de diciembre del 2020 se produjo el cierre de esta transacción.

32. Reservas de petróleo y gas

Ecopetrol se acoge a los estándares internacionales para la estimación, categorización y reporte de reservas, enmarcados en las definiciones de la Securities and Exchange Commission (SEC). El balance oficial de reservas fue presentado al Comité de Reservas de Ecopetrol en enero del 2020 y al Comité de Auditoría de Junta Directiva y a Junta Directiva en febrero del 2020 para su respectiva aprobación.

Las reservas fueron certificadas en un 99.99% por 3 compañías especializadas: DeGolyer and MacNaughton,

Ryder Scott Company y Gaffney and Cline. De acuerdo con dichas certificaciones, el reporte de reservas se ajusta al contenido y los lineamientos establecidos en la Regla 4-10 de la regulación S-X de la Securities and Exchange Commission (SEC) de los Estados Unidos de América.

La siguiente información corresponde a las reservas probadas netas de propiedad de Ecopetrol en 2020 y 2019 (No incluye compañías filiales), la cual corresponde a los balances oficiales de reservas preparados por la Compañía:

	2020			2019		
	Petróleo (Mbls)	Gas (Gpc)	Total (Mbe)	Petróleo (Mbls)	Gas (Gpc)	Total (Mbe)
Reservas probadas:						
Saldo inicial	1,164	2,635	1,626	1,125	2,850	1,625
Revisión de estimaciones (1)	(62)	1	(61)	61	27	65
Recobro mejorado	99	74	112	93	3	94
Extensiones y descubrimientos	40	4	40	64	1	64
Producción	(173)	(248)	(216)	(179)	(246)	(222)
Saldo final	1,068	2,466	1,501	1,164	2,635	1,626
Reservas probadas desarrolladas						
Saldo inicial	844	2,532	1,289	830	2,747	1,312
Saldo final	781	2,319	1,187	844	2,532	1,289
Reservas probadas no desarrolladas						
Saldo inicial	320	103	338	295	104	313
Saldo final	287	147	314	320	103	338

1. Representan los cambios o variaciones en estimados de reservas probadas previos, resultado de nueva información (excepto por incremento de área probada), normalmente obtenida de perforación de desarrollo e historia de producción o resultado de cambios en factores económicos.

33. Eventos subsecuentes

- Venta de participación en Offshore International Group

El 21 de enero de 2021, mediante la suscripción del contrato de compra venta de acciones (Share Purchase Agreement) con una de las filiales de De Jong Capital LLC., en su calidad de comprador, se perfeccionó la enajenación de la totalidad de la participación en el capital social de la sociedad Offshore International Group (OIG), en la cual Ecopetrol tiene una participación equivalente al 50% del capital social.

- Aceptación de oferta no vinculante para adquisición de participación en ISA

El 27 de enero de 2021, Ecopetrol informó que como producto de la estrategia del Grupo Ecopetrol para consolidarse en el sector energético de Colombia y el continente americano, tomó de decisión de presentar una oferta no vinculante para la adquisición del 51.4% de participación que tienen la Nación en Interconexión Eléctrica S.A. E.S.P (ISA). Esta inversión representaría para el Grupo Ecopetrol un paso en su proceso de transformación energética y descarbonización mediante la generación de un flujo material de ingresos en negocios de bajas emisiones.

La transacción se financiaría con un esquema que incluye una nueva capitalización de Ecopetrol a través de una emisión de acciones, recursos propios y otros esquemas de financiación disponibles, incluida la desinversión en activos no estratégicos. La estructuración financiera de la operación mantendría un nivel de endeudamiento de Ecopetrol alineado con su grado de inversión.

De llegar a un acuerdo entre las partes (Ministerio de Hacienda y Crédito Público y Ecopetrol), el cierre de esta transacción estará sujeto a la realización de una debida diligencia detallada, así como a la emisión y colocación de acciones por parte de Ecopetrol, previa obtención de las autorizaciones requeridas.

Por su parte, el Ministerio de Hacienda y Crédito Público manifestó el 5 de febrero de 2021 estar de acuerdo con firmar un contrato de exclusividad con el fin de que Ecopetrol pueda perfeccionar durante el primer semestre de 2021 la oferta no vinculante que presentó para adquirir el 51.4% de las acciones en circulación de ISA, bajo la figura de un Contrato Interadministrativo. Así mismo, manifiesta que dicha entidad se reserva el derecho a proponer ajustes al rango de precios sujeto al resultado de los procesos de valoración y debida diligencia que adelante de manera paralela a Ecopetrol.

- Nuevo modelo operativo segmento de transporte

El pasado 1 de febrero de 2021, Cenit asumió la operación integral de su infraestructura, ejecutando de manera directa la operación local y centralizada de sus sistemas de transporte de hidrocarburos. Con este cambio Cenit también asume la operación local de los sistemas de Orensa, Bicentenario y ODC (Oleoducto de Colombia) y se consolida como líder del segmento de transporte del Grupo Ecopetrol.

Anexo 1. Compañías subsidiarias consolidadas y negocios conjuntos

Compañía	Moneda funcional	Porcentaje participación Ecopetrol	Actividad	País/ Domicilio
Subsidiarias				
Refinería de Cartagena S.A.S.	Dólar	100%	Refinación de hidrocarburos, comercialización y distribución de productos	Colombia
Cenit transporte y logística de hidrocarburos S.A.S.	Peso Colombiano	100%	Almacenamiento y transporte por ductos de hidrocarburos	Colombia
Ecopetrol Global Energy S.L.U.	Dólar	100%	Vehículo de inversión	España
Hocol Petroleum Limited.	Dólar	100%	Vehículo de inversión	Bermuda
Esenttia S.A.	Dólar	100%	Producción y comercialización de resina de polipropileno	Colombia
Ecopetrol Capital AG	Dólar	100%	Captación de excedentes y financiamiento para compañías del Grupo Empresarial Ecopetrol	Suiza
Andean Chemicals Ltd.	Dólar	100%	Vehículo de inversión	Bermuda
Black Gold Re Ltd.	Dólar	100%	Reaseguradora para compañías del Grupo Empresarial Ecopetrol	Bermuda
Inversiones de Gases de Colombia S.A. Invercols S.A.	Peso Colombiano	51.88%	Holding con inversiones en compañías de transporte y distribución de gas natural y GLP en Colombia	Colombia
Ecopetrol Energía S.A.S E.S.P.	Peso Colombiano	100%	Servicio público de suministro de energía	Colombia
Negocios conjuntos				
Equion Energía Limited	Dólar	51%	Exploración, explotación y producción de hidrocarburos	Reino Unido
Offshore International Group Inc.	Dólar	50%	Exploración, explotación y producción de hidrocarburos	Estados Unidos
Ecodiesel Colombia S.A. (1)	Peso Colombiano	50%	Producción, comercialización y distribución de biocombustibles y oleoquímicos	Colombia

1. Información disponible al 30 de noviembre de 2020.

Área geográfica de operaciones	Patrimonio neto	Ganancia (pérdida) del ejercicio	Total activos	Total pasivos
Colombia	18,430,235	(1,482,958)	29,106,814	10,676,579
Colombia	16,350,626	4,734,703	18,343,398	1,992,772
España	9,320,715	(434,773)	9,321,078	363
Bermuda	3,541,737	303,572	3,541,801	64
Colombia	1,958,357	262,724	2,445,757	487,400
Suiza	1,872,129	176,999	7,482,055	5,609,926
Bermuda	1,324,107	(162,720)	1,324,387	280
Bermuda	837,693	54,412	1,079,571	241,878
Colombia	765,720	176,865	1,311,588	545,868
Colombia	12,661	5,256	72,859	60,198
Colombia	2,499,319	167,727	2,630,351	131,032
Perú	543,621	(237,752)	1,568,795	1,025,174
Colombia	103,344	29,188	167,801	64,457

Anexo 2. Condiciones de los préstamos más significativos (valores nominales)

Clase de crédito	Fecha inicio	Fecha vencimiento	Moneda	Valor desembolsado
Bonos moneda nacional	dic-10	dic-20	COP	479,900
	dic-10	dic-40		284,300
	ago-13	ago-23		168,600
	ago-13	ago-28		347,500
	ago-13	ago-43		262,950
				1,543,250
Bonos moneda extranjera	sep-13	sep-23	USD	1,300
	sep-13	sep-43		850
	may-14	may-45		2,000
	sep-14	ene-25		1,200
	jun-15	jun-26		1,500
	jun-16	sep-23		500
	abr-20	abr-30		2,000
			9,350	
Créditos comerciales internacionales - Refinería de Cartagena	dic-17	dic-27	USD	2,001
	dic-17	dic-27		76
	dic-17	dic-27		73
	dic-17	dic-27		159
	dic-17	dic-25		359
			2,668	
Línea comprometida	abr-20	sept-23	USD	665
				665

Saldo pendiente 31-dic-2020	Saldo pendiente 31-dic-2019	Tipo de interés	Amortización principal	Pago de intereses
-	479,900			
284,300	284,300			
168,600	168,600	Flotante	Bullet	Semestral
347,500	347,500			
262,950	262,950			
1,063,350	1,543,250			
1,300	1,300			
850	850			
2,000	2,000			
1,200	1,200	Fijo	Bullet	Semestral
1,500	1,500			
500	500			
2,000	2,000			
9,350	9,350			
1,305	1,530	Fijo		
49	58	Flotante		
48	56	Fijo	Semestral	Semestral
103	121	Flotante		
257	288	Flotante		
1,762	2,053			
665	-	Flotante	Bullet	Semestral
665	-			



Consolidated
**FINANCIAL
REPORT**



Informe del Revisor Fiscal

A la Asamblea de Accionistas de:
Ecopetrol S.A.

Opinión

He auditado los estados financieros consolidados adjuntos de Ecopetrol S.A. (en adelante, el Grupo), que comprenden el estado consolidado de situación financiera al 31 de diciembre de 2020 y los correspondientes estados consolidados de resultados, de resultados integrales, de cambios en el patrimonio y de flujos de efectivo por el año terminado en esa fecha, y el resumen de las políticas contables significativas y otras notas explicativas.

En mi opinión, los estados financieros consolidados adjuntos, presentan razonablemente, en todos sus aspectos de importancia, la situación financiera consolidada del Grupo al 31 de diciembre de 2020, los resultados consolidados de sus operaciones y los flujos consolidados de efectivo por año terminado en esa fecha, de conformidad con las Normas de Contabilidad y de Información Financiera aceptadas en Colombia (NCIF) adoptadas por la Contaduría General de la Nación.

Bases de la opinión

He llevado a cabo mi auditoría de acuerdo con Normas Internacionales de Auditoría aceptadas en Colombia. Mis responsabilidades en cumplimiento de dichas normas se describen en la sección *Responsabilidades del Auditor en la Auditoría de los Estados Financieros Consolidados* de este informe. Soy independiente del Grupo, de acuerdo con el Manual del Código de Ética para profesionales de la contabilidad, junto con los requisitos éticos relevantes para mi auditoría de estados financieros consolidados en Colombia, y he cumplido con las demás responsabilidades éticas aplicables. Considero que la evidencia de auditoría obtenida es suficiente y apropiada para fundamentar mi opinión.

Asuntos clave de auditoría

Los asuntos clave de auditoría son aquellos asuntos que, según mi juicio profesional, fueron de mayor importancia en mi auditoría de los estados financieros consolidados adjuntos. Estos asuntos se abordaron en el contexto de mi auditoría de los estados financieros consolidados tomados en su conjunto, y al momento de fundamentar la opinión correspondiente, pero no para proporcionar una opinión separada sobre estos asuntos. Con base en lo anterior, a continuación, detallo la manera en la que cada asunto clave fue abordado durante mi auditoría.

He cumplido con las responsabilidades descritas en la sección *Responsabilidades del Auditor en la Auditoría de los Estados Financieros Consolidados* de mi informe, incluso en relación con estos asuntos. En consecuencia, mi auditoría incluyó la realización de los procedimientos diseñados para responder a los riesgos de incorrección material evaluados en los estados financieros consolidados. Los resultados de mis procedimientos de auditoría, incluidos los procedimientos realizados para abordar los asuntos que se mencionan a continuación, constituyen la base de mi opinión de auditoría sobre los estados financieros consolidados adjuntos.

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Determinación de la Depreciación, Agotamiento y Amortización y el Deterioro de Activos de Larga Vida

Descripción del Asunto Clave de Auditoría

Como se describe en la Nota 3.1 y 3.2 de los estados financieros consolidados, el cálculo del método de unidades de producción que se utilizan en la determinación de la depreciación, agotamiento y amortización (DD&A) de propiedades, planta y equipo relacionados con la exploración y producción, los recursos naturales y ambientales, así como en la determinación de los flujos de efectivo futuros utilizados en los análisis de deterioro de activos de larga vida, dependen de la estimación relacionada con las reservas de petróleo y gas.

La Gerencia utiliza ingenieros independientes externos (en adelante "especialistas") al estimar las reservas como factores geológicos, técnicos y económicos. Las estimaciones de las reservas de petróleo y gas dependen de una serie de factores variables y suposiciones clave, incluidas las cantidades de petróleo y gas que se espera recuperar, el momento de la recuperación, la producción, los costos operativos, de capital y el precio de venta, entre otros.

La determinación del DD&A de la Compañía y el cálculo del deterioro de los activos de larga vida es especialmente complejo debido a la naturaleza inherente de ingeniería técnica del proceso de estimación de reservas, el cual requiere el uso de especialistas y la evaluación de la Administración en la determinación de los supuestos descritos anteriormente utilizados por los especialistas en la estimación de las reservas de petróleo y gas.

Respuesta de Auditoría

Obtuvimos un entendimiento del proceso, evaluamos el diseño y probamos la efectividad operativa de los controles sobre el proceso de la Compañía para calcular el DD&A y realizar el análisis de deterioro de los activos de larga vida, incluidos los controles de la Administración sobre la integridad y la precisión de los datos financieros proporcionados a los especialistas para la estimación de reservas de petróleo y gas.

Nuestros procedimientos de auditoría incluyeron, entre otros, evaluar las calificaciones profesionales y la objetividad de las personas responsables de supervisar la preparación de las estimaciones de reserva por parte de los especialistas. Evaluamos la calificación y competencia de los especialistas contratados por la Compañía para desarrollar estas estimaciones. Adicionalmente, evaluamos la integridad y precisión de los datos financieros y los supuestos descritos anteriormente utilizados por los especialistas en la estimación de las reservas de petróleo y gas con el fin de obtener documentación y evaluar evidencia corroborativa. Para las reservas probadas no desarrolladas, evaluamos el plan de desarrollo de la administración para cumplir con la regla de la SEC (U.S. Securities and Exchange Commission) de las ubicaciones que no perforadas están programadas para ser perforadas dentro de los cinco años, a menos que circunstancias específicas justifiquen un tiempo más largo, evaluando la consistencia de las proyecciones de desarrollo con el plan de perforación de la Compañía y disponibilidad de capital en relación con el plan de perforación. También probamos la precisión matemática de los cálculos de DD&A y revisamos la consistencia entre la estimación de las reservas de petróleo y gas preparada por los especialistas con las proyecciones de flujo de efectivo utilizadas en los análisis de deterioro de activos de larga vida.



Estimación del monto del valor razonable de los activos de larga duración en la refinería de Cartagena

Descripción del Asunto Clave de Auditoría

Como se describe en las Notas 4.12 y 17 de los estados financieros consolidados, la Administración evalúa en cada presentación de estados financieros, si existe un indicador de que los activos de larga duración puedan estar deteriorados. Si existe algún indicador, o cuando se requiere una prueba de deterioro anual para un activo, la gerencia estima el monto recuperable del activo. El monto recuperable de un activo es el mayor entre el valor razonable de un activo o las unidades generadoras de efectivo (UGE) menos los costos de disposición y su valor en uso. Cuando el valor en libros de un activo o UGE excede su monto recuperable, el activo se considera deteriorado y se reduce su monto recuperable. Una pérdida previamente reconocida se revierte solo si ha tenido un cambio en los supuestos utilizados para determinar el monto recuperable del activo o de la UGE desde que se reconoció la última pérdida por deterioro. En 2020, la Compañía reconoció un cargo por deterioro en la Refinería de Cartagena de COP\$418,803 millones.

La estimación de la administración relacionada con la determinación del monto recuperable de los activos o de la UGE fue compleja y requirió la participación de especialistas debido a la naturaleza crítica de los supuestos utilizados en el modelo para estimar el monto recuperable del activo. La estimación para determinar el monto recuperable fue sensible a supuestos importantes, tales como cambios en el costo promedio ponderado de capital, precio de venta de productos refinados, márgenes de refinación y el nivel de gastos operativos, los cuales se ven afectados por expectativas sobre el mercado futuro o condiciones económicas.

Respuesta de Auditoría

Obtuvimos un entendimiento, evaluamos el diseño y probamos la efectividad operativa de los controles sobre los procesos de la Compañía para determinar la cantidad recuperable de las UGE incluidos y los controles sobre la revisión de la administración de los supuestos importantes descritos anteriormente.

Nuestros procedimientos de auditoría incluyeron, entre otros, evaluar metodologías y probar los supuestos significativos descritos anteriormente, así como otra información relevante utilizada por la Compañía al comparar los supuestos significativos utilizados por la administración con las tendencias actuales de la industria y el mercado. Adicionalmente, realizamos un análisis de sensibilidad para evaluar el cambio en la cantidad recuperable que resultaría de los cambios en los supuestos subyacentes; evaluamos la razonabilidad de las proyecciones de la Compañía comparándolas con los resultados operativos reales y recalculamos la estimación de la gerencia. También involucramos a nuestros especialistas en valoración para la revisión de la tasa de descuento WACC y la construcción de los flujos de efectivo que fue utilizado en la estimación por parte la Administración



Activos por impuestos diferidos relacionados con pérdidas operativas netas por amortizar

Descripción del Asunto Clave de Auditoría

Como se describe en las Notas 4.14.2 y 10.2 a los estados financieros consolidados, al 31 de diciembre de 2020, la Compañía presenta activos por impuestos diferidos relacionados con pérdidas operativas netas acumuladas por \$8.595.090 millones. Los activos por impuestos diferidos están sujetos a revisión al final de cada período sobre el que se informa y se reducen a sus montos realizables, en la medida en que ya no sea probable que haya suficientes ganancias fiscales disponibles para recuperar dichos activos por impuestos diferidos.

La evaluación de la Administración sobre la recuperación de los activos por impuestos diferidos es una estimación de naturaleza crítica y se basa en suposiciones relevantes que pueden verse afectadas por factores de mercado o las condiciones económicas.

Respuesta de Auditoría

Obtuvimos un entendimiento, evaluamos el diseño y probamos la efectividad operativa de los controles sobre el proceso de la Compañía para determinar la razonabilidad de los activos por impuestos diferidos, incluidos los controles sobre las proyecciones de la Administración de ingresos tributables futuros.

Dentro de los procedimientos de auditoría realizados, involucramos a nuestros especialistas de valuación e impuestos para soportar las pruebas sobre los supuestos utilizados en las proyecciones de ingresos tributables futuros por jurisdicción. También probamos la integridad y precisión de los datos subyacentes utilizados en tales proyecciones. Evaluamos la razonabilidad de tales proyecciones comparando los ingresos imposables futuros con los resultados reales obtenidos en períodos anteriores, así como la evaluación de las consideraciones de la Administración sobre tendencias económicas y factores de la industria.

Responsabilidades de la Administración y de los responsables del gobierno de la Compañía en relación con los estados financieros consolidados

La Administración es responsable por la preparación y correcta presentación de los estados financieros consolidados de acuerdo con las Normas de Contabilidad y de Información Financiera (NCIF) adoptadas por la Contaduría General de la Nación; de diseñar, implementar y mantener el control interno relevante para la preparación y correcta presentación de los estados financieros consolidados libres de incorrección material, bien sea por fraude o error; de seleccionar y de aplicar las políticas contables apropiadas; y, de establecer estimaciones contables razonables en las circunstancias.

Al preparar los estados financieros consolidados, la Administración es responsable de evaluar la capacidad de la Compañía para continuar como negocio en marcha, revelando, según corresponda, los asuntos relacionados con este y utilizando la base contable de negocio en marcha, a menos que la Administración tenga la intención de liquidar la Compañía o cesar sus operaciones, o no tenga otra alternativa realista diferente a hacerlo.

Los encargados del gobierno de la controlante son responsables de la supervisión del proceso de información financiera del Grupo.



Responsabilidades del Auditor en la Auditoría de los Estados Financieros Consolidados

Mi objetivo es obtener una seguridad razonable sobre si los estados financieros consolidados tomados en su conjunto están libres de incorrección material, ya sea por fraude o error, y emitir un informe que incluya mi opinión. La seguridad razonable es un alto nivel de aseguramiento, pero no garantiza que una auditoría realizada de acuerdo con las Normas Internacionales de Auditoría aceptadas en Colombia siempre detectará una incorrección material cuando exista. Las incorrecciones pueden surgir debido a fraude o error y se consideran materiales si, individualmente o acumuladas, podría esperarse que influyan razonablemente en las decisiones económicas que los usuarios tomen con base en los estados financieros consolidados.

Como parte de una auditoría de acuerdo con las Normas Internacionales de Auditoría aceptadas en Colombia, debo ejercer mi juicio profesional y mantener mi escepticismo profesional a lo largo de la auditoría, además de:

- Identificar y evaluar los riesgos de incorrección material en los estados financieros consolidados, ya sea por fraude o error, diseñar y ejecutar procedimientos de auditoría que respondan a esos riesgos, y obtener evidencia de auditoría que sea suficiente y apropiada para fundamentar mi opinión. El riesgo de no detectar una incorrección material debido a fraude es mayor que la resultante de un error, ya que el fraude puede implicar colusión, falsificación, omisiones intencionales, declaraciones falsas o sobrepaso del sistema de control interno.
- Obtener un entendimiento del control interno relevante para la auditoría, para diseñar procedimientos de auditoría que sean apropiados en las circunstancias.
- Evaluar lo adecuado de las políticas contables utilizadas, la razonabilidad de las estimaciones contables y las respectivas revelaciones realizadas por la Administración.
- Concluir sobre si es adecuado que la Administración utilice la base contable de negocio en marcha y, con base en la evidencia de auditoría obtenida, si existe una incertidumbre material relacionada con eventos o condiciones que puedan generar dudas significativas sobre la capacidad del Grupo para continuar como negocio en marcha. Si concluyo que existe una incertidumbre importante, debo llamar la atención en el informe del auditor sobre las revelaciones relacionadas, incluidas en los estados financieros consolidados o, si dichas revelaciones son inadecuadas, modificar mi opinión. Las conclusiones del auditor se basan en la evidencia de auditoría obtenida hasta la fecha de mi informe, sin embargo, eventos o condiciones posteriores pueden hacer que una entidad no pueda continuar como negocio en marcha.
- Evaluar la presentación general, la estructura, el contenido de los estados financieros consolidados, incluyendo las revelaciones, y si los estados financieros consolidados representan las transacciones y eventos subyacentes de manera que se logre una presentación razonable.
- Obtener evidencia de auditoría suficiente y adecuada en relación con la información financiera de las entidades o actividades de negocio que hacen parte del Grupo, con el fin de expresar mi opinión sobre los estados financieros consolidados. Soy responsable de la dirección, supervisión y ejecución de la auditoría de grupo y, por tanto, de la opinión de auditoría.

Comuniqué a los responsables del gobierno de la Compañía, entre otros asuntos, el alcance planeado y el momento de realización de la auditoría, los hallazgos significativos de la misma, así como cualquier deficiencia significativa del control interno identificada en el transcurso de la auditoría.



También proporcioné a los responsables del gobierno de la Compañía una declaración de que he cumplido los requerimientos de ética aplicables en relación con la independencia y comunicado con ellos acerca de todas las relaciones y demás cuestiones de las que se podría esperar razonablemente que pudieran afectar mi independencia y, en su caso, las correspondientes salvaguardas.

Entre los asuntos que han sido objeto de comunicación con los responsables del gobierno de la Compañía, determiné los que han sido de la mayor significatividad en la auditoría de los estados financieros consolidados del período actual y que son, en consecuencia, asuntos clave de la auditoría. Describí esos asuntos en mi informe de auditoría salvo que las disposiciones legales o reglamentarias prohíban revelar públicamente el asunto o, en circunstancias extremadamente poco frecuentes, se determine que un asunto no se debería comunicar en mi informe porque cabe razonablemente esperar que las consecuencias adversas de hacerlo superarían los beneficios de interés público del mismo.

Otros Asuntos

Los estados financieros consolidados bajo normas de contabilidad y de información financiera aceptadas en Colombia (NCIF) adoptadas por la Contaduría General de la Nación de Ecopetrol S.A. al 31 de diciembre de 2019, que hacen parte de la información comparativa de los estados financieros consolidados adjuntos, fueron auditados por mí, de acuerdo con normas internacionales de auditoría aceptadas en Colombia, sobre los cuales expresé mi opinión sin salvedades el 21 de febrero de 2020.

A handwritten signature in black ink, appearing to read 'V. Rodríguez', with a checkmark at the end.

Victor Hugo Rodríguez Vargas
Revisor Fiscal y Socio a cargo
Tarjeta Profesional 57851 -T
Designado por Ernst & Young Audit S.A.S. TR-530

Bogotá, Colombia
22 de febrero de 2021

Certificación del Representante legal y Contador de la Compañía

A los señores Accionistas de Ecopetrol S.A.:

22 de febrero de 2021

Los suscritos Representante legal y Contador de la Compañía certificamos que los estados financieros consolidados de la Compañía al 31 de diciembre de 2020 y por el periodo de doce meses terminado en esa fecha, han sido fielmente tomados de los libros, y que antes de ser puestos a su disposición y de terceros, hemos verificado las siguientes afirmaciones contenidas en ellos:

1. Todos los activos y pasivos, incluidos en los estados financieros consolidados al 31 de diciembre de 2020, existen y todas las transacciones incluidas en dichos estados se han realizado durante el año terminado en esta fecha.
2. Todos los hechos económicos realizados por la Compañía, durante el año terminado al 31 de diciembre de 2020 se han reconocido en los estados financieros consolidados.
3. Los activos representan probables derechos económicos futuros y los pasivos representan probables obligaciones actuales y futuras, obtenidos a cargo de la Compañía al 31 de diciembre de 2020.
4. Todos los elementos han sido reconocidos por sus valores apropiados, de acuerdo con las normas de contabilidad y de información financiera aceptadas en Colombia.
5. Todos los hechos económicos que afectan a la Compañía han sido correctamente clasificados, descritos y revelados en los estados financieros consolidados.

(Original firmado)
Felipe Bayón Pardo
Presidente – Representante legal

(Original firmado)
Javier Leonardo Cárdenas Laiton
Contador Público
T.P. 116770-T

Estados de situación financiera consolidados

	Nota	Al 31 de diciembre 2020	Al 31 de diciembre 2019
Activos			
Activos corrientes			
Efectivo y equivalentes de efectivo	6	5,082,308	7,075,758
Cuentas comerciales y otras cuentas por cobrar, neto	7	4,819,092	5,700,334
Inventarios, neto	8	5,053,960	5,658,099
Otros activos financieros	9	2,194,651	1,624,018
Activos por impuestos corrientes	10	3,976,295	1,518,807
Otros activos	11	1,664,036	1,778,978
		22,790,342	23,355,994
Activos mantenidos para la venta		44,032	8,467
Total activos corrientes		22,834,374	23,364,461
Activos no corrientes			
Cuentas comerciales y otras cuentas por cobrar, neto	7	676,607	786,796
Otros activos financieros	9	877,008	3,355,274
Inversiones en asociadas y negocios conjuntos	13	3,174,628	3,245,072
Propiedades, planta y equipo	14	66,508,337	64,199,970
Recursos naturales y del medio ambiente	15	31,934,158	29,072,798
Activos por derecho de uso	16	377,886	456,225
Intangibles	17	555,043	483,098
Activos por impuestos no corrientes	10	10,035,161	8,622,398
Goodwill	19	1,353,802	919,445
Otros activos	11	1,090,115	942,481
Total activos no corrientes		116,582,745	112,083,557
Total activos		139,417,119	135,448,018

Pasivos			
Pasivos corrientes			
Préstamos y financiamientos	20	4,923,346	5,012,173
Cuentas comerciales y otras cuentas por pagar	21	8,449,041	10,689,246
Provisiones por beneficios a empleados	22	2,022,137	1,929,087
Pasivos por impuestos corrientes	10	1,243,883	2,570,779
Provisiones y contingencias	23	1,221,109	789,297
Instrumentos financieros derivados		3,714	1,347
Otros pasivos		388,057	750,370
		18,251,287	21,742,299
Pasivos asociados a activos no corrientes mantenidos para la venta		31,156	-
Total pasivos corrientes		18,282,443	21,742,299
Pasivos no corrientes			
Préstamos y financiamientos	20	41,808,408	33,226,966
Cuentas comerciales y otras cuentas por pagar	21	21,064	24,445
Provisiones por beneficios a empleados	22	10,401,530	9,551,977
Pasivos por impuestos no corrientes	10	1,269,098	844,602
Provisiones y contingencias	23	11,206,621	9,128,991
Otros pasivos		608,685	584,616
Total pasivos no corrientes		65,315,406	53,361,597
Total pasivos		83,597,849	75,103,896
Patrimonio			
Capital suscrito y pagado	24,1	25,040,067	25,040,067
Prima en emisión de acciones	24,2	6,607,699	6,607,699
Reservas	24,3	9,635,136	3,784,658
Otros resultados integrales	24,5	7,859,992	6,464,144
Utilidades acumuladas		2,952,356	14,515,762
Patrimonio atribuible a los accionistas de la Compañía		52,095,250	56,412,330
Interés no controlante		3,724,020	3,931,792
Total patrimonio		55,819,270	60,344,122
Total pasivos y patrimonio		139,417,119	135,448,018

Las notas adjuntas son parte integral de los estados financieros consolidados.

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Estados de ganancias y pérdidas consolidados

		Por los años terminados a 31 de diciembre de		
	Nota	2020	2019	2018
Ingresos por ventas	25	50,026,561	70,846,769	67,819,935
Costos de ventas	26	(37,552,621)	(44,957,508)	(41,169,527)
Utilidad bruta		12,473,940	25,889,261	26,650,408
Gastos de administración	27	(3,373,150)	(2,151,599)	(1,653,858)
Gastos de operación y proyectos	27	(2,586,016)	(2,631,754)	(2,903,132)
Impairment de activos a largo plazo	18	(620,722)	(1,747,572)	(346,604)
Otros ingresos (gastos) operacionales, neto	28	1,118,166	1,056,796	(35,455)
Resultado de la operación		7,012,218	20,415,132	21,711,359
Resultado financiero, neto	29			
Ingresos financieros		1,101,430	1,623,336	1,129,563
Gastos financieros		(3,929,791)	(3,334,469)	(3,511,814)
Utilidad por diferencia en cambio		346,774	40,639	372,223
		(2,481,587)	(1,670,494)	(2,010,028)
Participación en los resultados de compañías	12	88,427	354,274	154,520
Utilidad antes de impuesto a las ganancias		4,619,058	19,098,912	19,855,851
Gasto por impuesto a las ganancias	10	(1,776,796)	(4,596,413)	(7,322,019)
Utilidad neta del periodo		2,842,262	14,502,499	12,533,832
Utilidad atribuible:				
A los accionistas		1,688,077	13,251,483	11,556,405
Participación no controladora		1,154,185	1,251,016	977,427
		2,842,262	14,502,499	12,533,832
Utilidad básica por acción (pesos)		41,1	322,3	281,1

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Estados de otros resultados integrales consolidados

	Por los años terminados a 31 de diciembre de		
	2020	2019	2018
Utilidad neta del periodo	2,842,262	14,502,499	12,533,832
Otros resultados integrales:			
Elementos que pueden ser reclasificados posteriormente a ganancias o pérdidas (neto de impuestos):			
Utilidades (pérdidas) no realizadas en operaciones de coberturas:			
Flujo de efectivo para futuras exportaciones	131,752	668,299	(53,596)
Inversión neta en negocio en el extranjero	(364,343)	(61,267)	(971,954)
Flujo de efectivo con instrumentos derivados	55,072	46,451	(52,174)
Utilidad instrumentos de patrimonio medidos a valor razonable:			
Diferencia en cambio en conversión	1,540,526	(179,382)	2,571,290
	1,363,007	474,101	1,493,566
Elementos que no pueden ser reclasificados posteriormente a ganancias o pérdidas (neto de impuestos):			
Ganancias (pérdidas) actuariales	96,221	(1,799,829)	(4,290)
Otras ganancias	-	1,897	-
	96,221	(1,797,932)	(4,290)
Otros resultados integrales	1,459,228	(1,323,831)	1,489,276
Total resultado integral	4,301,490	13,178,668	14,023,108
Resultado integral atribuible a:			
A los accionistas	3,088,925	11,932,117	12,974,362
Participación no controladora	1,217,565	1,246,551	1,048,746
	4,301,490	13,178,668	14,023,108
Las notas adjuntas son parte integral de los estados financieros consolidados.			

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Estados de cambios en el patrimonio consolidados

	Nota	Capital suscrito y pagado	Prima en emisión de acciones
Saldo al 31 de diciembre de 2019		25,040,067	6,607,699
Utilidad neta del periodo		-	-
Liberación de reservas	24.3	-	-
Dividendos decretados	24.4	-	-
Cambio en participación en controladas y otros movimientos		-	-
Apropiación de reservas	24.3		
Legal		-	-
Fiscales y estatutarias		-	-
Ocasionales		-	-
Otros resultados integrales			
Resultados en instrumentos de cobertura		-	-
Diferencia en cambio en conversión		-	-
Pérdidas actuariales		-	-
Saldo al 31 de diciembre de 2020		25,040,067	6,607,699
Saldo al 31 de diciembre de 2018		25,040,067	6,607,699
Utilidad neta del periodo		-	-
Liberación de reservas		-	-
Dividendos decretados	24.4	-	-
Combinación de negocios		-	-
Cambio de participación en controladas y otros movimientos		-	-
Apropiación de reservas		-	-
Otros resultados integrales		-	-
Saldo al 31 de diciembre de 2019		25,040,067	6,607,699
Saldo al 31 de diciembre de 2017		25,040,067	6,607,700
Utilidad neta del periodo		-	-
Liberación de reservas		-	-
Dividendos decretados		-	-
Otros movimientos		-	(1)
Apropiación de reservas		-	-
Otros resultados integrales		-	-
Saldo al 31 de diciembre de 2018		25,040,067	6,607,699

Reservas	Otros resultados integrales	Utilidades (pérdidas) acumuladas	Patrimonio atribuible a los accionistas de la controlante	Participación no controladora	Total Patrimonio
3,784,658	6,464,144	14,515,762	56,412,330	3,931,792	60,344,122
-	-	1,688,077	1,688,077	1,154,185	2,842,262
(540,826)	-	540,826	-	-	-
-	-	(7,401,005)	(7,401,005)	(1,425,586)	(8,826,591)
-	-	-	-	249	249
1,325,148	-	(1,325,148)	-	-	-
509,082	-	(509,082)	-	-	-
4,557,074	-	(4,557,074)	-	-	-
-	(192,148)	-	(192,148)	14,629	(177,519)
-	1,491,775	-	1,491,775	48,751	1,540,526
-	96,221	-	96,221	-	96,221
9,635,136	7,859,992	2,952,356	52,095,250	3,724,020	55,819,270
5,138,895	7,782,086	12,644,860	57,213,607	2,090,831	59,304,438
-	-	13,251,483	13,251,483	1,251,016	14,502,499
(3,050,703)	-	3,050,703	-	-	-
(3,659,386)	-	(9,251,256)	(12,910,642)	(1,010,206)	(13,920,848)
-	-	176,608	176,608	1,606,390	1,782,998
-	-	(784)	(784)	(350)	(1,134)
5,355,852	-	(5,355,852)	-	-	-
-	(1,317,942)	-	(1,317,942)	(5,889)	(1,323,831)
3,784,658	6,464,144	14,515,762	56,412,330	3,931,792	60,344,122
2,177,869	6,364,129	7,708,866	47,898,631	1,882,674	49,781,305
-	-	11,556,405	11,556,405	977,427	12,533,832
(751,718)	-	751,718	-	-	-
-	-	(3,659,386)	(3,659,386)	(840,626)	(4,500,012)
-	-	1	-	37	37
3,712,744	-	(3,712,744)	-	-	-
-	1,417,957	-	1,417,957	71,319	1,489,276
5,138,895	7,782,086	12,644,860	57,213,607	2,090,831	59,304,438

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Estados de flujos de efectivo consolidados

		Por los años terminados a 31 de diciembre de		
	Nota	2020	2019	2018
Flujos de efectivo de las actividades de operación:				
Utilidad neta del periodo		2,842,262	14,502,499	12,533,832
Ajustes para conciliar la utilidad neta con el efectivo generado por las operaciones:				
Gasto por impuesto a las ganancias	10	1,776,796	4,596,413	7,322,019
Depreciación, agotamiento y amortización	14,15,16,17	9,309,686	8,567,931	7,689,998
Utilidad por diferencia en cambio, neto	29	(346,774)	(40,639)	(372,223)
Costo financiero de préstamos y financiaciones	29	2,384,342	1,894,490	2,399,414
Costo financiero de beneficios post-empleo y costos de abandono	29	872,987	757,509	668,782
Baja de activos exploratorios y pozos secos	15	448,132	340,271	898,924
Pérdida (utilidad) en venta o retiro de activos no corrientes		246,317	121,121	(504)
Utilidad (pérdida) en combinaciones de negocios y adquisición de participaciones	12	(1,370,398)	(1,048,924)	12,065
Efecto por pérdida de control en subsidiarias	28	(65,695)	-	-
Pérdida por impairment de activos de largo plazo	18	620,722	1,747,572	346,604
Pérdida por impairment de activos de corto plazo	28	34,415	90,441	136,044
(Utilidad) pérdida por valoración de activos financieros		(43,948)	18,551	(92,906)
Utilidad por método de participación patrimonial	13	(88,427)	(354,274)	(154,520)
Utilidad en venta de activos mantenidos para la venta		(5,635)	(2,846)	(358)
Pérdida por ineffectividad en coberturas	30.3	9,779	5,173	34,892
Pérdida por diferencia en cambio realizada sobre coberturas de exportaciones	25	390,206	1,028,516	655,533
Impuesto de renta pagado		(5,457,225)	(5,295,703)	(6,650,116)
Cambios netos en operación con activos y pasivos:				
Cuentas comerciales y otras cuentas por cobrar		678,349	2,381,905	(1,946,745)
Inventarios		716,077	(597,552)	(448,135)
Cuentas comerciales y otras cuentas por pagar		(2,550,411)	1,389,064	1,355,175
Activos y pasivos por impuestos corrientes		(1,256,889)	(1,409,334)	(1,413,915)
Provisiones corrientes por beneficios a empleados		465,062	(234,629)	(181,060)
Provisiones y contingencias		(30,185)	(253,043)	(181,761)
Otros activos y pasivos		(392,841)	(492,745)	(218,543)
Efectivo neto provisto por las actividades de operación		9,186,704	27,711,767	22,392,496

Flujos de efectivo de las actividades de inversión:				
Inversión en propiedades, planta y equipo	14	(5,032,317)	(4,012,659)	(3,302,929)
Inversión en recursos naturales y del medio ambiente	15	(5,994,462)	(9,798,193)	(5,051,828)
Adquisiciones de intangibles	17	(90,082)	(168,289)	(105,669)
Venta de otros activos financieros		2,107,856	3,117,549	(843,611)
Intereses recibidos	27	299,246	481,674	383,624
Dividendos recibidos		157,241	189,169	108,991
Producto de la venta de activos		23,713	154,780	169,317
Efectivo neto usado en actividades de inversión		(8,528,805)	(10,035,969)	(8,642,105)
Flujo de efectivo en actividades de financiación:				
Adquisición de préstamos y financiaciones	20	13,805,403	359,876	517,747
Pagos de capital		(5,003,885)	(1,596,630)	(9,270,262)
Pagos de intereses		(2,345,683)	(1,766,223)	(2,610,562)
Pagos por arrendamientos (capital e intereses)	16	(350,539)	(300,326)	-
Dividendos pagados	21	(8,734,351)	(13,867,029)	(4,427,701)
Efectivo neto usado en actividades de financiación		(2,629,055)	(17,170,332)	(15,790,778)
Efecto de la variación en tasas de cambio sobre efectivo y equivalentes de efectivo		(22,294)	258,548	406,246
(Disminución) aumento neto en el efectivo y equivalentes de efectivo		(1,993,450)	764,014	(1,634,141)
Efectivo y equivalentes de efectivo al inicio del periodo		7,075,758	6,311,744	7,945,885
Efectivo y equivalentes de efectivo al final del periodo	6	5,082,308	7,075,758	6,311,744
Transacciones no monetarias				
Reconocimiento de activos por derecho de uso y pasivos por arrendamiento	16	88,503	685,128	609,406
Valor razonable por adquisición de participación adicional en Guajira	12.2	1,628,310	-	-
Valor razonable por cambio en la participación de Invercolsa	12.1	-	2,932,110	-

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1. Entidad reportante

Ecopetrol S.A. es una Compañía de economía mixta pública por acciones, de carácter comercial constituida en 1948 en Bogotá - Colombia, y la casa matriz del Grupo Empresarial Ecopetrol, dedicada a actividades comerciales o industriales relacionadas con la exploración, explotación, refinación, transporte, almacenamiento, distribución y comercialización de hidrocarburos, sus derivados y productos, directamente o por medio de sus subordinadas (denominadas en conjunto “Ecopetrol”, la “Compañía” o “Grupo Empresarial Ecopetrol”).

El 11.51% de las acciones de Ecopetrol se cotizan públicamente en las bolsas de valores de Colombia y Nueva York. Las acciones restantes (88.49% de las acciones en circulación) le pertenecen al Ministerio de Hacienda y Crédito Público de Colombia.

El domicilio de la oficina principal de Ecopetrol es Bogotá – Colombia, Carrera 13 No. 36 - 24.

2. Bases de presentación

2.1. Declaración de cumplimiento y autorización de los estados financieros consolidados

Estos estados financieros consolidados de Ecopetrol y sus subsidiarias al 31 de diciembre de 2020 y 2019 han sido preparados de acuerdo con los principios y normas de contabilidad e información financiera aceptados en Colombia (NCIF), reglamentadas en el Decreto 2420 de 2015, modificado por los Decretos 2496 de 2015, 2131 de 2016, 2170 de 2017 y 2483 de 2018. Estas normas están fundamentadas en las Normas Internacionales de Información Financiera - NIIF y sus Interpretaciones emitidas por el Consejo de Normas Internacionales de Contabilidad (IASB, por sus siglas en inglés) y otras disposiciones legales aplicables para las entidades vigiladas y/o controladas por la Contaduría General de la Nación, que pueden diferir en algunos aspectos de los establecidos por otros organismos de control del Estado.

Las políticas contables descritas en la Nota 4 han sido aplicadas de manera consistente en todos los años presentados.

Estos estados financieros consolidados fueron autorizados para su emisión por la Junta Directiva el 22 de febrero de 2021.

2.2 Bases de consolidación

Los estados financieros consolidados fueron preparados consolidando todas las compañías subsidiarias descritas en el Anexo 1, en las cuales Ecopetrol ejerce, directa o indirectamente, control.

El control se logra cuando el Grupo:

- Tiene poder sobre la sociedad (derechos existentes que le dan la facultad de dirigir las actividades relevantes);

- Está expuesta a, o tiene derechos sobre, rendimientos variables provenientes de su relación con la sociedad; y
- Tiene la habilidad de usar su poder para afectar sus rendimientos operativos. Esto ocurre cuando la Compañía tiene menos de una mayoría de derechos de voto de una participada, y aún tiene poder sobre la participada para darle la habilidad práctica de dirigir las actividades relevantes de la sociedad de manera unilateral. El Grupo considera todos los hechos y circunstancias relevantes al evaluar si los derechos de voto en una participada son o no suficientes para darle el poder, incluyendo:
 - a) El porcentaje de derechos de voto de la Compañía relativo al tamaño y dispersión de los porcentajes de otros poseedores de voto;
 - b) Derechos de voto potenciales mantenidos por la Compañía, otros accionistas u otras partes;
 - c) Derechos derivados de los acuerdos contractuales; y
 - d) Cualquier hecho o circunstancia adicional que indique que la Compañía tiene, o no tiene, la habilidad actual para dirigir las actividades relevantes, al momento que necesite que las decisiones sean tomadas, incluyendo patrones de voto en asambleas de accionistas previas.

Las subsidiarias se consolidan desde la fecha en que se obtiene el control hasta la fecha en que cesa el mismo.

Todos los activos y pasivos intercompañía, el patrimonio, los ingresos, los gastos y los flujos de efectivo relacionados con transacciones entre Compañías del Grupo fueron eliminados en la consolidación. Las utilidades y pérdidas no realizadas también son eliminadas. El interés no controlante representa la porción de utilidad, de otro resultado integral y de los activos netos en subsidiarias que no son atribuibles a los accionistas de Ecopetrol.

Todas las combinaciones de negocios se reconocen mediante el método de la adquisición.

Las siguientes subsidiarias presentaron cambios en el Grupo:

2020

- a) El liquidador de ECP Oil and Gas Germany GmbH presentó el informe y el balance de liquidación el 11 de diciembre de 2020, por tanto a partir de la fecha, la sociedad ya no hace parte del Grupo.
- b) El 24 de junio de 2020, la Superintendencia de Sociedades emitió los autos de liquidación donde decretó la terminación del proceso de reorganización y la apertura del proceso de liquidación judicial de Bioenergy S.A.S. y Bioenergy Zona Franca S.A.S. Este último se realizará según la ley de insolvencia empresarial, 1116 del 2006, y bajo la dirección de la mencionada Superintendencia. Como consecuencia, a partir de esta fecha el Grupo no posee el control en estas compañías y las mismas ya no forman parte de las cifras consolidadas. Como resultado se reconoció la baja de los activos netos por la pérdida de control con un impacto en los resultados del Grupo Empresarial por \$65,570. Ver nota 28.

2019

- a) En noviembre de 2019, Ecopetrol obtuvo una participación adicional de 8.53% en Invercolsa, debido a la sentencia en firme de la Corte Suprema de Justicia que indicó que el intento del señor Fernando Londoño de adquirir las acciones de Invercolsa, propiedad de Ecopetrol, no era válido. Como resultado, Ecopetrol obtuvo el control de Invercolsa, con una participación del 51.88%. No se pagó contraprestación por las acciones obtenidas como consecuencia de la sentencia judicial.

Las subsidiarias que comenzaron a consolidarse como resultado de obtener el control de Invercolsa son las siguientes:

- Inversiones de Gases de Colombia S.A., cuyo objeto social principal consiste en tener inversiones en compañías que tengan relación con actividades del sector energético; la exploración, explotación, refinación, transformación, transporte, distribución y venta de hidrocarburos y sus derivados en el territorio nacional y promover la fundación de nuevas compañías y tener acciones o cuotas de interés social en ellas.
- Alcanos de Colombia S.A. E.S.P., cuyo objeto social principal es proveer gas combustible a hogares en Neiva y en toda Colombia; la construcción y

operación de gasoductos, redes de distribución, estaciones de regulación, medición y compresión y cualquier obra necesaria para el manejo y comercialización de servicios públicos.

- Metrogas de Colombia S.A. E.S.P., cuyo objeto social principal es comercializar y distribuir gas combustible; explorar, almacenar, utilizar, transportar, refinar, comprar, vender y distribuir hidrocarburos y sus derivados en todas sus formas y representaciones.
- Gases del Oriente S.A. E.S.P., cuyo objeto social principal suministrar gas combustible a los hogares mediante la distribución de gas y la realización de todas las actividades complementarias al suministro del mismo.
- Promotora de Gases del Sur S.A. E.S.P., cuyo objeto social principal promover la vinculación de capital nacional o extranjero, público o privado y lograr el proyecto de masificación de gas en el departamento del Huila, a través de un gasoducto desde el municipio de Neiva hasta el municipio de Hobo.
- Gasoducto del Oriente S.A. E.S.P., cuyo objeto social principal diseñar y construir plantas de producción y tratamiento de hidrocarburos, tales como gasoductos, oleoductos y otros, así invertir en proyectos relacionados con los mismos.
- Combustibles Líquidos de Colombia S.A. E.S.P., cuyo objeto social principal comercializar gas combustible al por mayor, distribuir GLP a los hogares y realizar actividades complementarias a esta distribución, así como almacenar, transportar, empaquetar, distribuir y vender GLP.
- b) En julio de 2019, se constituyeron dos compañías para viabilizar la operación entre Ecopetrol S.A. y Occidental Petroleum Corp. (OXY), donde se acordó la conformación de un Joint Operation para ejecutar un plan conjunto de desarrollo de Yacimientos No Convencionales en la cuenca Permian en el estado de Texas (EE.UU.). Las dos compañías constituidas fueron las siguientes:
 - Ecopetrol USA Inc., cuyo objeto social es participar en cualquier acto o actividad legal para el cual las corporaciones pueden ser organizadas bajo la Ley General de Sociedades de Delaware.
 - Ecopetrol Permian LLC., cuyo objeto social es llevar a cabo cualquiera o todos los negocios legales para los cuales se pueden organizar compañías de responsabilidad limitada de conformidad con la Ley de Sociedades de Responsabilidad Limitada de Delaware.

- c) Se constituyeron dos empresas en México para brindar servicios administrativos y tecnológicos a Ecopetrol México, Las dos sociedades creadas fueron: Topili Servicios administrativos S. de R.L. de C.V. y Kalixpan Servicios Técnicos S. de R.L. de C.V.

2.3. Bases de medición

Los estados financieros consolidados han sido preparados sobre la base de costo histórico, excepto por los activos y pasivos financieros que son medidos a valor razonable con cambios en resultados y/o cambios en otro resultado integral al cierre de cada periodo, como se explica en las políticas contables incluidas más adelante.

Por lo general, el costo histórico se basa en el valor razonable de la contraprestación otorgada a cambio de los bienes y servicios.

El valor razonable es el precio que se recibiría al vender un activo o se pagaría al transferir un pasivo en una transacción ordenada entre participantes del mercado a la fecha de la medición. Al estimar el valor razonable, el Grupo utiliza los supuestos que los participantes del mercado utilizarían al fijar el precio del activo o pasivo en condiciones de mercado presentes, incluyendo supuestos sobre el riesgo.

2.4. Moneda funcional y de presentación

Los estados financieros consolidados se presentan en pesos colombianos, que es la moneda funcional de Ecopetrol. La moneda funcional de cada una de las Compañías del Grupo es determinada en función al entorno económico principal en el que estas operan.

Los estados de ganancias o pérdidas y de flujos de efectivo de las subsidiarias con monedas funcionales diferentes de la moneda funcional de Ecopetrol son convertidos a los tipos de cambio en las fechas de la transacción o a la tasa promedio mensual. Los activos y pasivos se convierten a la tasa de cierre y otras partidas patrimoniales se convierten a los tipos de cambio en el momento de la transacción. Todas las diferencias de cambio resultantes se reconocen en el otro resultado integral. Al vender la totalidad o parte de la participación en una subsidiaria, la parte acumulada por ajuste por conversión relacionada con la Compañía, es reconocida en el estado de pérdidas y ganancias consolidado.

Los estados financieros se presentan en pesos colombianos redondeados a la unidad de un millón (COP \$000,000) más cercana, excepto cuando se indique lo contrario.

2.5. Moneda extranjera

Las transacciones en moneda extranjera son inicialmente reconocidas por el Grupo en la respectiva moneda funcional al tipo de cambio vigente de la fecha en que se realiza la transacción. Al final de cada período, las partidas monetarias denominadas en moneda extranjera son convertidas a las tasas de cambio vigentes en la fecha de cierre y las variaciones presentadas en la conversión son reconocidas en el resultado financiero, neto, excepto las resultantes de la conversión de préstamos y financiacines designados como instrumentos de cobertura de flujo de efectivo o de inversión neta de un negocio en el extranjero, las cuales se reconocen en el otro resultado integral, dentro del patrimonio. Cuando las partidas cubiertas afectan el resultado, las diferencias en cambio acumuladas en el patrimonio se reclasifican al estado de ganancias y pérdidas consolidado como parte del resultado de la operación.

Las partidas no monetarias registradas al valor razonable que están denominadas en moneda extranjera son convertidas a las tasas de cambio vigentes a la fecha en que se determinó el valor razonable. La ganancia o pérdida que surge de la conversión de partidas no monetarias medidas a valor razonable se reconoce de la misma manera que de la ganancia o pérdida por valor razonable del bien.

2.6. Clasificación de activos y pasivos entre corrientes y no corrientes

El Grupo presenta activos y pasivos en el estado consolidado de situación financiera con base en la clasificación corriente o no corriente.

Un activo o un pasivo se clasifica como corriente cuando:

- Se espera que se realice o se pretenda vender o consumir en el ciclo normal de la operación;
- Se mantiene principalmente con el propósito de negociar;
- Se espera que se realice (o se liquide, en el caso de los pasivos) dentro de los doce meses posteriores al período de reporte;
- En el caso de un activo, es efectivo o equivalente a menos que el intercambio de dicho activo o pasivo esté restringido para ser intercambiado o utilizado para liquidar un pasivo durante el menos doce meses después del periodo de reporte;
- En el caso de un pasivo, no existe el derecho incondicional de diferir su liquidación hasta al menos doce meses después del período de reporte.

Los demás activos y pasivos se clasifican como no corrientes.

Los activos y pasivos por impuestos diferidos se clasifican como activos y pasivos no corrientes.

2.7. Utilidad neta por acción

La utilidad neta por acción se calcula como el cociente entre el resultado neto del periodo atribuible a los accionistas de Ecopetrol S.A. y el promedio ponderado de acciones ordinarias en circulación durante dicho período. No existe dilución potencial de acciones.

2.8. Impacto del COVID-19 sobre los Estados Financieros

El brote del Covid-19 fue informado por primera vez a finales de 2019 en China, posteriormente, teniendo en cuenta el nivel de expansión, el 11 de marzo de 2020, la Organización Mundial de la Salud (OMS) declaró el brote como una pandemia, la cual se mantiene en la actualidad.

Esta situación ha tenido un impacto significativo en la economía mundial y por consiguiente en la industria petrolera. Las prohibiciones de viajes impuestas por varios países y las medidas de cuarentena establecidas han reducido los niveles de demanda de petróleo y sus derivados en 2020.

La pandemia del Covid-19 también ha provocado una volatilidad significativa en los mercados financieros y de materias primas de todo el mundo. Los gobiernos han anunciado ayudas a las personas más afectadas y han tomado medidas de orden macroeconómico para afrontar la crisis.

En este contexto, Ecopetrol tomó las siguientes acciones durante el 2020 para afrontar los impactos de la pandemia:

- Recorte de \$2 billones de pesos en costos y gastos incluidas medidas de austeridad, priorización de actividades operativas y administrativas, y control sobre gastos operativos, tales como restricciones de viajes, patrocinios y participación en eventos, entre otros.
- Uso de las líneas de financiamiento por USD\$665 millones, así como una emisión y colocación de bonos de deuda pública externa en el mercado internacional de capitales por USD\$2,000 millones a las tasas de mercado establecidas en las condiciones actuales (Nota 20).

- Registro contable de un gastos por impairment al corte del 31 de marzo de 2020 por \$467,598, luego de ajustar algunos de los supuestos utilizados (precios y tasas de descuento) en la evaluación realizada al 31 de diciembre de 2019, reconociendo el impacto sobre los principales activos a largo plazo (únicamente sobre algunos activos productivos del segmento de exploración y producción y sobre la planta de la Refinería de Cartagena). (Nota 18 – Impairment de activos a largo plazo).
- Publicación de un nuevo plan de inversiones orgánicas para el Grupo Ecopetrol (GE) aprobado por la Junta Directiva el 17 de julio, considerando: (i) una detallada revisión del portafolio del Grupo, (ii) el avance en las intervenciones realizadas, y (iii) la paulatina recuperación de la actividad económica.

Estas medidas tuvieron el objetivo de asegurar la sostenibilidad del negocio en un entorno de precios bajos, priorizando las oportunidades generadoras de caja y con mejores precios de equilibrio, manteniendo la dinámica de crecimiento con foco en la ejecución de los planes de desarrollo de los activos estratégicos, y en la preservación del valor de los activos mediante inversiones que permitan dar confiabilidad, integridad y continuidad a la operación actual en refinerías, sistemas de transporte y campos de producción. Así mismo, estas acciones estuvieron enmarcadas en las políticas y procedimientos para la administración de riesgos de Ecopetrol (Nota 30).

Los impactos más significativos para el desempeño de Ecopetrol durante el año se reflejan principalmente en una reducción de los ingresos (Nota 25), mayores costos financieros producto de la adquisición de deuda (Nota 29), y el reconocimiento de impairment al cierre del primer trimestre del año conforme al análisis y actualización de las variables en los modelos respectivos (Nota 18) y un mayor gasto por depreciaciones (Notas 14, 15, 16 y 17), en parte generado por la actualización del balance de reservas (Nota 34).

Producto de las medidas tomadas, del monitoreo constante a la situación de pandemia, de los programas de vacunación en curso y de la evolución de los resultados de la Compañía, no se espera que el Covid-19 tenga un impacto significativo sobre la entidad en el futuro.

Así mismo, Ecopetrol S.A. continuará monitoreando la evolución de la pandemia y del mercado para determinar la necesidad de poner en marcha etapas subsecuentes del plan de intervención. De igual forma, estará revisando indicadores de impairment sobre los activos de larga duración y sobre las inversiones en compañías.

3. Estimaciones y juicios contables significativos

La preparación de los estados financieros consolidados requiere que la Gerencia de la Compañía realice juicios, estimaciones y suposiciones para cuantificar algunos de los activos, pasivos, ingresos, gastos y compromisos reconocidos en los estados financieros consolidados y sus revelaciones. Estas estimaciones se han realizado en función de la mejor información disponible sobre los hechos analizados, la experiencia de la gerencia y otros factores en la fecha de preparación de los estados financieros. La incertidumbre sobre los supuestos y las estimaciones podría resultar en cambios materiales futuros que afecten el valor de activos o pasivos. Los cambios en estas estimaciones son reconocidos prospectivamente en el periodo en el cual se revisan.

En el proceso de aplicación de las políticas contables del Grupo, la Gerencia ha realizado los siguientes juicios y estimaciones, los cuales han tenido el efecto más significativo en los montos reconocidos en los estados financieros consolidados:

3.1. Reservas de petróleo y gas natural

Las reservas de petróleo y gas natural son estimadas del monto de hidrocarburos que pueden ser económica y legalmente extraídos de las propiedades de crudo y gas del Grupo.

La estimación de reservas se realiza anualmente al 31 de diciembre, de conformidad con las definiciones de la Securities and Exchange Commission (SEC), las normas establecidas en la Regla 4-10(a) del Reglamento S-X y las directrices de divulgación contenida en la regla final SEC de Modernización de Reporte de Petróleo y Gas.

Tal como lo exige la normatividad vigente, la fecha futura estimada en la que un campo dejará de producir por razones económicas, se basa en los costos actuales y en el promedio de los precios del crudo (calculado como el promedio aritmético de los precios del primer día de los últimos 12 meses). La fecha estimada en que terminará la producción afectará el monto de las reservas, a menos que los precios fueran definidos por acuerdos contractuales; por lo tanto, si los precios y los costos cambian de un año a otro, la estimación de las reservas probadas también cambia. Generalmente, las reservas probadas disminuyen en la medida en que los precios bajan y aumentan cuando los precios suben.

La estimación de reservas es un proceso inherentemente complejo e involucra el uso de juicios profesionales. Estas estimaciones se preparan usando factores geológicos, técnicos y económicos, incluyendo proyecciones futuras de tasas de producción, precios del

petróleo, datos de ingeniería y la duración y monto de futuras inversiones con cierto grado de incertidumbre. Estas estimaciones reflejan las condiciones regulatorias y de mercado existentes a la fecha de reporte, las cuales podrían diferir significativamente de otras condiciones a lo largo del año o en periodos futuros. Cualquier cambio en los factores regulatorias y/o de mercado y en los supuestos utilizados, puede impactar materialmente la estimación de las reservas.

Impacto de las reservas de petróleo y gas natural en la depreciación y agotamiento

Los cambios en las estimaciones de reservas probadas pueden afectar los importes del valor en libros de los activos de exploración y producción, de los recursos naturales y del medio ambiente, del goodwill, los pasivos por abandono y desmantelamiento y de la depreciación, agotamiento y amortización. Manteniendo las demás variables constantes, una disminución en la estimación de reservas probadas aumentaría, de forma prospectiva, el valor de los gastos por depreciación y amortización, mientras que un aumento en las reservas resultaría en una reducción del gasto. La depreciación, agotamiento y amortización, es calculada usando el método de unidades de producción.

La información sobre el valor en libros de los activos de exploración y producción y los montos registrados con cargo a resultados, incluyendo la depreciación y amortización, es presentada en las Notas 14 y 15.

3.2. Impairment (recuperación) del valor de los activos no corrientes

La Gerencia del Grupo utiliza su juicio profesional al evaluar la existencia de indicios de gasto (recuperación) de impairment con base en factores internos y externos.

Cuando exista un indicador de gasto o recuperación de impairment de períodos anteriores, el Grupo estima el importe recuperable de las unidades generadoras de efectivo (UGE), el cual corresponde al mayor entre el valor razonable menos los costos de disposición y el valor en uso.

La evaluación requiere el uso de estimados y supuestos, entre los que se incluyen: (1) estimación de volúmenes y valor de mercado de las reservas de petróleo y gas natural; (2) perfiles de producción de los campos petroleros y producción futura de productos refinados y químicos; (3) inversiones, impuestos y costos futuros; (4) vida útil de los activos; (5) precios futuros, (6) tasa de descuento, la cual es revisada anualmente, y es determinada como el costo promedio ponderado del capital (WACC, por sus siglas en inglés) y (7) cambios en la regulación ambiental. El importe recuperable es

comparado con el valor neto en libros del activo, o de la unidad generadora de efectivo (UGE) para determinar si es sujeto de reconocimiento de impairment o si debe recuperarse algún monto de periodos anteriores.

Una pérdida por impairment reconocida previamente se revierte solo si ha habido un cambio en los supuestos utilizados para determinar el importe recuperable de los activos o UGEs desde que se reconoció la última pérdida por impairment. La reversión está limitada de modo que el valor en libros de un activo o UGE, diferente al goodwill, no exceda su importe recuperable, o el valor en libros que se hubiera determinado (neto de amortización o depreciación) si no se hubiera reconocido una pérdida en periodos anteriores.

Los precios futuros se estiman bajo las condiciones actuales del mercado. Los volúmenes de producción esperados, que comprenden reservas probadas y no probadas, se utilizan para pruebas de impairment debido a que la Gerencia considera que este es el indicador más apropiado de los flujos de efectivo futuros esperados, los cuales también serían considerados por los participantes del mercado. Las estimaciones de las reservas son intrínsecamente imprecisas y sujetas a riesgo e incertidumbre. Además, las proyecciones sobre reservas no probadas se basan en información que es necesariamente menos robusta que la disponible para reservorios maduros.

Estas estimaciones y supuestos están sujetos a riesgo e incertidumbre. Por tanto, existe la posibilidad que cambios en las circunstancias afecten estas proyecciones, que también puede afectar el monto recuperable de los activos y/o UGEs, así como también puede afectar el reconocimiento de una pérdida por impairment o la reversión de los montos registrados en periodos anteriores.

3.3. Costos de exploración y evaluación

La aplicación de la política contable del Grupo para los costos de exploración y evaluación requiere juicio al determinar si los beneficios económicos futuros son probables, ya sea por una futura explotación o una venta, o si las actividades no han alcanzado una etapa que permita una evaluación razonable de la existencia de reservas. Ciertos costos de exploración y evaluación se capitalizan inicialmente cuando se espera que surjan reservas comercialmente viables. El Grupo utiliza su juicio profesional sobre eventos y circunstancias futuras y hace estimaciones para evaluar anualmente la generación de beneficios económicos futuros para la extracción de recursos petroleros, así como análisis técnicos y comerciales para confirmar su intención de continuar su desarrollo. Los cambios con respecto a la información disponible, como el nivel de éxito de

perforación o los cambios en la economía del proyecto, los costos de producción y los niveles de inversión, así como otros factores, pueden resultar a que los costos de perforación de exploración capitalizados, se reconozcan en el resultado del periodo. El Grupo emplea el método de esfuerzos exitosos para el registro de las actividades de exploración y evaluación. Los gastos por pozos secos se incluyen en las actividades de operación en el estado consolidado de flujos de efectivo.

3.4. Determinación de las Unidades Generadoras de Efectivo (UGEs)

La asignación de activos en UGEs requiere juicio significativo, así como también las interpretaciones con respecto a la integración entre los activos, la existencia de mercados activos, la exposición similar a los riesgos de mercado, las infraestructuras compartidas y la forma en la que la Gerencia monitorea las operaciones. Ver nota 4.12 – Impairment del valor de los activos de largo plazo.

3.5. Abandono y desmantelamiento de campos y otras facilidades

De acuerdo con la reglamentación ambiental y de petróleos, el Grupo debe asumir los costos por el abandono de instalaciones de extracción y transporte de petróleo, los cuales incluyen el costo de taponamiento y abandono de pozos, desmantelamiento de instalaciones y recuperación ambiental de las áreas afectadas.

Los costos de abandono y desmantelamiento son registrados en el mismo momento que se registra la instalación de los activos y son revisados anualmente.

Los cálculos de estos montos son complejos e involucran juicios significativos por parte de la Gerencia. Los costos finales de desmantelamiento son inciertos y las estimaciones pueden variar en respuesta a muchos factores, incluidos los cambios en los requisitos legales pertinentes, el surgimiento de nuevas técnicas de restauración o la experiencia en otros sitios de producción. El tiempo esperado, la extensión y el monto del gasto también pueden cambiar, por ejemplo, en respuesta a cambios en las proyecciones de costos internos, cambios en las estimaciones de reservas, tasas de inflación futuras y tasas de descuento. El Grupo considera que los costos de abandono y desmantelamiento son razonables, según la experiencia y las condiciones del mercado, sin embargo, las variaciones significativas en los factores externos utilizados para el cálculo de la estimación podrían impactar significativamente los montos registrados en los estados financieros consolidados. Ver Nota 4.13 – Provisiones y pasivos contingentes (Obligación de retiro de activos).

3.6. Planes de pensión y otros beneficios

La determinación de gastos, pasivos y ajustes relacionados con los planes de pensión y otros beneficios de retiro definidos requieren que la Gerencia utilice el juicio en la aplicación de los supuestos actuariales utilizados en el cálculo actuarial. Los supuestos actuariales incluyen estimaciones de la mortalidad futura, retiros, cambios en la remuneración y la tasa de descuento para reflejar el valor del dinero en el tiempo; así como la tasa de rendimiento de los activos del plan. Debido a la complejidad de la valoración, así como a su naturaleza de largo plazo, las obligaciones que se definan son muy sensibles a cualquier cambio en las variables que se utilizan.

Estos supuestos se revisan anualmente para propósitos de las valuaciones actuariales y pueden diferir materialmente de los resultados reales debido a cambios en las condiciones económicas y de mercado, cambios en la regulación, decisiones judiciales, tasas de retiro más altas o más bajas, o expectativas de vida de los empleados más largas o más cortas.

3.7. Impairment de goodwill

El Grupo realiza en diciembre de cada año la prueba anual de impairment del goodwill para evaluar si el valor en libros es recuperable. El goodwill es asignado a cada una de las Unidades Generadoras de Efectivo (o grupos de unidades generadoras de efectivo).

La determinación del importe recuperable se describe en la Nota 4.10 y su cálculo requiere supuestos y estimaciones. El Grupo considera que los supuestos y estimados utilizados son razonables, pueden ser respaldados en las condiciones actuales de mercado y están alineados al perfil de riesgo de los activos relacionados. Sin embargo, al utilizar diferentes supuestos y estimados, se obtendrían resultados diferentes. Los modelos de valoración usados para determinar el valor razonable son sensibles a cambios en los supuestos subyacentes. Por ejemplo, los precios y volúmenes de ventas y los precios que serán pagados por la compra de materias primas son supuestos que pueden variar en el futuro. Los cambios adversos en cualquiera de estos supuestos podrían llevar a reconocer un impairment del goodwill.

3.8 Litigios

El Grupo está sujeto a reclamaciones por procedimientos regulatorios y de arbitraje, liquidaciones de impuestos y otras que surgen dentro del curso ordinario de los negocios. La Gerencia evalúa estas situaciones con base en su naturaleza, la probabilidad de que se estos

materialicen y los montos involucrados, para decidir sobre los importes reconocidos y/o revelados en estados financieros consolidados.

Este análisis, el cual puede requerir juicios considerables, incluye revisar procesos legales instaurados en contra y reclamos aún no iniciados. Una provisión se reconoce cuando el Grupo tiene una obligación presente como resultado de un evento pasado, es probable que se genere una salida de recursos para liquidar la obligación y se puede hacer una estimación confiable del monto de dicha obligación.

3.9. Impuestos

El cálculo de la provisión por impuesto de renta requiere la interpretación de la normativa fiscal en las jurisdicciones donde opera el Grupo Empresarial Ecopetrol. Se requieren realizar juicios significativos para la determinación de las estimaciones del impuesto a las ganancias y para evaluar la recuperabilidad de los activos por impuestos diferidos, los cuales se basan en estimaciones de resultados fiscales futuros y en la capacidad para generación de resultados suficientes durante los periodos en los que sean deducibles dichos impuestos diferidos. Los pasivos por impuestos diferidos se registran de acuerdo con las estimaciones realizadas de los activos netos que en un futuro no serán fiscalmente deducibles.

En la medida en que los flujos de efectivo futuros y la renta gravable difieran significativamente de las estimaciones, la capacidad del Grupo para utilizar los impuestos diferidos activos netos registrados a la fecha de presentación, podría verse afectada.

Adicionalmente, los cambios en las normas fiscales podrían limitar la capacidad del Grupo para obtener deducciones fiscales en ejercicios futuros, así como el reconocimiento de nuevos pasivos por impuestos producto de cuestionamientos por parte de la auditoría del organismo fiscalizador.

Las posiciones fiscales que se adopten suponen la evaluación cuidadosa por parte de la Gerencia, y se revisan y ajustan en respuesta a circunstancias como caducidad en la aplicación de la legislación, cierre de auditorías fiscales, revelaciones adicionales ocasionadas por algún tema legal o alguna decisión de la Corte en un tema tributario en particular. El Grupo registra provisiones con base en la estimación de la posibilidad de una decisión negativa que pueda surgir de una auditoría fiscal. El monto de estas provisiones depende de factores como la experiencia previa en auditorías fiscales y las interpretaciones de las normas tributarias por las entidades contribuyentes y de la autoridad tributaria. Los resultados reales pueden diferir de las estimaciones registradas.

3.10. Contabilidad de coberturas

El proceso de identificación de las relaciones de cobertura entre las partidas cubiertas y los instrumentos de cobertura derivados y no derivados (tal como la deuda a largo plazo en moneda extranjera),

y su correspondiente efectividad, requiere juicios de la Gerencia. El Grupo evalúa periódicamente la alineación entre las coberturas identificadas y su política de gestión de riesgos.

4. Políticas contables

Las políticas contables que se indican a continuación se han aplicado consistentemente para todos los períodos presentados.

4.1. Instrumentos financieros

Un instrumento financiero es cualquier contrato que da lugar a la creación de un activo financiero en una entidad y un pasivo financiero o un instrumento de patrimonio en otra entidad.

La clasificación depende de su naturaleza y propósito por el cual el activo o pasivo financiero fue adquirido y se determina al momento del reconocimiento inicial. Todos los activos y pasivos financieros se miden inicialmente a su valor razonable.

Los costos de transacción que son directamente atribuibles a la adquisición o emisión de activos y pasivos financieros distintos a los medidos a valor razonable con cambios en resultados, se suman o deducen del valor razonable de los activos y pasivos financieros, en el reconocimiento inicial. Los costos de transacción directamente atribuibles a la adquisición de activos y pasivos financieros medidos a valor razonable con cambios en resultados se reconocen inmediatamente en resultados.

Los préstamos y cuentas por cobrar comerciales, otras cuentas por cobrar y activos financieros mantenidos hasta su vencimiento, se miden posteriormente al costo amortizado utilizando el método de tasa de interés efectiva.

Los instrumentos de patrimonio se miden a valor razonable.

Mediciones a valor razonable

El valor razonable es el precio que se recibiría al vender un activo o se pagaría para transferir un pasivo en una transacción ordenada entre participantes del mercado en la fecha de valoración. La medición del valor razonable se basa en la presunción de que la transacción para vender el activo o transferir el pasivo tiene lugar en el mercado principal del activo o pasivo o en ausencia de un mercado principal en el mercado más ventajoso.

El valor razonable de un activo o un pasivo es medido utilizando los supuestos que los participantes del mercado utilizarían para fijar su precio, suponiendo que los participantes del mercado actúan en su mejor interés económico.

La medición del valor razonable de un activo no financiero tiene en cuenta la capacidad de generar beneficios económicos mediante la utilización del activo en su uso más alto y rentable o mediante la venta de éste a otro participante del mercado quien utilizaría el activo en su máximo y mejor uso.

El Grupo utiliza las técnicas de valoración más apropiadas para las circunstancias y con la mejor información disponible, maximizando el uso de los datos de entrada observables y minimizando los no observables.

Todos los activos y pasivos cuyo valor razonable se mide o revela en los estados financieros consolidados se clasifican dentro de la jerarquía, con base en la entrada de nivel más bajo que es significativa para la medición del valor razonable en su conjunto, de la siguiente manera:

- **Nivel 1:** Precios de cotización (no ajustados) de mercados activos para activos y pasivos idénticos. El valor razonable de los instrumentos negociables del Grupo se basa en entradas de nivel 1.
- **Nivel 2:** Técnicas de valoración para las cuales se observa directa o indirectamente la entrada de nivel más bajo que es significativa para la medición del valor razonable. Las entradas del nivel 2 incluyen precios de activos similares, precios obtenidos a través de cotizaciones de corredores de bolsa, y los precios que pueden ser corroborados substancialmente con otros datos observables con los mismos términos contractuales.

Para los contratos de derivados que no se dispongan de un precio de mercado cotizado, las estimaciones del valor razonable generalmente se determinan utilizando modelos y otros métodos de valoración basados técnicas de valor presente, cuyos insumos clave incluyen precios futuros, estimaciones de volatilidad, correlación de precios, riesgo de crédito de contraparte y liquidez del mercado, según corresponda.

- **Nivel 3:** Técnicas de valoración para las cuales la entrada de nivel más bajo que es significativa para la medición del valor razonable no es observable. El Grupo no utiliza entradas a nivel 3 para sus mediciones de activos y pasivos financieros. Para el cálculo del valor recuperable de ciertos activos no financieros para propósitos de determinación del impairment, el Grupo puede utilizar entradas de nivel 3.

Método de la tasa de interés efectiva

El método de la tasa de interés efectiva es una forma de cálculo del costo amortizado de un instrumento financiero y de registro del ingreso o gasto financiero a lo largo del período relevante. La tasa de interés efectiva es la tasa de descuento que iguala exactamente los flujos de efectivo por cobrar o por pagar estimados (incluyendo todas las comisiones, costos de transacción y otras primas o descuentos) a lo largo de la vida esperada del instrumento financiero (o, cuando sea adecuado, en un periodo más corto) con el importe neto en libros en el reconocimiento inicial.

Impairment de activos financieros

El Grupo reconoce el valor de las pérdidas crediticias esperadas durante el tiempo de vida del activo de acuerdo con el enfoque simplificado. Las pérdidas crediticias del activo se reconocen antes que un instrumento pase a estar en mora. Para determinar el riesgo crediticio se utiliza la información razonable y sustentable que se refiera al comportamiento histórico y variables que indiquen que exista riesgo en el futuro.

Al final de cada periodo sobre el que se informa el Grupo evalúa si hay evidencia objetiva que un activo o un grupo de activos están deteriorados como resultado de uno o más eventos ocurridos desde el reconocimiento inicial, para determinar si los flujos de efectivo futuros han sido afectados.

Para los activos financieros medidos al costo amortizado, el importe de la pérdida por impairment es la diferencia entre el importe en libros y el valor presente de los flujos de efectivo futuros estimados, descontados a la tasa de interés efectiva original del activo financiero.

4.1.1 Efectivo y equivalentes de efectivo

El efectivo y equivalentes de efectivo comprende recursos en caja, inversiones financieras altamente líquidas, depósitos bancarios y depósitos especiales con vencimiento dentro de los noventa días desde la fecha de su adquisición y con bajo nivel de riesgo a cambios significativos en su valor.

4.1.2 Activos financieros

La clasificación de los activos financieros en el reconocimiento inicial depende de las características contractuales del flujo de efectivo del activo financiero y del modelo de negocio del Grupo para gestionarlos. Con excepción de las cuentas por cobrar comerciales que no contienen un componente de financiamiento significativo o para las cuales el Grupo Empresarial Ecopetrol ha aplicado el expediente práctico, el Grupo Empresarial Ecopetrol mide inicialmente un activo financiero a su valor razonable más los costos de transacción, en el caso de un activo no medido a valor razonable con cambios en resultados. Las cuentas por cobrar comerciales que no contienen un componente de financiamiento significativo o para las cuales el Grupo Empresarial Ecopetrol ha aplicado el expediente práctico se miden al precio de transacción determinado según la NIIF 15.

El Grupo clasifica sus activos financieros en las siguientes categorías:

a) Activos financieros a valor razonable con cambios en resultados

Incluyen activos financieros mantenidos para negociar y activos financieros designados al momento del reconocimiento inicial a valor razonable con cambios en resultados. Se clasifican como mantenidos para negociar si son adquiridos con el propósito de vender o recomprar en el corto plazo. Estos activos se reconocen a su valor razonable y las ganancias o pérdidas que surgen en la re-mediación son reconocidas en el resultado del periodo.

b) Activos financieros medidos al valor razonable con cambios en el otro resultado integral

Son instrumentos de patrimonio de otras Compañías no controladas y no estratégicas que no permiten ejercer ningún tipo de control o influencia significativa sobre las mismas y donde la gerencia del Grupo no tiene propósito de negociarlos en el corto plazo. Estos instrumentos se reconocen por su valor razonable y las ganancias o pérdidas se reconocen en el otro resultado integral.

c) Activos financieros a costo amortizado

Esta categoría es la más relevante para el Grupo. Los activos financieros a costo amortizado incluyen las cuentas por cobrar comerciales, otras cuentas por cobrar, préstamos y préstamos a empleados.

Los préstamos y cuentas por cobrar son activos financieros no derivados con pagos fijos o determinables, que no cotizan en un mercado activo. Los préstamos y cuentas por cobrar, incluyen cuentas comerciales y otras cuentas por cobrar.

Los préstamos a empleados son inicialmente reconocidos al valor presente de los flujos de efectivo futuros, descontados a una tasa de mercado para un préstamo similar. Si la tasa de interés del préstamo es inferior a la tasa de interés de mercado, el valor razonable será menor que la cuantía del préstamo.

El Grupo mide los activos financieros a costo amortizado si se cumplen las siguientes condiciones:

- El activo es mantenido dentro de un modelo de negocio cuyo objetivo es beneficiarse de los flujos contractuales, y,
- Los términos contractuales dan lugar a fechas específicas de pago y los flujos de efectivo corresponden únicamente a pagos del principal e intereses.

Los activos financieros a costo amortizado son posteriormente medidos usando el método de interés efectivo menos impairment. Las ganancias o pérdidas son reconocidas en el resultado cuando el activo es dado de baja, ha sido modificado o deteriorado.

Bajas de activos financieros

El Grupo da de baja un activo financiero únicamente al vencimiento de los derechos contractuales sobre los flujos de efectivo del activo o, cuando ha transferido sus derechos de recibir dichos flujos o ha asumido la obligación de pagar los flujos recibidos en su totalidad sin demora material a un tercero y (a) ha transferido sustancialmente todos los riesgos y beneficios inherentes a la propiedad o (b) no ha transferido ni retenido sustancialmente todos los riesgos y beneficios del activo, sino que ha transferido el control del mismo.

Cuando el Grupo no ha transferido ni retenido sustancialmente todos los riesgos y beneficios del activo o transferido el control del activo, continúa reconociendo el activo sobre la base de la participación continuada, y también reconoce el pasivo asociado.

4.1.3 Pasivos financieros

Los pasivos financieros corresponden a las fuentes de financiación obtenidas por el Grupo a través de créditos bancarios y emisiones de bonos, cuentas por pagar a proveedores y acreedores.

Los bonos y los créditos bancarios se reconocen inicialmente a su valor razonable, neto de los costos de transacción incurridos. Después del reconocimiento

inicial, se miden posteriormente a costo amortizado, utilizando el método de tasa de interés efectiva. La amortización se incluye como gasto financiero en el estado consolidado de ganancias y pérdidas.

Bajas de pasivos financieros

Un pasivo financiero se da de baja cuando la obligación especificada en el correspondiente contrato sea pagada o vencida. Cuando un pasivo existente haya sido reemplazado por otro pasivo proveniente del mismo prestamista bajo condiciones sustancialmente diferentes, o si las condiciones de un pasivo existente se modifican de manera sustancial, tal modificación se trata como una baja del pasivo original y el reconocimiento de un nuevo pasivo. La diferencia entre los importes respectivos, se reconoce en el estado consolidado de ganancias y pérdidas.

4.1.4 Instrumentos financieros derivados y operaciones de cobertura

Los instrumentos financieros derivados se reconocen inicialmente en el estado consolidado de situación financiera como activos o pasivos por su valor razonable. Los cambios en el valor razonable se registran como resultados en el estado consolidado de ganancias y pérdidas, excepto si son designados dentro de una cobertura de flujo de efectivo, las cuales se reconocen en otros resultados integrales y posteriormente se reclasifican a resultados cuando el elemento cubierto afecte ganancias y pérdidas.

Las ganancias o pérdidas de los contratos derivados, que no están calificados ni designados como coberturas, incluidos los contratos de forward para la compra y venta de commodities en negociación para la entrega o recibo físico del commodity son registrados en el estado consolidado de ganancias y pérdidas.

4.1.5 Operaciones de cobertura

Para propósitos de contabilidad de cobertura, estas operaciones son clasificadas como:

- Coberturas de flujo de efectivo: coberturas para la exposición a la fluctuación de los flujos de efectivo atribuibles a un riesgo particular asociado con todos, o un componente de un activo o pasivo reconocido o a una transacción prevista altamente probable y que podría afectar las ganancias o pérdidas.
- Coberturas de una inversión neta de un negocio en el extranjero.

- Coberturas de valor razonable: coberturas para la exposición a cambios en el valor razonable de un activo o pasivo reconocido o un compromiso en firme no reconocido, o un componente de cualquier elemento de este tipo, que es atribuible a un riesgo particular y que podría afectar las ganancias o pérdidas.

Al inicio de la relación de cobertura, El Grupo designa y documenta formalmente la relación entre el instrumento de cobertura y el elemento cubierto, junto con sus objetivos de gestión de riesgo y su estrategia para llevar a cabo las transacciones de cobertura. Se espera que tales coberturas sean altamente efectivas para lograr compensar los cambios en el valor razonable o en los flujos de efectivo; igualmente, se evalúan continuamente para determinar que realmente han sido altamente efectivos a lo largo de los períodos de reporte financiero, para los cuales fueron designados.

4.1.5.1 Cobertura de flujo de efectivo

La porción efectiva de las ganancias o pérdidas de los instrumentos de cobertura se reconocen en el estado de otros resultados integrales, mientras que la porción inefectiva se reconoce en el estado consolidado de ganancias y pérdidas, en la línea del resultado financiero, neto.

Los montos previamente reconocidos en el estado de otros resultados integrales consolidados se transfieren al estado consolidado de ganancias y pérdidas cuando la partida cubierta afecta las ganancias y pérdidas. Cuando la partida cubierta es un activo o pasivo no financiero, los importes previamente reconocidos en otros resultados integrales se transfieren y se incluyen en el importe en libros inicial del costo del activo o pasivo no financiero.

Si el instrumento de cobertura expira o se vende, finaliza o se ejerce sin reemplazo o transferencia, o si se revoca su designación como cobertura o cuando la cobertura ya no cumple con los criterios para la contabilidad de coberturas, cualquier ganancia o pérdida acumulada previamente reconocida en el estado de otros resultados integrales consolidados se mantiene por separado en el patrimonio hasta que la transacción se reconozca en el estado consolidado de ganancias y pérdidas. Cuando ya no se espera que ocurra la transacción cubierta inicialmente, cualquier monto acumulada o en el patrimonio se reconoce inmediatamente en el estado consolidado de ganancias y pérdidas.

Ecopetrol designa préstamos a largo plazo como instrumento de cobertura para su exposición al riesgo tipo de cambio en exportaciones futuras de crudo. Ver Nota 30.3 para mayor información.

4.1.5.2 Cobertura de inversión neta en un negocio en el extranjero

Son contabilizadas de manera similar a las coberturas de flujo de efectivo.

Las ganancias o pérdidas del instrumento de cobertura relativa a la porción efectiva se reconocen en el estado de otros resultados integrales consolidados; mientras que los montos relativos a la porción inefectiva se reconocen en el estado consolidado de ganancias y pérdidas. Las ganancias y pérdidas acumuladas en el patrimonio son reclasificadas al estado consolidado de ganancias y pérdidas cuando se disponga parcial o totalmente del negocio en el extranjero.

Ecopetrol designó préstamos a largo plazo como instrumento de cobertura para su exposición al riesgo de tipo de cambio en sus inversiones en subsidiarias cuya moneda funcional es dólar. Ver Nota 30.4 para mayor información.

4.1.5.3 Cobertura de valor razonable

La ganancia o pérdida del instrumento de cobertura se reconocerá en el estado consolidado de ganancias y pérdidas o en el estado de otros resultados integrales consolidados, si el instrumento de cobertura cubre un instrumento de patrimonio para el cual una entidad ha optado por presentar cambios en el valor razonable en otro resultado integral consolidado.

La ganancia o pérdida de cobertura de la partida cubierta ajustará el valor en libros de la partida cubierta (si corresponde) y se reconocerá en el estado consolidado de ganancias y pérdidas. Si la partida cubierta es un activo financiero (o un componente del mismo) que se mide a valor razonable con cambios en otro resultado integral, la ganancia o pérdida de cobertura de la partida cubierta se reconocerá en el estado de ganancias y pérdidas consolidado. Sin embargo, si la partida cubierta es un instrumento de patrimonio para el cual una entidad ha optado por presentar cambios en el valor razonable en otro resultado integral, esos importes permanecerán en el estado de otros resultados integrales consolidados.

4.2. Inventarios

Los inventarios se registran al más bajo entre el costo y el valor neto realizable.

Comprenden principalmente petróleo crudo, combustibles y productos petroquímicos e inventarios de bienes de consumo (repuestos y suministros).

El costo del petróleo crudo es el costo de producción, incluido el costo de transporte.

El costo de otros inventarios se determina según el método del promedio ponderado, el cual incluye los costos de adquisición (descuentos comerciales, reembolsos y otros similares), transformación y otros costos incurridos para llevar el inventario a su ubicación y condición actual, como los costos de transporte.

Los inventarios de consumibles (repuestos y suministros) se reconocen como inventario y luego se registran como gastos, mantenimiento o proyectos en la medida en que se consuman.

El Grupo estima el valor neto realizable de los inventarios al final de cada período. Cuando las circunstancias que previamente causaron que los inventarios estuvieran por debajo de su costo ya no existan, o cuando se presenta una clara evidencia de un aumento en el valor neto realizable debido a un cambio en las circunstancias económicas, el monto provisionado se revierte. La reversión no puede ser mayor al valor registrado originalmente, de modo que el nuevo importe en libros siempre será el menor entre el costo y el valor neto realizable revisado.

4.3. Partes relacionadas

Se consideran partes relacionadas aquellas en donde una de las partes tiene la capacidad de controlar a la otra, tiene control conjunto, o ejerce influencia significativa en la toma de decisiones financieras u operativas de la participada o es un miembro del personal clave de la gerencia (o familiar cercano del personal clave). El Grupo ha considerado como partes relacionadas las Compañías asociadas, negocios conjuntos, directivos clave de la gerencia, las entidades administradoras de los recursos para pago de planes de beneficios post-empleo para empleados y algunas transacciones relevantes celebradas con entidades del Gobierno Colombiano, como son la compra de hidrocarburos y el fondo de estabilización petrolera. (Ver Nota 31 – Partes Relacionadas)

4.3.1. Inversiones en asociadas

Una asociada es una entidad sobre la cual el Grupo ejerce influencia significativa pero no control. La influencia significativa es el poder de intervenir en las decisiones de política financiera y operativa de la participada, sin llegar a tener control o control conjunto sobre las mismas. En general, estas entidades son aquellas en las que se mantiene una participación accionaria del 20% al 50% de los derechos de voto. (Ver Anexo 1 – Compañías subsidiarias consolidadas, asociadas y negocios conjuntos).

Las inversiones en asociadas se contabilizan utilizando el método de la participación. Bajo este método, la inversión se reconoce inicialmente al costo, posteriormente es ajustada para reconocer la participación del Grupo en los activos netos de la asociada. El goodwill relacionado se incluye en el importe en libros y no se evalúa su impairment de forma separada.

La participación en los resultados de las operaciones de la asociada se reconoce en el estado consolidado de ganancias y pérdidas. Cualquier cambio en otro resultado integral se registra también en el estado de otros resultados integrales consolidado.

Después de la aplicación del método de participación, el Grupo determina si es necesario reconocer una pérdida por impairment de la inversión, en cada fecha de presentación, el Grupo determina si existe evidencia objetiva de que la inversión está deteriorada, si existe tal evidencia, se calcula el monto del impairment como la diferencia entre el importe recuperable y el valor en libros, y luego reconoce la pérdida en el estado consolidado de ganancias y pérdidas.

Cuando es necesario, se realiza homologación a las políticas contables de las asociadas para garantizar la consistencia con las adoptadas por el Grupo. Adicionalmente, el método de participación se calcula con sus estados financieros más recientes.

4.3.2 Negocios conjuntos

Un negocio conjunto es un acuerdo mediante el cual dos o más partes ejercen control conjunto y tienen derecho a los activos netos del acuerdo conjunto. El control conjunto se presenta cuando las decisiones sobre las actividades relevantes requieren el consentimiento unánime de las partes que comparten el control. El tratamiento contable para el reconocimiento de los negocios conjuntos es el mismo que el de las inversiones en asociadas.

4.4. Operaciones conjuntas

Una operación conjunta es un tipo de acuerdo conjunto mediante el cual las partes ejercen derechos sobre los activos y obligaciones sobre los pasivos, en relación con el acuerdo.

Los contratos de operación conjunta se celebran entre el Grupo y terceros para compartir el riesgo, asegurar el capital, maximizar la eficiencia operativa y optimizar la recuperación de las reservas. En estas operaciones, una parte se designa como el operador para ejecutar el presupuesto de gastos e inversiones e informar a los socios de acuerdo con sus intereses de participación.

Así mismo, cada uno toma su parte de los hidrocarburos producidos (petróleo crudo o gas) de acuerdo con su participación en la producción.

Cuando el Grupo participa como socio no operador, registra los activos, pasivos, ingresos, costos y gastos en función del informe de los operadores. Cuando el Grupo es el operador directo de los contratos, registra su porcentaje de activos, pasivos, ingresos, costos y gastos, con base en la participación de cada socio en las líneas correspondientes a activos, pasivos, gastos, costos e ingresos.

Cuando el Grupo adquiere o aumenta una participación en una operación conjunta en la cual la actividad constituye un negocio, dicha transacción se registra aplicando el método de adquisición de acuerdo a la NIIF 3 – Combinación de negocios. El costo de adquisición es la suma de la contraprestación transferida, la cual corresponde al valor razonable, en la fecha de adquisición, de los activos transferidos y los pasivos incurridos.

El exceso del valor de la contraprestación transferida y el importe pagado en la operación se reconoce como goodwill. Si resulta en un exceso el valor razonable de los activos netos adquiridos sobre el importe pagado en la operación, la diferencia se reconoce como un ingreso en el estado de ganancias y pérdidas consolidado en la fecha de reconocimiento de la operación.

4.5. Activos no corrientes mantenidos para la venta

Los activos no corrientes se clasifican como mantenidos para la venta si sus valores en libros se recuperarán principalmente a través de una transacción de venta y no mediante su uso continuado. Así mismo, se clasifican en esta categoría solo cuando la venta es altamente probable dentro de un año desde la fecha de clasificación y el activo (o grupo de activos) y está disponible para su venta inmediata en su condición actual. Estos activos se miden al menor entre su valor en libros y el valor razonable menos los costos de disposición relacionados.

4.6. Propiedades, planta y equipo

Reconocimiento y medición

Las propiedades, planta y equipo se presentan al costo menos la depreciación acumulada y las pérdidas acumuladas por impairment. Los componentes tangibles de los activos relacionados con recursos naturales y del medio ambiente forman parte de las propiedades, planta y equipo.

El costo inicial de un activo comprende su precio de compra o costo de construcción, incluyendo impuestos de importación e impuestos no reembolsables, cualquier costo directamente atribuible a la puesta en operación del activo, costos de beneficios a los empleados que surjan directamente de la construcción o adquisición, costos de endeudamiento incurridos que son atribuibles a la adquisición y/o construcción de activos calificables y la estimación inicial de los costos de desmantelamiento y abandono.

Las piezas de repuesto y el equipo auxiliar se registran como inventarios, y se reconocen como gasto en la medida que se consumen. Las piezas de repuesto importantes y el equipo de mantenimiento permanente, que el Grupo espera usar durante más de un período, son reconocidos como propiedades, planta y equipo.

Cualquier ganancia o pérdida en el retiro de algún elemento de propiedades, planta y equipo es reconocida en el estado consolidado de ganancias y pérdidas del periodo respectivo.

Desembolsos posteriores

Corresponden a todos los desembolsos que se realicen sobre activos existentes con el fin de aumentar o prolongar la vida útil inicial esperada, aumentar la productividad o eficiencia productiva, permitir una reducción significativa de los costos de operación, aumentar el nivel de reservas en áreas de explotación o desarrollo o reemplazar una parte o componente de un activo que sea considerado crítico para la operación.

Los gastos de reparación, conservación y mantenimiento de carácter ordinario se imputan a resultados del ejercicio en que se producen. No obstante, los desembolsos asociados a mantenimientos mayores son capitalizados.

Depreciación

Las propiedades, planta y equipo se deprecian siguiendo el método lineal, excepto los activos asociados a las actividades de Exploración y Producción, los cuales se deprecian usando el método de unidades técnicas de producción. Las vidas útiles técnicas se actualizan anualmente considerando razones tales como: adiciones o mejoras (por reposición de partes o componentes críticos para la operación del activo), avances tecnológicos, obsolescencia u otros factores; el efecto de estos cambios se reconoce a partir del periodo contable en el cual se efectúa. La depreciación de los activos comienza cuando los mismos están en condiciones de uso.

La vida útil se define bajo los criterios de utilización prevista del activo, su desgaste físico esperado, la obsolescencia técnica o comercial y los límites legales o restricciones sobre su uso.

Las vidas útiles estimadas oscilan entre los siguientes rangos:

Planta y equipo	10 - 55 años
Ductos, redes y líneas	10 - 40 años
Edificaciones	10 - 42 años
Otros	3 - 35 años

Los terrenos se registran de forma independiente de los edificios o instalaciones y tienen una vida útil indefinida y por lo tanto no son objeto de depreciación.

Los métodos de depreciación y vidas útiles se revisan anualmente y se ajustan, si corresponde.

Impairment

Los activos asociados a exploración, evaluación y producción están sujetos a revisión por posible impairment en su valor recuperable. Ver notas 3.2 – Impairment (recuperación de impairment) del valor de los activos de largo plazo y 4.12 - Impairment del valor de los activos de largo plazo.

4.7. Recursos naturales y del medio ambiente

Reconocimiento y medición

El Grupo emplea el método de esfuerzos exitosos para el registro de las actividades de exploración y producción de petróleo crudo y gas, considerando a su vez, lo establecido en la NIIF 6 - Exploración y evaluación de recursos minerales.

Costos de exploración

Los costos de adquisición y exploración son registrados como activos de exploración y evaluación en curso hasta el momento en que se determine si la perforación de exploración resultó exitosa o no; de no ser exitosa, todos los costos incurridos son reconocidos en el estado de ganancias y pérdidas consolidado.

Los costos de exploración incurridos con el objetivo de identificar áreas con perspectivas de contener reservas de petróleo crudo o gas incluyendo geología y geofísica, sísmica, viabilidad y otros, se reconocen como gastos cuando se incurren. Los desembolsos asociados con la perforación de pozos exploratorios y aquellos relacionados con pozos estratigráficos de naturaleza

exploratoria son registrados como activos hasta que se determine si son comercialmente viables; de lo contrario, se registran en resultados como gasto de pozos secos. Otros gastos se reconocen en el estado de ganancias y pérdidas consolidado cuando se incurre en ellos.

Un activo de exploración y evaluación ya no se clasificará como tal cuando se demuestre la factibilidad técnica y la viabilidad comercial de extraer un recurso mineral. Los activos de exploración y evaluación se revisarán por impairment y se reconocerá cualquier pérdida por impairment antes de su reclasificación.

Todos los costos capitalizados están sujetos a revisiones técnicas y comerciales al menos una vez al año para confirmar la continuidad para desarrollar y producir dichos campos; de lo contrario, estos costos se transfieren al estado de ganancias y pérdidas consolidado.

Los costos de exploración se presentan netos de los ingresos obtenidos de la venta de petróleo crudo durante el periodo de pruebas extensas, neto de los costos de ventas, ya que se consideran necesarios para completar el activo.

Costos de desarrollo

Los costos de desarrollo corresponden a aquellos costos incurridos para acceder a las reservas probadas de hidrocarburos y de proporcionar las instalaciones necesarias para la extracción, tratamiento, recogida y almacenamiento. Cuando un proyecto es aprobado para desarrollo, el valor acumulado de los costos de adquisición y exploración se clasifican como recursos naturales y del medio ambiente, los costos posteriores a la etapa de exploración son capitalizados como costos de desarrollo de las propiedades que comprendan tales activos de recursos naturales. Todos los costos de desarrollo se capitalizan, incluidos los costos de perforación sin éxito de pozos de desarrollo.

Costos de producción

Son aquellos incurridos para operar y mantener los pozos productivos, así como el equipo e instalaciones correspondientes. La actividad de producción incluye la extracción del crudo y del gas a la superficie, su recolección, tratamiento y procesamiento y el almacenamiento en el campo. Los costos de producción son gastos en el momento en que se incurren a menos que adicione reservas de petróleo crudo y gas, en tal caso son capitalizados.

Los equipos de producción y apoyo se contabilizan con base en su costo y hacen parte de las propiedades, planta y equipo sujetos a depreciación.

Los costos capitalizados también incluyen el costo de desmantelamiento, retiro y restauración, así como el valor estimado por obligaciones ambientales futuras. La estimación incluye los costos de taponamiento y abandono de pozos, desmonte de facilidades y recuperación ambiental de áreas y pozos. Los cambios resultantes de nuevas estimaciones del pasivo por abandono y restauración ambiental, se capitalizan en el activo correspondiente.

Los costos capitalizados también incluyen el valor de los ingresos obtenidos netos de los costos por la venta de crudo de pruebas extensas, por cuanto se consideran necesarios para completar el activo.

Amortización

La amortización de los elementos de recursos naturales y del medio ambiente es determinada según el método de unidades técnicas de producción por campo, utilizando como base las reservas probadas desarrolladas, salvo algunos casos excepcionales que demandan un mayor juicio de valor por parte de la Gerencia para determinar un mejor factor de amortización de los beneficios económicos futuros a lo largo de la vida útil del activo. Los factores de amortización se revisan anualmente, con base en el estudio de reservas y el impacto sobre cambios de dichos factores sobre el gasto por amortización, se reconoce de manera prospectiva en los estados financieros consolidados.

Las reservas son auditadas por consultores externos reconocidos internacionalmente y aprobadas por la Junta Directiva. Las reservas probadas consisten en las cantidades estimadas de petróleo crudo y gas natural demostradas con certeza razonable por los datos geológicos y de ingeniería que serán recuperables en años futuros a partir de reservas conocidas bajo condiciones económicas y de operación existentes, es decir, a los precios y costos que se aplican a la fecha de la estimación.

Impairment

Los activos asociados a exploración, evaluación y producción están sujetos a revisión por posible impairment en su valor recuperable. Ver notas 3.2 – Impairment (recuperación de impairment) del valor de los activos de largo plazo y 4.12 - Impairment del valor de los activos de largo plazo.

4.8. Capitalización de costos por préstamos

Los costos por préstamos relacionados con la adquisición, construcción o producción de un activo calificado, el cual requiera un período de tiempo

sustancial para estar listo para su uso, se capitalizan como parte del costo de ese activo cuando sea probable que los beneficios económicos futuros retornen al Grupo y puedan ser medidos con fiabilidad. Los demás costos por intereses se reconocen como gastos financieros en el período en que se incurren. Los proyectos que han sido suspendidos, pero que el Grupo tiene la intención de continuar a futuro con su ejecución, no son considerados como activos calificados para el propósito de capitalizar los costos por préstamos.

4.9. Activos intangibles

Los activos intangibles con vida útil definida, adquiridos separadamente, son inicialmente registrados al costo menos la amortización acumulada y pérdidas acumuladas por impairment. La amortización es reconocida bajo el método de línea recta, de acuerdo con sus vidas útiles estimadas. La vida útil estimada y el método de amortización son revisados al final de cada período de reporte; cualquier cambio en la estimación es registrada sobre una base prospectiva.

Los desembolsos originados por las actividades de investigación se reconocen como un gasto en el período en el cual se incurren.

4.10. Goodwill

El goodwill se mide inicialmente al costo (que corresponde al exceso entre la contraprestación transferida y el monto reconocido por intereses no controlantes y cualquier interés anterior mantenido sobre los activos netos identificables de los activos adquiridos y los pasivos asumidos). Después del reconocimiento inicial, el goodwill se mide al costo menos cualquier pérdida por impairment acumulada. El crédito mercantil no se amortiza, pero se revisa anualmente su impairment.

4.11. Arrendamientos

Ecopetrol aplicó NIIF 16 – Arrendamientos a partir del 1 de enero de 2019, utilizando el enfoque retrospectivo modificado.

Al inicio de un contrato, la Compañía evalúa si un contrato es, o contiene, un arrendamiento. Esta situación se presenta si el contrato transfiere el derecho de controlar el uso de un activo identificado por un período de tiempo a cambio de una contraprestación. Para llevar a cabo dicha evaluación, se utiliza la definición de arrendamiento contenido en la NIIF 16.

Arrendamiento como arrendatario

En la fecha de inicio de un arrendamiento, Ecopetrol reconoce una obligación correspondiente al total de pagos del arrendamiento y un activo que representa el derecho de usar el activo subyacente durante el término del arriendo. Se reconocen separadamente el gasto por intereses sobre la obligación y el gasto por amortización del activo por derecho de uso.

En el reconocimiento posterior, la Compañía remide la obligación de arrendamiento ante la ocurrencia de acontecimientos como: a) cambios del término del arrendamiento, b) cambios de los pagos futuros pagos de arrendamiento que resulten de variaciones en un índice o en la tasa utilizada para determinar los pagos. El monto de la nueva medición de la obligación se reconocerá como un ajuste al activo por derecho de uso.

Arrendamiento como arrendador

Ecopetrol clasifica como financieros aquellos contratos en los cuales los términos del arrendamiento transfieren sustancialmente a los arrendatarios todos los riesgos y beneficios inherentes a la propiedad del activo. Los demás arrendamientos se clasifican como operativos.

Si el arrendamiento es clasificado como financiero, se registra una cuenta por cobrar en el estado de situación financiera, por monto igual a la inversión neta en el arrendamiento.

Para los arrendamientos clasificados como operativos se reconocen los ingresos por los pagos de forma lineal en el estado de resultados.

Activos por derecho de uso

Ecopetrol reconoce los activos por derecho de uso en la fecha de inicio del arrendamiento (es decir, la fecha en que el activo subyacente está disponible para su uso). Los activos por derecho de uso se miden al costo, menos cualquier amortización acumulada y pérdidas por impairment, y se ajustan si existe alguna nueva medición de los pasivos por arrendamiento. Se amortizan en línea recta durante el plazo del arrendamiento y están sujetos a evaluación por impairment.

Pasivos por arrendamiento

En la fecha de inicio del arrendamiento, la Compañía reconoce los pasivos al valor presente de los pagos por arrendamiento que se realizarán durante el plazo del

contrato. Los pagos variables que no dependan de un índice o una tasa se reconocen como gasto en el período en el que un evento o condición indiquen que el pago ocurrirá.

Para el cálculo del valor presente de los pagos, Ecopetrol utiliza la tasa de endeudamiento incremental en la fecha de inicio del arrendamiento. El valor en libros de los pasivos se vuelve a medir si hay un cambio en el plazo, en los pagos fijos o en la evaluación para comprar el activo subyacente.

Arrendamientos de corto plazo y arrendamientos de activos de bajo valor

Ecopetrol aplica la exención de reconocimiento a sus arrendamientos para los contratos que tienen un plazo de ejecución de 12 meses o menos a partir de la fecha de inicio y no contienen una opción de compra y los contratos en los cuales el activo subyacente se considera de bajo valor.

Contratos de asociación (JOA)

En los contratos de asociación JOA se analiza quien controla el uso del activo y de acuerdo a ello se determina el método de reconocimiento de los derechos de uso. Si quien controla el uso del activo es el operador, este deberá reconocer en sus estados financieros el 100% del derecho. Si quien controla es el JOA, se analiza si el contrato cumple con las características de un subarrendamiento, y en ese caso cada parte deberá reconocer proporcionalmente a su participación el derecho de uso. Ecopetrol reconoce al 100% los derechos de uso en los contratos de asociación (JOA) en los que participa como operador.

4.12 Impairment del valor de los activos de largo plazo

Con el fin de evaluar si los activos tangibles e intangibles están deteriorados, el Grupo compara el valor en libros de los mismos con el importe recuperable por lo menos en cada fecha de cierre del período, para identificar indicios de que algún activo pudiera estar deteriorado.

Para efectuar el análisis de impairment, los activos se agrupan en unidades generadoras de efectivo (UGEs) siempre que los mismos, individualmente considerados, no generen flujos de efectivo que, en buena medida, sean independientes de los generados por otros activos o UGEs. La agrupación de los activos en diferentes UGEs, implica la realización de juicio profesional y la consideración, entre otros parámetros, de los segmentos de negocio. En este sentido, en el segmento de Exploración y Producción,

una UGE corresponde a cada una de las distintas áreas contractuales comúnmente denominadas “campos”; por excepción, en aquellos casos en que los flujos de caja generados por varios campos son interdependientes entre sí, dichos campos se agrupan en una única UGE. En el caso del segmento Refinación y Petroquímica, las UGE corresponden a cada una de las refinerías del Grupo y para el segmento de Transporte cada línea es considerada como una UGE independiente.

El valor recuperable es el mayor entre el valor razonable menos los costos de disposición y el valor en uso. Si el importe recuperable de un activo (o de una UGE) es inferior a su valor neto contable, se reconoce una pérdida por impairment de valor en los resultados consolidados del periodo.

El valor razonable menos los costos de disposición es usualmente mayor que el valor en uso para el segmento de producción debido a algunas restricciones significativas en la estimación de los flujos de caja futuros, como son: a) futuras inversiones de capital que mejoren el desempeño de la UGE y que pueden resultar en un incremento esperado de los flujos netos de efectivo, b) partidas antes de impuestos que reflejan riesgos de negocio específicos, lo que resulta en una mayor tasa de descuento.

El valor razonable menos los costos de disposición, se determina como la suma de los flujos de caja futuros descontados, ajustados al riesgo estimado. Las estimaciones de los flujos de caja futuros se realizan con proyecciones de los precios de los productos básicos, estimaciones de la oferta y la demanda y los márgenes de los productos.

El valor razonable menos los costos de disposición, descrito arriba, es comparado con múltiples de valoración y precios de cotización de las acciones en empresas comparables al Grupo, con el objetivo de determinar si es razonable. En el caso de los activos o UGEs que participan en la evaluación y exploración de reservas, se consideran reservas probadas, probables y posibles, con un factor de riesgo asociado a las mismas.

Una vez que se ha registrado una pérdida por impairment, el gasto por amortización futura se calcula sobre la base del importe recuperable ajustado. Las pérdidas por impairment solo pueden revertirse si la recuperación está relacionada con un cambio en las estimaciones utilizadas después de que se reconoció la pérdida. Estas reversiones no deberán exceder el valor en libros de los activos netos de depreciación o amortización que se habrían determinado si el impairment nunca se hubiera registrado.

El valor en libros de los activos no corrientes reclasificados como activos mantenidos para la venta,

se compara con el valor razonable menos los costos de disposición. No se registra ninguna otra provisión por depreciación o amortización si el valor razonable menos los costos de disposición es menor que el valor en libros.

4.13 Provisiones y pasivos contingentes

Las provisiones son reconocidas cuando el Grupo tiene una obligación presente (legal o implícita) como resultado de un evento pasado y que sea probable que se requiera un desembolso futuro para pagar la obligación y su estimación pueda ser medida con fiabilidad. En los casos aplicables, se registran a su valor presente, utilizando una tasa que refleje el riesgo específico del pasivo.

Si el efecto del valor temporal del dinero en el tiempo es significativo, las provisiones son descontadas utilizando una tasa actual de mercado antes de impuestos que refleje, cuando corresponda, los riesgos específicos del pasivo. Cuando se reconoce el descuento, el aumento de la provisión se reconoce como gasto financiero en el estado de ganancias y pérdidas consolidado.

Los desembolsos relacionados con la conservación del ambiente, vinculados con ingresos por operaciones actuales o futuras, son contabilizados como gastos o activos, según corresponda. Los desembolsos relacionados con operaciones del pasado, que no contribuyan a la obtención de ingresos corrientes o futuros, son registrados como gastos.

El reconocimiento de estas provisiones coincide con la identificación de una obligación relacionada con remediación ambiental y el Grupo utiliza toda la información disponible para determinar un estimado razonable de su respectivo costo.

Los pasivos contingentes no son reconocidos, pero están sujetos a revelación en las notas explicativas cuando es posible la salida de recursos; incluyendo aquellos cuyos valores no pueden estimarse.

En los casos en que se espera que la provisión se reembolse en todo o en parte, por ejemplo, en virtud de un contrato de seguros, el reembolso se reconoce como un activo separado únicamente en los casos en que tal reembolso sea prácticamente cierto. El importe reconocido para el activo no debe exceder el importe de la provisión.

Obligación de retiro de activos

Los pasivos asociados al retiro de activos se reconocen cuando se tienen obligaciones ya sean legales o implícitas, relacionadas con el abandono y desmantelamiento pozos, ductos, inmuebles y equipo.

La obligación generalmente se contrae cuando los activos son instalados o cuando la superficie o el ambiente son alterados en los sitios a operar. Estos pasivos son reconocidos utilizando la técnica de flujos de caja descontados a una tasa antes de impuestos que refleja las evaluaciones actuales de mercado de un pasivo de riesgo similar y tomando en consideración el límite económico del campo o vida útil del activo respectivo. En el caso en que no se pueda determinar una estimación fiable en el periodo en que se origina la obligación, la provisión debe reconocerse cuando se tenga suficiente información disponible para realizar la mejor estimación.

El valor en libros de la provisión es revisado y ajustado anualmente considerando cambios en las variables utilizadas para su estimación, utilizando una tasa libre de riesgo ajustada por una prima que refleja el riesgo y calificación crediticia de la compañía bajo las condiciones actuales de mercado. Cualquier cambio en el valor presente del gasto estimado se refleja como un ajuste a la provisión y su correspondiente propiedad, planta y equipo o recursos naturales y ambientales. Cuando se presenta una disminución en la obligación de retiro de activos relacionada con un activo productivo que excede el valor en libros del activo, el exceso se reconoce en el estado de ganancias y pérdidas consolidado. El costo financiero de actualización de estos pasivos es reconocido en el resultado del periodo, como gasto financiero.

4.14. Impuesto a las ganancias y otros impuestos

El gasto por impuesto a las ganancias está compuesto por el impuesto a la renta por pagar del periodo corriente y el efecto del impuesto diferido en cada periodo.

El impuesto a las ganancias es registrado en resultados, excepto cuando estén relacionados con partidas reconocidas en otros resultados integrales, en cuyo caso el impuesto es registrado en el otro resultado integral. Los activos y pasivos por impuestos son presentados de manera separada en los estados de situación financiera consolidados, excepto cuando exista un derecho de compensación dentro de las jurisdicciones fiscales y la intención para cruzar tales saldos sobre una base neta.

Para las entidades que tributan en Colombia, los impuestos son pagados de acuerdo al resultado individual de cada Compañía y no bajo una base consolidada

4.14.1 Impuesto corriente

El Grupo determina la provisión del impuesto a las ganancias con base en el mayor valor entre la utilidad gravable y la renta presuntiva (el valor mínimo estimado de rentabilidad que la ley prevé para cuantificar y

liquidar el impuesto a las ganancias). La utilidad fiscal difiere de la utilidad reportada en el estado consolidado de ganancias y pérdidas, debido a: partidas de ingresos o gastos impositivos o deducibles en diferentes periodos fiscales, deducciones tributarias especiales, pérdidas fiscales y partidas contabilizadas que conforme a las normas tributarias aplicables en cada jurisdicción se consideren no gravables o no deducibles

4.14.2 Impuestos diferidos

El impuesto diferido se contabiliza de acuerdo con el método del pasivo. Los activos y pasivos por impuestos diferidos se reconocen por las consecuencias impositivas futuras atribuibles a las diferencias entre los importes en libros de los activos y pasivos existentes en los estados financieros consolidados y sus bases impositivas respectivas. Se reconoce un pasivo por impuesto diferido para todas las diferencias temporarias impositivas. Se reconoce un activo por impuesto diferido para todas las diferencias temporarias deducibles y para todas las pérdidas fiscales a amortizar, en la medida en que exista una expectativa razonable de que el Grupo tendrá ganancias fiscales futuras con las que pueda compensar dichas diferencias temporales.

Los impuestos diferidos sobre los activos y pasivos se calculan sobre la base de las tasas impositivas que se esperan aplicar durante los años en los que se reviertan las diferencias temporales entre los importes en libros y las bases impositivas.

El valor en libros de los activos por impuestos diferidos está sujeto a revisión al final de cada período de presentación y se disminuye en la medida en que se estima probable que no habrá suficientes ganancias fiscales futuras para realizar el activo en términos individuales para cada entidad que tributa en Colombia.

En el estado de situación financiera consolidado, los activos por impuestos diferidos se compensan con los pasivos por impuestos diferidos, dependiendo de la posición fiscal en la entidad que los genera.

Los impuestos diferidos no se reconocen cuando surgen en el reconocimiento inicial de un activo o pasivo en una transacción (excepto en una combinación de negocios) y por tanto, en el momento de la transacción, no afecta la utilidad contable o fiscal. Tampoco se reconocen sobre la posible distribución futura de utilidades acumuladas de subsidiarias o inversiones contabilizadas por el método de participación, si al momento de la distribución puede ser controlado por Ecopetrol y es probable que las ganancias acumuladas sean reinvertidas y, por lo tanto, no será distribuido a Ecopetrol.

4.14.3 Otros impuestos

El Grupo reconoce en el resultado del periodo costos y gastos por otros impuestos diferentes al impuesto a las ganancias, tales como el impuesto a la riqueza, el cual se determina con base en el patrimonio fiscal, el impuesto de industria y comercio que grava los ingresos obtenidos en los municipios por el desarrollo de actividades comerciales, industriales y de servicios, y el impuesto de transporte que grava los volúmenes cargados en los sistemas de transporte. Los impuestos son calculados de acuerdo con la normatividad fiscal vigente. Para mayor detalle ver Nota 10.

4.15. Beneficios a empleados

El régimen salarial y prestacional para el personal de Ecopetrol se rige por la Convención Colectiva de Trabajo (Acuerdo 01 de 1977) y, en su defecto, por el Código Sustantivo de Trabajo. Además de beneficios determinados por la legislación laboral, los empleados de Ecopetrol tienen derecho a los beneficios adicionales convenidos, los cuales dependen tanto del lugar, clase de trabajo, tiempo de servicio, como del salario básico. Se reconocen intereses al 12% anual sobre los montos acumulados por cesantías a favor de cada trabajador y se prevé el pago de indemnizaciones cuando se presenten circunstancias especiales que den lugar a la terminación del contrato, sin justa causa, y en períodos diferentes al de prueba.

Ecopetrol pertenecía al régimen especial de pensiones. Bajo este régimen las mesadas pensionales estaban a cargo de Ecopetrol, no a cargo de una Administradora de Pensiones. Sin embargo, la Ley 797 del 29 de enero de 2003 y el acto legislativo 001 de 2005 establecieron que Ecopetrol no pertenecería más a dicho régimen, sino que en adelante sus empleados estarían vinculados al Sistema General de Pensiones. En consecuencia, los empleados que se jubilaron con Ecopetrol hasta el 31 de julio de 2010 siguen recibiendo mesadas a cargo de la Compañía. De igual manera, estos empleados tienen derecho a dicho bono pensional si trabajaron con Ecopetrol antes del 29 de enero de 2003, pero cuyo contrato de trabajo terminó, sin renovación antes de esa fecha.

Todas las prestaciones sociales de empleados ingresados con anterioridad a 1990 son responsabilidad de Ecopetrol sin intervención de organismo o institución de seguridad social. El costo de los servicios de salud del empleado y de sus familiares inscritos se determina mediante la tabla de morbilidad, preparada con base en los hechos acaecidos durante el año.

Para los trabajadores que ingresaron a partir de la vigencia de la Ley 50 de 1990, la Compañía hace aportes periódicos para cesantías, pensiones y riesgos profesionales a los respectivos fondos que asumen en su totalidad estas obligaciones.

En 2008, Ecopetrol conmutó parcialmente el valor correspondiente a mesadas de su pasivo pensional, trasladando dichas obligaciones y los dineros que las soportan a patrimonios autónomos de carácter pensional (PAP's). Los fondos trasladados, al igual que sus rendimientos, no pueden cambiar su destinación ni ser reintegrados a la Compañía hasta que se hayan cumplido todas las obligaciones pensionales. La obligación conmutada cubre el pago de las mesadas y bonos pensionales; lo concerniente a salud y educación permanece dentro del pasivo laboral a cargo de Ecopetrol.

Los beneficios a empleados se dividen en cuatro grupos así:

- a) Beneficios a empleados a corto plazo y beneficios post-empleo de aportaciones definidas

Los beneficios a empleados a corto plazo corresponden principalmente a aquellos cuyo pago será totalmente atendido en el término de los doce meses siguientes al cierre del periodo en el cual los empleados han prestado sus servicios. Estos incluyen principalmente salarios, cesantías, vacaciones, bonos y otros beneficios.

Los beneficios post-empleo de aportaciones definidas corresponden a los pagos periódicos para cesantías, pensiones y riesgos profesionales que la Compañía realiza a los respectivos fondos privados que asumen en su totalidad estas obligaciones.

Los anteriores beneficios se reconocen como un gasto con su pasivo asociado después de deducir cualquier valor ya pagado.

- b) Beneficios a empleados post-empleo por beneficios definidos

En los planes de beneficios definidos, el Grupo suministra los beneficios acordados a los empleados actuales y anteriores, y asume los riesgos actuariales y de inversión.

Los siguientes conceptos son clasificados como planes de beneficios definidos de largo plazo y son registrados en los estados financieros consolidados, de acuerdo con los cálculos realizados anualmente por un actuario independiente:

- Pensiones
- Bonos pensionales
- Salud
- Plan educativo
- Cesantías retroactivas

El pasivo reconocido en el estado de situación financiera consolidado en relación con estos planes de beneficios, corresponde al valor presente de las obligaciones por prestaciones definidas en la fecha del balance, menos el valor razonable de los activos del plan.

La obligación por prestaciones definidas es calculada anualmente por actuarios independientes utilizando el método de la unidad de crédito proyectado, el cual tiene en cuenta los años de servicio de los empleados y para pensiones, la remuneración promedio o final. Dicha obligación se descuenta al valor presente utilizando los tipos de interés de bonos del Gobierno de alta calidad, denominados en la moneda en que se pagarán los beneficios y con una duración similar a cada plan.

Estas valuaciones actuariales involucran varios supuestos que podrían diferir de los acontecimientos que efectivamente tendrán lugar en el futuro. Estos supuestos incluyen la determinación de la tasa de descuento, los aumentos salariales futuros, los índices de mortalidad y los aumentos futuros de las pensiones. Debido a la complejidad de la valuación y los supuestos subyacentes, y a la naturaleza de largo plazo de estos planes, las obligaciones por beneficios definidos son extremadamente sensibles a los cambios en estos supuestos. Todos estos supuestos clave se revisan a cada fecha de cierre del período sobre el que se informa.

Al determinar la tasa de descuento apropiada, ante la ausencia de un amplio mercado de bonos de alta calidad, la Gerencia considera las tasas de interés correspondientes a los bonos TES clase B negociables emitidos por el Gobierno Colombiano como su mejor referencia a una tasa de descuento apropiada con vencimientos extrapolados en línea con el plazo de duración esperado para cada plan de beneficios. El índice de mortalidad se basa en las tablas de mortalidad del país en particular, de las cuales su última versión es la tabla RV08 publicada en la resolución 1555 de octubre de 2010. Los incrementos futuros de salarios y pensiones se vinculan con los índices de inflación futuros esperados para cada país. La Nota 22 - Provisiones por beneficios a empleados provee más detalles sobre los supuestos clave utilizados.

Los valores reconocidos en el estado de ganancias y pérdidas consolidado de los planes de beneficios definidos comprenden principalmente el costo del servicio y los intereses netos. El costo del servicio comprende principalmente el aumento en el valor presente de la obligación de los beneficios resultantes durante el período (costo del servicio corriente) y los valores resultantes un nuevo plan de beneficios. Las modificaciones del plan corresponden a los cambios en los beneficios y generalmente se reconocen cuando

se han recibido todas las aprobaciones legales y reglamentarias y los efectos se han comunicado a los empleados involucrados. El interés neto se calcula utilizando el pasivo neto por beneficios definidos comparado con la curva de rendimiento de la tasa de descuento al inicio de cada año para cada plan. Las remediciones del pasivo neto por beneficios definidos resultante de ganancias y pérdidas actuariales, el efecto del techo de los activos y la rentabilidad de los activos del plan, excluyendo el valor reconocido en el resultado, se reconocen en el otro resultado integral.

Cuando los activos del plan exceden la obligación bruta, el activo reconocido se limita al menor entre el superávit del plan de beneficios definidos y el techo de los activos determinado usando una tasa de descuento basada en bonos del Gobierno Colombiano.

a) Otros beneficios a largo plazo

Los otros beneficios a largo plazo incluyen la prima por quinquenio que hace parte del cálculo actuarial de la Compañía. Este beneficio es un bono en efectivo que se acumula sobre una base anual y se paga al final de cada cinco años a los empleados. El Grupo reconoce en el estado de ganancias y pérdidas consolidado el costo del servicio, el costo financiero neto y los ajustes a la obligación del plan de beneficio definido.

b) Beneficios por terminación

Un plan de beneficio por terminación laboral es reconocido sólo cuando existe un plan detallado para dicho proceso y no exista posibilidad de retirar la oferta. El Grupo reconoce un pasivo y un gasto por beneficios de terminación en la fecha más temprana entre la fecha en donde no se puede retirar la oferta de dichos beneficios o aquella en la que se reconocen los costos de reestructuración.

4.16. Reconocimiento de ingresos procedentes de contratos con clientes

El negocio del Grupo Empresarial Ecopetrol se fundamenta en tres fuentes principales de ingresos de contratos con clientes: 1) venta de crudo y gas, 2) servicios asociados al transporte de hidrocarburos y 3) venta de productos refinados, petroquímicos y biocombustibles. Estas fuentes de ingresos obedecen a modalidades de contratos tales como suministro de productos, nominaciones y órdenes de venta. El ingreso de contratos con clientes generado es reconocido cuando el control de los bienes o servicios son transferidos al cliente en un valor que refleje la contraprestación que el Grupo espera recibir a cambio de tales productos o servicios.

Venta de crudo y gas

Los ingresos por las ventas de petróleo crudo y gas, se reconocen en el momento de la transferencia de dominio al comprador. Esto generalmente ocurre cuando los productos son entregados físicamente a través de carro-tanques, ductos u otros métodos de entrega considerando sus riesgos y beneficios, cumpliendo así con las obligaciones de desempeño que el Grupo Ecopetrol tiene con sus clientes.

Para algunos contratos de suministro de gas con periodo de reposición, se discrimina entre las cantidades de gas consumidas y no consumidas, para reconocer el respectivo ingreso o pasivo por las cantidades que se solicitarán a futuro. Una vez el cliente reclame este gas, se reconoce el ingreso.

Servicios asociados al Transporte de Hidrocarburos

Los ingresos por servicios de transporte se reconocen en la medida en que se presta el servicio al cliente y no existan condiciones contractuales que impidan reconocer el ingreso. Las compañías del Grupo asumen un rol de principal en la prestación de estos servicios.

Los contratos Ship/Take or Pay de venta de productos, almacenamiento y transporte especifican cantidades mínimas de producto o servicio que pagará un cliente, incluso si este no los recibe o los usa (cantidades deficientes). Si el Grupo espera que el cliente recupere todas las cantidades deficientes a las que tiene derecho contractualmente, cualquier cargo recibido relacionado con las deficiencias temporales que se compensarán en un período futuro, se diferirá y se reconocerá ese monto como ingreso cuando ocurra cualquiera de las siguientes situaciones:

- a) El cliente ejerce el derecho ó
- b) La posibilidad de que el cliente ejerza el derecho a los volúmenes o servicios de deficiencia es remota.

Productos Refinados y Biocombustibles

En el caso de productos refinados, petroquímicos y biocombustibles, tales como combustóleos, asfaltos, polietilenos, G.L.P. y propanos y gasolinas entre otros, los ingresos se reconocen cuando los productos son despachados y entregados por la refinería; posteriormente, son ajustados por cambio de precios, en el caso de productos con precios regulados.

En los demás casos, el Grupo reconoce los ingresos en el momento en que se satisface la obligación

de desempeño y nace el derecho cierto, probable y cuantificable de exigir su pago.

En cumplimiento con la normatividad local vigente, Ecopetrol comercializa gasolina regular y ACPM a precio regulado.

De conformidad con el Decreto 1068 de 2015, corresponde al Ministerio de Minas y Energía calcular y liquidar la posición neta semestral de Ecopetrol y para cada combustible a ser estabilizado por el Fondo de Estabilización de Precios de los Combustibles (FEPC). La posición neta corresponde a la sumatoria de los diferenciales a lo largo del periodo, cuyo resultado es el monto en pesos a favor de la Compañía con cargo a los recursos del FEPC. El diferencial corresponde al producto entre el volumen reportado por la Compañía al momento de la venta y la diferencia entre el precio de paridad y el precio de referencia, siendo el precio de paridad aquel que corresponde a los precios diarios de la gasolina motor y ACPM observados durante el mes, expresados en pesos, referenciados al mercado del golfo de los Estados Unidos de América, calculado aplicando la Resolución 18 0522 de 2010 y el precio de referencia es el Ingreso al Productor definido por el Ministerio de Minas y Energía para estos efectos. Por consiguiente, este diferencial constituye un mayor o menor valor del ingreso por ventas para Ecopetrol.

De acuerdo con los perfiles de riesgo, el Grupo Empresarial maneja sistemas de pago anticipado para algunos de sus contratos con clientes.

Componente financiero significativo

Generalmente los pagos recibidos de clientes son en el corto plazo. Haciendo uso de la solución práctica el Grupo no ajusta el valor comprometido como contraprestación para dar cuenta de los efectos de un componente de financiación si se espera, al comienzo del contrato, que el periodo entre el momento en que se transfiere el bien o servicio comprometido al cliente y el momento en que el cliente paga por ese bien o servicio sea de un año o menos.

Consideraciones variables

Al momento cumplir con las obligaciones establecidas en los contratos con clientes, vía la entrega del producto o la prestación del servicio, pueden existir componentes variables del precio de la transacción tales como el tipo de cambio en las exportaciones de crudo o la fluctuación de precios internacionales. En estos casos, el Grupo efectúa la mejor estimación del precio de la transacción que refleje los bienes y servicios transferidos a los clientes.

En cuanto a las cláusulas de los contratos firmados con clientes, no se contemplan consideraciones variables asociadas a derechos de reembolso, rebajas o descuentos.

Consideraciones no monetarias

El Grupo Empresarial establece dentro de sus contratos con clientes que la contraprestación será monetaria en todos sus casos, por lo cual no hay consideraciones asociadas a pagos en especie.

Anticipos de clientes

Corresponden a obligaciones contractuales en las cuales el Grupo recibe recursos monetarios de clientes para efectuar posteriormente la transferencia de los bienes y servicios. Estos anticipos realizados por los clientes hacen parte de las políticas y evaluación de riesgo definidas por el Grupo Empresarial.

4.17. Costos y gastos

Los costos y gastos se presentan de acuerdo a su naturaleza, detallando en las respectivas notas la composición del costo de ventas y los gastos asociados a las actividades de administración, operación, proyectos y otros gastos.

4.18. Ingresos (gastos) financieros

Los ingresos y gastos financieros incluyen principalmente: a) costos por intereses de préstamos y financiaciones, excepto los que son capitalizados como parte del costo del activo, b) valoración de ganancias y pérdidas de instrumentos financieros medidos a valor razonable con cambio a resultados, c) diferencias en cambio de activos y pasivos financieros, excepto los instrumentos de deuda designados como instrumento de cobertura, d) gastos por actualización financiera de pasivos a largo plazo (costos de abandono y pasivo pensional), e) los dividendos derivados de los instrumentos de patrimonio medidos a valor razonable con cambio en el otro resultado integral.

4.19. Información por segmento de negocio

El Grupo presenta las correspondientes revelaciones relacionadas con sus segmentos de negocio en sus estados financieros consolidados de acuerdo con el párrafo 4 de la NIIF 8 – Segmentos de operación.

La operación del Grupo se realiza a través de tres segmentos de negocio: 1) Exploración y producción,

2) Transporte y logística y 3) Refinación, petroquímica y biocombustibles.

Esta segmentación se basa en la gestión de objetivos y plan estratégico de la Compañía teniendo en cuenta que estos negocios: (a) se dedican a actividades comerciales diferenciales, de las que se generan los ingresos y se incurren los costos y gastos; (b) los resultados de operación son revisados regularmente por el Gobierno del Grupo que toma las decisiones de operación para asignar recursos a los segmentos y evaluar su desempeño; y (c) se dispone de información financiera diferenciada. Las transferencias internas representan las ventas a los segmentos entre Compañías y se registran y se presentan a precios de mercado.

- a) **Exploración y producción:** Este segmento incluye las actividades relacionadas con la exploración y producción de petróleo crudo y gas. Los ingresos se derivan de la venta a precios de mercado de petróleo crudo y gas natural a otros segmentos y a terceros (distribuidores locales y extranjeros). Los costos incluyen los costos incurridos en la producción. Los gastos incluyen todos los costos de exploración que no se capitalizan.
- b) **Transporte y logística:** Este segmento incluye los ingresos y costos asociados con la operación de transporte y distribución de hidrocarburos, derivados y productos.
- c) **Refinación, petroquímica y biocombustibles:** Este segmento incluye las actividades realizadas en las refinerías de Barrancabermeja y Cartagena, donde los crudos que llegan de los campos de producción son refinados o procesados. Los ingresos provienen de la venta de productos a otros segmentos y a clientes nacionales y del exterior e incluyen productos refinados y petroquímicos a precios de mercado y en algunos combustibles a precio regulado. Este segmento también incluye ventas de servicios industriales a clientes.

Ver información de segmentos en la Nota 33.

5. Nuevos estándares y cambios normativos

5.1. Nuevos estándares adoptados por el Grupo, efectivos a partir del 1 de enero de 2020

Ecopetrol aplicó por primera vez ciertas normas y enmiendas, que son efectivas para períodos anuales que comenzaron a partir del 1 de enero de 2020. No ha adoptado anticipadamente ninguna otra norma, interpretación o enmienda que haya sido emitida pero que aún no sea efectiva a la fecha de este informe:

- Modificaciones a la NIIF 3 – Definición de un negocio: para ayudar a las compañías a determinar si un conjunto de actividades y activos adquiridos se consideran un negocio o no. Se aclaran los requisitos mínimos para determinar si es un negocio, se elimina la evaluación de si los participantes del mercado son capaces de reemplazar cualquier elemento faltante, se incluye una orientación para ayudar a las compañías a evaluar si un proceso adquirido es sustantivo, se restringen las definiciones de un negocio y de productos; y se introduce una prueba de concentración de valor razonable opcional. Se proporcionan nuevos ejemplos ilustrativos junto con estas modificaciones.

Estos cambios se aplican a las transacciones consideradas combinaciones de negocios o adquisiciones de activos, para las cuales la fecha de adquisición sea 1 de enero de 2020 o posterior. En consecuencia, las compañías no tienen que revisar transacciones ocurridas en periodos anteriores. (Nota 12 – Combinaciones de negocios).

- Modificaciones a las NIIF 7, NIIF 9 y NIC 39 Reforma de la tasa de interés de referencia: se proporciona un número de exenciones, que se aplican a todas las relaciones de cobertura directamente afectadas por los cambios en los índices de referencia de tasas de interés. Una relación de cobertura se ve afectada si el cambio en los índices genera incertidumbre sobre el momento y/o cantidad de flujos de efectivo de la partida cubierta o del instrumento de cobertura.

Estas modificaciones no tienen impacto en los estados financieros consolidados ya que actualmente no se tiene ninguna cobertura de tasas de interés.

- Modificaciones a la NIC 1 y NIC 8 – Definición de material: La nueva definición establece que, “La información es material si se espera que su omisión o distorsión influya en las decisiones que los usuarios principales de los estados financieros toman”. Las modificaciones aclaran

que la importancia relativa dependerá de la naturaleza y/o la magnitud de la información, ya sea individualmente o en combinación con otra información, en el contexto de los estados financieros. Una representación errónea de información es material si se puede esperar razonablemente que influya en las decisiones tomadas por los usuarios principales.

Estas modificaciones no han tenido ningún impacto en los estados financieros consolidados.

- Marco conceptual para la información financiera revisado: El IASB emitió el Marco Conceptual revisado en marzo de 2018. El mismo establece un conjunto integral de conceptos para la presentación de informes financieros, el establecimiento de estándares, la orientación para los preparadores en la definición de políticas contables coherentes y la asistencia a otros para comprender e interpretar los estándares. El Marco conceptual incluye algunos conceptos nuevos, proporciona definiciones actualizadas y criterios de reconocimiento para activos y pasivos y aclara algunos conceptos importantes. Los cambios en el Marco conceptual pueden afectar la aplicación de las NIIF en situaciones en las que no se aplica una norma a una transacción o evento en particular. Para los preparadores que desarrollan políticas contables basadas en el Marco Conceptual, es efectivo para períodos anuales que comienzan en o después del 1 de enero de 2020.

Estas modificaciones no han tenido impacto en los estados financieros consolidados.

- Modificaciones a la NIIF 16 Concesiones de alquiler relacionadas con Covid-19: El 28 de mayo de 2020, el IASB emitió la enmienda a la NIIF 16 - Concesiones de alquiler relacionadas con Covid-19, la cual proporciona alivio a los arrendatarios. Como solución práctica, un arrendatario puede optar por no evaluar si una concesión de alquiler relacionada con Covid-19 de un arrendador es una modificación de arrendamiento. Un arrendatario que realiza esta elección contabiliza cualquier cambio en los pagos de arrendamiento que resulten de la concesión de la misma manera que contabilizaría el cambio según la NIIF 16, si el cambio no fuera una modificación del arrendamiento. La enmienda se aplica a los períodos anuales de presentación de informes que comiencen a partir del 1 de junio de 2020. Se permite la aplicación anticipada.

Esta enmienda no fue aplicada dado que el número de contratos que estarían en su alcance es reducido y evaluando su impacto a nivel grupo empresarial,

no es material. En consecuencia, cada compañía garantizará que los cambios en los contratos de arrendamiento bajo NIIF 16, cumplan con los lineamientos actuales de la norma, lo cual establece que las modificaciones sean registradas como mayor o menor valor del activo en uso.

5.2 Nuevos estándares emitidos por el IASB que entrarán en vigencia en periodo futuros

Se han publicado algunas normas e interpretaciones nuevas que no son obligatorias para los períodos de presentación al 31 de diciembre de 2020, sin embargo aplican para vigencias futuras:

Entrada en vigencia 01 de enero de 2021:

- Reforma a la tasa de interés de referencia fase 2: En agosto de 2020 el IASB publicó este proyecto de norma, el cual complementa la emitida en 2019 y se centra en los efectos en los estados financieros cuando una empresa reemplaza la tasa de interés de referencia anterior por una tasa de referencia alternativa. Las modificaciones de esta fase se refieren a los cambios en los flujos de efectivo contractuales, contabilidad de coberturas y revelaciones de riesgos.

Las tasas de interés de referencia tales como las tasas de oferta interbancarias (IBOR por sus siglas en inglés) juegan un papel importante en los mercados financieros globales, siendo la “LIBOR”, una de las más utilizadas por varias compañías para negociación de deudas corporativas, instrumentos derivados, entre otros. El G20 solicitó al Consejo de Estabilidad Financiera (FSB por sus siglas en inglés) que llevara a cabo una revisión de las principales tasas de interés de referencia. Producto de la revisión se espera que la LIBOR y otras tasas sean reemplazadas con unas nuevas que den una mayor confianza a los mercados en general.

Dentro del análisis contable, Ecopetrol estableció que los flujos de efectivo contractuales de activos o pasivos financieros medidos a costo amortizado cambiarían como resultado de la reforma del IBOR. De acuerdo con la norma, los contratos que cambien la base para la determinación de los flujos contractuales como resultado de la reforma a la tasa de interés no deberán tener un recalcu en la TIR y por lo tanto ningún impacto contable en el Estado de Resultados, aplicando el párrafo B5.4.5 de la IFRS 9. Los gastos financieros mensuales serán medidos con la nueva tasa de interés sin que implique una remediación en la tasa que pueda afectar el costo actual del activo y/o pasivo financiero.

Entrada en vigencia a partir del 1 de enero de 2022 con adopción anticipada en 2021:

- NIC 16 – Propiedades, planta y equipo: enmienda que se expresa la prohibición de deducir del costo de la propiedad, planta y equipo el valor de las ventas de artículos producidos, mientras la compañía prepara el activo para su uso previsto. El Grupo Empresarial Ecopetrol planea aplicarla enmienda a la NIC 16 de forma anticipada a partir del año 2021, (previa aprobación para su implementación en Colombia), para el tratamiento en el tratamiento de la venta a terceros de las pruebas extensas de producción, las cuales son las ventas del petróleo obtenido por pruebas en un pozo de desarrollo antes de entrar en plena producción; revelando por separado los montos de los ingresos y los costos relacionados con los ítems producidos.

Cabe mencionar que para aplicar las enmiendas mencionadas (reforma a la tasa de interés Fase 2 y NIC 16) es necesario que las mismas estén incorporadas en la normatividad contable en Colombia mediante decreto, para recoger así los efectos contables y evitar diferencias entre las normas vigentes en Colombia y las Normas emitidas por el IASB.

Ecopetrol aplicará esta enmienda de forma anticipada a partir del año 2021 (sujeto a aprobación mediante decreto), revelando por separado los montos de los ingresos y los costos relacionados con los ítems producidos. Para dicha adopción se deberá reflejar el efecto acumulado de los ingresos obtenidos por pruebas extensas en los proyectos vigentes al 1 de enero de 2020 como punto de partida el primer día del año comparativo.

- NIIF 3 – Combinaciones de negocios: en la cual actualizan una referencia de la norma al Marco Conceptual.
- NIC 37 – Provisiones, pasivos contingentes y activos contingentes: en la cual detalla qué costos deberá incluir una entidad al determinar si un contrato es oneroso.

Entrada en vigencia a partir del 1 de enero de 2022 o periodos posteriores:

- Ciclo de mejoras anuales 2018 – 2020 que involucran ajustes a la NIIF 1, NIIF 9, NIC 41 y NIIF 16.

La Compañía monitorea constantemente las nuevas normas contables, actualizaciones o enmiendas que el IASB emite, para validar su aplicación e impactos en los Estados Financieros.

6. Efectivo y equivalentes de efectivo

	Al 31 de diciembre de	
	2020	2019
Bancos y corporaciones	4,215,518	5,813,306
Inversiones financieras (1)	866,606	1,262,105
Caja	184	347
	5,082,308	7,075,758

(1) Durante el segundo trimestre de 2020 se invirtieron recursos en los fondos en dólares como parte de la emisión y colocación de los bonos de deuda pública externa realizada por Ecopetrol en abril.

Se incluyen recursos restringidos al 31 de diciembre de 2020 por \$13,679 (31 de diciembre de 2019 por \$85,286), principalmente destinados para el pago exclusivo de capital e intereses de préstamos incurridos por Oleoducto Bicentenario de Colombia S.A.S. y Oleoducto de los Llanos Orientales S.A.

El valor razonable del efectivo y equivalentes se aproxima a su valor registrado en libros debido a su naturaleza de corto plazo (menos de tres meses) y su alta liquidez.

La tasa de rendimiento efectiva del efectivo y equivalentes al 31 de diciembre de 2020 fue del 2.2% (2019 – 3.2%).

La siguiente tabla refleja la calidad crediticia de los emisores y contrapartes en transacciones relacionadas con el efectivo y equivalentes:

Calificación	Al 31 de diciembre	
	2020	2019
AAA	2,578,090	3,851,656
F1+	1,286,310	244,547
A-1	851,394	1,244,462
F1	207,773	-
BRC1+	99,923	673,342
AAAf	28,552	-
F3	12,184	-
A	4,319	167,404
BRC1	2,336	-
AAAmmf	2,162	-
Aaa	1,431	-
AA	546	229,473
BBB	121	569,514
AA-	22	-
A-2	-	89,996
BB	-	43
Baa2	-	10
Sin calificación disponible	7,145	5,311
	5,082,308	7,075,758

Ver política de riesgo de crédito en la Nota 30.8.

7. Cuentas comerciales y otras cuentas por cobrar, neto

	Al 31 de diciembre de	
	2020	2019
Corriente		
Cientes		
Exterior	2,021,070	2,759,993
Nacionales	1,913,106	2,015,517
Fondo de estabilización de precios (1)	319,927	256,303
Partes relacionadas (Nota 31)	105,048	27,449
Cuentas por cobrar a empleados	97,723	95,693
Servicios industriales	39,651	47,691
Deudores varios (2)	322,567	497,688
	4,819,092	5,700,334
No corriente		
Cuentas por cobrar a empleados	474,693	508,588
Cientes Nacionales	51,955	52,819
Partes relacionadas (Nota 31)	-	93,657
Deudores varios (2)	149,959	131,732
	676,607	786,796

- (1) Corresponde a la aplicación del Resolución 180522 del 29 de marzo de 2010 y demás normas que la modifican y adicionan (Decreto 1880 de 2014 y Decreto 1068 de 2015), donde se establece el procedimiento para reconocer el subsidio para refinadores e importadores de la gasolina motor corriente y ACPM, y la metodología para el cálculo de la posición neta (valor generado entre el precio de paridad y el precio regulado, el cual puede ser positivo o negativo). El Grupo pagó durante el 2020 \$208,074 al Fondo de Estabilización así: Ecopetrol \$50,131 y Reficar \$157,943 correspondientes a la liquidación del cuarto trimestre de 2019 y primer semestre de 2020.
- (2) Corresponde principalmente a los acuerdos de préstamos de crudo de los sistemas de transporte.

El valor contable de las cuentas comerciales y otras cuentas por cobrar se aproxima a su valor razonable.

El movimiento de la provisión por deterioro de las cuentas comerciales y otras cuentas por cobrar por deudas de difícil cobro es como sigue:

	A 31 de diciembre de		
	2020	2019	2018
Saldo inicial	282,791	268,654	170,016
Adiciones de provisiones	16,353	14,158	107,725
Efecto por cambio de control en subsidiarias	(5,517)	-	-
Castigo de Cartera y utilidades	(2,483)	(21)	(9,087)
Saldo final	291,144	282,791	268,654

8. Inventarios, neto

	Al 31 de diciembre de	
	2020	2019
Crudo	1,719,426	1,965,022
Combustibles y petroquímicos		1,876,247
Materiales para producción de bienes	1,927,237	1,816,830
	5,053,960	5,658,099

El movimiento de la provisión de inventarios es como sigue:

	A 31 de diciembre de		
	2020	2019	2018
Saldo inicial	131,526	86,938	194,507
Adiciones (recuperaciones)	9,748	44,191	(115,778)
Ajuste por conversión	122	(371)	9,717
Efecto por cambio de control en subsidiarias	(20,075)	-	-
Utilizaciones, traslados y reclasificaciones (1)	(11,772)	768	(1,508)
Saldo final	109,549	131,526	86,938

(1) Incluye principalmente la actualización de la provisión en operaciones con socios.

Los inventarios de crudo, combustibles y petroquímicos se ajustan al menor entre el costo y el valor neto de realización, producto de las fluctuaciones de los precios internacionales del crudo. El monto registrado por este concepto en 2020 fue una recuperación que ascendió a \$9,017 (2019 gasto \$9,759).

9. Otros activos financieros

	Al 31 de diciembre de	
	2020	2019
Activos medidos a valor razonable con cambio a resultados		
Portafolio de inversiones - Moneda nacional	474,535	1,630,149
Portafolio de inversiones - Moneda extranjera	2,494,124	3,340,908
	2,968,659	4,971,057
Activos medidos a valor razonable con cambio en otros resultados integrales	732	-
Activos medidos a costo amortizado	3,391	3,367
Instrumentos de cobertura	98,877	4,868
	3,071,659	4,979,292
Corriente	2,194,651	1,624,018
No corriente	877,008	3,355,274
	3,071,659	4,979,292

La rentabilidad del portafolio de inversiones en pesos colombianos y dólares al 31 de diciembre de 2020 fue de aproximadamente 5,6% y aproximadamente 2,3%, respectivamente. (2019: 5.4% y 3.6%).

La medición a valor razonable es reconocida contra el resultado financiero (Nota 28).

9.1. Restricciones

Al 31 de diciembre de 2020 y 2019 ningún recurso del portafolio de inversiones se encontraba restringido.

9.2. Vencimientos

	Al 31 de diciembre	
	2020	2019
< 1 año	2,197,300	1,624,018
1 - 2 años	98,567	983,571
2 - 5 años	573,420	1,791,549
> 5 años	202,372	580,154
	3,071,659	4,979,292

9.3. Valor Razonable

La siguiente es la clasificación de los otros activos financieros registrados a valor razonable, correspondiente al portafolio de inversiones:

	Al 31 de diciembre de	
	2020	2019
Nivel 1	5,273	472,547
Nivel 2	3,062,995	4,503,378
	3,068,268	4,975,925

No se presentaron transferencias entre niveles de jerarquía durante los años 2020 y 2019.

Los títulos del portafolio del Grupo se valoran de manera diaria siguiendo lo estipulado por la Superintendencia Financiera de Colombia. Para lo anterior, se utiliza la información provista por entidades autorizadas para dicho fin, las cuales recogen los datos de mercados activos. Para aquellos casos en los cuales no se cuenta con datos de mercado, se recurre a otros datos observables directa o indirectamente.

Para las inversiones denominadas en dólares se tiene como proveedor de información a Bloomberg y para las

denominadas en pesos a Precia, entidad autorizada por la Superintendencia Financiera de Colombia para la prestación de este servicio.

Dentro del proceso de jerarquización de las inversiones, adicional a la información utilizada para la valoración, se tienen en cuenta otros aspectos relevantes tales como la calificación del emisor, clasificación de la inversión y el análisis de riesgos del emisor realizado por el Grupo, lo que permite llegar a la clasificación de nivel de jerarquía adecuada de las inversiones.

9.4. Calificación Crediticia

La siguiente tabla refleja la calidad crediticia de los emisores y contrapartes en transacciones relacionadas con los otros activos financieros medidos a valor razonable con cambios en resultados:

	Al 31 de diciembre	
	2020	2019
A-1	1,107,777	-
BBB-	758,472	-
F1+	551,626	350,325
AAA	353,939	2,707,019
A-3	127,861	-
A+	60,692	712,934
F1	43,839	-
AA-	21,263	186,325
A	21,179	186,222
AA	7,759	477,423
AA+	5,332	155,012
A1	-	18,168
BBB	-	159,968
Sin calificación	876	-
Otras calificaciones	11,044	25,896
	3,071,659	4,979,292

Ver política de riesgo de crédito en la Nota 30.8.

10. Impuestos

10.1. Activos y pasivos por impuestos

	Al 31 de diciembre 2020	Al 31 de diciembre 2019
Activos por impuestos corrientes		
Impuesto a las ganancias (1)	1,823,027	190,605
Saldo a favor en impuestos (2)	1,311,693	614,005
Anticipos y otros impuestos (3)	841,575	714,197
	3,976,295	1,518,807
Activos por impuestos no corrientes		
Impuesto diferido	9,637,340	8,622,398
Impuesto a las ganancias	397,821	-
	10,035,161	8,622,398

	Al 31 de diciembre 2020	Al 31 de diciembre 2019
Pasivos por impuestos corrientes		
Impuesto a las ganancias	811,197	1,967,353
Impuesto de industria y comercio	161,813	195,776
Impuesto nacional y sobretasa a la gasolina	137,710	145,569
Impuesto al carbono	64,091	54,586
Impuesto al valor agregado	5,607	33,098
Otros impuestos (4)	63,465	174,397
	1,243,883	2,570,779
Pasivos por impuestos no corrientes		
Impuesto diferido	1,042,250	774,059
Impuesto a las ganancias (5)	226,848	70,543
	1,269,098	844,602

- (1) Incluye los saldos a favor en impuesto de Renta especialmente de Ecopetrol S.A., los descuentos tributarios por el IVA pagado en la adquisición de activos fijos reales productivos establecido en las Leyes 1943 de 2018 y 2010 de 2019 y el 50% del ICA efectivamente pagado en el año.
- (2) Contiene principalmente el saldo a favor por el impuesto al valor agregado (IVA), en Ecopetrol.
- (3) Incluye el descuento tributario potencial por el IVA pagado en la adquisición de activos fijos reales productivos, de conformidad a lo establecido en los artículos 83 de la Ley 1943 de 2018 y 95 de la Ley 2010 de 2019 – Ley de Financiamiento y Ley de Crecimiento Económico, respectivamente. Adicionalmente anticipos y autorretenciones de impuestos territoriales
- (4) Incluye principalmente regalías, impuesto de transporte entre otros.
- (5) Mecanismo de obras por impuestos reglamentado por el artículo 238 de la Ley 1819 de 2016, que lo estableció como forma de pago del impuesto de renta de los años 2017, 2018 y 2019. En cumplimiento al mencionado artículo, en mayo de 2018, 2019, y 2020 las Compañías del Grupo reconocieron un activo y un pasivo por el valor de los proyectos adjudicados para cada vigencia fiscal.

10.2. Impuesto a las ganancias

De conformidad con la Ley 2010/2019 las disposiciones fiscales aplicables en Colombia para el año gravable 2020 y siguientes, son:

- La tarifa general del impuesto sobre la renta aplicable para sociedades nacionales, establecimientos permanentes y entidades extranjeras será del 32%.
- Para los años 2019 y 2020, la tarifa aplicable para efectos de calcular el impuesto sobre la renta bajo el sistema de renta presuntiva será del 1.5% y 0.5%, respectivamente, del patrimonio líquido del contribuyente del año inmediatamente anterior. A partir del año 2021 la tarifa aplicable será 0%.
- Las compañías ubicadas en zona franca tributan a una tarifa del 20%. Si la compañía ubicada en zona franca posee un Contrato de Estabilidad Jurídica (en adelante, CEJ), la tarifa del impuesto sobre la renta continuará siendo del 15% durante la vigencia de dicho contrato. Este es el caso de Refinería de Cartagena S.A.S. (“Reficar”) y Esenttia Masterbatch Ltda. (“Esenttia MB”).
- Para el año gravable 2020, el Grupo tiene empresas que liquidan el impuesto sobre renta líquida a la tarifa del 32%, compañías en zona franca, Refinería de Cartagena S.A.S. (“Reficar”) y Esenttia Masterbatch Ltda. (“Esenttia MB”) que tributan a la tarifa del 15% (poseen CEJ) y otras con rentas del exterior que aplican tarifas de otros países.
- Se ajustan los sistemas de depreciación fiscal a los contables y establece un límite al porcentaje de depreciación anual con base en la tabla establecida en la Ley 1819 de 2016. Por otra parte, la amortización de las inversiones petrolíferas se hará con base en unidades técnicas de producción tal y como se hace contablemente.
- Los gastos de adquisición de derechos de exploración, geología y geofísica, perforaciones exploratorias, entre otros, serán capitalizables para efectos fiscales hasta que se establezca la

factibilidad técnica y la viabilidad comercial de extraer el recurso.

- Las pérdidas fiscales generadas a partir del 1 de enero de 2017 se podrán compensar con las rentas líquidas generadas en los siguientes doce (12) años gravables.
- De conformidad con el artículo 290 de la Ley 1819 de 2016, los excesos de renta presuntiva sobre renta líquida generados antes de 2017 en el impuesto sobre la renta y el CREE que no hayan sido compensados, están sujetos para su compensación a la aplicación de una fórmula contenida en dicho artículo y sujetas al término establecido en el artículo 189 del Estatuto Tributario.

Firmeza de las declaraciones del impuesto sobre la renta y CREE

A partir de 2017, el término general de firmeza de las declaraciones tributarias es de tres (3) años contados desde la fecha de su vencimiento o a partir de la fecha de su presentación, cuando estas hayan sido presentadas de forma extemporánea. Para las Compañías del Grupo que están sujetas al cumplimiento de la normatividad de precios de transferencia, la Ley 2010 de 2019 estableció que el término de firmeza será de cinco (5)

años, para las declaraciones que se presenten a partir del 1 de enero de 2020.

Respecto de aquellas declaraciones en las cuales se presenten saldos a favor, el término de firmeza es de tres (3) años, desde la fecha de la presentación de la solicitud de devolución o compensación.

Las declaraciones tributarias en las que se compensen pérdidas fiscales quedarán en firme a los seis (6) años contados a partir de la fecha de su presentación. Aquellas declaraciones en las que se liquiden pérdidas fiscales, el término de firmeza es de doce (12) años y si las pérdidas se compensan en los últimos dos (2) años, de los doce (12) permitidos, su término de firmeza se extenderá hasta tres (3) años más, desde el año de su compensación.

Para las declaraciones de impuestos que presenten pérdidas fiscales pueden ser revisadas por las autoridades de impuestos dentro de los seis (6) años siguientes a la fecha de presentación y/o corrección.

Las declaraciones de impuesto de renta y complementarios de los años gravables 2011, 2012, 2014, 2015, 2016, 2017, 2018 y 2019 y CREE de los años gravables 2014, 2015, y 2016 de Compañías del Grupo se encuentran sujetas a aceptación y revisión por parte de las autoridades tributarias.

Gasto por impuesto a las ganancias

	Al 31 de diciembre de		
	2020	2019	2018
Corriente	2,861,606	7,117,040	7,539,093
Corriente - Ejercicios anteriores	(277,773)	10,453	-
Diferido	(1,053,690)	(2,487,108)	(153,330)
Diferido - Ejercicios anteriores	246,653	(43,972)	(63,744)
Gasto por impuesto a las ganancias	1,776,796	4,596,413	7,322,019

Conciliación del gasto por impuesto a las ganancias

La tasa efectiva de tributación al 31 de diciembre de 2020 calculada antes de la participación en las utilidades de las compañías del Grupo, asociadas y negocios conjuntos es de 38.47%; la variación frente a la tasa al 31 de diciembre de 2019 (24.07%) se debe principalmente a la disminución de la utilidad proyectada al cierre de cada año, el efecto del ajuste por diferencia en cambio en las empresas del grupo empresarial que son moneda

funcional dólar, el efecto del ajuste de Permian en 2019 y el efecto de las empresas del grupo con pérdidas que tiene una tarifa nominal diferente a la casa matriz.

El Grupo tiene por estrategia no tomar decisiones fiscales con posiciones agresivas o riesgosas que puedan colocar en entredicho sus declaraciones tributarias.

Impuesto sobre las ganancias diferido

	Al 31 de diciembre 2020	Al 31 de diciembre 2019
Activo por impuesto diferido (1)	9,637,340	8,622,398
Pasivo por impuesto diferido	(1,042,250)	(774,059)
	8,595,090	7,848,339

- (2) El incremento presentado en el impuesto diferido activo durante el 2020, se generó principalmente por los excesos de renta presuntiva y las pérdidas fiscales generadas en Ecopetrol, el aumento en la tasa de cambio, la cual impacta el impuesto diferido asociado a los préstamos en moneda extranjera. No obstante, las condiciones actuales por la pandemia del COVID 19 y demás factores externos, las proyecciones financieras de las Compañías del Grupo permiten deducir que a futuro se generarán suficientes utilidades fiscales que permitirán su recuperabilidad dentro de los plazos establecidos en la normatividad fiscal vigente.

El detalle de los impuestos diferidos activos y pasivos, es el siguiente:

	Al 31 de diciembre 2020	Al 31 de diciembre 2019
Impuesto diferido activo y pasivo		
Pérdidas fiscales renta (1)	4,513,071	2,849,089
Provisiones (2)	3,186,495	2,405,499
Obligaciones financieras y préstamos por pagar	818,271	920,634
Beneficios a empleados (3)	1,874,242	1,875,872
Cuentas por pagar	(10,266)	711,503
Inversiones e instrumentos derivados	42,463	(46,276)
Otros activos	(40,343)	(493)
Cuentas por cobrar	110,320	83,965
Otros pasivos	75,092	48,923
Préstamos por cobrar	73,523	55,445
Inventarios	99,775	80,523
Activos por derecho de uso	1,014	(33,401)
Activos intangibles	(26,466)	498

Cargos diferidos	(35,569)	(63,941)
Goodwill (4)	(294,203)	(288,095)
Propiedades, planta y equipo (5)	(1,792,329)	(751,406)
Total	8,595,090	7,848,339

- (1) En el 2020 se está reconociendo impuesto diferido por las pérdidas fiscales generadas en el año principalmente en: Ecopetrol USA Inc por \$1,663,411, Refinería de Cartagena por \$1,601,570, Ecopetrol SA \$1,189,973, y excesos de renta presuntiva de Ecopetrol S.A por \$61,722
- (2) Corresponde a las provisiones contables no procedentes fiscalmente, principalmente la provisión para abandono de pozos.
- (3) Cálculos actuariales por salud, pensiones de jubilación, educación, bonos pensionales y otros beneficios a empleados a largo plazo.
- (4) De acuerdo con la ley tributaria en Colombia hasta el año 2016 el Goodwill era amortizable, mientras que bajo NCIF sólo puede estar sujeto a pruebas de impairment, diferencia que genera como resultado un impuesto diferido pasivo.
- (5) Para propósitos fiscales los recursos naturales y del medio ambiente y la propiedad planta y equipo tienen una vida útil y una metodología de cálculo de depreciación y amortización diferentes a las que se determinan bajo normas contables internacionales, dentro de este rubro se incluye el monto de impuesto por ganancias ocasionales del 10% aplicable a los terrenos, así como la aplicación de la tarifa del impuesto sobre la renta del 31% y 30% para los demás activos.

El Grupo compensa los activos y pasivos por impuestos únicamente si tiene un derecho legalmente exigible de compensar los activos y pasivos por impuestos corrientes y en la medida en que se relacionen con impuestos a las ganancias requeridos por la misma jurisdicción fiscal y por la misma autoridad fiscal.

Impuesto Diferido Activo Reconocido

El impuesto diferido activo reconocido en estados financieros consolidados asciende a la suma de \$8,595,090 principalmente compuesto por los conceptos indicados en “Detalle de los impuestos diferidos activos y pasivos”.

El impuesto diferido activo por las pérdidas fiscales y excesos de renta presuntiva ascienden a \$4,513,071 principalmente compuesto por: Ecopetrol USA Inc. por \$1,663,411, Refinería de Cartagena por \$1,601,570, Ecopetrol S.A. \$1,251,695.

Impuesto Diferido Activo No Reconocido

El activo por impuesto diferido relacionado con las pérdidas fiscales generadas por las sociedades Andean Chemicals Ltd por valor de \$1,912, y los excesos de renta presuntiva de, Hocol Petroleum Company (“HPL”), Andean por \$16,938 no se reconocen, por cuanto la Dirección ha evaluado y llegado a la conclusión de que bajo una posición conservadora no es probable que el activo por impuesto diferido relacionado con estas pérdidas fiscales y excesos de rentas presuntiva sea recuperable en el corto plazo.

Si el Grupo hubiera podido reconocer el activo por impuesto diferido no reconocido, la ganancia por el ejercicio finalizado a 31 de diciembre de 2020 se habría incrementado en \$18,850.

Los movimientos del impuesto diferido activo y pasivo a las ganancias por los años terminados el 31 de diciembre de 2020 y 2019 son los siguientes:

	Al 31 de diciembre 2020	Al 31 de diciembre 2019
Saldo inicial	7,848,339	5,008,323
Impuesto diferido reconocido en el resultado del periodo	807,036	2,531,080
Efecto por combinación de negocios Invercolsa	-	(98,005)
Impuesto diferido reconocido otros resultados integrales (a)	(60,285)	406,941
Saldo final	8,595,090	7,848,339

- (a) La siguiente es la composición del impuesto a las ganancias registrado contra otros resultados integrales:

Al 31 de diciembre de 2020	Base	Impuesto diferido	Total
Ganancias actuariales sobre beneficios a empleados	137,459	(41,238)	96,221
Cobertura de flujo de efectivo para exportaciones de crudo	198,017	(66,265)	131,752
Cobertura de inversión neta en negocio en el extranjero	(520,490)	156,147	(364,343)
Instrumentos financieros derivados	(20,391)	(17,546)	(37,937)
Ajustes por conversión	-	(91,383)	(91,383)
	(205,405)	(60,285)	(265,690)

Al 31 de diciembre de 2019	Base	Impuesto diferido	Total
Ganancias actuariales sobre beneficios a empleados	(2,571,184)	771,355	(1,799,829)
Cobertura de flujo de efectivo para exportaciones de crudo	998,083	(329,784)	668,299
Cobertura de inversión neta en negocio en el extranjero	(87,524)	26,257	(61,267)
Instrumentos financieros derivados	69,220	(22,769)	46,451
Ajustes por conversión	-	(38,118)	(38,118)
	(1,591,405)	406,941	(1,184,464)

Impuesto Diferido (Activo) Pasivos No Reconocidos

Al 31 de diciembre de 2020, no se reconocen (activos) pasivos por impuesto diferido sobre la diferencia entre las bases contables y fiscales asociadas a las inversiones en asociadas y negocios conjuntos del Grupo, que cumplen con las excepciones establecidas en la normatividad contable, conforme se documentó.

Provisiones, Pasivos Contingentes del Impuesto a las Ganancias

Las declaraciones de impuesto de renta y complementarios de los años gravables 2011, 2012, 2014, 2015, 2016, 2017 y 2018 y CREE de los años gravables 2014, 2015, y 2016 de Compañías del Grupo se encuentran sujetas a aceptación y revisión por parte de las autoridades tributarias. La administración de las compañías del Grupo considera que las sumas contabilizadas como pasivo por impuestos por pagar son suficientes y se encuentran soportadas en la normatividad, doctrina y jurisprudencia vigente para atender cualquier reclamación que se pudiera establecer con respecto a tales años.

Posiciones Fiscales Inciertas CINIIF 23

Las Compañías del Grupo Ecopetrol tienen por estrategia no tomar decisiones fiscales con posiciones

agresivas o riesgosas que puedan colocar en entredicho sus declaraciones tributarias, lo anterior con el fin de minimizar el riesgo de posibles cuestionamientos por parte de la autoridad tributaria.

Sobre aquellas posiciones inciertas en las cuales se ha considerado que pueda existir una eventual controversia con la autoridad tributaria y que conlleve un incremento en el impuesto sobre la renta, se ha establecido un porcentaje de éxito superior al 75%, el cual ha sido calculado con base en la normatividad y doctrina vigente, así como en conceptos emitidos por los asesores tributarios externos.

Por lo tanto y de conformidad con la norma en mención, el Grupo Ecopetrol considera que aquellas posiciones inciertas incluidas en la determinación del impuesto a las ganancias no afectarán el registro contemplado en los estados financieros separados. No obstante lo anterior, se continuará con el seguimiento permanente a la nueva normatividad y doctrina que emita la autoridad tributaria y demás entidades.

10.2.1 Impuesto a los dividendos

Sobre las utilidades generadas a partir del año 2017, aplicará a las sociedades y entidades extranjeras retención en la fuente por concepto de dividendos. La tarifa de retención por dividendos es del 7.5% para el año 2019 y del 10% para el año 2020. De otra parte, el dividendo gravado con el impuesto sobre la renta tendrá

una tarifa del 33% en el año 2019 y del 32% en el año 2020. En este escenario, la retención en la fuente sobre dividendos del 7.5% o del 10% aplicará sobre el monto de la distribución gravada, una vez el mismo se haya disminuido con el impuesto sobre la renta a la tarifa del 32% para el año 2020.

Los dividendos no gravados que recibirá la Compañía no estarán sujetos a retención en la fuente por expresa disposición de la norma que establece los dividendos que se distribuyan dentro de los grupos empresariales debidamente registrados ante la Cámara de Comercio y a entidades descentralizadas, no estarán sujetos a la retención en la fuente por este concepto.

10.2.2 Precios de transferencia

Los contribuyentes del impuesto sobre la renta que celebren operaciones con vinculados económicos o partes relacionadas del exterior y ubicadas en zonas francas o con residentes ubicados en países considerados jurisdicciones no cooperantes de baja o nula imposición, están obligados a determinar para efectos del impuesto de renta y complementarios sus ingresos ordinarios y extraordinarios, sus costos y deducciones, activos y pasivos, considerando para estas operaciones los precios y márgenes de utilidad que se hubieran utilizado en operaciones comparables con o entre no vinculados económicamente.

El Grupo Ecopetrol presentó en el año 2020 la información de precios de transferencia del año 2019 correspondiente a la declaración informativa, la documentación comprobatoria, el reporte país por país y el archivo maestro, de acuerdo con la normatividad tributaria vigente.

Para el año gravable 2020, las transacciones efectuadas con vinculados económicos del exterior, así como las condiciones de negocio bajo las cuales se desarrollaron tales operaciones y la estructura general, no variaron significativamente respecto del año anterior. Por esta razón, es posible inferir que dichas transacciones fueron llevadas a cabo de acuerdo con el principio de plena competencia. Se estima que no se requerirán ajustes derivados del análisis de precios de transferencia del año 2020, que impliquen modificaciones en la provisión del mismo año.

10.2.3 Impuesto sobre las ventas (IVA)

La Ley 1943/2018 estableció que el IVA pagado en la importación, formación, construcción o adquisición de activos fijos reales productivos podrá ser descontado del impuesto sobre la renta. Este IVA no podrá ser tomado simultáneamente como costo o gasto en el impuesto sobre la renta ni será descontable del impuesto sobre las ventas.

10.2.4 Reforma tributaria Ley 2010 del 27 de diciembre de 2019

La Corte Constitucional declaró la inexecutable de la Ley 1943 de 2018 (Reforma Tributaria de 2018) debido a vicios de procedimiento en su aprobación en el Congreso. La Corte señaló que el efecto de su pronunciamiento sería aplicable a partir del 1 de enero de 2020, por lo que la Ley 1943 fue aplicable en su totalidad hasta el 31 de diciembre de 2019. La Corte otorgó al ejecutivo la posibilidad de presentar un nuevo proyecto legislativo para el periodo 2020, fruto de esta facultad el gobierno presentó proyecto de ley que fue sancionada y se materializó en la Ley 2010 del 27 de diciembre de 2019. En términos generales se presentaron modificaciones puntuales como los siguientes:

Tarifa del impuesto de renta para el año gravable 2020 y siguientes:

Año	Tarifa General*
2020	32%
2021	31%
2022 y siguientes	30%

* Tarifa aplicable para sociedades nacionales, establecimientos permanentes y entidades extranjeras.

De otra parte, para el año 2020, la tarifa aplicable para efectos de calcular el impuesto sobre la renta bajo el sistema de renta presuntiva será del 0.5% del patrimonio líquido del contribuyente del año inmediatamente anterior. A partir del año 2021 la tarifa aplicable será del 0%.

Se mantuvo la regla de subcapitalización contenida en el artículo 118-1 del E.T. que había sido modificado por la Ley 1943/2018. En este sentido, a partir del año 2019 la regla de subcapitalización sólo será aplicable con respecto a intereses generados en la adquisición de deudas contraídas, directa o indirectamente, con vinculados económicos nacionales o extranjeros. Así mismo, se modificó la proporción capital – deuda a 2:1 (anteriormente era 3:1) con lo cual no sólo se podrán deducir intereses generados con ocasión a deudas adquiridas con vinculados económicos cuando el monto total promedio de tales deudas no exceda a dos (2) veces el patrimonio líquido del contribuyente determinado al 31 de diciembre del año gravable inmediatamente anterior.

Impuesto a los dividendos

A partir del 1 de enero de 2020, los dividendos y participaciones pagados o abonados en cuenta provenientes de distribuciones realizadas entre compañías colombianas, estarán sometidos a una retención en la fuente a título del impuesto a los

dividendos a una tarifa del 7.5%. De otra parte, si las utilidades con cargo a las cuales se distribuyen los dividendos no estuvieron sujetas a imposición al nivel de la sociedad, dichos dividendos están gravados con el impuesto sobre la renta aplicable en el período de distribución (para el año 2020 la tarifa será del 32%). En este supuesto, la retención del 7,5% aplicará sobre el valor del dividendo una vez disminuido con el impuesto sobre la renta (32% para el año 2020).

La tarifa de retención del 7,5%, se causará sólo en la primera distribución de dividendos entre compañías colombianas y podrá ser acreditada contra el impuesto a los dividendos una vez a cargo del accionista persona natural residente o al inversionista residente en el exterior.

Debe resaltarse que la retención del 7.5% no aplica para: (i) compañías holding colombianas, incluyendo entidades descentralizadas; y (ii) entidades que hagan parte de un grupo empresarial dentro de sociedades en situación de control debidamente registrados ante la Cámara de Comercio, de acuerdo con la normativa mercantil.

Impuesto de normalización

Se crea el nuevo impuesto de normalización tributaria por el año 2020, complementario del impuesto sobre la renta y del impuesto al patrimonio, a cargo de los contribuyentes del impuesto sobre la renta o de regímenes sustitutivos del impuesto sobre la renta que tengan activos omitidos o pasivos inexistentes al 1ro de enero de 2020. La tarifa aplicable para este período gravable es del 15% y la declaración independiente debió ser presentada hasta el 25 de septiembre de 2020, la cual, no permite corrección o presentación extemporánea, al igual que 2019 la base gravable podrá reducirse al 50% cuando el contribuyente repatrió activos normalizados del exterior y los invierte con vocación de permanencia en el país por un período no inferior a dos años contados a partir del 1ro de enero de 2021.

Impuesto sobre las ventas

En materia de impuesto sobre las ventas se excluyó de la base para liquidar el IVA en las importaciones de bienes desde Zona Franca, aquellos elementos (servicios o materia prima) sobre los que el usuario de zona franca ya hubiere pagado IVA. Se revive el artículo 491 del Estatuto Tributario, que prohíbe expresamente la posibilidad de tomar como impuesto descontable el IVA pagado en la adquisición de activos fijos. Se establecen tres días al año de exención de IVA para ciertos productos, con límites en función de las unidades adquiridas.

Adicionalmente, se modificó el listado de bienes y servicios excluidos de IVA consagrados en los artículos 424, 426 y 476 del Estatuto Tributario, se adicionó al

artículo 437 del Estatuto Tributario, en lo referente a directrices sobre el cumplimiento de deberes formales en materia de IVA por parte de prestadores de servicios desde el exterior y se indicó que la retención de IVA podrá ser hasta del 50% del valor del impuesto, sujeto a reglamentación del Gobierno Nacional. La tarifa de IVA se mantiene en 19%. (Art. 424, Art. 426, Art. 476 Estatuto Tributario).

Procedimiento tributario

En materia de procedimiento existen modificaciones: (i) declaraciones de retención en la fuente que a pesar de ser ineficaces serán título ejecutivo, (ii) notificación electrónica de actos administrativos; y (iii) pago de glosas en pliego de cargos para evitar intereses moratorios y utilizar los corrientes más dos puntos; (iv) eliminación de extensión de la firmeza a tres (3) años adicionales por compensación de pérdidas fiscales y frete a los años que se tiene obligación de cumplir con el régimen de precios de transferencia se reduce a cinco (5) años.

De igual forma, se incluyó un beneficio de auditoría para los años gravables 2020 y 2021. En virtud de este beneficio, la liquidación privada de los contribuyentes del impuesto sobre la renta y complementarios que incrementen su impuesto neto de renta en por lo menos un porcentaje mínimo del 30%, en relación con el impuesto neto de renta del año inmediatamente anterior, quedará en firme dentro de los seis (6) meses siguientes a la fecha de su presentación si no se hubiere notificado emplazamiento para corregir o requerimiento especial o emplazamiento especial o liquidación provisional y, siempre que la declaración sea presentada en forma oportuna y el pago se realice en los plazos establecidos.

Si el incremento del impuesto neto de renta es de al menos del 20%, en relación con el impuesto neto de renta del año inmediatamente anterior, la declaración quedará en firme dentro de los doce (12) meses siguientes a la presentación de la declaración si no se hubiere notificado emplazamiento para corregir o requerimiento especial o emplazamiento especial o liquidación provisional y siempre que se presente la declaración de manera oportuna y el pago se realice en los plazos establecidos.

El anterior beneficio no aplica para: (i) contribuyentes que gocen de beneficio tributarios en razón a su ubicación en una zona geográfica determinada; (ii) cuando se demuestre que retenciones en la fuente declaradas son inexistentes; (iii) cuando el impuesto neto de renta sea inferior a 71 UVT (2,5 millones). El término previsto en esta norma no se extiende para las declaraciones de retención en la fuente ni para el impuesto sobre las ventas las cuales se regirán por las normas generales.

11. Otros activos

	Al 31 de diciembre de	
	2020	2019
Corriente		
Anticipos a contratistas y proveedores	503,698	360,781
Asociados en operaciones conjuntas (1)	534,145	921,983
Gastos pagados por anticipado	369,979	272,007
Depósitos entregados en administración (2)	218,158	144,798
Partes relacionadas (Nota 31)	7,093	57,016
Otros activos	30,963	22,393
	1,664,036	1,778,978
No corriente		
Fondo de abandono y pensiones (3)	405,376	445,457
Depósitos entregados en administración (4)	338,067	171,008
Beneficios a empleados	221,658	220,998
Anticipos, avances y depósitos	54,392	56,027
Depósitos judiciales y embargos	42,672	40,317
Otros activos	27,950	8,674
	1,090,115	942,481

- (1) Corresponde al neto de los anticipos y legalizaciones generados en relación con las operaciones realizadas a través de los contratos de asociación para Exploración y Producción ("E&P"), Evaluación Técnica ("TEA"), contratos y acuerdos firmados con la Agencia Nacional de Hidrocarburos ("ANH") y otro tipo de contratos afines.
- (2) Incluye principalmente los depósitos asociados a fondo de abandono de la Asociación Guajira.
- (3) Corresponde a la participación del Grupo en fiducias constituidas para respaldar los costos de abandono de pozos y desmantelamiento de instalaciones; así como el pago de futuras pensiones de jubilación, relacionados con algunos contratos de asociación.
- (4) Incluye principalmente los recursos invertidos en encargo fiduciario con destinación a obras por Impuestos, mecanismo de pago del impuesto de renta de 2019 y 2020, constituido en cumplimiento con el artículo 238 de la Ley 1819 de 2016 - Reforma tributaria.

12. Combinación de negocios

12.1 Invercolsa

Durante el 2020 se concluyó la medición de los valores razonables de propiedad, planta y equipo, intangibles e impuesto diferido. La distribución final del valor razonable fue la siguiente:

	Al 31 de diciembre 2020
Efectivo y equivalentes de efectivo	20,530
Cuentas por cobrar corto plazo	195,225
Inventarios	19,576
Activos impuestos corrientes	10,704
Otros activos corto plazo	2,810

	Al 31 de diciembre 2020
Inversiones en asociadas y negocios conjuntos	1,824,552
Cuentas comerciales y otras cuentas por cobrar	52,820
Propiedad Planta y Equipo (1)	905,530
Activos impuestos diferidos	9,623
Otros activos	807
Intangibles (2)	93,050
Goodwill (3)	434,357
Préstamo corto plazo	(137,683)
Cuentas comerciales y otras cuentas por pagar	(58,423)
Provisiones corrientes por beneficios a empleados	(7,003)
Pasivos por impuestos corrientes	(23,597)
Provisiones y contingencias	(8,576)
Otros pasivos	(13,650)
Préstamo largo plazo	(186,923)
Pasivos por impuestos diferidos (4)	(201,619)
Total activos netos	2,932,110

- (1) Los valores razonables más representativos se dieron en redes, ductos y maquinaria y equipo.
- (2) La actualización del intangible es producto de contratos de transporte y mercados no regulados.
- (3) El Goodwill generado en esta adquisición fue de \$434,357, el nuevo saldo en balance es de \$1,353,802.
- (4) Generado por la actualización del valor razonable de los intangibles y propiedad planta y equipo.

12.2. Contrato de asociación Guajira

El 22 de noviembre de 2019, Hocol S.A., filial 100% del Grupo Empresarial Ecopetrol, firmó un Acuerdo de Compra y Venta de Activos con “Chevron”, con el fin de adquirir la totalidad de la participación poseída por este último en la Asociación Guajira (43% del contrato de asociación) y su posición como operador. El restante 57% de participación en esta asociación ha sido siempre de Ecopetrol S.A. La transacción estaba sujeta a la aprobación de la Superintendencia de Industria y Comercio (SIC), la cual fue oficializada el 2 de abril de 2020, mediante la resolución 12785 de 2020. Según se estableció en el acuerdo, el inicio de la operación por parte de Hocol sería el primer día hábil del mes siguiente a la fecha de esta aprobación, es decir el 1 de mayo de 2020, por lo tanto, esta es la fecha de adquisición para efectos de reconocimiento contable.

El precio de la transacción se determinó con base en un valor de referencia fijo a 1 de enero de 2019 más o menos ajustes al precio que dependían directamente de variables asociadas al activo Guajira entre el 1 de enero de 2019 y el 1 de mayo de 2020. Las cláusulas del acuerdo de compra indican que se cuenta con 180 días para terminar de ajustar las diferencias que

surjan del movimiento sobre los activos adquiridos y los pasivos asumidos. Durante el proceso de revisión y aprobación para la determinación del precio final, Chevron y Hocol suscribieron un otrosí para ampliar el plazo del cierre de la transacción, el cual se espera finalizar durante el primer semestre de 2021, estos plazos están en cumplimiento con los requerimientos de la norma.

Ecopetrol y Hocol midieron los activos adquiridos y los pasivos asumidos en proporción a su participación de acuerdo con lo establecido en las NIIF 11 – Acuerdos conjuntos y NIIF 3 – Combinaciones de negocios.

Para Ecopetrol esta transacción se configura como una adquisición por etapas. El valor razonable se determinó usando el enfoque de ingresos aplicando la metodología de flujos de caja descontados. Los valores razonables de propiedades, planta y equipo, recursos naturales y del medio ambiente e impuesto diferido han sido determinados provisionalmente, por lo tanto pueden tener ajustes asociados al capital de trabajo, en cumplimiento con las cláusulas del acuerdo de compra y los lineamientos definidos en la NIIF 3.

Activos identificables adquiridos y pasivos asumidos

La tabla a continuación resume los importes reconocidos para los activos adquiridos y los pasivos asumidos a la fecha de adquisición:

Activos	
Cuentas por cobrar	19,545
Recursos naturales	788,309
Propiedad planta y equipo	1,182,344
Activos de abandono	42,185
Otros activos	267,176
	2,299,559
Pasivos	
Cuentas comerciales y otras cuentas por pagar	(20,926)
Otros pasivos	(156,334)
Impuesto diferido	(421,957)
Provisiones	(72,032)
	(671,249)
Valor razonable de los activos netos	1,628,310

A continuación se resume el efecto en resultados de la operación al 31 de diciembre de 2020:

	Al 31 de diciembre de 2020
Valor razonable de los activos netos	1,628,310
Valor contable de los activos netos	(200,660)
Contraprestación (HOCOL)	(435,238)
Diferencia en conversión	(5,360)
(=) Utilidad neta de la adquisición	987,052

Reconocida en:

Utilidad antes de impuestos en combinaciones de negocios (Nota 28)	1,370,398
(-) Gasto por impuesto diferido	(383,346)
(=) Utilidad neta de la adquisición después de impuesto diferido	987,052

Los mencionados valores razonables no tienen efectos fiscales.

Los costos relacionados con la adquisición por \$19,898 millones fueron excluidos de la participación pre-existente y fueron reconocidos como gastos operacionales en el periodo.

13. Inversiones en asociadas y negocios conjuntos:

13.1 Composición y movimientos

	Al 31 de diciembre de	
	2020	2019
Negocios conjuntos		
Equion Energía Limited	1,642,735	1,527,502
Offshore International Group	613,258	709,871
Ecodiesel Colombia S.A.	51,672	46,095
	2,307,665	2,283,468
Menos impairment:		
Equion Energía Limited	(314,460)	(334,823)
Offshore International Group	(609,826)	(530,330)
	(1,383,379)	(1,418,315)
Asociadas		
Gases del Caribe S.A. E.S.P.	1,512,629	1,527,911
Gas Natural del Oriente S.A. E.S.P.	143,893	166,685
Gases de la Guajira S.A. E.S.P.	69,518	68,608
E2 Energía Eficiente S.A. E.S.P.	35,614	32,848
Extracol S.A.	26,996	28,501
Serviport S.A.	8,541	11,070
Sociedad Portuaria Olefinas	2,599	2,204
	1,799,790	1,837,827
Menos impairment: Serviport S.A.	(8,541)	(11,070)
	1,791,249	1,826,757
	3,174,628	3,245,072

Movimiento de las inversiones en Asociadas y Negocios conjuntos:

Por el año finalizado al 31 de diciembre de 2020:

	Asociadas	Negocios conjuntos	Total
Saldo al 31 de diciembre de 2019	1,826,757	1,418,315	3,245,072
Método de participación reconocido:			
Resultado del periodo	114,779	(26,352)	88,427
Patrimonio	(2,923)	-	(2,923)
Dividendos decretados	(148,665)	(9,017)	(157,682)
Deterioro (Nota 18)	2,529	(56,606)	(54,077)
Otros movimientos	(1,228)	57,039	55,811
Saldo al 31 de diciembre de 2020	1,791,249	1,383,379	3,174,628

Por el año finalizado al 31 de diciembre de 2019:

	Asociadas	Negocios conjuntos	Total
Saldo al 31 de diciembre de 2018	244,662	1,599,674	1,844,336
Método de participación reconocido:			
Resultado del periodo	109,538	244,736	354,274
Patrimonio	(174,991)	4,531	(170,460)
Dividendos decretados	(75,674)	(4,192)	(79,866)
Impairment	142	(304,097)	(303,955)
Otros movimientos	1,723,080	(122,337)	1,600,743
Saldo al 31 de diciembre de 2019	1,826,757	1,418,315	3,245,072

13.2. Información adicional sobre Compañías asociadas y negocios conjuntos

El detalle de activos, pasivos y resultados de las dos principales inversiones en negocios conjuntos al 31 de diciembre es el siguiente:

	2020		2019	
	Equion Energía Limited	Offshore International Group	Equion Energía Limited	Offshore International Group
Estado de situación financiera				
Activo corriente	2,616,813	266,240	2,530,453	284,591
Activo no corriente	13,538	1,302,555	106,050	1,481,680
Total Activo	2,630,351	1,568,795	2,636,503	1,766,271
Pasivo corriente	81,259	154,086	315,002	310,561
Pasivo no corriente	49,773	871,089	63,053	718,863
Total Pasivo	131,032	1,025,175	378,055	1,029,424
Total Patrimonio	2,499,319	543,620	2,258,448	736,847
Otra información complementaria				
Efectivo y equivalente de efectivo	36,601	110,622	188,820	48,752

	2020		2019	
	Equion Energía Limited	Offshore International Group	Equion Energía Limited	Offshore International Group
Estado de pérdidas y ganancias				
Ingresos de actividades ordinarias y otros	257,066	325,812	1,285,891	529,167
Costos	(127,672)	(364,750)	(671,179)	(690,484)
Gastos de administración y otros	(612)	(234,597)	(624)	(64,115)
Resultado financiero	60,374	(24,034)	(3,660)	(31,288)
Impuesto de renta	(21,429)	59,818	(348,477)	208,473
Resultado del ejercicio	167,727	(237,751)	261,951	(48,247)

Otros resultados integrales	1,213,155	-	1,140,010	-
Otra información complementaria				
Depreciación y amortización	41,536	205,243	404,482	226,654

A continuación se presenta una conciliación entre el patrimonio de las participaciones más significativas y el valor en libros de las inversiones al 31 de diciembre:

	2020		2019	
	Equion Energía Limited	Offshore International Group	Equion Energía Limited	Offshore International Group
Patrimonio de la Compañía	2,499,319	543,620	2,258,448	736,847
% Participación de Ecopetrol	51%	50%	51%	50%
Participación en patrimonio	1,274,653	271,810	1,151,808	368,424
Mayor valor de la inversión	375,694	341,447	375,694	341,447
Impairment	(314,462)	(609,826)	(334,823)	(530,330)
Utilidad no realizada	(7,612)	-	-	-
Valor en libros de la inversión	1,328,275	3,431	1,192,679	179,541

14. Propiedades, planta y equipo

El movimiento de propiedades, planta y equipo por el periodo finalizado el 31 de diciembre de 2020 con sus correspondientes depreciaciones e impairment, ha sido el siguiente:

	Planta y equipo	Ductos, redes y líneas
Costo		
Saldo al 31 de diciembre de 2019	47,950,917	36,370,647
Adquisiciones/capitalizaciones (1)	1,625,316	1,179,602
Aumento costos de abandono (Nota 23)	181,318	15,035
Intereses financieros capitalizados (2)	42,052	31,511
Diferencia en cambio capitalizada	1,338	1,002
Bajas por retiro o venta	(491,677)	(84,184)
Efecto por pérdida de control en subsidiarias (3)	(298,570)	(592,885)
Ajuste por valor razonable en combinación de negocios (Nota 12)	547,965	44,538
Ajuste por conversión	1,336,351	478,103
Traslados (4)	149,217	(301,675)
Saldo al 31 de diciembre de 2020	51,044,227	37,141,694
Depreciación acumulada y pérdidas por impairment		
Saldo al 31 de diciembre de 2019	(18,976,236)	(16,635,110)
Depreciación del periodo	(2,281,324)	(1,634,545)
(Pérdida) recuperación por impairment (Nota 18)	(368,754)	329,743
Bajas por retiro o venta	443,259	75,150
Efecto por pérdida de control en subsidiarias (3)	266,825	403,095
Ajuste por conversión	(306,506)	(155,927)
Traslados (4)	40,125	59,570
Saldo al 31 de diciembre de 2020	(21,182,611)	(17,558,024)
Saldo al 31 de diciembre de 2019	28,974,681	19,735,537
Saldo al 31 de diciembre de 2020	29,861,616	19,583,670

Construcciones en curso	Edificaciones	Terrenos	Otros	Total
6,229,949	8,157,945	4,054,538	2,660,232	105,424,228
1,573,469	390,731	18,705	244,494	5,032,317
-	3,885	-	3,126	203,364
38,756	14,965	753	8,324	136,361
1,233	476	24	265	4,338
(79,077)	(16,390)	(10,155)	(85,785)	(767,268)
(775)	(266,526)	(60,341)	(144,189)	(1,363,286)
-	54,413	-	73,754	720,670
19,804	59,107	73,181	29,876	1,996,422
(298,836)	13,863	36,121	(97,636)	(498,946)
7,484,523	8,412,469	4,112,826	2,692,461	110,888,200
(1,114,366)	(3,456,254)	(80,682)	(961,610)	(41,224,258)
-	(341,052)	-	(113,207)	(4,370,128)
(327,751)	(18,074)	8,799	(8,601)	(384,638)
3,492	14,279	11	82,310	618,501
262	221,708	30,669	108,081	1,030,640
959	(13,707)	3,402	(9,738)	(481,517)
413,948	(35,624)	(40,748)	(5,734)	431,537
(1,023,456)	(3,628,724)	(78,549)	(908,499)	(44,379,863)
5,115,583	4,701,691	3,973,856	1,698,622	64,199,970
6,461,067	4,783,745	4,034,277	1,783,962	66,508,337

- (1) Incluye capitalizaciones por compra de asociación Guajira por parte de Hocol por valor de \$353,223.
- (2) Los intereses financieros se capitalizan en función a la tasa promedio ponderada de los costos por préstamos. Ver Nota 20 - Préstamos y financiaciones.
- (3) Ver efectos de pérdida de control (Nota 28)
- (4) Para propósitos de presentación, Ecopetrol reclasificó a Recursos naturales y del medio ambiente un valor de \$390,988, correspondiente al valor acumulado por impairment de proyectos que se encontraban registrados como Propiedades, planta y equipo. Lo anterior no tuvo impacto material en las partidas de los activos ni el estado de situación financiera.

	Planta y equipo	Ductos, redes y líneas
Costo		
Saldo al 31 de diciembre de 2018	46,429,815	34,349,283
Adquisiciones/capitalizaciones	804,570	765,994
Aumento por combinación de negocios	123,436	1,118,178
Aumento costos de abandono	148,764	102,402
Intereses financieros capitalizados (2)	77,627	32,630
Diferencia en cambio capitalizada	4,208	1,769
Bajas por retiro o venta	(500,876)	(165,936)
Ajuste por conversión	244,666	84,357
Traslados (3)	618,707	81,970
Saldo al 31 de diciembre de 2019	47,950,917	36,370,647
Depreciación acumulada y pérdidas por impairment		
Saldo al 31 de diciembre de 2018	(17,940,862)	(14,777,790)
Depreciación del periodo	(1,986,264)	(1,634,783)
Recuperación (pérdidas) por impairment	519,835	(113,860)
Bajas por retiro o venta	481,384	116,769
Ajuste por conversión	(103,365)	(36,341)
Traslados	53,036	(189,105)
Saldo al 31 de diciembre de 2019	(18,976,236)	(16,635,110)
Saldo neto al 31 de diciembre de 2018	28,488,953	19,571,493
Saldo neto al 31 de diciembre de 2019	28,974,681	19,735,537

Construcciones en curso (1)	Edificaciones	Terrenos	Otros	Total
4,594,998	7,852,278	3,984,576	2,845,802	100,056,752
2,097,378	243,039	20,098	81,580	4,012,659
44,876	9,062	22,924	20,471	1,338,947
-	1,248	-	4,337	256,751
12,831	15,800	1,033	2,389	142,310
696	857	56	130	7,716
(78,399)	(24,050)	(354)	(71,309)	(840,924)
2,691	10,757	12,869	6,369	361,709
(445,122)	48,954	13,336	(229,537)	88,308
6,229,949	8,157,945	4,054,538	2,660,232	105,424,228
(497,441)	(3,122,523)	(34,302)	(913,555)	(37,286,473)
-	(326,512)	-	(122,153)	(4,069,712)
(626,878)	(87,338)	(35,533)	(82,837)	(426,611)
-	17,807	-	91,541	707,501
-	(3,656)	-	(3,323)	(146,685)
9,953	65,968	(10,847)	68,717	(2,278)
(1,114,366)	(3,456,254)	(80,682)	(961,610)	(41,224,258)
4,097,557	4,729,755	3,950,274	1,932,247	62,770,279
5,115,583	4,701,691	3,973,856	1,698,622	64,199,970

- (1) El saldo de proyectos en curso al 31 de diciembre del 2019, incluye principalmente: Modernización de la Refinerías Barranca y Cartagena, Facilidades Castilla y Escalado de Desasfaltado del ICP.
- (2) Los intereses financieros se capitalizan en función a la tasa promedio ponderada de los costos por préstamos. Ver Nota 20 – Préstamos y financiaciones.

15. Recursos naturales y del medio ambiente

El movimiento de recursos naturales y del medio ambiente por el periodo finalizado el 31 de diciembre de 2020, con sus correspondientes agotamientos, calculados con base en unidades de producción, e impairment ha sido el siguiente:

	Inversiones petrolíferas	Costo de abandono y taponamiento	Inversiones petrolíferas en curso	Total
Costo				
Saldo al 31 de diciembre de 2019	59,822,566	5,036,884	8,362,719	73,222,169
Adquisiciones/capitalizaciones (1)	3,659,270	123,446	2,211,746	5,994,462
Aumento costos de abandono	-	2,075,992	28,097	2,104,089
Bajas por retiro o venta	(1,806)	260	(223,805)	(225,351)
Baja en activos exploratorios y pozos secos (2)	-	-	(448,132)	(448,132)
Intereses financieros capitalizados	111,140	-	-	111,140
Diferencia en cambio capitalizada	3,535	-	-	3,535
Ajuste por valor razonable en combinación de negocios	563,546	-	-	563,546
Ajuste por conversión	440,978	23,352	(138,809)	325,521
Traslados	768,049	(28,084)	(923,922)	(183,957)
Saldo al 31 de diciembre de 2020	65,367,278	7,231,850	8,867,894	81,467,022
Amortización acumulada y pérdidas por impairment				
Saldo al 31 de diciembre de 2019	(41,993,097)	(2,156,274)	-	(44,149,371)
Amortización del periodo	(3,810,349)	(831,909)	-	(4,642,258)
Pérdidas por impairment (Nota 18)	116,403	-	(334,112)	(217,709)
Bajas por retiro o venta	213	(40)	93,975	94,148
Ajuste por conversión	(310,894)	(14,546)	-	(325,440)
Traslados	(108,423)	21,320	(205,131)	(292,234)
Saldo al 31 de diciembre de 2020	(46,106,147)	(2,981,449)	(445,268)	(49,532,864)
Saldo al 31 de diciembre de 2019	17,829,469	2,880,610	8,362,719	29,072,798
Saldo al 31 de diciembre de 2020	19,261,131	4,250,401	8,422,626	31,934,158

(1) Incluye capitalizaciones por compra de asociación Guajira por parte de Hocol por valor de \$180,618.

(2) Incluye principalmente los pozos Nafta 1, Caronte, Alqamari, Boranda Sur y Coyote por parte de Ecopetrol, por Hocol el pozo Obiwan y por Ecopetrol Brasil el pozo Saturno. Adicionalmente se incluyen costos exploratorios de Ecopetrol América.

Para propósitos de presentación, Ecopetrol reclasificó a Recursos naturales y del medio ambiente un valor de \$390,988, correspondiente al valor acumulado por impairment de proyectos que se encontraban registrados como Propiedades, planta y equipo. Lo anterior no tuvo impacto material en las partidas de los activos ni el estado de situación financiera.

	Inversiones petrolíferas	Costo de abandono y taponamiento	Inversiones petrolíferas en curso	Total
Costo				
Saldo al 31 de diciembre de 2018	53,936,041	2,919,146	4,806,000	61,661,187
Adquisiciones/capitalizaciones (1)	5,144,295	166,431	4,487,467	9,798,193
Aumento costos de abandono	5,703	1,965,309	(38,835)	1,932,177
Bajas por retiro o venta	(84,052)	(9,253)	(142,127)	(235,432)
Baja en activos exploratorios y pozos secos (2)	17,548	-	(357,819)	(340,271)
Intereses financieros capitalizados (3)	94,995	-	10,834	105,829
Diferencia en cambio capitalizada	5,150	-	587	5,737
Ajuste por conversión	68,793	(3,004)	(112,917)	(47,128)
Traslados	634,093	(1,745)	(290,471)	341,877
Saldo al 31 de diciembre de 2019	59,822,566	5,036,884	8,362,719	73,222,169
Amortización acumulada y pérdidas por impairment				
Saldo al 31 de diciembre de 2018	(36,806,667)	(1,779,070)	-	(38,585,737)
Amortización del periodo	(3,836,479)	(383,360)	-	(4,219,839)
Pérdidas por impairment	(1,017,061)	-	-	(1,017,061)
Bajas por retiro o venta	83,667	8,511	-	92,178
Ajuste por conversión	(61,862)	(2,256)	-	(64,118)
Traslados	(354,695)	(99)	-	(354,794)
Saldo al 31 de diciembre de 2019	(41,993,097)	(2,156,274)	-	(44,149,371)
Saldo neto al 31 de diciembre de 2018	17,129,374	1,140,076	4,806,000	23,075,450
Saldo neto al 31 de diciembre de 2019	17,829,469	2,880,610	8,362,719	29,072,798

- (1) Las principales capitalizaciones corresponden al desarrollo de activos en la cuenca de Permian.
(2) Incluye pozos secos: 1) Ecopetrol: Tibirita, Provenza 1, La Cira 7000 y Ávila 1 2) Ecopetrol America LLC: Warrior y Molerusa 3) Hocol: Mamey West y Venganza Oeste.
(3) Los intereses financieros se capitalizan en función a la tasa promedio ponderado de los costos por préstamos. Ver Nota 20 – Préstamos y financiaciones.

16. Activos por derecho de uso

	Activos por derecho de uso				
	Terrenos y edificaciones	Maquinaria y Equipo	Vehículos	Activos por derecho de uso	Pasivos por arrendamiento
Saldo al 31 de diciembre de 2019	218,513	97,264	140,448	456,225	1,290,954
Adiciones	41,303	14,618	32,582	88,503	88,503
Amortización del periodo	(51,709)	(44,921)	(83,334)	(179,964)	-
Remediciones	(41,907)	33,686	69,255	61,034	76,801
Deterioro	(179)	45,601	(9,548)	35,874	-
Bajas	(13,343)	(4,321)	-	(17,664)	(28,916)
Efecto por pérdida de control en subsidiarias	(61,044)	(7,432)	-	(68,476)	(102,671)
Costo financiero	-	-	-	-	64,988
Pagos de capital e intereses	-	-	-	-	(350,539)
Diferencia en cambio	1,838	(556)	1,072	2,354	16,080
Saldo al 31 de diciembre de 2020	93,472	133,939	150,475	377,886	1,055,200

	Activos por derecho de uso					
	Terrenos y edificaciones	Maquinaria y Equipo	Vehículos	Activos por derecho de uso	Subarrendamientos	Pasivos por arrendamiento
Saldo al 31 de diciembre de 2018	-	-	-	-	-	797,889
Implementación IFRS 16 1 enero	236,519	78,412	145,704	460,635	29,610	490,245
Adiciones	26,252	123,341	74,900	224,493	-	224,493
Amortización del periodo	(44,254)	(50,944)	(80,156)	(175,354)	-	-
Deterioro	-	(53,488)	-	(53,488)	-	-
Bajas	(4)	(57)	-	(61)	-	(50)
Costo financiero	-	-	-	-	3,302	76,139
Pagos de capital e intereses	-	-	-	-	(3,476)	(300,326)
Diferencia en cambio	-	-	-	-	-	2,564
Saldo al 31 de diciembre de 2019	218,513	97,264	140,448	456,225	29,436	1,290,954

17. Intangibles

	Licencias y software	Otros intangibles	Total
Costo			
Saldo al 31 de diciembre de 2019	994,599	285,246	1,279,845
Adquisiciones	43,817	46,265	90,082
Ajuste por valor razonable en combinación de negocios	156	-	156
Bajas por retiro o venta	(5,430)	-	(5,430)
Efecto por pérdida de control en subsidiarias	(10,584)	-	(10,584)
Ajuste por conversión	12,569	5,072	17,641
Traslados	30,892	64,174	95,066
Saldo al 31 de diciembre de 2020	1,066,019	400,757	1,466,776
Amortización acumulada			
Saldo al 31 de diciembre de 2019	(692,217)	(104,530)	(796,747)
Amortización del periodo	(93,907)	(23,429)	(117,336)
Pérdidas (recuperaciones) por deterioro	(177)	5	(172)
Bajas por retiro o venta	5,558	11	5,569
Efecto por pérdida de control en subsidiarias	9,877	-	9,877
Ajuste por conversión	(8,688)	(65)	(8,753)
Traslados	(2,116)	(2,055)	(4,171)
Saldo al 31 de diciembre de 2020	(781,670)	(130,063)	(911,733)
Saldo al 31 de diciembre de 2019	302,382	180,716	483,098
Saldo al 31 de diciembre de 2020	284,349	270,694	555,043
	< 5 años	< 7 años	
Costo			
Saldo al 31 de diciembre de 2018	1,015,720	197,283	1,213,003
Adquisiciones	48,064	120,225	168,289
Bajas por retiro o venta	(114,187)	(1,041)	(115,228)
Ajuste por conversión	3,477	(3,960)	(483)
Traslados	41,525	(27,261)	14,264
Saldo al 31 de diciembre de 2019	994,599	285,246	1,279,845
Amortización acumulada			
Saldo al 31 de diciembre de 2018	(712,329)	(89,927)	(802,256)
Amortización del periodo	(88,044)	(14,982)	(103,026)
Pérdidas (recuperaciones) por deterioro	53	2	55
Bajas por retiro o venta	114,143	1,041	115,184
Ajuste por conversión	(2,333)	(33)	(2,366)
Traslados	(3,707)	(631)	(4,338)
Saldo al 31 de diciembre de 2019	(692,217)	(104,530)	(796,747)
Saldo neto al 31 de diciembre de 2018	303,391	107,356	410,747
Saldo neto al 31 de diciembre de 2019	302,382	180,716	483,098
	< 5 años	< 7 años	

18. Impairment de activos de largo plazo

De acuerdo con lo mencionado en la Nota 4.12, cada año o antes si es requerido el Grupo evalúa si existen indicios de impairment de sus activos de largo plazo y unidades generadoras de efectivo (UGEs) o si se requiere la reversión de un gasto por impairment registrado en periodos anteriores.

El impairment de los activos de largo plazo incluye propiedades planta y equipo, recursos naturales, inversiones en compañías, Goodwill y otros activos no corrientes. El Grupo está expuesto a determinados riesgos futuros producto de variaciones en: i) precios del petróleo, ii) márgenes de refinación y de rentabilidad, iii) perfiles de costos, iv) inversión y mantenimiento, v) monto de las reservas recuperables, vi) riesgo de mercado y país que se reflejan en la tasa de descuento y vii) cambios en la regulación local e internacional, entre otros.

Cualquier cambio en las anteriores variables para calcular el monto recuperable de un activo no corriente puede tener un efecto material en el reconocimiento de pérdidas o recuperación de los cargos por impairment. En los segmentos de negocio del Grupo, las variables

altamente sensibles pueden incluir, entre otras: i) en exploración y producción, las variaciones en el precio de los hidrocarburos, ii) en refinación, los cambios en los precios del petróleo crudo y productos, la tasa de descuento, los márgenes de refinación, cambios en la regulación ambiental, la estructura de costos y el nivel de inversiones en activos, y iii) en transporte y logística, los volúmenes transportados y los cambios en tarifas y en regulación.

Durante 2020, tal como se describió en la Nota 2.8, la pandemia del Covid-19 generó un impacto significativo en la economía mundial y por consiguiente en la industria petrolera, así mismo también ha provocado una volatilidad significativa en los mercados financieros y de materias primas de todo el mundo. Situación que ha venido mejorando durante los últimos meses, como resultado de la reapertura de diferentes sectores de la economía y el avance de los programas de vacunación.

Con base en las pruebas realizadas por el grupo, se presentan las siguientes recuperaciones (gastos) por impairment de activos de largo plazo:

	Al 31 de Diciembre de		
	2020	2019	2018
(Gasto) recuperación por impairment			
Exploración y producción	(180,259)	(1,967,179)	807,289
Refinación y petroquímica	(781,528)	452,163	(984,042)
Transporte y logística	341,065	(232,556)	(169,851)
	(620,722)	(1,747,572)	(346,604)
Reconocido en:			
Propiedad, planta y equipo (Nota 14)	(384,638)	(426,611)	(1,083,285)
Recursos naturales (Nota 15)	(217,709)	(1,017,061)	414,102
Inversiones en asociadas y negocios conjuntos (Nota 13)	(54,077)	(303,955)	322,858
Activos por derecho de uso (Nota 16)	35,874	-	-
Intangibles (Nota 17)	(172)	55	(279)
	(620,722)	(1,747,572)	(346,604)

18.1. Exploración y producción

(Gasto) recuperación por tipo de activos de exploración y producción para los años terminados en 2020, 2019 y 2018

	Al 31 de diciembre de		
	2020	2019	2018
Campos de Producción	(123,653)	(1,663,082)	483,122
Inversiones en asociadas y negocios conjuntos	(56,606)	(304,097)	324,166
Otros activos no corrientes	-	-	1
	(180,259)	(1,967,179)	807,289

Campos de producción

En 2020, como resultado del actual contexto económico del sector de hidrocarburos, el comportamiento de las variables de mercado, diferenciales de precio versus la referencia a Brent, información técnica y operacional disponible se registró un gasto de impairment, principalmente en los campos que operan en Colombia: Occidente B, Sur, Teca, Tibú, La Hocha y Espinal y en el campo en el exterior K2 y una recuperación en: Casabe asociado a un incremento importante en sus reservas, así como en Provincia, Lisama y Orito.

En 2019, como resultado del actual contexto económico del sector de hidrocarburos, el comportamiento de las variables de mercado, diferenciales de precio vs la referencia a Brent, información técnica y operacional disponible, se generó gasto de impairment en los campos petroleros que operan en Colombia principalmente: Tibú,

Casabe, Provincia, Underriver, La Hocha y Andalucía y en el campo en el exterior K2.

En 2018, como resultado de las nuevas variables de mercado, incorporación de nuevas reservas, diferenciales de precio vs la referencia a Brent, información técnica y operacional disponible, se presentó recuperación de impairment reconocido en años anteriores de los campos petroleros que operan en Colombia: Casabe, Provincia, Underriver, Tisquirama y Orito; y en los campos operados en el exterior: Gunflint y K2; y un gasto por impairment principalmente en los campos Tibú y Dina Norte.

El siguiente es el detalle del (gasto) recuperación por impairment de las unidades generadoras de efectivo relacionadas con los campos de producción petroleros por los años terminados al 31 de diciembre:

2020

Unidades generadoras de efectivo	Valor neto en libros	Valor recuperable	Recuperación (Gasto)
Campos de producción – Colombia			
Recuperación	24.845.238	61.224.928	1.019.394
Gasto	2.439.799	1.423.561	(1.016.238)
Campos de producción – Exterior			
Gasto	1.277.609	1.150.800	(126.809)
			(123.653)

2019

Unidades generadoras de efectivo	Valor neto en libros	Valor recuperable	Recuperación (Gasto)
Campos de producción – Colombia			
Recuperación	3,842,819	6,047,345	74,577
Gasto	4,992,462	3,322,284	(1,673,258)
Campos de producción – Exterior			
Recuperación	200,910	539,785	4,391
Gasto	-	-	(68,792)
			(1,663,082)

2018

Unidades generadoras de efectivo	Valor neto en libros	Valor recuperable	Recuperación (Gasto)
Campos de producción – Colombia			
Recuperación	19,156,326	50,462,080	688,984
Gasto	764,808	405,421	(359,387)
Campos de producción – Exterior			
Recuperación	1,810,618	2,719,086	157,709
Gasto	184,375	180,191	(4,184)
			483,122

La agregación de los activos, para identificar las UGEs es consistente con relación al periodo anterior.

Los supuestos utilizados en el modelo para determinar los valores recuperables incluyen:

- El valor razonable menos los costos de disposición de los activos del segmento de exploración y producción fue determinado con base en flujos de efectivo después de impuestos que se derivan de los planes de negocios aprobados por la gerencia de la Compañía, los cuales son desarrollados sobre variables macroeconómicas de largo plazo y supuestos fundamentales de oferta y demanda. El nivel de jerarquía de valor razonable 3.
- Balance de reservas de crudo y gas, además de las reservas probadas incluidas en la Nota 34, las reservas probables y posibles también fueron consideradas ajustadas por diferentes factores de riesgo.
- La tasa de descuento en términos reales fue determinada como el costo promedio ponderado de capital (WACC, por sus siglas en inglés) y corresponde a un 3.67% (2019: 6.31%).
- Precio de petróleo – Brent: Las proyecciones incluyen USD\$46.36/barril para el primer año, USD\$57.00/barril promedio para el mediano plazo y USD\$67.77/barril a partir de 2032. En 2019, los supuestos realizados tomaron un precio de USD\$55.61/barril para el primer año, USD\$56.50/barril promedio para el mediano plazo y USD\$71.6/barril a partir de 2030. La proyección de precios internacionales de crudos es realizada por una agencia independiente y especializada en Oil & Gas, la cual tiene en cuenta los actuales escenarios de los acuerdos de cuotas petroleras de la OPEP (Organización de Países Exportadores de Petróleo) y el impacto de los cambios en especificaciones emitidos por el convenio Internacional para prevenir la contaminación por los buques (Marpol) a partir de 2020 sobre crudos y combustibles con alto contenido de azufre.

Inversiones en asociadas y negocios conjuntos

Las inversiones en compañías asociadas y negocios conjuntos, son registradas a través del método de participación. El Grupo evalúa si existe alguna

evidencia objetiva para determinar si el valor de dichas inversiones se ha deteriorado en el periodo, en especial, aquellas compañías que fueron adquiridas con Goodwill.

Como resultado, el Grupo reconoció un (gasto) recuperación por impairment en el valor de sus inversiones en compañías al 31 de diciembre, de la siguiente manera:

	Al 31 de diciembre de		
	2020	2019	2018
Equion Energía Limited	20,363	(119,888)	130,822
Offshore International Group	(76,969)	(184,209)	193,344
	(56,606)	(304,097)	324,166

Los supuestos empleados para determinar el valor recuperable de las compañías evaluadas son los descritos en la sección anterior, excepto por la utilización de una tasa de descuento en términos reales en 2020 para Offshore International Group de 5.79% (2019 – 8.50%).

En 2020, se registró una recuperación sobre la inversión en Equion originada principalmente por la actualización de las tarifas de transporte por ductos donde tiene participación, y se registró un deterioro sobre la inversión en Offshore considerando el valor razonable de la transacción de venta.

En 2019, se registró gasto por impairment tanto para Offshore International Group y Equion Energía dadas las variables actuales del mercado, disminución en los precios internacionales, posición conservadora frente a proyectos y aumento en costos.

En 2018, los mercados mostraron mejores condiciones con precios y diferenciales que permitieron mejores valores para el pronóstico de producción de crudo y gas. El desempeño operacional y la evolución técnica han contribuido a fortalecer los flujos de efectivo futuros que, a su vez, aportaron a la recuperación del impairment reconocido en años anteriores para Offshore International Group y Equion Energy.

18.2. Refinación, petroquímica y biocombustibles

	Al 31 de diciembre de		
	2020	2019	2018
Refinería de Cartagena	(440,525)	911,597	(770,581)
Bioenergy	-	(234,340)	(213,461)
Invercolsa S.A.	(3)	-	-
Refinería de Barrancabermeja (proyectos)	(341,000)	(225,094)	-
	(781,528)	452,163	(984,042)

El siguiente es el detalle de la recuperación (gasto) por impairment de las unidades generadoras de efectivo del segmento de refinación, petroquímica y biocombustibles:

2020

Unidades generadoras de efectivo	Valor neto en libros	Valor recuperable	Recuperación (Gasto)
Refinería de Cartagena	24,041,174	23,600,649	(440,525)
Invercolsa S.A.	276	273	(3)
Refinería de Barrancabermeja (proyectos)	676,334	335,334	(341,000)
			(781,528)

2019

Unidades generadoras de efectivo	Valor neto en libros	Valor recuperable	Recuperación (Gasto)
Refinería de Cartagena	22,292,788	23,204,385	911,597
Bioenergy	575,331	340,991	(234,340)
Refinería de Barrancabermeja (proyectos)	901,517	676,423	(225,094)
			452,163

2018

Unidades generadoras de efectivo	Valor neto en libros	Valor recuperable	Recuperación (Gasto)
Refinería de Cartagena	23,411,058	22,640,761	(770,297)
Refinería de Cartagena - Otros activos	-	-	(284)
Bioenergy	774,343	560,882	(213,461)
			(984,042)

La agregación de los activos, para identificar las UGEs es consistente con relación al periodo anterior.

Refinería de Cartagena

El valor recuperable de la Refinería de Cartagena S.A. (Reficar) se calculó a partir del valor razonable menos costos de disposición, el cual es superior a su valor de uso. El valor razonable menos los costos de disposición, fue determinado con base en flujos de efectivo después de impuestos que se derivan de los planes de negocios aprobados por la Gerencia del Grupo, los cuales son desarrollados sobre precios de mercado provistos por un tercero, el cual considera variables macroeconómicas de largo plazo y supuestos fundamentales de oferta y demanda de crudos y productos refinados. La jerarquía de valor razonable es de nivel 3.

Los supuestos utilizados para determinar el valor recuperable incluyeron: i) un margen bruto de refinación determinado con base en el precio del crudo y las perspectivas de precios de los productos proporcionados por un experto externo; ii) una tasa de descuento real de 5.10% (2019 - 6.23%) determinada bajo metodología WACC; iii) condiciones y beneficios actuales, o similares, como usuario industrial de bienes y servicios de zona franca y durante la vigencia de la licencia; iv) nivel de costos y gastos de operación a largo plazo en línea con los estándares internacionales de refinerías de similar configuración y capacidad de conversión, v) volúmenes de cargas de crudo y producción de combustibles, y vi) nivel de inversión continua.

Es relevante mencionar que el negocio de refinación es altamente sensible a la volatilidad de los márgenes

y a las variables macroeconómicas implícitas en la determinación de la tasa de descuento, por tanto, cualquier cambio en estos supuestos genera variaciones importantes en el monto de impairment o recuperación calculado.

El gasto de impairment para 2020 se derivó principalmente de menores márgenes de refinación asociado a factores externos asociados a la pandemia COVID-19. Por otro lado, la gestión soportó mejoras operacionales que compensan en cierta medida las afectaciones por las variables macroeconómicas.

La recuperación de impairment para 2019, está relacionada principalmente con los cambios macroeconómicos fundamentales que disminuyeron la tasa de descuento utilizada para la valoración de los activos de Reficar, asociados principalmente a la disminución del riesgo y al costo de deuda para la empresa. En conjunto, la gestión operacional y los resultados del 2019 permitieron soportar mejoras operacionales incluidas en la proyección que compensan en alguna medida las afectaciones relacionadas con el impacto que tendrá la regulación MARPOL sobre la proyección de los márgenes de refinados y diferenciales de crudo. Los resultados del 2019 estuvieron demarcados por un mayor conocimiento de las capacidades de la refinería y una eficiente gestión operacional.

El impairment registrado para 2018 está explicado por un marcado ajuste en la expectativas del mercado en relación con el impacto que tendría la implementación de la regulación MARPOL sobre la proyección de márgenes de los productos refinados y el diferencial de crudos livianos y pesados que sirven como materia prima; y cambios macroeconómicos

fundamentales que aumentaron la tasa de descuento utilizada para la valoración de los activos de Reficar, asociados principalmente al aumento en la tasa libre de riesgo y mayores primas de riesgo de mercado. Por otro lado, la gestión operacional y los resultados del año permitieron soportar mejoras operacionales incluidas en la proyección que compensan en alguna medida las afectaciones por las variables macroeconómicas.

Bioenergy

Bioenergy desde el 24 de junio de 2020 entro en proceso de liquidación obligatoria y no forma parte de las cifras consolidadas.

En 2019, se registró un gasto de impairment por \$234,340, este valor se generó principalmente por cambios en las variables operativas, cambios en la proyección de los flujos operacionales y necesidad de mayores recursos, principalmente por los resultados de la renovación de cañas de mayor edad. En 2018, se presentó una pérdida por impairment originada principalmente por la actualización de las fechas de entrada del proyecto, el proceso de estabilización de la planta industrial y la actualización de variables operativas.

El valor recuperable de 2019 y 2018 de Bioenergy se calculó con base en el valor razonable menos los costos de disposición, el cual es mayor al valor en uso y corresponde a los flujos de caja futuros descontados después de impuesto a las ganancias. La jerarquía de valor razonable es de nivel 3.

Los supuestos utilizados en el modelo para determinar el valor recuperable incluyeron a) proyección de los precios etanol con base en proyecciones de especialistas del Grupo y b) una tasa de descuento de 6.03% - 2019 en términos reales (2018 - 6.97%), determinada bajo metodología WACC.

Refinería de Barrancabermeja

Al 31 de diciembre de 2020, como resultado de la actualización de los análisis para el Proyecto de Modernización de la Refinería de Barrancabermeja, se reconoció un gasto por impairment de \$341,000, relacionado con trabajos de ingeniería a partir de las evaluaciones realizadas y el contexto actual de la industria.

Durante 2019, se reconocieron \$225,094 por impairment, asociados a los trabajos de ingeniería para el desarrollo integral del Proyecto de Modernización de la Refinería de Barrancabermeja, lo anterior

considerando el avance en los análisis técnicos de alternativas para el eventual incremento de conversión en la refinería. Una vez reactivado el proyecto, Ecopetrol evaluará nuevamente si cualquier pérdida por impairment reconocida en años anteriores, estaría sujeta a recuperación.

Durante 2018, se evaluó el Proyecto de Modernización de la Refinería de Barrancabermeja, el cual se encontraba a la fecha suspendido y no se observaron indicios que implicaran el reconocimiento de impairment adicional.

18.3 Transporte y logística

El valor recuperable de estos activos fue determinado con base en su valor razonable menos costos de disposición, el cual corresponde a los flujos de caja descontados basados en las curvas de producción de hidrocarburos y curvas de transporte de refinados. La jerarquía de valor razonable es de nivel 3.

Los supuestos utilizados en el modelo para determinar el valor recuperable incluyeron: i) las tarifas reguladas por el Ministerio de Minas y Energía y Comisión de Regulación de Energía y Gas - CREG, ii) tasa de descuento real empleada en la valoración fue de 3.17% (2019 - 4.88%) y iii) proyección volumétrica basada en el plan financiero y el balance volumétrico a largo plazo.

En 2019, se registró un gasto por impairment por \$232,556, relacionado principalmente con la Unidad Generadora de Efectivo (UGE) del Sur por \$106,983, compuesta por el Puerto Tumaco y el Oleoducto TransAndino (OTA), lo cual conlleva a un impairment del 100% del valor en libros y (UGE) Norte por \$125,140; lo anterior incluye los activos por arrendamientos reconocidos como derecho de uso por las dos UGE mencionadas anteriormente. Este valor se generó principalmente por una disminución en los volúmenes para determinar la proyección de ingresos y la disminución para capturar eficiencias en costos.

En 2018, el principal impairment registrado fue por \$167,917, correspondiente a los sistemas de la Unidad Generadora de Efectivo (UGE) del Sur, compuesta por el Puerto Tumaco y el Oleoducto TransAndino (OTA) y sus oleoductos aferentes el Oleoducto Mansoyá - Orito (OMO), San Miguel - Orito (OSO), y Churuyaco- Orito (OCHO). Este valor se generó principalmente por una disminución en la proyección del volumen a transportar de los sistemas del sur, y un incremento en la necesidad de inversiones de continuidad para disminuir el riesgo operativo de los sistemas de transporte.

19. Goodwill

	Al 31 de diciembre de	
	2020	2019
Oleoducto Central S.A.	683,496	683,496
Hocol Petroleum Ltd	537,598	537,598
Invercolsa S.A. (1)	434,357	-
Andean Chemical Limited	127,812	127,812
Esenttia S.A.	108,137	108,137
	1,891,400	1,457,043
Menos Impairment Hocol Petroleum Ltd	(537,598)	(537,598)
Total	1,353,802	919,445

(1) Corresponde al valor reconocido por la actualización en los valores razonables de Invercolsa S.A. Ver Nota 12.

Al 31 de diciembre de 2020, el Grupo evaluó el valor en libros del goodwill generado en la adquisición de compañías controladas. El importe recuperable fue determinado con base en el valor razonable menos costos de disposición usando el valor presente de los flujos de caja futuros para cada una de las compañías adquiridas con crédito mercantil. La fuente de información consideró las proyecciones financieras

de cada Compañía derivados de los planes de negocios aprobados por la Gerencia, los cuales son desarrollados sobre factores macroeconómicos de largo plazo como las curvas de precios y márgenes y supuestos fundamentales de oferta y demanda. Como resultado del análisis, el Grupo no identificó la necesidad de reconocer impairment sobre el goodwill.

20. Préstamos y financiaciones

20.1. Composición de los préstamos y financiaciones

	Tasa de interés*		Al 31 de diciembre	Al 31 de diciembre
	2020	2019	2020	2019
Moneda nacional				
Bonos	6.4%	8.7%	1,084,461	1,567,598
Créditos sindicados	5.6%	8.0%	811,079	1,115,874
Pasivos por arrendamiento (1)	6.6%	7.2%	836,489	1,039,303
Créditos comerciales y otros	6.3%	8.3%	312,408	737,032
			3,044,437	4,459,807
Moneda extranjera				
Bonos (2)	6.0%	5.9%	33,944,548	25,832,740
Créditos comerciales (3)	3.6%	4.1%	8,247,012	6,586,538
Préstamos partes relacionadas (Nota 31)			1,277,046	1,108,403
Pasivos por arrendamiento (1)	6.1%	6.2%	218,711	251,651

	43,687,317	33,779,332
	46,731,754	38,239,139
Corriente	4,923,346	5,012,173
No corriente	41,808,408	33,226,966
	46,731,754	38,239,139

*Tasa de interés efectiva promedio ponderado al cierre de cada periodo

- (1) Corresponde al valor presente de los pagos a ser realizados durante el plazo de los contratos de arrendamiento operativo de oleoductos, tanques, bienes inmuebles y vehículos, reconocidos como resultado de la implementación de la NIIF 16 – Arrendamientos.
- (2) El 29 de abril de 2020 Ecopetrol realizó la emisión y colocación de bonos de deuda pública externa por un monto de USD\$2,000 millones, a un plazo de 10 años y una tasa cupón de 6.875%.
- (3) Incluye línea de crédito contingente por USD\$665 millones con la banca internacional (Scotiabank y Mizuho Bank).

En 2020, se adquirieron obligaciones financieras por un monto total de \$13,805,403 como parte de la estrategia de mitigación de riesgo de mercado (Nota 30).

20.2. Valor razonable

El valor razonable de las obligaciones financieras es de \$52,721,790 y \$43,261,792 al 31 de diciembre de 2020 y al 31 de diciembre de 2019, respectivamente.

Para la medición a valor razonable, los bonos y títulos en moneda local fueron valorados utilizando los precios de referencia de Precia, mientras que para

los bonos denominados en dólares se tomó como fuente Bloomberg. Respecto a las demás obligaciones financieras para las que no existe un referente de mercado se utilizó una técnica de descuento a valor presente. Las tasas de descuento incorporan el riesgo de mercado mediante algún referente (Libor, DTF) y el riesgo de crédito del Grupo (spread).

20.3 Perfil de vencimientos

Los siguientes son los perfiles de vencimientos de los préstamos y financiaciones al 31 de diciembre de 2020:

	Hasta 1 año	1 - 5 años	5-10 años	> 10 años	Total
Moneda nacional					
Bonos	65,829	354,082	370,899	293,651	1,084,461
Créditos sindicados	242,661	568,418	-	-	811,079
Pasivos por arrendamiento	167,059	418,938	211,233	39,259	836,489
Créditos comerciales y otros	106,411	205,997	-	-	312,408
	581,960	1,547,435	582,132	332,910	3,044,437
Moneda extranjera					
Bonos	1,905,325	14,692,852	12,109,859	5,236,512	33,944,548
Créditos sindicados	1,063,785	4,313,032	584,559	-	5,961,376
Créditos comerciales	34,806	2,250,830	-	-	2,285,636
Pasivos por arrendamiento	60,424	149,382	8,905	-	218,711
Préstamos partes relacionadas	1,277,046	-	-	-	1,277,046
Saldo al 31 de diciembre de 2020	4,341,386	21,406,096	12,703,323	5,236,512	43,687,317
	4,923,346	22,953,531	13,285,455	5,569,422	46,731,754

Los siguientes son los perfiles de vencimientos de los préstamos y financiaciones al 31 de diciembre de 2019:

	Hasta 1 año	1 - 5 años	5-10 años	> 10 años	Total
Moneda nacional					
Bonos	571,969	403,996	358,976	232,657	1,567,598
Créditos sindicados	361,545	754,329	-	-	1,115,874
Pasivos por arrendamiento	179,448	559,337	235,791	64,727	1,039,303
Otros	218,375	343,049	121,679	53,929	737,032
	1,331,337	2,060,711	716,446	351,313	4,459,807
Moneda extranjera					
Bonos	1,386,032	13,873,755	5,574,713	4,998,240	25,832,740
Créditos comerciales	1,129,117	4,163,624	1,253,446	40,351	6,586,538
Pasivos por arrendamiento	57,284	175,962	18,405	-	251,651
Préstamos partes relacionadas	1,108,403	-	-	-	1,108,403
	3,680,836	18,213,341	6,846,564	5,038,591	33,779,332
	5,012,173	20,274,052	7,563,010	5,389,904	38,239,139

20.4. Clasificación según tipo de interés

	Al 31 de diciembre de	
	2020	2019
Moneda nacional		
Tasa fija	523,870	598,802
Tasa variable	2,520,567	3,861,005
	3,044,437	4,459,807
Moneda extranjera		
Tasa fija	38,706,328	31,087,439
Tasa variable	4,980,989	2,691,893
	43,687,317	33,779,332
Total préstamos y financiaciones	46,731,754	38,239,139

Los intereses de los bonos en moneda nacional están indexados al IPC (Índice de Precios al Consumidor) y los créditos bancarios y leasing a tasa variable en pesos colombianos están indexados a la DTF (Depósitos a Término Fijo) e IBR (Indicador Bancario de Referencia), más un diferencial. Los intereses de los préstamos en moneda extranjera se calculan con base en la tasa LIBOR más un diferencial y los intereses de los otros tipos de deuda son a tasa fija.

20.5 Deuda designada como instrumento de cobertura

Al 31 de diciembre de 2020, la Compañía tiene designados USD\$8,549 millones de la deuda en moneda extranjera como instrumento de cobertura; de los cuales, USD\$7,249 millones corresponden a la cobertura

de inversiones en compañías con moneda funcional dólar y USD\$1,300 millones a la cobertura de flujo de efectivo para futuras exportaciones de crudo. Ver Nota 30 – Gestión de riesgos.

20.6. Garantías y covenants

El financiamiento obtenido por Ecopetrol en los mercados de capital no tiene garantías otorgadas ni restricciones de covenants financieros.

- El crédito sindicado adquirido por Oleoducto Bicentenario de Colombia S.A.S. establece como requisito que esta subsidiaria mantenga una relación establecida de apalancamiento y solvencia y flujo de caja/servicio a la deuda.

20.7. Movimiento de la deuda financiera neta

	Efectivo y equivalentes	Otros activos financieros	Préstamos y financiaciones	Deuda financiera neta
Saldo al 31 de diciembre de 2018	6,311,744	8,147,815	(38,062,645)	(23,603,086)
Flujo de efectivo	505,466	(3,117,549)	3,303,303	691,220
Diferencia en cambio				
Registrada en el resultado del periodo	258,548	182,396	(151,518)	289,426
Registrada en el otro resultado integral	-	-	(53,911)	(53,911)
Costo financiero registrado a proyectos	-	-	(261,592)	(261,592)
(Costo) ingreso financiero reconocido en resultados	-	(18,551)	(1,894,490)	(1,913,041)
Ajuste por conversión	-	(204,441)	(14,627)	(219,068)
Otros movimientos que no generan flujo de efectivo	-	(10,378)	(1,103,659)	(1,114,037)
Saldo al 31 de diciembre de 2019	7,075,758	4,979,292	(38,239,139)	(26,184,089)
Flujo de efectivo	(1,971,156)	(2,107,856)	(6,105,296)	(10,184,308)
Diferencia en cambio				
Registrada en el resultado del periodo	(22,294)	38,701	747,743	764,150
Registrada en el otro resultado integral	-	-	(722,458)	(722,458)
Intereses y diferencia en cambio capitalizada	-	-	(255,374)	(255,374)
Costo financiero reconocido en resultados	-	43,948	(2,384,342)	(2,340,394)
Ajuste por conversión	-	42,529	(175,884)	(133,355)
Efecto por pérdida de control en subsidiarias	-	-	528,981	528,981
Otros movimientos que no generan flujo de efectivo	-	75,045	(125,985)	(50,940)
Saldo al 31 de diciembre de 2020	5,082,308	3,071,659	(46,731,754)	(38,577,787)

21. Cuentas comerciales y otras cuentas por pagar

	Al 31 de diciembre	
	2020	2019
Corriente		
Proveedores	6,491,909	8,115,015
Anticipos asociados	497,898	925,761
Retención en la fuente	462,429	673,204
Acreedores varios	331,333	383,288
Seguros y reaseguros	240,803	136,041
Dividendos por pagar (1)	223,571	157,181
Depósitos recibidos de terceros	84,436	39,901
Partes relacionadas (Nota 31)	72,316	187,616
Acuerdos en contratos de transporte (2)	37,941	71,239
Operaciones de cobertura	6,405	-
	8,449,041	10,689,246
No corriente		
Depósitos recibidos de terceros	1,109	-
Acreedores varios	19,955	24,445
	21,064	24,445

- (1) La Asamblea General de Accionistas realizada el 27 de marzo de 2020, decretó dividendos sobre la utilidad del año 2019, por \$7,401,005. En 2020, las siguientes filiales realizaron pagos a accionistas minoritarios: Ocesa por \$959,949, ODC por \$89,374, ODL por \$166,589 e Invercolsa por \$148,942. Durante el 2020 Ecopetrol pagó dividendos a sus accionistas por un monto \$7,369,497 neto de retenciones cuando fueren aplicables..
- (2) Corresponde al valor de la deuda por acuerdos pactados en los contratos de transporte por oleoductos y poliductos, calculados en la compensación volumétrica por calidad y otros acuerdos de manejo de inventarios.

El valor contable de las cuentas comerciales y otras cuentas por pagar es muy cercano a su valor razonable debido a su naturaleza de corto plazo.

22. Provisiones por beneficios a empleados

	Al 31 de diciembre de	
	2020	2019
Beneficios post-empleo		
Salud	7,193,527	6,908,799
Pensión	2,819,985	2,853,718
Educación	485,792	458,441
Bonos	342,669	352,917
Otros planes	104,428	98,729
Beneficios por terminación - Plan de retiro voluntario (1)	713,407	124,186
	11,659,808	10,796,790
Prestaciones sociales y salarios	674,080	587,596
Otros beneficios a largo plazo	89,779	96,678
	12,423,667	11,481,064
Corriente	2,022,137	1,929,087
No corriente	10,401,530	9,551,977
	12,423,667	11,481,064

(1) Incluye para 2020 obligación por nuevo plan de retiro voluntario, sobre el cual la Compañía realizó los ofrecimientos a una parte de sus trabajadores durante el año. Este plan fue aprobado a finales de 2019 por la Junta Directiva de la Compañía (Nota 22.6).

22.1. Movimiento de las obligaciones actuariales

La siguiente tabla muestra el movimiento de los pasivos y activos, netos por beneficios post-empleo y beneficios por terminación al 31 de diciembre de:

	Pensión y bonos (1)		Otros		Total	
	2020	2019	2020	2019	2020	2019
Pasivos por beneficios post-empleo						
Saldo inicial	15,916,472	14,131,943	7,593,171	6,212,118	23,509,643	20,344,061
Costo del servicio actual	-	-	118,105	76,478	118,105	76,478
Costo del servicio pasado (2)	-	-	631,761	-	631,761	-
Costos por intereses	882,785	920,622	439,682	418,553	1,322,467	1,339,175
Pérdidas actuariales	418,187	1,755,300	87,311	1,273,409	505,498	3,028,709
Beneficios pagados	(897,061)	(891,393)	(359,436)	(387,387)	(1,256,497)	(1,278,780)
Saldo final	16,320,383	15,916,472	8,510,594	7,593,171	24,830,977	23,509,643

Activos del plan						
Saldo inicial	12,709,838	12,348,557	3,015	3,954	12,712,853	12,352,511
Rendimiento de los activos	700,168	801,065	136	217	700,304	801,282
Aportes a los fondos	-	-	370,090	83,071	370,090	83,071
Beneficios pagados	(897,061)	(891,393)	(358,199)	(84,243)	(1,255,260)	(975,636)
Ganancias actuariales	644,784	451,609	194	16	644,978	451,625
Saldo final	13,157,729	12,709,838	15,236	3,015	13,172,965	12,712,853
Pasivo neto	3,162,654	3,206,634	8,495,358	7,590,156	11,658,012	10,796,790

- (1) No existe costo por el servicio de pensiones y planes de pensiones, debido a que los beneficiarios fueron retirados al 31 de julio de 2010.
- (2) Incluye lo relacionado con el nuevo plan de retiro voluntario.

La siguiente tabla muestra el movimiento en los resultados y otros resultados integrales de los beneficios post-empleo, por los periodos finalizados el 31 de diciembre de 2020:

	Por los años terminados el 31 de diciembre	
	2020	2019
Resultado del periodo		
Intereses, neto	622,163	537,893
Costo del servicio actual	118,035	76,478
Remediciones	-	10,213
	740,198	624,584
Otros resultados integrales		
Pensión y bonos	226,598	(1,303,693)
Salud	(33,325)	(1,268,379)
Educación y cesantías	(55,693)	922
Beneficios por terminación - Plan de retiro voluntario	(121)	(34)
	137,459	(2,571,184)
Impuesto diferido	(41,238)	771,355
	96,221	(1,799,829)

22.2 Activos del plan

Los activos del plan están representados por los recursos entregados a Patrimonios Autónomos Pensionales para el pago del pasivo pensional de las obligaciones por mesadas y bonos pensionales; lo concerniente a salud y educación está a cargo de Ecopetrol. La destinación de los recursos de los

patrimonios autónomos, así como sus rendimientos, no puede cambiarse de destinación ni restituirse a la Compañía hasta tanto se cumpla con la totalidad de las obligaciones.

La siguiente es la composición de los activos del plan por tipo de inversión al 31 de diciembre de:

	2020	2019
Títulos emitidos por el Gobierno Nacional	4,958,612	4,301,961
Bonos deuda privada	3,177,531	3,122,630
Otros moneda local	1,502,349	1,899,787
Otros moneda extranjera	1,992,800	870,859
Otros bonos públicos	777,562	1,082,815
Renta variable	679,448	823,977
Otros	84,663	610,824
	13,172,965	12,712,853

El 23.3% (2019 - 26.6%) del saldo de los activos del plan corresponde a nivel 1 de valor razonable y el 76.7% (2019 - 73.4%) están bajo nivel de jerarquía 2.

El valor razonable de los activos del plan se calcula utilizando el precio cotizado en los mercados de activos. La Compañía obtiene estos precios por intermedio de proveedores de datos financieros confiables reconocidos en Colombia o en el extranjero dependiendo de la inversión.

Para los títulos emitidos en moneda local, el valor razonable de los activos del plan se calcula utilizando la información publicada por Precia. De acuerdo con su metodología, los precios pueden ser calculados a partir de información de mercado del día de valoración o estimados a partir de insumos históricos de acuerdo con los criterios establecidos para el cálculo de cada uno de los tipos de precios.

El precio promedio es calculado principalmente del mercado más representativo de las transacciones llevadas a través de plataformas electrónicas aprobadas y supervisadas por el regulador.

Por otro lado, el precio estimado se calcula para las inversiones que no reflejan la información suficiente para estimar un precio promedio de mercado, replicando los precios cotizados para activos similares o precios obtenidos a través de cotizaciones de corredores de bolsa. Este precio estimado también está dado por Precia como resultado de la aplicación de metodologías robustas aprobadas por el regulador financiero y ampliamente utilizado por el sector financiero en Colombia.

La siguiente tabla refleja la calidad crediticia de los emisores y contrapartes en transacciones relacionadas con los patrimonios autónomos:

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Nación	5,102,222	4,448,221
AAA	4,369,805	5,138,279
AA+	570,716	837,009
BBB-	458,273	455,201
BBB	201,163	319,514
AA	134,454	6,679
F1+	61,192	56,728
BRC1+	52,296	68,313
A3	11,633	17,267
BBB+	10,328	22,113
AA-	4,014	16,067
BAA3	-	219,830
SPI+	-	84,933
A-1+	-	78,156

BAA1	-	15,538
A	5,307	11,841
Otras calificaciones	297,048	30,129
Sin calificaciones disponibles	1,894,514	887,035
	13,172,965	12,712,853

Ver política de riesgo de crédito en la Nota 30.8.

22.3. Supuestos actuariales

Supuestos actuariales utilizados para determinar el valor presente de la obligación neta por beneficios definidos utilizados para los cálculos actuariales al 31 de diciembre:

2020	Pensión	Bonos	Salud	Educación	Otros beneficios (1)
Tasa de descuento	5.50%	4.75%	6.00%	5.00%	4.09%
Incremento salarial	N/A	N/A	N/A	N/A	4.70%
Inflación esperada	3.00%	3.00%	3.00%	3.00%	3.00%
Tasa de incremento de pensiones	3.00%	N/A	N/A	N/A	N/A
Tendencia del costo					
Tasa inmediata	N/A	N/A	6.67%	4.00%	N/A
Tasa final	N/A	N/A	4.00%	4.00%	N/A

2019	Pensión	Bonos	Salud	Educación	Otros beneficios (1)
Tasa de descuento	5.75%	5.25%	6.00%	5.50%	4.83%
Incremento salarial	N/A	N/A	N/A	N/A	5.50% / 4.70%
Inflación esperada	3.00%	3.00%	3.00%	3.00%	3.00%
Tasa de incremento de pensiones	3.00%	N/A	N/A	N/A	N/A
Tendencia del costo					
Tasa inmediata	N/A	N/A	7.00%	4.00%	N/A
Tasa final	N/A	N/A	4.00%	4.00%	N/A

N/A: No es aplicable para este beneficio

(1) Tasa de descuento promedio ponderada.

La tendencia del costo es el incremento proyectado para el año inicial y la tasa incluyen la inflación esperada.

La tabla de mortalidad usada para los cálculos fue la tabla de rentistas para hombres y mujeres tomando la experiencia obtenida para el periodo 2005-2008 del Instituto Colombiano de Seguridad Social.

22.4. Perfil de vencimientos de la obligación

Flujos de caja futuros para pago de las obligaciones post-empleo:

Periodo	Pensión y bonos	Otros beneficios	Total
2021	967,810	482,953	1,450,763
2022	996,869	493,791	1,490,660
2023	1,019,379	507,009	1,526,388
2024	1,034,972	511,627	1,546,599
2025	1,069,252	514,556	1,583,808
2026yss	5,607,391	2,602,556	8,209,947

22.5. Análisis de sensibilidad de pasivos y activos actuariales

El siguiente análisis de sensibilidad muestra el valor de la obligación por beneficios definidos considerando el efecto de posibles cambios sobre las variables del modelo, manteniendo los demás supuestos constantes, al 31 de diciembre de 2020:

	Pensión	Bonos	Salud	Educación	Otros beneficios
Tasa de descuento					
-50 puntos básicos	16,139,465	1,147,350	7,798,461	515,004	846,709
+50 puntos básicos	14,368,856	1,072,868	6,715,899	464,394	812,726
Tasa de inflación					
-50 puntos básicos	14,314,193	1,072,094	N/A	N/A	717,069
+50 puntos básicos	16,193,316	1,147,825	N/A	N/A	740,501
Tasa de incremento de salarios					
-50 puntos básicos	N/A	N/A	N/A	N/A	96,530
+50 puntos básicos	N/A	N/A	N/A	N/A	105,392
Tasa tendencia del costo					
-50 puntos básicos	N/A	N/A	6,720,777	464,319	N/A
+50 puntos básicos	N/A	N/A	6,720,777	514,849	N/A

N/A: No es aplicable para este beneficio.

22.6. Plan de retiro voluntario

En agosto de 2016, la Compañía ofreció un plan de retiro voluntario, al cual se acogieron 125 trabajadores que cumplieran con determinados requisitos. Este plan incluye beneficios de renta mensual, educación y salud hasta que el empleado logre su pensión de jubilación.

En mayo de 2020, Ecopetrol inició los ofrecimientos de un nuevo plan de retiro voluntario, al cual se han acogido 421 trabajadores. Este plan incluye la desvinculación de empleados a partir de enero de 2020 y hasta diciembre de 2023, mediante 4 modalidades: Cumplimiento del ciclo laboral (pensión), Plan de Retiro A (Renta), Plan de Retiro B (Bonificación) e Indemnización mejorada.

Al 31 de diciembre de 2020 el monto de obligación neta asociada a planes de retiro es de \$713,407 (2019 - \$124,186).

22.7. Pasivo pensional local

La siguiente es la comparación entre la obligación por pasivos pensionales (pensiones y bonos) determinada bajo el marco normativo NCIF y el fiscal:

	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Pasivo pensional bajo NCIF	16,320,383	15,916,472
Pasivo pensional fiscal	14,345,212	14,219,638
Diferencia	1,975,171	1,696,834

La diferencia entre el saldo del pasivo pensional bajo NICF y fiscal se genera principalmente por la tasa de descuento, la cual para efectos fiscales es establecida por

ley y bajo NICF calculada según la política contable 4.15 – Beneficios a empleados.

Los supuestos utilizados en cada año fueron los siguientes:

Variable (1)	A 31 de diciembre de 2020	A 31 de diciembre de 2019
Tasa de interés técnico	4.00%	4.00%
Tasa de descuento nominal	7.79%	8.07%
Tasa de incremento pensional	3.64%	3.91%
Tasa de inflación	3.64%	3.91%
Mortalidad	RV08	RV08

(1) Los supuestos del cálculo actuarial NCIF pueden verse en la Nota 22.3

23. Provisiones y contingencias

	Costos de abandono y desmantelamiento	Litigios	Contingencias ambientales y otros	Total
Saldo al 31 de diciembre de 2019	8,835,420	137,429	945,439	9,918,288
Aumento costos de abandono	2,307,453	-	-	2,307,453
Adiciones (recuperaciones)	143,320	32,108	237,181	412,609
Utilizaciones	(291,793)	(31,709)	(106,448)	(429,950)
Costo financiero	258,464	-	-	258,464
Efecto pérdida de control en subsidiarias	(23,874)	(20,117)	-	(43,991)
Ajuste por valor razonable en combinación de negocios	31,137	-	-	31,137
Ajuste por conversión	37,239	428	5,476	43,143
Traslados	(58,041)	-	(11,382)	(69,423)
Saldo al 31 de diciembre de 2020	11,239,325	118,139	1,070,266	12,427,730
Corriente	949,638	46,844	224,627	1,221,109
No corriente	10,289,687	71,295	845,639	11,206,621
	11,239,325	118,139	1,070,266	12,427,730

	Costos de abandono y desmantelamiento	Litigios	Contingencias ambientales y otros	Total
Saldo al 31 de diciembre de 2018	6,719,275	127,945	906,792	7,754,012
Aumento costos de abandono	2,188,928	-	-	2,188,928
Adiciones (recuperaciones)	112,486	58,913	90,854	262,253
Utilizaciones	(410,191)	(45,342)	(59,755)	(515,288)
Costo financiero	226,803	-	3	226,806
Ajuste por conversión	(5,240)	79	1,211	(3,950)
Traslados	3,359	(4,166)	6,334	5,527
Saldo al 31 de diciembre de 2019	8,835,420	137,429	945,439	9,918,288
Corriente	589,411	28,662	171,224	789,297
No corriente	8,246,009	108,767	774,215	9,128,991
	8,835,420	137,429	945,439	9,918,288

23.1. Costos de abandono y desmantelamiento

El pasivo estimado por costos de abandono y desmantelamiento corresponde a la obligación futura que tiene el Grupo de restaurar las condiciones ambientales similares a las existentes antes del inicio de proyectos o actividades, de acuerdo con lo descrito en la política contable 4.13 de los estados financieros al 31 de diciembre de 2020. Por tratarse de obligaciones a largo plazo, este pasivo se estima proyectando los pagos futuros esperados y descontando a valor presente con una tasa referenciada a las obligaciones financieras del Grupo, teniendo en cuenta la temporalidad y riesgos de esta obligación. Las tasas de descuento utilizadas en la estimación de la obligación al 31 de diciembre de 2020 fueron: Producción 2.65% (2019- 3.01%), Refinación 3.67% (2019 - 3.94%) y Transporte 2.71% (2019 - 2.61%)

23.2. Contingencias ambientales y otros

Corresponde principalmente a obligaciones de compensación ambiental e inversión forzosa del 1% por el uso, aprovechamiento o afectación de los recursos naturales impuestas por las autoridades ambientales nacionales, regionales y locales, La inversión forzosa del 1% se genera por el uso del agua tomada directamente de fuentes naturales de acuerdo con lo establecido en la Ley 99 de 1993, artículo 43, el Decreto 1900 de 2006, los Decretos 2099 de 2017 y 075 y 1120 de 2018 y artículo 321 de la Ley 1955 de 2019 con relación a los proyectos que Ecopetrol desarrolla en las regiones.

El Gobierno Nacional a través del Ministerio de Ambiente y Desarrollo Sostenible, expidió en diciembre de 2016 y en enero de 2017 los Decretos 2099 y 075, mediante los cuales modifica el Decreto Único Reglamentario del sector ambiente y desarrollo sostenible, Decreto 1076 de 2015, en lo relacionado con la inversión forzosa por la utilización del agua tomada directamente de fuentes naturales. Los principales cambios que establecieron estos decretos se dieron con relación a las áreas de implementación, líneas de inversión y la base de liquidación de las obligaciones. Igualmente, se definió el 30 de junio de 2017 como fecha máxima para modificar los Planes de Inversión que se encuentran en ejecución.

En el año 2019 se expidió la Ley 1955/2019, que en su Artículo 321 unifica la base de liquidación de esta obligación y exige la actualización a valor presente de las obligaciones de inversión del 1%. Ecopetrol realizó la re-certificación de la base de liquidación y el acogimiento al porcentaje de actualización de los valores de inversión del 1% en más de 90 licencias

ambientales, generando una menor provisión de esta obligación. Actualmente, se están recibiendo los pronunciamientos de la ANLA con relación al artículo 321 de la Ley 1955, unos a través de oficios y otros a través de resoluciones. Ecopetrol ha interpuesto recurso de reposición ante la ANLA en la mayoría de los casos, los cuales están en revisión por parte de esta autoridad.

23.3. Contingencias

Oleoducto Bicentenario de Colombia S.A.S.

Disputas bajo los Contratos de Transporte iniciados por Bicentenario

Durante el mes de julio de 2018, los remitentes que no hacen parte del Grupo Ecopetrol (Frontera Energy Colombia Corp., Vetra Exploración y Producción Colombia S.A.S. y Canacol Energy Colombia S.A.S.), en adelante, los “Remitentes”, enviaron comunicaciones a la Compañía donde manifestaron pretender dar por terminados de forma anticipada sus respectivos Contratos de Transporte Ship or Pay celebrados en el año 2012 (los “Contratos de Transporte”).

Conforme a lo anterior, esos Remitentes han dejado de cumplir sus obligaciones bajo dichos Contratos de Transporte. La Compañía rechazó los términos de las comunicaciones señalando que no hay lugar a una terminación anticipada y ha reiterado a los Remitentes que los Contratos de Transporte se encuentran vigentes y que sus obligaciones deben ser oportunamente cumplidas.

Bajo el convencimiento de que los Contratos de Transporte continúan vigentes y que los Remitentes antes mencionados continuaron y continúan incumpliendo sus obligaciones bajo los mismos del Acuerdo Marco de Inversión suscrito en diciembre de 2010 (en adelante, el “AMI”), la Compañía constituyó en mora a los Remitentes por el no pago de las cuentas de cobro por concepto del servicio de transporte y ejecutó las cartas de crédito stand-by previstas como garantías en los Contratos de Transporte.

Agotadas las etapas de arreglo directo con cada Remitente, la Compañía presentó demandas arbitrales en contra de cada uno de ellos en el primer semestre de 2019, y posteriormente estas demandas fueron retiradas y presentadas unas nuevas durante el último trimestre de 2019.

Los tres procesos arbitrales se encuentran en curso.

Disputa bajo los Contratos de Transporte iniciada por Frontera

El 13 de julio de 2020, Bicentenario fue notificado de la presentación por parte de Frontera de una demanda al amparo del pacto arbitral contenido en el Contrato de Transporte ante el Centro de Arbitraje y Conciliación de la Cámara de Comercio de Bogotá D.C. El valor total de las pretensiones incluidas en la demanda presentada por Frontera asciende a \$481.577. Este proceso arbitral iniciado por Frontera fue acumulado el 10 de agosto de 2020 al trámite iniciado por Bicentenario en noviembre de 2019.

En paralelo a lo anterior, la Compañía continúa ejerciendo sus derechos en los términos de los Contratos de Transporte y sus acuerdos relacionados, para garantizar su cumplimiento y reclamar cualquier compensación, indemnización o restitución derivada de la alegada terminación anticipada de dichos contratos, junto con otros incumplimientos.

Disputa bajo el Contrato de Almacenamiento con Canacol Energy Colombia S.A.S.

En el marco de la disputa derivada de los contratos de transporte entre la Compañía con los Remitentes, desde el 18 de septiembre de 2018 Canacol Energy Colombia S.A.S. ha sostenido a la Compañía que el Contrato de Almacenamiento suscrito entre ambas el 20 de junio de 2012 se encuentra terminado, con fundamento en los mismos hechos que habrían dado lugar a la terminación de los Contratos de Transporte.

Conforme a lo anterior, Canacol Energy Colombia S.A.S. ha dejado de cumplir sus obligaciones bajo el Contrato de Almacenamiento. La Compañía ha rechazado el comportamiento de Canacol Energy Colombia S.A.S. bajo el Contrato de Almacenamiento y ha reiterado a dicha sociedad que el Contrato de Almacenamiento se encuentra vigente y que sus obligaciones deben ser oportunamente cumplidas.

Bajo el convencimiento que el Contrato de Almacenamiento con Canacol Energy Colombia S.A.S. continúa vigente y que Canacol Energy Colombia S.A.S. ha incumplido sus obligaciones bajo el Contrato de Almacenamiento, la Compañía constituyó en mora a Canacol Energy Colombia S.A.S. por el no pago de las cuentas de cobro por concepto del Servicio de Almacenamiento.

El 10 de enero de 2020, Bicentenario demandó a Canacol Energy Colombia S.A.S. al amparo del pacto arbitral contenido en el Contrato de Almacenamiento ante el Centro de Arbitraje y Conciliación de la Cámara

de Comercio de Bogotá D.C. solicitando el pago, indemnización y/o cualquier otra restitución a la que la Compañía tenga derecho por la indebida terminación del Contrato de Almacenamiento.

Este trámite arbitral se encuentra en curso, en el cual se llevó a cabo la designación de los árbitros que integrarán el tribunal. Pendiente de que se realice la Audiencia de Instalación y haya pronunciamiento sobre la admisión de la demanda.

En paralelo, la Compañía continúa ejerciendo sus derechos en los términos del Contrato de Almacenamiento y sus acuerdos relacionados para garantizar su cumplimiento y reclamar cualquier compensación, indemnización o restitución derivada de la alegada terminación anticipada de dicho contrato y otros incumplimientos.

Disputas bajo el Acuerdo Marco de Inversión iniciada por Bicentenario

El 3 de diciembre de 2019, la Compañía demandó a Frontera Energy Colombia Corp., Pacific OBC Corp., Pacific OBC 1 Corp., Pacific OBC 4 Corp., Canacol Energy Colombia S.A.S. y a Vetra Exploración y Producción Colombia S.A.S. al amparo del pacto arbitral contenido en el del Acuerdo Marco de Inversión suscrito en diciembre de 2010 (en adelante, el "AMI"), ante el Centro de Arbitraje y Conciliación de la Cámara de Comercio de Bogotá D.C., argumentando el incumplimiento de (i) el pago del aporte solicitado a cada una de ellas como acto conducente o necesario respecto de las operaciones de endeudamiento de la Compañía y; (ii) el incumplimiento bajo el AMI, con ocasión de la declaratoria de incumplimiento de sus obligaciones bajo el Contrato de Transporte.

El 22 de octubre de 2020 la Compañía presentó ante el Centro de Arbitraje y Conciliación de la Cámara de Bogotá un memorial retirando la demanda presentada el 3 de diciembre de 2019, con el objetivo de formular sus pretensiones en el arbitraje descrito.

Disputa bajo el AMI iniciada por Frontera

El 3 de diciembre de 2019, Frontera y Pacific OBC, Corp., Pacific OBC 1, Corp., Pacific OBC 4, Corp., presentaron una solicitud de arbitraje internacional en contra de Bicentenario y Cenit en donde pretenden, entre otras que: (i) se declare terminado el Contrato de Transporte con Bicentenario y (ii) se declare que Bicentenario ejecutó ilegalmente las garantías de Frontera.

Acuerdo de Conciliación

El 17 de noviembre de 2020, Bicentenario, Frontera, las Pacific OBC y Cenit Transporte y Logística de

Hidrocarburos S.A.S. presentaron ante la Procuraduría General de la Nación una solicitud de conciliación para poner fin a sus controversias. En el caso de Bicentenario y Frontera junto con las Pacific OBC, la solicitud de conciliación tiene como fin, solucionar las disputas bajo los Contratos de Transporte y bajo el AMI y, en el caso de Cenit y Frontera junto con las Pacific OBC, las controversias bajo los respectivos contratos de transporte celebrados y la disputa tarifaria que sostienen Cenit y Frontera.

La solicitud conjunta de acuerdo de conciliación y el Acuerdo de Obligaciones Interinas establecieron un periodo entre la suscripción de la conciliación y hasta la fecha del eventual cierre, durante el cual se suspende el derecho al cobro de las tarifas de transporte y almacenamiento a partir del 1 de enero del 2020.

La solicitud de conciliación está pendiente de que surta el procedimiento en la Procuraduría General de la Nación de cara a la obtención de un concepto favorable, luego de lo cual el Tribunal Administrativo de Cundinamarca deberá ejercer el respetivo control de legalidad para efectos de su aprobación.

Cenit Transporte y Logística de Hidrocarburos S.A.S.

En 2018 la Compañía interpuso demanda arbitral en contra del Grupo Frontera por: - La indebida terminación de los contratos de transporte por el Oleoducto Caño Limón Coveñas. Cenit considera que al 31 de diciembre de 2020 los valores adeudados por este concepto son de \$334,583.

Por desacuerdo tarifario originado en la oposición manifestada por el Grupo Frontera frente a la aplicación de las tarifas definidas por el Ministerio de Minas y energía para el periodo 2015-2019. El diferencial tarifario se encuentra en un fideicomiso que asciende a \$114,075, mientras el saldo de la deuda de acuerdo con los registros contables de CENIT a la misma fecha asciende a \$99,734, evidenciando que los valores por cobrar se encuentran fondeados.

Frontera no ha pagado el componente de la tarifa relacionado con el Fondo de Abandono al que Cenit considera que tienen derecho en virtud de la aplicación de las resoluciones 31480 y 31661 expedidas por el Ministerio de Mina y Energía. Los valores adeudados por el Grupo Frontera Energy ascienden a \$9,663.

Acuerdo 2020

Cenit y Oleoducto Bicentenario de Colombia, llegaron a un acuerdo con el grupo Frontera y presentaron una solicitud de conciliación, en la que se acordó:

- Que Frontera transferirá a Cenit su participación del 43.03% en Oleoducto Bicentenario - Que Frontera entregará a Cenit los recursos del encargo fiduciario correspondientes al desacuerdo tarifario -Frontera entregará a Bicentenario el lleno de línea del Oleoducto Bicentenario, además de permitirle a la compañía compensar una porción de su deuda sindicada de Bicentenario contra los dividendos pendientes por decretar y cuentas por cobrar existentes a favor de Frontera. Una vez el acuerdo tenga las aprobaciones requeridas por la Ley Colombiana, se darán por terminado los procesos arbitrales vigentes con ocasión a los desacuerdos existentes.

Refinería de Cartagena S.A.S

El 8 de marzo de 2016, Reficar presentó una solicitud de arbitraje ante la Cámara de Comercio Internacional en contra de las sociedades Chicago Bridge & Iron Company N.V., CB&I (UK) Limited y CBI Colombiana S.A. (colectivamente, "CB&I"), relacionada con los incumplimientos de los contratos de ingeniería, procura y construcción celebrados por Reficar y CB&I para la ampliación y modernización de la Refinería de Cartagena, ubicada en Cartagena, Colombia. En su solicitud de Arbitraje, Reficar reclama no menos de USD \$2 mil millones a CB&I.

El 25 de mayo de 2016, CB&I presentó su respuesta a la Solicitud de Arbitraje y la versión preliminar de su contrademanda contra Reficar, la cual asciende a un valor aproximado de USD \$213 millones. El 27 junio de 2016, Reficar contestó la contrademanda de CB&I, oponiéndose a todas las pretensiones de CB&I.

El 28 de abril de 2017, Reficar presentó su demanda no detallada y, en la misma fecha, CB&I presentó su contrademanda no detallada, reclamando una suma de aproximadamente USD \$116 millones y COP\$387,558 millones, incluyendo USD \$ 70 millones de una carta de crédito de cumplimiento. Posteriormente, el 16 de marzo de 2018, CB&I presentó su contrademanda detallada, actualizando el valor reclamado a las sumas de USD \$129 millones y COP\$432,303 millones, incluyendo intereses. En esta misma fecha, Reficar presentó su demanda detallada, en la cual reclama, entre otras pretensiones, la suma aproximada de USD \$ 139 millones por concepto de facturas pagadas provisionalmente en el marco de los acuerdos MOA y PIP y el Contrato EPC.

El 28 de junio de 2019, Chicago Bridge and Iron Company (CB&I) presentó respuesta a la defensa no detallada de Reficar por la demanda de reconvenición, actualizando el valor de su reclamación aproximadamente USD \$137 millones y COP\$503,241 millones, incluyendo intereses. Asimismo, CB&I presentó su defensa detallada a la demanda de Reficar.

Reficar presentó defensa detallada a la contrademanda de CB&I y su respuesta al memorial de defensa no detallado de CB&I, actualizando su reclamación por concepto de facturas pagadas provisionalmente en el marco de los acuerdos MOA y PIP y el Contrato EPC a aproximadamente US\$ 137 millones.

En posible relación con esta materia, a 31 de diciembre de 2020 existe un saldo de USD \$122 millones aproximadamente, en facturas pagadas por Reficar a CB&I, bajo los Acuerdos PIP y MOA del contrato EPC, cuyos soportes suministrados hasta la fecha por CB&I no cuentan con la aceptación de AMEC Foster Wheeler – PCIB.

En enero de 2020, McDermott International Inc., matriz de CB&I se declaró en insolvencia y anunció que iniciará una reorganización a instancias del Capítulo 11 de la legislación de Estados Unidos. Ante esta situación, Refinería de Cartagena ha adelantado acciones para proteger sus intereses y cuenta con un grupo de expertos con quienes continuará evaluando otras medidas que pueda adoptar ante esta nueva circunstancia.

Como consecuencia del inicio del proceso de reorganización, el arbitraje estuvo suspendido hasta el 1 de julio de 2020, como se describe a continuación.

El 21 de enero de 2020, Comet II B.V., sucesora en interés de Chicago Bridge & Iron Company N.V., comenzó un proceso de insolvencia bajo el Capítulo 11 de la legislación de los Estados Unidos ante la Corte del Distrito Sur de Texas (Corte). Ante el inicio del proceso de insolvencia de Comet II B.V. se hizo efectiva una suspensión automática del inicio o continuación de cualquier acción, proceso o ejecución de sentencia o laudo, en contra de Comet II B.V., lo que suspendió el arbitraje. El 23 de enero de 2020, Comet II B.V., obtuvo una orden de la Corte en la que le permitió a su discreción modificar la suspensión automática de los procesos. El 14 de marzo de 2020, la Corte emitió una orden confirmando el plan de reorganización, en el cual se estableció que la suspensión del arbitraje terminaría en la fecha efectiva del plan de reorganización o el 30 de agosto de 2020, lo que ocurra primero. El 30 de junio de 2020, McDermott International Inc. notificó la ocurrencia de la fecha efectiva del plan de reorganización, por lo cual la suspensión del arbitraje se levantó el 1 de julio de 2020.

El 6 de mayo de 2020, la Superintendencia de Sociedades ordenó la liquidación judicial de CBI Colombiana S.A., uno de los demandados en el arbitraje CB&I. El 22 de octubre de 2020, Reficar solicitó su reconocimiento como acreedora de CBI Colombiana S.A., hasta por el monto máximo de sus pretensiones en el arbitraje. El 15 de enero de 2021, el liquidador de CBI Colombiana S.A. aceptó la solicitud de Reficar.

El 22 de septiembre de 2020, el tribunal programó el inicio de las audiencias para mayo de 2021. Hasta el momento en que se profiera el Laudo, el resultado del arbitraje es incierto.

23.4. Investigaciones de entes de control

FISCALÍA GENERAL DE LA NACIÓN (FGN):

A la fecha se adelantan 3 procesos penales derivados de los hechos relacionados con el proyecto de ampliación y modernización de la refinería de Cartagena.

Proceso 1 – No. 110016000101201600023 – MOA – PIP y EPC

Este proceso se adelanta en contra de algunos ex miembros de Junta Directiva de Reficar, ex trabajadores de Reficar, trabajadores de Chicago Bridge and Iron Company (CB&I) y el Revisor Fiscal de Reficar entre 2013 y 2015; por los delitos de interés indebido en la celebración de contratos, peculado por apropiación en favor de terceros, enriquecimiento ilícito de particulares en favor de terceros y falsedad ideológica en documento público.

El 31 de mayo de 2018 se instaló la respectiva Audiencia de Formulación de Acusación.

El 22 de agosto de 2019 finalizó la audiencia de acusación y se reconoció oficialmente como víctimas a Reficar y Ecopetrol.

El 25 de noviembre de 2019 se instaló la audiencia preparatoria de juicio y a la fecha el proceso se encuentra para desarrollar la mencionada audiencia preparatoria.

Proceso 2 – No. 110016000101201800132 Línea de Negocio

Este proceso se adelanta por los delitos de administración desleal agravada, obtención de documento público falso, en contra de ex miembros de Junta Directiva de Refinería de Cartagena y un ex presidente de la Sociedad.

El 5 de agosto de 2019, se instaló la Audiencia de Formulación de Acusación y se reconoció oficialmente como víctimas a Reficar y Ecopetrol.

El 18 de noviembre de 2019 se instaló la audiencia preparatoria de juicio y a la fecha el proceso se encuentra para desarrollar la audiencia preparatoria.

Proceso 3 – No. 110016000101201800134 – Celebración Contrato PMC – Foster Wheeler

Este proceso se adelanta en contra de dos ex trabajadores de la Sociedad. Estas personas actuaron en calidad de ex presidente en propiedad y ex presidente encargado para el periodo por el cual se realiza la acusación por el delito de celebración de contrato sin requisitos legales.

CONTRALORÍA GENERAL DE LA REPÚBLICA (CGR)

Auditoría Financiera para la vigencia 2018

La CGR adelantó una auditoría financiera a la Sociedad entre el 28 de enero de 2020 y el 20 de mayo de 2020. En el Informe Final de Auditoría, se indica que la ejecución presupuestal es razonable puesto que el presupuesto fue preparado y ejecutado de conformidad con la normatividad aplicable, se indica también que el control interno financiero fue eficiente porque el mismo es adecuado y los controles efectivos frente a los riesgos que le son inherentes; sin embargo, la opinión contable es negativa pues la CGR consideró que los EEFF no representan en todos los aspectos de importancia la situación financiera a 31 de diciembre de 2019. Debido a lo anterior, la CGR no feneció la cuenta fiscal para la vigencia 2019.

Proceso de Responsabilidad Fiscal

Mediante Auto No. 773 del 5 de junio de 2018, la CGR dictó auto de archivo e imputación de responsabilidad

fiscal dentro del proceso No. PRF-2017-00309_UCC-PRF-005-2017 e imputó responsabilidad a:

- I. Nueve (9) ex miembros de la Junta Directiva de Reficar
- II. Cinco (5) ex trabajadores de Reficar
- III. Un (1) ex trabajador de Ecopetrol
- IV. Cinco (5) compañías contratistas que prestaron sus servicios durante la ejecución del proyecto de ampliación y modernización de la Refinería de Cartagena y,
- V. Compañías aseguradoras y 2 reaseguradoras, en calidad de tercero civilmente responsable.

Actualmente la CGR se encuentra practicando las pruebas solicitadas por los sujetos imputados, dentro de los descargos presentados por ellos.

Adicionalmente, en el mencionado auto se ordenó conformar un proceso independiente en relación con el hecho generador de la entrada tardía en operación de la refinería, que da lugar a un lucro cesante; es decir, la ganancia neta dejada de percibir por Reficar.

A la fecha de este reporte, los estados financieros continúan revelando de manera adecuada la situación financiera y operacional del Grupo en todos los aspectos materiales y sus controles internos se mantienen vigentes.

23.5. Detalle de los pasivos contingentes

El siguiente es un resumen de los pasivos contingentes no reconocidos en el estado de situación financiera, cuya valoración cualitativa está definida como eventual:

Tipo de proceso	2020		2019	
	Cantidad de procesos	Pretensiones	Cantidad de procesos	Pretensiones
Acción constitucional	20	15,810,719	14	1,092,228
Administrativo ordinario	156	714,606	160	780,150
Laboral ordinario	659	54,030	593	49,055
Civil ordinario	54	6,363	52	16,269
Administrativo ejecutivo	2	11,951	1	28
Laboral especial	15	3,106	13	720
Penal	2	595	1	595
Tutela	234	47	112	10
Civil ejecutivo	1	-	1	-
	1,143	16,601,417	947	1,939,055

23.6. Detalle de los activos contingentes

A continuación se presenta un resumen de los activos contingentes, cuya entrada de beneficios económicos a la Compañía es probable, pero no prácticamente cierta:

Tipo de proceso	2020		2019	
	Cantidad de procesos	Pretensiones	Cantidad de procesos	Pretensiones
Administrativo ordinario	99	402,380	37	384,215
Arbitramento	2	138,386	1	67,232
Civil ordinario	114	82,572	75	86,363
Penal	149	61,466	156	60,177
Civil ejecutivo	57	5,299	61	4,912
Laboral ordinario	48	3,129	50	3,295
Administrativo ejecutivo	10	2,450	11	4,028
Laboral especial	84	426	57	307
Tutela	5	-	4	-
	568	693,903	452	610,529

24. Patrimonio

24.1. Capital suscrito y pagado

El capital autorizado de Ecopetrol es \$36,540,000 dividido en 60,000,000,000 de acciones nominativas ordinarias, de las cuales se han suscrito 41,116,694,690 acciones representadas en un 11,51% (4,731,906,273 acciones) en personas naturales y jurídicas no estatales y 88,49% (36,384,788,417 acciones) en accionistas correspondientes a entidades estatales. El valor de las acciones en reserva asciende a \$11,499,933 conformada por 18,883,305,310 acciones. Al 31 de diciembre de 2020 y 2019, el capital suscrito y pagado ascendía a \$25,040,067. No existe dilución potencial de acciones.

24.2. Prima en colocación de acciones

Corresponde, principalmente, a: (i) exceso con respecto a su valor nominal originado en la venta de acciones en el momento de efectuarse la capitalización en el 2007 por \$4,457,997, (ii) al exceso con respecto a su valor nominal originado en la venta de acciones adjudicadas en la segunda ronda, efectuada en septiembre de 2011 por \$2,118,468, (iii) \$31,377, al valor generado en el proceso de colocación de acciones en el mercado secundario, originado por la ejecución de garantías a los deudores morosos, de conformidad con lo establecido en el Artículo 397 del Código de Comercio, y (iv) prima en colocación de acciones por cobrar \$(143).

24.3. Reservas patrimoniales

	Al 31 de diciembre de	
	2020	2019
Reserva legal	4,568,980	3,243,832
Reservas fiscales y obligatorias	509,082	509,082
Reservas ocasionales (1)	4,557,074	31,744
Total	9,635,136	3,784,658

- (1) La Asamblea General de Accionistas de Ecopetrol, realizada el 27 de marzo de 2020, aprobó el proyecto de distribución de las utilidades de 2019 y constituir una reserva de 4,557,074 con el fin de brindar soporte a la sostenibilidad financiera de la Compañía y flexibilidad en el desarrollo de su estrategia.

El movimiento de las reservas patrimoniales es el siguiente:

	Al 31 de diciembre de	
	2020	2019
Saldo inicial	3,784,658	5,138,895
Liberación de reservas	(540,826)	(3,050,703)
Apropiación de reservas	6,391,304	5,355,852
Dividendos decretados	-	(3,659,386)
Saldo final	9,635,136	3,784,658

24.4. Utilidades acumuladas y dividendos

El Grupo distribuye dividendos con base en los estados financieros separados de Ecopetrol S.A. y filiales, preparados bajo las Normas de Contabilidad e Información Financiera aceptadas en Colombia (NCIF).

La Asamblea General de Accionistas de Ecopetrol S.A. realizada el 27 de marzo de 2020, decretó dividendos sobre la utilidad del 2019, por \$7,401,005 (\$9,251,256 en 2019).

24.5. Otros resultados integrales

La siguiente es la composición de los otros resultados integrales atribuibles a los accionistas de la controlante, netos de impuesto de renta diferido:

	Al 31 de diciembre de	
	2020	2019
Diferencia en cambio en conversiones (1)	11,973,287	10,481,512
Cobertura de inversión neta en negocio en el extranjero	(1,494,926)	(1,130,583)
Ganancias y pérdidas derivadas del plan de beneficio definido	(2,260,989)	(2,357,210)
Coberturas flujo de efectivo para futuras exportaciones	(403,411)	(535,163)
Coberturas flujo de efectivo instrumentos derivados y valoración de otros activos financieros (2)	44,132	3,689
Otros movimientos	1,899	1,899
	7,859,992	6,464,144

(1) Incluye diferencia en conversión de \$2,527 del impairment sobre la inversión en Offshore International Group. El efecto acumulado por ajuste por conversión, será transferido al resultado del periodo como una ganancia o pérdida en el momento de la liquidación o venta de dichas inversiones.

(2) Incluye valoración de otros activos financieros medidos a valor razonable con cambios a otros resultados integrales.

24.6. Utilidad básica por acción

	A 31 de diciembre		
	2020	2019	2018
Utilidad neta atribuible a los accionistas	1,688,077	13,251,483	11,556,405
Promedio ponderado de acciones en circulación	41,116,694,690	41,116,694,690	41,116,694,690
Ganancia neta básica y diluida por acción (pesos)	41.1	322.3	281.1

25. Ingresos de actividades ordinarias

	Al 31 de diciembre		
	2020	2019	2018
Ventas nacionales			
Destilados medios (1)	8,860,588	15,041,883	14,039,638
Gasolinas y turbocombustibles (1)	6,768,046	9,658,180	9,334,939
Servicios	2,859,559	4,115,626	3,531,404
Gas natural	2,845,155	2,256,123	1,885,846
Plástico y caucho	865,204	834,133	899,410
Servicio gas combustible	671,570	72,249	-
Asfaltos	526,100	544,200	335,426
G.L.P. y propano	375,775	372,916	574,639
Crudos	230,520	356,857	550,479
Aromáticos	155,740	228,552	282,545
Polietileno	138,034	192,436	270,887
Combustóleo	37,001	97,907	509,482
Otros ingresos contratos gas (2)	32,190	102,845	156,031
Otros productos	322,232	431,201	651,874
	24,687,714	34,305,108	33,022,600
Ventas al exterior			
Crudos	20,086,173	28,523,596	26,898,737
Diésel	3,164,068	4,391,798	3,050,839
Plástico y caucho	1,302,131	1,249,189	1,308,685
Combustóleo	968,429	1,870,929	2,053,594
Gasolinas y turbocombustibles	179,257	1,085,392	1,782,194
G.L.P. y propano	18,943	13,591	20,212
Gas natural	17,231	27,255	27,899
Coberturas de flujo de Efectivo (Nota 30.3) (3)	(977,797)	(1,028,516)	(655,533)
Otros productos y servicios	580,412	408,427	310,708
	25,338,847	36,541,661	34,797,335
	50,026,561	70,846,769	67,819,935

- (1) Incluye lo correspondiente a la aplicación del Resolución 180522 del 29 de marzo de 2010 y demás normas que la modifican y adicionan (Decreto 1880 de 2014 y Decreto 1068 de 2015), donde se establece el procedimiento para reconocer el subsidio para refinadores e importadores de la gasolina motor corriente y ACPM, y la metodología para el cálculo de la posición neta (valor generado entre el precio de paridad y el precio regulado, el cual puede ser positivo o negativo). A 31 de diciembre de 2020, el valor reconocido por diferencial de precios corresponde a (\$142.723) (2019 \$1,785,277; 2018 \$3,835,533).
- (2) Corresponde al ingreso facturado sobre la participación en las utilidades de las ventas de gas, en el marco del acuerdo suscrito entre Ecopetrol y Hocol (considerando el acuerdo de compra venta de activos suscrito con Chevron para adquirir la participación poseída por este último en la Asociación Guajira el 1 de mayo de 2020), para la extensión del contrato de asociación para la explotación de gas en la Guajira. Anterior a esta adquisición el acuerdo estaba suscrito entre Ecopetrol y Chevron desde el 2004.
- (3) Incluye coberturas para futuras exportaciones por \$390,206 (2019 \$1,028,516; 2018 \$655,533) (Nota 30.3) y coberturas con instrumentos derivados por \$587,591.

Ventas por zona geográfica

	2020	%	2019	%	2018	%
Colombia	24,687,714	49.3%	34,305,108	48.4%	33,022,600	48.7%
Estados Unidos	11,282,142	22.6%	17,094,786	24.1%	14,765,674	21.8%
Asia	9,403,684	18.8%	13,235,475	18.7%	12,271,225	18.1%
Centro América y el Caribe	2,570,094	5.1%	3,436,823	4.9%	4,449,033	6.6%
Suramerica y otros	1,295,471	2.6%	1,494,116	2.1%	2,184,101	3.2%
Europa	787,456	1.6%	1,280,461	1.8%	1,127,302	1.7%
Total	50,026,561	100%	70,846,769	100%	67,819,935	100%

Concentración de clientes

Durante el 2020, Organización Terpel S.A. representó el 15% de total de las ventas del periodo (2019 - 16.0% y 2018 - 14%); ningún otro cliente tiene más del 10% del total de ventas. No existe riesgo de que se afecte la situación

financiera del Grupo por una potencial pérdida del cliente. La relación comercial con este cliente es la venta de productos refinados y el servicio de transporte.

26. Costo de ventas

	Al 31 de diciembre		
	2020	2019	2018
Costos variables			
Productos importados (1)	7,592,489	12,639,710	11,809,529
Depreciaciones, amortizaciones y agotamientos	6,055,051	5,508,454	5,049,666
Compras de crudo asociación y concesión	4,281,661	5,466,496	3,820,746
Compras de hidrocarburos - ANH (2)	2,798,432	5,437,177	5,667,567
Energía eléctrica	1,098,621	829,543	662,297
Servicios de transporte de hidrocarburos	874,632	821,654	696,964
Regalías de gas en dinero	841,443	788,924	441,207
Materiales de proceso	827,464	1,016,617	968,884
Otros (3)	657,634	(676,269)	(186,087)
Compras de otros productos y gas	598,015	584,507	632,509
Servicios contratados asociación	269,637	267,778	260,207
	25,895,079	32,684,591	29,823,489
Costos fijos			
Depreciaciones y amortizaciones	2,930,120	2,781,446	2,555,176
Costos laborales	2,299,761	2,316,567	2,105,803
Mantenimiento	2,257,370	2,497,002	2,260,984

Servicios contratados	1,623,375	1,841,009	1,796,354
Servicios contratados asociación	1,121,010	1,211,510	1,040,221
Impuestos y contribuciones	593,041	516,933	393,690
Materiales y suministros de operación	508,037	574,678	565,601
Servicios de transporte de hidrocarburos	253,752	268,572	261,237
Costos generales	71,076	265,200	366,972
	11,657,542	12,272,917	11,346,038
	37,552,621	44,957,508	41,169,527

- (1) Los productos importados corresponden principalmente a ACPM y diluyente para facilitar el transporte de crudo pesado.
- (2) Corresponde principalmente a las compras de crudo de regalías que realiza Ecopetrol a la Agencia Nacional de Hidrocarburos (ANH), derivadas de la producción nacional.
- (3) Corresponde a la capitalización de costos a los inventarios, debido que los conceptos se presentan al 100% de su valor incurrido.

27. Gastos de administración, operación y proyectos

	Al 31 de diciembre		
	2020	2019	2018
Gastos de administración			
Gastos laborales (1)	1,658,613	759,324	662,258
Gastos generales (2)	1,424,348	1,140,975	911,645
Impuestos	60,397	48,753	39,117
Depreciaciones y amortizaciones	229,792	202,547	40,838
	3,373,150	2,151,599	1,653,858
Gastos de operación y proyectos			
Comisiones, honorarios, fletes y servicios	656,432	558,370	466,862
Gastos de exploración	689,087	763,452	1,387,379
Impuestos	428,608	483,330	433,506
Gastos laborales	309,972	402,531	316,386
Depreciaciones y amortizaciones	94,723	75,484	44,318
Cuota de fiscalización	142,695	94,785	98,794
Mantenimientos	78,181	56,333	50,846
Diversos	186,318	197,469	105,041
	2,586,016	2,631,754	2,903,132

- (1) Incluye para 2020 reconocimiento del nuevo plan de retiro voluntario de 421 trabajadores.
- (2) Reconocimiento de las plantas sin producción temporal dada la coyuntura sanitaria

28. Otros (gastos) ingresos operacionales, neto

	Al 31 de diciembre		
	2020	2019	2018
Gasto por provisiones	(139,978)	(98,020)	(68,398)
Pérdida en venta de activos	(263,647)	(148,021)	(93,601)
Gasto por impairment de activos de corto plazo	(34,415)	(90,441)	(105,692)
Utilidad (pérdida) en adquisición de participaciones en operaciones conjuntas (1)	1,370,398	1,048,924	(12,065)
Resultados pérdida de control (2)	65,695	-	-
Otros ingresos	120,113	344,354	244,301
	1,118,166	1,056,796	(35,455)

- (1) Resultado en la adquisición de Guajira: Ecopetrol \$1,284,372 y Hocol \$86,026
 (2) Efecto del reconocimiento de la baja de activos netos por la pérdida de control debido a la apertura del proceso de liquidación judicial de Bioenergy S.A.S. y Bioenergy Zona Franca S.A.S. \$65.570. Liquidación de ECP Oil and Gas Germany GmbH \$125.

29. Resultado financiero, neto

	Al 31 de diciembre		
	2020	2019	2018
Ingresos financieros			
Resultados provenientes de activos financieros	665,310	975,245	745,571
Rendimientos e intereses	299,246	481,674	383,624
Utilidad en valoración de derivados	-	-	368
Utilidad en liquidación de derivados	108,838	-	-
Dividendos (1)	44	117,260	-
Otros ingresos financieros	27,992	49,157	-
	1,101,430	1,623,336	1,129,563
Gastos financieros			
Intereses (2)	(2,384,342)	(1,894,490)	(2,399,414)
Costo financiero de otros pasivos (3)	(872,987)	(757,509)	(668,782)
Resultados provenientes de activos financieros	(473,598)	(638,767)	(381,445)
Otros gastos financieros	(198,864)	(43,703)	(62,173)
	(3,929,791)	(3,334,469)	(3,511,814)
Pérdida por diferencia en cambio, neta	346,774	40,639	372,223
	(2,481,587)	(1,670,494)	(2,010,028)

- (1) En el año 2007, Arrendadora Financiera Internacional Bolivariana (AFIB) y Ecopetrol S.A. suscribieron un acuerdo, mediante el cual se constituyó un encargo fiduciario, en el que se depositaron los dividendos correspondientes al 8.53% de la participación en disputa respecto a las acciones de Invercolsa adquiridas en su momento por Fernando Londoño. En 2019, como resultado del fallo de la Corte Suprema de Justicia, Ecopetrol recibió el monto de los dividendos que se encontraban en la fiducia.
 (2) Al 31 de diciembre se capitalizaron intereses en recursos naturales y propiedad, planta y equipo por \$247,501 (2019 - \$248,739).
 (3) Incluye el gasto financiero por la actualización del pasivo por costos de abandono y el interés neto de los beneficios post-empleo y otros beneficios a empleados a largo plazo.

30. Gestión de riesgos

30.1. Riesgo de tipo de cambio

El Grupo opera principalmente en Colombia y realiza ventas en el mercado local e internacional, por tal razón, está expuesto al riesgo de tipo de cambio. El impacto de las fluctuaciones en las tasas de cambio, especialmente la tasa de cambio peso/dólar de los Estados Unidos, considerando eventos presentados durante el año 2020 como el desacuerdo entre los miembros de la Organización de Países Exportadores de Petróleo (OPEP) y Rusia para mantener los recortes en la producción y los efectos de la pandemia del Covid-19.

Al 31 de diciembre de 2020, el peso colombiano se depreció 4.7% al pasar de una tasa de cierre al 31 de diciembre de 2019 de \$3,277.14 a \$3,432.5 pesos por dólar.

Cuando el peso colombiano se deprecia, los ingresos por exportaciones, al ser convertidos a pesos, aumentan, y las importaciones y servicio de la deuda externa se vuelven más costosos.

El saldo de los activos y pasivos financieros denominados en moneda extranjera se presenta en la siguiente tabla:

(Millones de USD)	Al 31 de diciembre de	
	2020	2019
Efectivo y equivalentes de efectivo	197	114
Otros activos financieros	1,164	1,468
Cuentas comerciales por cobrar y por pagar, neto	203	81
Préstamos y financiaciones	(11,814)	(9,429)
Otros activos y pasivos, neto	277	64
Posición pasiva neta	(9,973)	(7,702)

Del total de la posición neta, USD\$(10,158) millones corresponden a pasivos netos de compañías con moneda funcional peso colombiano, de los cuales USD\$(8,549) corresponden a préstamos utilizados como instrumentos de cobertura cuya valoración es reconocida en otros resultados integrales, la valoración por diferencia en cambio de los restantes pasivos netos por USD\$(1,609) millones afectan el estado de ganancias y pérdidas. Así mismo USD\$(185) millones de la posición neta corresponden a activos y pasivos monetarios de compañías del Grupo con moneda funcional diferente del peso colombiano,

cuya valoración es reconocida en el estado de ganancias y pérdidas.

30.2. Análisis de sensibilidad para riesgo de tipo de cambio

El siguiente es el efecto que tendría una variación del 1% y 5% en tipo de cambio de pesos colombianos frente al dólar de los Estados Unidos, relacionado con la exposición de activos y pasivos financieros en moneda extranjera al 31 de diciembre de 2020:

Escenario/ Variación en la TRM	Efecto en resultados antes de impuestos (+/-)	Efecto en otros resultados integrales (+/-)
1%	(48,866)	(293,457)
5%	(244,330)	(1,467,286)

30.3. Cobertura de flujo de efectivo para futuras exportaciones

Con el objetivo de expresar en los estados financieros el efecto de la cobertura natural existente entre exportaciones y endeudamiento, entendiendo que el riesgo por tasa de cambio se materializa cuando se realizan las exportaciones, el 30 de septiembre de 2015, la Junta Directiva designó la suma de USD\$5,440

millones de la deuda de Ecopetrol como instrumento de cobertura de sus ingresos futuros por exportación de crudo, para el periodo 2015 - 2023, de acuerdo con NIIF 9 – Instrumentos financieros.

De acuerdo con la Resolución 509 de 2015 de la Contaduría General de la Nación, esta política contable de reconocimiento de coberturas fue adoptada por Ecopetrol a partir del 1 de enero del 2015.

A continuación se presenta el movimiento de este instrumento de cobertura no derivado:

(Millones de USD)	Al 31 de diciembre de	
	2020	2019
Saldo inicial	1,300	1,300
Reasignación de instrumentos de cobertura	1,230	5,551
Realización de las exportaciones	(1,230)	(5,551)
Saldo final	1,300	1,300

El siguiente es el movimiento en el otro resultado integral:

	Al 31 de diciembre de	
	2020	2019
Saldo inicial	535,163	1,203,460
Diferencia en cambio	201,968	35,608
Realización de exportaciones (Nota 25)	(390,206)	(1,028,516)
Inefectividad	(9,779)	(5,173)
Impuesto de renta diferido	66,265	329,784
Saldo final	403,411	535,163

La reclasificación esperada de la diferencia en cambio acumulada en el estado de Otros Resultados Integrales al Estado de Ganancias y Pérdidas es la siguiente:

Año	Antes de impuestos	Impuestos	Después de impuestos
2021	551,387	(170,930)	380,457
2022	12,537	(3,761)	8,776
2023	12,377	1,801	14,178
	576,301	(172,890)	403,411

30.4. Cobertura de inversión neta en negocio en el extranjero

La Junta Directiva aprobó la aplicación de contabilidad de coberturas de inversión neta a partir del 8 de junio de 2016. La medida busca disminuir la volatilidad del resultado no operacional por efecto de la diferencia en cambio. La cobertura de inversión neta se aplicará a una porción de las inversiones que la Compañía tiene en moneda extranjera, en este caso a las inversiones en filiales con moneda funcional dólar y tiene como instrumento de cobertura una porción de la deuda denominada en dólares.

Ecopetrol designó como partida cubierta las inversiones netas en Oleoducto Central S,A, (Ocensa), Ecopetrol América LLC., Hocol Petroleum Ltd, (HPL) y Refinería de Cartagena S.A.S. (Reficar) y como instrumento de cobertura una porción de su deuda denominada en dólares americanos, en un monto total equivalente a USD \$5,200 millones. Durante el 2019 y el transcurso del 2020 Ecopetrol S,A, realizó una ampliación de esta cobertura por USD \$2,275 millones para incluir en la designación las inversiones en Ecopetrol Permian LLC y Ecopetrol Brasil y adicionar un mayor monto en Reficar. El valor total cubierto al 31 de diciembre de 2020 es de USD\$7,475 millones.

El siguiente es el movimiento en el otro resultado integral:

	Al 31 de diciembre de	
	2020	2019
Saldo inicial	1,130,583	1,069,316
Diferencia en cambio	520,490	87,524
Impuesto de renta diferido	(156,147)	(26,257)
Saldo final	1,494,926	1,130,583

30.5. Coberturas con instrumentos financieros derivados

En 2020, Ecopetrol suscribió operaciones de forward non-delivery de venta de dólares con el fin de mitigar la volatilidad de la tasa de cambio en el flujo de caja requerido para operaciones de la Compañía. A 31 de diciembre de 2020, el Grupo tiene posiciones abiertas de contratos forward por \$91,305.

El impacto en el estado de resultados a diciembre 2020 por liquidación (realizadas) de estas coberturas ascendió a COP\$62,911 (2019 - COP\$60,740) de pérdida y el monto reconocido en el otro resultado integral fue de COP\$51,486 (2019 - COP\$43,141) de utilidad.

30.6. Riesgo de precio de commodities

El riesgo de precio de las materias primas está asociado con las operaciones del Grupo, tanto exportaciones como importaciones de crudo, gas natural y productos refinados. Con el fin de mitigar este riesgo, el Grupo ha implementado coberturas para proteger parcialmente los resultados de las fluctuaciones de los precios, teniendo en cuenta que parte de la exposición financiera bajo contratos de compra de crudo y productos refinados depende de los precios internacionales del petróleo.

El riesgo de dicha exposición está parcialmente cubierto de forma natural, debido a que el Grupo está integrado (con operaciones en los segmentos de exploración y producción, transporte y logística y refinación) y realiza tanto exportaciones de crudo a precios del mercado internacional como ventas de productos refinados a precios correlacionados con los precios internacionales.

El Grupo cuenta con una política para la ejecución de coberturas (estratégicas y tácticas) e implementó procesos, procedimientos y controles para su gestión. El programa de coberturas estratégicas tiene como propósito principal proteger los estados financieros consolidados del Grupo ante la volatilidad de las variables de mercado en un periodo de tiempo determinado, proteger los ingresos y así el flujo de

caja. Por su parte, las coberturas tácticas permiten capturar valor en operaciones de trading y Asset Backed Trading (ABT), mitigando el riesgo de mercado de operaciones específicas.

La siguiente es la descripción de las operaciones realizadas durante el año:

1) Coberturas estratégicas

Las operaciones estuvieron orientadas a proteger específicamente los ingresos y el flujo de caja, limitar las pérdidas, cubrir los costos de producción y evitar potenciales cierres de campos de producción (Apiay, Caño Sur y Chichimene) y por ende una posible aceleración en la declinación de la curva básica. Con este propósito se gestionaron coberturas por cerca de 30 millones de barriles (MMBLS).

Las operaciones ejecutadas durante 2020 se gestionaron considerando los procesos de análisis, aprobación, seguimiento y cumplimiento, definidos en las políticas y procedimientos vigentes, alcanzando los objetivos definidos para la cobertura y fueron clasificadas como efectivas de acuerdo con las normas IFRS. El beneficio de estos contratos fue de USD\$42.7 millones.

2) Coberturas tácticas

En la actividad de comercialización, los compromisos en contratos físicos spot y a término suponen una exposición al riesgo de precio de commodities, en particular el riesgo asociado a la volatilidad del precio del crudo y productos refinados. Si bien, dicha exposición hace parte del riesgo natural de la actividad de producción, refinación y comercialización que realiza Ecopetrol, en ocasiones la comercialización, con el fin de maximizar la captura de valor, puede concentrar la exposición al riesgo en términos de plazo y/o indicador que difiere del perfil natural al riesgo de precio de la Compañía.

En el último año tuvieron vencimiento operaciones swaps por 18 MMBLS para mitigar riesgos asociados a

estrategias de comercialización de almacenamiento, compras anticipadas de materia prima, suministro a refinerías y ventas internacionales entregadas en puerto de destino. Tales estrategias junto con su cobertura permitieron capturar beneficios de alrededor de USD\$15 millones.

Igualmente, en 2020 se realizaron coberturas sobre las exportaciones de combustóleo pesado (fuel oil) correspondientes a 3.7 MMBLS, operación que permitió asegurar USD\$25.5 millones de beneficio.

A la fecha de este informe el Grupo registra una posición activa en swaps por \$7,572 y forwards por \$91,305 (Nota 9). La constitución de estas operaciones con derivados está reconocida bajo contabilidad de coberturas de flujo de efectivo.

30.7. Riesgo de crédito

El riesgo de crédito es el riesgo de que el Grupo pueda sufrir pérdidas financieras como consecuencia del incumplimiento: a) en el pago por parte de sus clientes en la venta de crudo, gas, productos o servicios; b) por parte de las instituciones financieras en las que se mantienen inversiones, o c) de las contrapartes con las que se tienen contratados instrumentos financieros.

Riesgo de crédito para clientes

En el proceso de venta de crudos, gas, refinados y productos petroquímicos y servicios de transporte, el Grupo puede estar expuesto al riesgo de crédito en el evento que los clientes incumplan sus compromisos de pago. La Gerencia de este riesgo ha demandado el diseño de mecanismos y procedimientos que han permitido minimizar su probabilidad de materialización, salvaguardando así el flujo de efectivo del Grupo Empresarial.

El Grupo realiza un análisis continuo de la fortaleza financiera de las contrapartes, el cual implica su clasificación de acuerdo con su nivel de riesgo y respaldos financieros ante una posible cesación de pagos. Asimismo, se realiza un monitoreo constante de las condiciones del mercado nacional e internacional para establecer alertas tempranas de cambios importantes que puedan impactar las obligaciones de pago oportunos de los clientes.

Para la cartera que es considerada deteriorada, se realiza un análisis individual que permite analizar la situación de cada cliente y así definir las provisiones que haya a lugar. El Grupo lleva a cabo las acciones administrativas y legales necesarias para recuperar las cuentas por cobrar vencidas, así como el reconocimiento de intereses de clientes que no cumplan con las políticas de pago.

El siguiente es el análisis de antigüedad de la cartera por clientes en mora pero no considerada deteriorada al 31 de diciembre de:

	2020	2019
Vencidos con menos de tres meses	55,790	
Vencidos entre 3 y 6 meses	1,270	136,700
Vencidos con más de 6 meses	301,791	267,525
Total	359,031	648,118

Riesgo de crédito para recursos depositados en instituciones financieras

Siguiendo el Decreto 1525 de 2008, que provee las normas generales sobre inversiones para entidades públicas, Ecopetrol estableció las directrices para la gerencia del portafolio de inversión. Estas directrices determinan que las inversiones de portafolio en dólares de Ecopetrol están limitadas a inversiones del excedente de efectivo en títulos de renta fija emitidos por entidades con calificación A o superior a largo plazo y A1 / P1 / F1 o superior en el corto plazo (escala internacional) por Standard & Poor's Ratings Services, Moody's Investors Service o Fitch Ratings.

Adicionalmente, Ecopetrol también puede invertir en valores emitidos o garantizados por el gobierno de los Estados Unidos o el gobierno colombiano, sin tener en cuenta las calificaciones asignadas a dichos valores. Ecopetrol debe invertir su exceso de efectivo en títulos de renta fija de emisores calificados AAA a largo plazo, y F1 + / BRC1 + en el corto plazo (escala local) por Fitch Ratings Colombia, BRC o Standard & Poor's. Además, la Compañía también podrá invertir en valores emitidos o garantizados por el gobierno nacional sin restricciones de calificación.

Para diversificar el riesgo en la cartera de pesos, Ecopetrol no invierte más del 10% del exceso de efectivo en un determinado emisor. En el caso de portafolio en dólares, no se invierte más del 5% del exceso de efectivo en un emisor específico a corto plazo (hasta 1 año), o 1% a largo plazo.

La calificación crediticia de los emisores y contrapartes en transacciones que involucran instrumentos financieros se encuentra revelada en las notas 6 – Efectivo y equivalentes de efectivo, Nota 9 – Otros activos financieros y Nota 22 – Provisiones por beneficios a empleados.

30.8. Riesgo de tasa de interés

El riesgo de tasa de interés se ocasiona debido a que existen instrumentos indexados a tasas flotantes tanto en el portafolio de inversiones, como en algunas deudas financieras (LIBOR, DTF e IPC). Por lo tanto, la volatilidad en las tasas de interés puede afectar el costo amortizado, el valor razonable y los flujos de efectivo relacionados con las inversiones, la deuda y los patrimonios autónomos pensionales.

Al 31 de diciembre de 2020 el 16% (2019: 17%) del endeudamiento tiene tasa flotante. Con lo cual, si la tasa de interés de mercado sube, los gastos de financiación aumentarán, lo que podría tener un efecto adverso en los resultados de las operaciones.

El Grupo establece controles para la exposición de tasa de interés, implementando controles límites en la duración del portafolio, el Valor en Riesgo – VAR y *tracking error*.

Los patrimonios autónomos vinculados a los pasivos pensionales del Grupo están expuestos a cambios en las tasas de interés, debido a que incluyen instrumentos de tasa fija y tasa variable. La regulación colombiana establece lineamientos sobre patrimonios autónomos destinados a la garantía y pago de pensiones (Decretos 941 de 2002 y 1861 de 2012), donde se indica que el régimen aplicable será el mismo establecido para el Fondo Moderado de los Fondos de Pensiones Obligatorias.

La siguiente tabla detalla el impacto en resultados y en el otro resultado integral, para los 12 meses siguientes, ante una variación en las tasas de interés de 100 puntos básicos:

	Efecto en resultados (+/-)		Efecto en ORI (+/-)
	Activos financieros	Pasivos financieros	Patrimonios autónomos
+100 puntos básicos	(25,878)	60,577	(557,002)
-100 puntos básicos	25,878	(59,459)	557,901

La sensibilización ante variación de las tasas de descuento de los pasivos por pensiones se muestra en la Nota 22 - Provisiones por beneficios a empleados.

30.9. Riesgo de liquidez

La habilidad para acceder a los mercados de crédito y de capitales para obtener financiación bajo términos favorables para el plan de inversiones del Grupo Empresarial, puede verse limitada debido a impairment de las condiciones de estos mercados. Una nueva crisis financiera podría empeorar la percepción de riesgo en los mercados emergentes.

De otro lado, la ocurrencia de situaciones que puedan afectar el entorno político y regional de Colombia, podrían dificultar el acceso de nuestras subsidiarias a los mercados de capitales. Estas condiciones, junto con potenciales pérdidas significativas en el sector de servicios financieros y cambios en las valoraciones del riesgo crediticio, pueden dificultar la obtención

de financiación en términos favorables. Como resultado, el Grupo se puede ver forzado a revisar la oportunidad y alcance de las inversiones según sea necesario, o acceder a los mercados financieros bajo términos menos favorables, afectando por lo tanto, negativamente los resultados de operaciones y la situación financiera.

El riesgo de liquidez se gestiona de acuerdo con las políticas destinadas a garantizar que haya fondos netos suficientes para cumplir con los compromisos financieros del Grupo dentro de su cronograma de vencimientos, sin costos adicionales. El principal método para la medición y seguimiento de la liquidez es la previsión de flujo de efectivo.

El siguiente es un resumen de la madurez de los pasivos financieros al 31 de diciembre de 2020, los montos presentados en la tabla son los flujos de efectivo contractuales sin descontar, los pagos previstos en moneda extranjera fueron re expresados tomando como tasa de cambio \$3,432.50 pesos/dólar:

	Hasta 1 año	1-5 años	5-10 años	> 10 años	Total
Préstamos (Pago de principal e intereses)	3,585,623	33,051,812	17,701,887	13,750,003	68,089,325
Cuentas comerciales y otras cuentas por pagar	8,449,041	22,412	-	-	8,471,453
Total	12,034,664	33,07,224	17,701,887	13,750,003	76,560,778

30.10. Gestión del capital

El principal objetivo de la Gestión del Capital del Grupo Empresarial Ecopetrol es asegurar una estructura financiera que optimice el costo de capital, maximice el rendimiento a sus accionistas y permita el acceso a los

mercados financieros a un costo competitivo para cubrir sus necesidades de financiación.

El siguiente es el índice de endeudamiento sobre los periodos informados:

	Al 31 de diciembre de	
	2020	2019
Préstamos y financiaciones (Nota 20)	46,731,754	38,239,139
Efectivo y equivalentes de efectivo (Nota 6)	(5,082,308)	(7,075,758)
Otros activos financieros (Nota 9)	(3,071,659)	(4,979,292)
Deuda financiera neta	38,577,787	26,184,089
Patrimonio (Nota 24)	55,819,270	60,344,122
Apalancamiento (1)	40.87%	30.26%

(1) Deuda financiera neta / (Deuda financiera neta + Patrimonio)

31. Partes relacionadas

Los saldos con compañías asociadas y negocios conjuntos al 31 de diciembre de 2020 y 2019 son los siguientes:

	Cuentas por cobrar	Cuentas por cobrar - Préstamos	Otros activos	Cuentas por pagar	Préstamos	Otros pasivos
Negocios conjuntos						
Equion Energía Limited (1)	1,950	-	7,093	32,335	1,277,046	1,663
Ecodiesel Colombia S.A.	1,345	-	-	35,632	-	1
Offshore International Group Inc (2)	-	97,300	-	-	-	-
Asociadas						
Gas Natural del Oriente S.A. E.S.P.	-	-	-	1,858	-	-
Extrucol S.A.	-	-	-	279	-	-
E2 Energía Eficiente S.A. E.S.P.	4,453	-	-	1,264	-	-
Serviport S.A.	-	-	-	948	-	-
Saldo al 31 de diciembre de 2020	7,748	97,300	7,093	72,316	1,277,046	1,664
Corriente	7,748	97,300	7,093	72,316	1,277,046	1,664
No corriente	-	-	-	-	-	-
	7,748	97,300	7,093	72,316	1,277,046	1,664
	(Nota 7)	(Nota 7)	(Nota 11)	(Nota 21)	(Nota 20)	

	Cuentas por cobrar	Cuentas por cobrar - Préstamos	Otros activos	Cuentas por pagar	Préstamos	Otros pasivos
Negocios conjuntos						
Equion Energía Limited (1)	25,333	-	57,016	153,501	1,108,403	794
Ecodiesel Colombia S,A,	2,116	-	-	29,447	-	1
Offshore International Group Inc (2)	-	93,657	-	-	-	-
Asociadas						
Serviport S,A,	-	-	-	4,668	-	-
Saldo al 31 de diciembre de 2019	27,449	93,657	57,016	187,616	1,108,403	795
Corriente	27,449	-	57,016	187,616	1,108,403	795
No corriente	-	93,657	-	-	-	-
	27,449	93,657	57,016	187,616	1,108,403	795
	(Nota 7)	(Nota 7)	(Nota 11)	(Nota 21)	(Nota 20)	

Préstamos:

- (1) Recursos depositados por Equion en Ecopetrol Capital AG

Cuentas por cobrar - Préstamos:

- (2) Offshore International Group Inc: Préstamo otorgado por Ecopetrol S.A. por USD\$57 millones en el año 2016, con una tasa de interés del 4.99% E.A. pagaderos semestralmente a partir del 2017 y vencimiento en el 2021. El saldo en valor nominal de este crédito al 31 de diciembre de 2020 es de USD\$28 millones (2019 - USD\$28).

Las principales transacciones con partes relacionadas al 31 de diciembre se detallan como sigue:

	2020		2019		2018	
	Ventas y servicios	Compras de productos y otros	Ventas y servicios	Compras de productos y otros	Ventas y servicios	Compras de productos y otros
Negocios conjuntos						
Equion Energía Limited	27,595	356,872	317,382	569,105	67,002	846,284
Ecodiesel Colombia S.A.	8,268	346,201	8,614	280,649	6,860	267,498
Offshore International Group Inc	4,461	-	3,245	-	2,386	-
	40,324	703,073	329,241	849,754	76,248	1,113,782
Asociadas						
E2 Energía Eficiente S.A. E.S.P.	49,860	2,849	-	-	-	-
Gas Natural del Oriente S.A. E.S.P.	-	26,141	-	-	-	-
Extracol S.A.	-	1,162	-	-	-	-
	90,184	733,225	329,241	849,754	76,248	1,113,782

31.1. Directivos clave de la gerencia

De acuerdo con la aprobación impartida por la Asamblea General de Accionistas del año 2012, que quedó consignada en el Acta No. 026, los honorarios de

los directores por asistencia a las reuniones de la Junta Directiva y/o del Comité aumentan de cuatro a seis salarios mínimos mensuales legales vigentes cada año.

Por otra parte, en la Asamblea General de Accionistas del año 2018, se aprobó la reforma de los Estatutos Sociales que consta en el Acta No. 036, en virtud de la cual, se eliminó el párrafo cuarto del artículo 23 que hacía la diferenciación entre los honorarios de reuniones presenciales y no presenciales. Los miembros de la Junta Directiva no tienen ninguna clase de remuneración variable. El monto cancelado en el año 2020 por concepto de honorarios a miembros de Junta Directiva ascendió a \$3,102 (2019 - \$1,847).

La compensación total pagada a los miembros del Comité Directivo activos al 31 de diciembre del 2020 ascendió a \$22,127 (2019 - \$22,632). Los directores no son elegibles para recibir los beneficios de pensión y jubilación. El importe total reservado al 31 de diciembre de 2020 para proporcionar los beneficios de pensión y jubilación a nuestros funcionarios ejecutivos elegibles ascendió a \$13,413 (2019 - \$18,740).

Al 31 de diciembre de 2020, los siguientes Directivos Clave de la gerencia poseían menos del 1% de las acciones en circulación de Ecopetrol S.A así:

Personal clave de la gerencia	% acciones
Felipe Bayón	<1% acciones en circulación
Jaime Caballero	<1% acciones en circulación
Orlando Díaz	<1% acciones en circulación
Jorge Calvache	<1% acciones en circulación

31.2. Planes de beneficios post-empleo

La administración y el manejo de los recursos para el pago de la obligación pensional de Ecopetrol están a cargo de los patrimonios autónomos pensionales (PAP's), los cuales sirven como garantía y fuente de pago. En el año 2008, Ecopetrol S.A. recibió la autorización para conmutar parcialmente el valor correspondiente a mesadas, bonos y cuotas partes, trasladando dichas obligaciones y los dineros que las soportan a patrimonios autónomos de carácter pensional, de acuerdo a lo estipulado en el Decreto 1833 de 2016.

Desde noviembre de 2016, las entidades que administran los recursos son: Fiduciaria Bancolombia, Fiduciaria de Occidente y Consorcio Ecopetrol PACC (conformado por Fiduciaria La Previsora, Fiduciaria Bancoldex, Fiduagraria y Fiduciaria Central). Estas fiduciarias gestionarán los recursos pensionales por un periodo de cinco años (2016-2021) y como contraprestación reciben una remuneración con componentes fijos y variables, éstos últimos se liquidan sobre los rendimientos brutos de los portafolios y con cargo a los recursos administrados.

31.3. Entidades relacionadas del Gobierno

El Gobierno Colombiano posee el control de Ecopetrol con una participación del 88.49 %. Las transacciones más significativas con entidades gubernamentales se detallan a continuación:

a) Compra de hidrocarburos a la Agencia Nacional de Hidrocarburos - ANH

La Agencia Nacional de Hidrocarburos (ANH), entidad adscrita al Ministerio de Minas y Energía, tiene por objetivo administrar integralmente las reservas y recursos de hidrocarburos de propiedad de la Nación.

De acuerdo a la naturaleza del negocio, Ecopetrol compra el crudo que la ANH recibe de todos los productores de Colombia a los precios fijados de acuerdo con una fórmula establecida, la cual refleja los precios de venta, con ajuste a la calidad de la gravedad API, contenido de azufre, tarifas de transporte a los puertos de exportación, el costo del proceso de refinado y una cuota de comercialización (cuando aplique). El contrato entre Ecopetrol y la ANH finalizó el 30 de octubre 2020 y se inició uno nuevo con vigencia 1 de noviembre de 2020 al 31 de octubre de 2022.

Hasta diciembre de 2013, la Compañía comercializó, en nombre de la ANH, el gas natural recibido por ésta en especie de los productores. Desde enero de 2014, la ANH recibe las regalías de producción de gas natural en efectivo.

El valor de compra de hidrocarburos a la ANH se detalla en la Nota 26 - Costo de ventas. Adicionalmente, Ecopetrol al igual que las demás compañías petroleras, participa en rondas para

asignación de bloques exploratorios en territorio colombiano, sin que ello implique un tratamiento especial para Ecopetrol por ser una entidad cuyo accionista mayoritario es el Ministerio de Hacienda y Crédito Público.

b) Diferencial de precios

Los precios de venta de gasolina regular y ACPM son regulados por el Gobierno Nacional. En este evento, se presentan diferenciales entre volumen reportado por las Compañías al momento de la venta y la diferencia entre el precio de paridad y el precio de referencia, siendo el precio de paridad aquel que corresponde a los precios diarios de la gasolina motor y ACPM observados durante el mes. Este diferencial puede ser a favor o en contra de los productores. El valor de este diferencial se encuentra detallado en la Nota 25 – Ingresos de actividades

ordinarias y en la Nota 7 – Cuentas comerciales y otras cuentas por cobrar, neto.

c) Dirección de Impuestos y Aduanas Nacionales

Ecopetrol como cualquier otra compañía en Colombia, tiene obligaciones de tipo tributario que debe cumplir ante esta entidad, no se tiene ninguna otra clase de vínculo ni relación de carácter comercial con la misma.

d) Contraloría General de la República

Ecopetrol al igual que las demás entidades estatales en Colombia, tiene la obligación de atender los requerimientos de esta entidad de control y realizar el pago anualmente de la cuota de sostenimiento a dicha entidad. No existe ninguna otra clase de vínculo ni relación de carácter comercial con la misma.

32. Operaciones conjuntas

El Grupo realiza parte de sus operaciones a través de los contratos de Exploración y Producción, Evaluación Técnica, contratos y acuerdos firmados con la Agencia Nacional de Hidrocarburos, así como a través de contratos de asociación y otro tipo de contratos. Las principales operaciones conjuntas en 2020 son las siguientes:

32.1. Contratos en los cuales el Grupo Empresarial no es el operador

Socios	Contrato	Tipo	% Participación	Zona geográfica de operación
Occidental de Colombia LLC	Chipirón		30-41%	
Occidental Andina LLC	Cosecha	<Producción	30%	Colombia
	Cravo Norte		55%	
	Rondón		50%	
Mansarovar Energy Colombia Ltd	Nare	Producción	50%	Colombia
Frontera Energy Colombia Corp.	Quifa	Producción	40%	Colombia
Perenco Colombia Limited	Casanare		74.40%	
	Corocora		83.91%	
	Estero	Producción	95.98%	Colombia
	Garcero		91.22%	
	Orocúe		86.47%	
ONGC Videsh Limited Sucursal Colombiana	Ronda Caribe RC-10	Exploración	50%	Offshore Caribe Norte
Petrobras, Repsol & Statoil	Tayrona	Exploración	50%	Offshore Caribe Norte

Shell EP Offshore Ventures Limited	Fuerte Sur Purple Angel Col-5	Exploración	50%	Offshore Caribe Norte
Shell	Saturno Sul de Gato do Mato Gato do Mato	Exploración	10% 30% 30%	Brasil
BP Energy	Pau Brasil	Exploración	20%	Brasil
Chevron	CE-M-715_R11	Exploración	50%	Brasil
Lewis	SSJN1	Exploración	50%	Colombia
Interoil Colombia	Mana Ambrosia Rio Opia	Producción	30% 30% 30%	Colombia
Canacol	Rancho Hermoso Mirador Rancho Hermoso Otras formaciones	Producción	100% 70%	Colombia
Geopark	Llanos 86 Llanos 87 Llanos 104 Llanos 123 Llanos 124	Exploración	50% 50% 50% 50% 50%	Colombia
Fieldwood - Gunflint	Gunflint	Producción	32%	Golfo de México
Murphy Oil -	Dalmatian	Producción	30%	Golfo de México
Oxy (Anadarko) - K2	K2	Producción	21%	Golfo de México
Shell	Deep Rydberg/ Aleatico	Exploración	29%	Golfo de México
HESS	ESOX	Producción	21%	Golfo de México
Pemex Exploración y Producción	Bloque 8	Exploración	50%	Golfo de México
PC Carigali Mexico Operation SA	Bloque 6	Exploración	50%	Golfo de México
Talos	Palmer	Exploración	30%	Golfo de México
OXY (Anadarko)	Warrior	Exploración	30%	Golfo de México
Occidental Petroleum Company	Rodeo Midland Basin	Producción	49%	Permian Texas US

32.2. Contratos en los cuales el Grupo Empresarial es el operador

Socios	Contrato	Tipo	% Participación	Zona geográfica de operación
	VMM29			
ExxonMobil Exploration Colombia	CR2	Exploración	50%	Colombia
	C62			
Repsol Colombia oil & gas limited	CPO9	Exploración	55%	Colombia
ONGC Videsh Limited Sucursal Colombia	RC9	Exploración	50%	Colombia
CPVEN E&P Corp Sucursal Colombia	VMM32	Exploración	51%	Colombia
Shell Exploration and Production	CR4	Exploración	50%	Colombia
SK Innovation Co Ltd.	San Jacinto	Exploración	70%	Colombia
Repsol Exploración Colombia S.A.	Catleya	Exploración	50%	Colombia
Emerald Energy PLC Suc. Colombia	Cardon	Exploración	50%	Colombia
Parex Resources Colombia Ltd.	ORC401 CRC-2004-01	Exploración	50%	Colombia
Repsol Colombia Oil & Gas Limited	CPO9 - Akacias	Producción	55%	Colombia
Occidental Andina LLC	La Cira Infantas	Producción	58%	Colombia
	Teca		76%	
Ramshorn International Limited	Guariques I	Producción	50%	Colombia
Perenco Oil And Gas				
Cepsa Colombia	San Jacinto Rio Paez	Producción	68%	Colombia
Total Colombia				
Talisman Oil & Gas	Mundo Nuevo	Exploración	15%	Colombia
Equion Energia Limited				
Emerald Energy	Oleoducto Alto Magdalena	OAM	45%	Colombia
Frontera Energy				
Lewis	Clarinero	Exploración	50%	Colombia
Talisman Oil & Gas				
Total Colombia	Niscota	Producción	20%	Colombia
ONGC	RC-9	Exploración	50%	Colombia

32.3. Operaciones relevantes durante el periodo

Durante el 2020 se presentaron los siguientes hechos relevantes en los contratos de operaciones conjuntas:

- (1) El 7 de febrero de 2020, Ecopetrol informó que en conjunto con Shell, a través de su subsidiaria Shell EP Offshore Ventures Limited ("Shell"), suscribieron un acuerdo mediante el cual Shell adquirirá el 50% de participación en los bloques Fuerte Sur, Purple Angel y COL-5, localizados en aguas profundas del Caribe colombiano, donde se realizó el descubrimiento de una nueva provincia gasífera con los pozos Kronos (2015), Purple Angel y Gorgon (2017). Tras el acuerdo comercial, Shell asumirá la operación de los bloques y se realizará la perforación de un pozo delimitador en el área a finales del 2021 y la realización de la primera prueba de producción, una vez se surtan las respectivas aprobaciones de las autoridades. El 23 de diciembre del 2020 se produjo el cierre de esta transacción.

33. Información por segmentos

La descripción de los segmentos de negocio puede verse en la nota 4.19 de los estados financieros consolidados al 31 de diciembre de 2020.

La siguiente información por segmentos es reportada con base en la información utilizada por la Junta Directiva, cómo máximo órgano para la toma de decisiones estratégicas y operativas de los segmentos de negocio. El desempeño de los segmentos se basa principalmente en análisis de ingresos, costos, gastos y resultado del periodo generados por cada segmento, los cuales son monitoreados de manera periódica.

La información revelada en cada segmento se presenta neta de las de transacciones realizadas entre las empresas del Grupo.

33.1 Estados de ganancias o pérdidas por segmento

A continuación se presenta el estado de ganancias y pérdidas por segmento al 31 de diciembre de 2020, 2019 y 2018:

	Al 31 de diciembre de 2020				
	Exploración y Producción	Refinación y Petroquímica	Transporte y Logística	Eliminaciones	Total
Ventas terceros	22,675,617	24,777,052	2,555,383	18,509	50,026,561
Ventas inter segmentos	13,967,548	1,327,299	9,639,057	(24,933,904)	-
Ingresos por ventas	36,643,165	26,104,351	12,194,440	(24,915,395)	50,026,561
Costos de ventas	(32,893,567)	(25,825,555)	(3,381,358)	24,547,859	(37,552,621)
Utilidad bruta	3,749,598	278,796	8,813,082	(367,536)	12,473,940
Gastos de administración	(2,163,198)	(936,175)	(533,594)	259,817	(3,373,150)
Gastos de operación y proyectos	(1,511,510)	(781,309)	(403,657)	110,460	(2,586,016)
(Impairment) recupero de activos de largo plazo	(180,260)	(781,528)	341,066	-	(620,722)
Otros ingresos (gastos) operacionales, neto	1,085,115	34,705	1,826	(3,480)	1,118,166
Resultado de la operación	979,745	(2,185,511)	8,218,723	(739)	7,012,218
Resultado financiero, neto					
Ingresos financieros	1,177,712	67,832	125,677	(269,791)	1,101,430
Gastos financieros	(2,896,060)	(914,534)	(389,394)	270,197	(3,929,791)
Ganancia (pérdida) por diferencia en cambio, neto	360,409	(447,880)	434,245	-	346,774
	(1,357,939)	(1,294,582)	170,528	406	(2,481,587)
Participación en las utilidades de compañías	(40,946)	131,462	(2,089)	-	88,427
Resultado antes de impuesto a las ganancias	(419,140)	(3,348,631)	8,387,162	(333)	4,619,058
Impuesto a las ganancias	88,958	819,739	(2,685,493)	-	(1,776,796)
(Pérdida) utilidad neta del periodo	(330,182)	(2,528,892)	5,701,669	(333)	2,842,262
(Pérdida) utilidad atribuible a:					
A los accionistas	(251,344)	(2,643,041)	4,582,795	(333)	1,688,077
Participación no controladora	(78,838)	114,149	1,118,874	-	1,154,185
	(330,182)	(2,528,892)	5,701,669	(333)	2,842,262

Al 31 de diciembre de 2019					
	Exploración y Producción	Refinación y Petroquímica	Transporte y Logística	Eliminaciones	Total
Ventas terceros	30,617,016	36,391,329	3,785,129	53,295	70,846,769
Ventas inter segmentos	21,409,232	2,379,476	9,285,601	(33,074,309)	-
Ingresos por ventas	52,026,248	38,770,805	13,070,730	(33,021,014)	70,846,769
Costos de ventas	(36,359,013)	(37,856,219)	(3,738,194)	32,995,918	(44,957,508)
Utilidad bruta	15,667,235	914,586	9,332,536	(25,096)	25,889,261
Gastos de administración	(1,284,560)	(496,155)	(372,942)	2,058	(2,151,599)
Gastos de operación y proyectos	(1,475,710)	(743,378)	(434,904)	22,238	(2,631,754)
Impairment de activos a largo plazo	(1,967,179)	452,163	(232,556)	-	(1,747,572)
Otros ingresos (gastos) operacionales, neto	49,673	1,014,988	74,607	(82,472)	1,056,796
Resultado de la operación	10,989,459	1,142,204	8,366,741	(83,272)	20,415,132
Resultado financiero, neto					
Ingresos financieros	1,440,440	229,297	273,613	(320,014)	1,623,336
Gastos financieros	(2,311,133)	(996,790)	(306,878)	280,332	(3,334,469)
Ganancia (pérdida) por diferencia en cambio, neto	287,285	(179,936)	(66,710)	-	40,639
	(583,408)	(947,429)	(99,975)	(39,682)	(1,670,494)
Participación en las utilidades de compañías	214,771	17,091	75	122,337	354,274
Resultado antes de impuesto a las ganancias	10,620,822	211,866	8,266,841	(617)	19,098,912
Impuesto a las ganancias	(1,753,370)	(96,902)	(2,746,141)	-	(4,596,413)
Utilidad neta del periodo	8,867,452	114,964	5,520,700	(617)	14,502,499
(Pérdida) utilidad atribuible a:					
A los accionistas	8,929,900	104,310	4,217,890	(617)	13,251,483
Participación no controladora	(62,448)	10,654	1,302,810	-	1,251,016
	8,867,452	114,964	5,520,700	(617)	14,502,499

Al 31 de diciembre de 2018					
	Exploración y Producción	Refinación y Petroquímica	Transporte y Logística	Eliminaciones	Total
Ventas terceros	29,328,963	34,947,948	3,543,024	-	67,819,935
Ventas inter segmentos	20,259,864	2,063,425	7,811,143	(30,134,432)	-
Ingresos por ventas	49,588,827	37,011,373	11,354,167	(30,134,432)	67,819,935
Costos de ventas	(32,224,332)	(35,658,753)	(3,402,087)	30,115,645	(41,169,527)
Utilidad bruta	17,364,495	1,352,620	7,952,080	(18,787)	26,650,408w
Gastos de administración	(889,293)	(443,880)	(320,498)	(187)	(1,653,858)
Gastos de operación y proyectos	(1,993,054)	(668,177)	(263,104)	21,203	(2,903,132)
Impairment de activos a largo plazo	807,970	(984,704)	(169,870)	-	(346,604)
Otros ingresos (gastos) operacionales, neto	(137,836)	(13,652)	118,905	(2,872)	(35,455)

Resultado de la operación	15,152,282	(757,793)	7,317,513	(643)	21,711,359
Resultado financiero, neto					
Ingresos financieros	1,099,893	147,689	110,898	(228,917)	1,129,563
Gastos financieros	(2,037,966)	(1,295,528)	(407,589)	229,269	(3,511,814)
Ganancia (pérdida) por diferencia en cambio, neto	868,479	(517,410)	21,154	-	372,223
	(69,594)	(1,665,249)	(275,537)	352	(2,010,028)
Participación en las utilidades de compañías	123,949	27,730	2,841	-	154,520
Resultado antes de impuesto a las ganancias	15,206,637	(2,395,312)	7,044,817	(291)	19,855,851
Impuesto a las ganancias	(5,829,335)	1,076,923	(2,569,607)	-	(7,322,019)
Utilidad neta del periodo	9,377,302	(1,318,389)	4,475,210	(291)	12,533,832
(Pérdida) utilidad atribuible a:					
A los accionistas	9,439,750	(1,316,376)	3,433,322	(291)	11,556,405
Participación no controladora	(62,448)	(2,013)	1,041,888	-	977,427
	9,377,302	(1,318,389)	4,475,210	(291)	12,533,832

33.2. Ventas por producto

Ventas por producto - Segmentos					
Al 31 de diciembre de 2020					
	Exploración y Producción	Refinación y Petroquímica	Transporte y Logística	Eliminaciones	Total
Ventas nacionales					
Destilados medios	-	8,871,938	-	(11,350)	8,860,588
Gasolinas	6,739	7,880,124	-	(1,118,817)	6,768,046
Gas natural	3,683,018	-	-	(837,863)	2,845,155
Servicios	116,485	268,081	12,194,384	(9,719,391)	2,859,559
Servicio gas combustible	-	678,396	-	(6,826)	671,570
Plástico y caucho	-	865,204	-	-	865,204
Asfaltos	27,043	499,057	-	-	526,100
G.L.P. y propano	249,533	133,525	-	(7,283)	375,775
Crudos	13,250,275	-	-	(13,019,755)	230,520
Polietileno	-	138,034	-	-	138,034
Aromáticos	-	155,740	-	-	155,740
Combustóleo	7,758	29,243	-	-	37,001
Otros ingresos contratos gas	32,190	-	-	-	32,190
Otros	19,556	417,889	-	(115,213)	322,232
	17,392,597	19,937,231	12,194,384	(24,836,498)	24,687,714
Ventas al exterior					
Crudos	20,165,489	29	-	(79,345)	20,086,173

Diesel	-	3,164,068	-	-	3,164,068
Plástico y caucho	-	1,302,131	-	-	1,302,131
Gasolinas	-	179,257	-	-	179,257
Combustóleo	-	968,429	-	-	968,429
G.L.P. y propano	18,943	-	-	-	18,943
Gas natural	17,231	-	-	-	17,231
Amortización cobertura para futuras exportaciones	(977,797)	-	-	-	(977,797)
Otros	26,702	553,206	56	448	580,412
	19,250,568	6,167,120	56	(78,897)	25,338,847
	36,643,165	26,104,351	12,194,440	(24,915,395)	50,026,561

Ventas por producto - Segmentos

Al 31 de diciembre de 2019

	Exploración y Producción	Refinación y Petroquímica	Transporte y Logística	Eliminaciones	Total
Ventas nacionales					
Destilados medios	-	15,073,134	-	(31,251)	15,041,883
Gasolinas y turbocombustibles	-	11,554,947	-	(1,896,767)	9,658,180
Gas natural	2,909,770	-	-	(653,647)	2,256,123
Servicios	196,527	261,390	13,070,676	(9,412,967)	4,115,626
Servicio gas combustible	-	72,249	-	-	72,249
Plástico y caucho	-	834,133	-	-	834,133
Asfaltos	24,690	519,510	-	-	544,200
G.L.P. y propano	179,541	193,375	-	-	372,916
Crudos	21,085,955	-	-	(20,729,098)	356,857
Polietileno	-	192,436	-	-	192,436
Aromáticos	-	228,552	-	-	228,552
Combustóleo	1,464	96,443	-	-	97,907
Otros ingresos contratos gas	102,845	-	-	-	102,845
Otros productos	25,215	703,269	-	(297,284)	431,200
	24,526,007	29,729,439	13,070,676	(33,021,014)	34,305,108
Ventas al exterior					
Crudos	28,461,601	61,995	-	-	28,523,596
Diesel	-	4,391,798	-	-	4,391,798
Plástico y caucho	-	1,249,189	-	-	1,249,189
Gasolinas y turbocombustibles	-	1,085,392	-	-	1,085,392
Combustóleo	-	1,870,929	-	-	1,870,929
G.L.P. y propano	13,591	-	-	-	13,591
Gas natural	27,255	-	-	-	27,255
Amortización cobertura para futuras exportaciones	(1,028,516)	-	-	-	(1,028,516)
Otros productos	26,310	382,063	54	-	408,427
	27,500,241	9,041,366	54	-	36,541,661
	52,026,248	38,770,805	13,070,730	(33,021,014)	70,846,769

Ventas por producto - Segmentos					
Al 31 de diciembre de 2018					
	Exploración y Producción	Refinación y Petroquímica	Transporte y Logística	Eliminaciones	Total
Ventas nacionales					
Destilados medios	725	14,038,913	-	-	14,039,638
Gasolinas y turbocombustibles	-	11,044,287	-	(1,709,348)	9,334,939
Gas natural	2,535,658	-	-	(649,812)	1,885,846
Servicios	140,801	226,933	11,354,071	(7,950,991)	3,770,814
Servicio gas combustible	-	-	-	-	-
Plástico y caucho	-	899,410	-	-	899,410
Asfaltos	26,406	309,020	-	-	335,426
G.L.P. y propano	245,875	329,569	-	(805)	574,639
Crudos	20,142,527	-	-	(19,592,048)	550,479
Polietileno	-	270,887	-	-	270,887
Aromáticos	-	282,545	-	-	282,545
Combustóleo	20,391	489,091	-	-	509,482
Otros ingresos contratos gas	156,031	-	-	-	156,031
Otros productos	11,484	632,409	-	(231,428)	412,465
	23,279,898	28,523,063	11,354,071	(30,134,432)	33,022,600
Ventas al exterior					
Crudos	26,898,737	-	-	-	26,898,737
Diesel	-	3,050,839	-	-	3,050,839
Plástico y caucho	-	1,308,685	-	-	1,308,685
Gasolinas y turbocombustibles	-	1,782,194	-	-	1,782,194
Combustóleo	-	2,053,594	-	-	2,053,594
G.L.P. y propano	20,212	-	-	-	20,212
Gas natural	27,899	-	-	-	27,899
Amortización cobertura para futuras exportaciones	(655,533)	-	-	-	(655,533)
Otros productos	17,614	292,998	96	-	310,708
	26,308,929	8,488,310	96	-	34,797,335
	49,588,827	37,011,373	11,354,167	(30,134,432)	67,819,935

33.3. Inversión por segmentos

Los siguientes son los montos de las inversiones realizadas por cada segmento por los años finalizados al 31 de diciembre de 2020, 2019 y 2018:

2020	Exploración y Producción	Refinación y Petroquímica	Transporte	Total
Propiedad, Planta y Equipo	2,866,599	1,329,181	836,536	5,032,316
Recursos naturales	5,994,463	-	-	5,994,463
Intangibles	41,001	8,771	40,309	90,081
	8,902,063	1,337,952	876,845	11,116,860

2019	Exploración y Producción	Refinación y Petroquímica	Transporte	Total
Propiedad, Planta y Equipo	2,151,194	497,512	1,363,953	4,012,659
Recursos naturales	9,798,193	-	-	9,798,193
Intangibles	25,775	20,569	121,945	168,289
	11,975,162	518,081	1,485,898	13,979,141

2018	Exploración y Producción	Refinación y Petroquímica	Transporte	Total
Propiedad, Planta y Equipo	2,080,874	692,977	529,078	3,302,929
Recursos naturales	5,051,828	-	-	5,051,828
Intangibles	56,755	20,203	28,711	105,669
	7,189,457	713,180	557,789	8,460,426

34. Reservas de petróleo y gas

El Grupo empresarial se acoge a los estándares internacionales para la estimación, categorización y reporte de reservas, enmarcados en las definiciones de la U.S. Securities and Exchange Commission (SEC). La Gerencia Corporativa de Reservas de Ecopetrol S.A. presenta en conjunto con la Gerencia de Upstream y la Vicepresidencia de Desarrollo, el balance de reservas a la Junta Directiva para aprobación de divulgación de cifras.

Las reservas fueron auditadas en un 99.99% por 5 compañías auditoras especializadas: Neatherland Sewell & Associates, Sproule, DeGolyer and

MacNaughton, Ryder Scott Company y Gaffney and Cline. De acuerdo con dichas certificaciones, el reporte de reservas se ajusta al contenido y los lineamientos establecidos en la Regla 4-10 de la regulación S-X de la Securities and Exchange Commission (SEC) de los Estados Unidos de América.

La siguiente información corresponde a las reservas probadas netas de propiedad del grupo empresarial al 31 de diciembre de 2020 y 2019, la cual corresponde a los balances oficiales de reservas preparados por el Grupo:

	2020			2019*		
	Petróleo (Mbls)	Gas (Gpc)	Total (Mbe)	Petróleo (Mbls)	Gas (Gpc)	Total (Mbe)
Reservas probadas:						
Saldo inicial	1,383	2,906	1,893	1,201	3,001	1,727
Revisión de estimaciones (1)	(81)	52	(71)	74	52	84
Recobro mejorado	100	74	113	94	3	94
Compras	-	171	30	142	126	164
Extensiones y descubrimientos	41	8	43	66	2	67
Ventas	(0.9)	(0.3)	(1)	-	-	-
Producción	(186)	(289)	(236)	(193)	(278)	(242)
Saldo final	1,258	2,921	1,770	1,384	2,906	1,894
Reservas probadas desarrolladas						
Saldo inicial	898	2,662	1,365	883	2,882	1,389
Saldo final	834	2,636	1,297	898	2,662	1,365
Reservas probadas no desarrolladas						
Saldo inicial	486	244	529	317	119	338
Saldo final	423	285	473	486	244	529

* Ninguna cifra fue redondeada para efectos de presentación

- (1) Representan los cambios en estimados de reservas probadas previos, hacia arriba o hacia abajo, resultado de nueva información (excepto por incremento de área probada), normalmente obtenida de perforación de desarrollo e historia de producción o resultado de cambios en factores económico

35. Eventos subsecuentes

- El 17 de julio de 2020 la Junta Directiva de Ecopetrol aprobó un nuevo plan de inversiones orgánicas para el Grupo Ecopetrol (GE) con un monto estimado entre US\$3.000 millones y US\$3.400 millones para el 2020. Este nivel de inversiones orgánico es similar al ejecutado en 2019 y superior respecto al plan de inversiones anunciado a principios de mayo.
- Mediante la Resolución 1381 de julio 6 de 2020, el Ministerio de Hacienda y Crédito Público, autorizó a OCENSA para suscribir, emitir y colocar Bonos de Deuda Pública Externa, bajo la regla 144 A / Registro S de la Ley de Valores de los Estados Unidos de América, en los mercados internacionales de capitales, hasta por quinientos millones de dólares de los Estados Unidos de América (US\$500 millones), para refinanciar el pago de la deuda denominada Bono Global 2021. La emisión fue realizada el pasado 14 de julio de 2020 con vencimiento a 7 años y una tasa cupón del 4%.
- Venta de participación en Offshore International Group**
El 21 de enero de 2021, mediante la suscripción del contrato de compra venta de acciones (Share Purchase Agreement) con una de las filiales de De Jong Capital LLC., en su calidad de comprador, se perfeccionó la enajenación de la totalidad de la participación en el capital social de la sociedad Offshore International Group (OIG), en la cual Ecopetrol tiene una participación equivalente al 50% del capital social.
- Aceptación de oferta no vinculante para adquisición de participación en ISA**
El 27 de enero de 2021, Ecopetrol informó que como producto de la estrategia del Grupo Ecopetrol para consolidarse en el sector energético de Colombia y el continente americano, tomó de decisión de presentar una oferta no vinculante para la adquisición del 51.4%

de participación que tienen la Nación en Interconexión Eléctrica S.A. E.S.P (ISA). Esta inversión representaría para el Grupo Ecopetrol un paso en su proceso de transformación energética y descarbonización mediante la generación de un flujo material de ingresos en negocios de bajas emisiones.

La transacción se financiaría con un esquema que incluye una nueva capitalización de Ecopetrol a través de una emisión de acciones, recursos propios y otros esquemas de financiación disponibles, incluida la desinversión en activos no estratégicos. La estructuración financiera de la operación mantendría un nivel de endeudamiento de Ecopetrol alineado con su grado de inversión.

De llegar a un acuerdo entre las partes (Ministerio de Hacienda y Crédito Público y Ecopetrol), el cierre de esta transacción estará sujeto a la realización de una debida diligencia detallada, así como a la emisión y colocación de acciones por parte de Ecopetrol, previa obtención de las autorizaciones requeridas.

Por su parte, el Ministerio de Hacienda y Crédito Público manifestó el 5 de febrero de 2021 estar de acuerdo con firmar un contrato de exclusividad con el fin de que Ecopetrol pueda perfeccionar durante el primer semestre de 2021 la oferta no vinculante que presentó para adquirir el 51.4% de las acciones en circulación de ISA, bajo la figura de un Contrato Interadministrativo. Así mismo, manifiesta que dicha entidad se reserva el derecho a proponer ajustes al rango de precios sujeto al resultado de los procesos de valoración y debida diligencia que adelante de manera paralela a Ecopetrol.

- **Nuevo modelo operativo segmento de transporte**

El pasado 1 de febrero de 2021, Cenit asumió la operación integral de su infraestructura, ejecutando de manera directa la operación local y centralizada de sus sistemas de transporte de hidrocarburos. Con este cambio Cenit también asume la operación local de los sistemas de Ocesa, Bicentenario y ODC (Oleoducto de Colombia) y se consolida como líder del segmento de transporte del Grupo Ecopetrol.

- **Metodología de cálculo del WACC para transporte de combustibles líquidos**

El pasado 8 de febrero de 2021, la Comisión de Regulación de Energía y Gas (CREG) expidió la resolución 004 de 2021 mediante la cual se establece la metodología de cálculo del WACC para las actividades reguladas por la CREG dentro de las cuales se incluyen distribución y transmisión de energía eléctrica, distribución y transporte de gas y combustibles líquidos. La tasa de descuento para el transporte de combustibles líquidos por poliductos será calculada y aplicada una vez se actualice la metodología tarifaria para esta actividad. De acuerdo con la agenda regulatoria de la CREG se tiene previsto que la propuesta de la metodología se emita para comentarios durante el segundo semestre de 2021 y la definitiva se publique a finales de año.

36. Anexo 1. Compañías subsidiarias consolidadas, asociadas y negocios conjuntos

Compañía	Moneda funcional	Porcentaje participación Ecopetrol	Actividad
Subsidiarias			
Refinería de Cartagena S.A.S.	Dólar	100%	Refinación de hidrocarburos, comercialización y distribución de productos
Cenit transporte y logística de hidrocarburos S.A.S.	Peso Colombiano	100%	Almacenamiento y transporte por ductos de hidrocarburos
Ecopetrol Global Energy S.L.U.	Dólar	100%	Vehículo de inversión
Oleoducto Central S. A. – Ocensa	Dólar	72,65%	Transporte por ductos de petróleo crudo
Hocol Petroleum Limited.	Dólar	100%	Vehículo de inversión
Ecopetrol América LLC.	Dólar	100%	Exploración y explotación de hidrocarburos
Hocol S.A.	Dólar	100%	Exploración, explotación y producción de hidrocarburos
Esenttia S.A.	Dólar	100%	Producción y comercialización de resina de polipropileno
Ecopetrol Capital AG	Dólar	100%	Captación de excedentes y financiamiento para compañías del Grupo Empresarial Ecopetrol
Oleoducto Bicentenario de Colombia S.A.S.	Peso Colombiano	55,97%	Actividad transporte por ductos de petróleo crudo
Andean Chemicals Ltd.	Dólar	100%	Vehículo de inversión
Oleoducto de los Llanos Orientales S. A. – ODL	Peso Colombiano	65%	Transporte por ductos de petróleo crudo
Inversiones de Gases de Colombia S.A. Invercolsa S.A. (Consolidado)	Peso Colombiano	51,88%	Holding con inversiones en compañías de transporte y distribución de gas natural y GLP en Colombia
Black Gold Re Ltd.	Dólar	100%	Reaseguradora para compañías del Grupo Empresarial Ecopetrol
Oleoducto de Colombia S. A. – ODC	Peso Colombiano	73%	Transporte por ductos de petróleo crudo
Bioenergy S. A. S. (1)	Peso Colombiano	99,61%	Producción de biocombustibles

País/ Domicilio	Área geográfica de operaciones	Patrimonio neto	Ganancia (pérdida) del ejercicio	Total activos	Total pasivos
Colombia	Colombia	18,430,235	(1,482,958)	29,106,814	10,676,579
Colombia	Colombia	16,350,626	4,734,703	18,343,398	1,992,772
España	España	9,320,715	(434,773)	9,321,078	363
Colombia	Colombia	3,468,149	2,539,355	6,277,969	2,809,820
Bermuda	Bermuda	3,541,737	303,572	3,541,801	64
Estados Unidos	Estados Unidos	2,320,615	(353,806)	2,749,860	429,245
Islas Caimán	Colombia	2,474,197	290,344	3,974,570	1,500,373
Colombia	Colombia	1,958,357	262,724	2,445,757	487,400
Suiza	Suiza	1,872,129	176,999	7,482,055	5,609,926
Colombia	Colombia	1,621,598	214,482	3,577,534	1,955,936
Bermuda	Bermuda	1,324,107	(162,720)	1,324,387	280
Panamá	Colombia	1,047,791	444,625	1,465,305	417,514
Colombia	Colombia	765,720	176,865	1,311,588	545,868
Bermuda	Bermuda	837,693	54,412	1,079,571	241,878
Colombia	Colombia	411,180	353,424	640,292	229,112
Colombia	Colombia	26,508	(20,248)	194,257	167,749

Compañía	Moneda funcional	Porcentaje participación Ecopetrol	Actividad	País/ Domicilio
Subsidiarias				
Ecopetrol USA Inc.	Dólar	100%	Exploración y explotación de hidrocarburos	Estados Unidos
Ecopetrol Permian LLC.	Dólar	100%	Exploración y explotación de hidrocarburos	Estados Unidos
Ecopetrol Oleo é Gas do Brasil Ltda.	Real	100%	Exploración y explotación de hidrocarburos	Brasil
Esenttia Masterbatch Ltda.	Peso Colombiano	100%	Fabricación compuestos de polipropileno y masterbatches	Colombia
Bioenergy Zona Franca S. A. S. (1)	Peso Colombiano	99,61%	Producción de biocombustibles	Colombia
Ecopetrol del Perú S. A.	Dólar	100%	Exploración y explotación de hidrocarburos	Perú
ECP Hidrocarburos de México S.A. de C.V.	Dólar	100%	Exploración en offshore	México
Ecopetrol Costa Afuera S.A.S.	Peso Colombiano	100%	Exploración en offshore	Colombia
Ecopetrol Energía S.A.S E.S.P.	Peso Colombiano	100%	Servicio público de suministro de energía	Colombia
Esenttia Resinas del Perú SAC	Dólar	100%	Comercialización resinas de polipropileno y masterbatches	Perú
Topili Servicios Administrativos S de RL De CV.	Peso Mexicano	100%	Servicios especializados en el ámbito gerencial y dirección	México
Kalixpan Servicios Técnicos S de RL De CV.	Peso Mexicano	100%	Servicios especializados en la industria del petróleo e hidrocarburos	México
Negocios conjuntos				
Equion Energía Limited	Dólar	51%	Exploración, explotación y producción de hidrocarburos	Reino Unido
Offshore International Group Inc.	Dólar	50%	Exploración, explotación y producción de hidrocarburos	Estados Unidos
Ecodiesel Colombia S.A. (3)	Peso Colombiano	50%	Producción, comercialización y distribución de biocombustibles y oleoquímicos	Colombia

Área geográfica de operaciones	Patrimonio neto	Ganancia (pérdida) del ejercicio	Total activos	Total pasivos
Estados Unidos	7,550,468	(294,497)	7,552,294	1,826
Estados Unidos	3,566,413	(38,855)	3,590,934	24,521
Brasil	1,657,410	(95,164)	1,692,673	35,263
Colombia	322,511	166,911	401,404	78,893
Colombia	(92,416)	(2,850)	361,769	454,185
Perú	53,003	305	55,202	2,199
México	59,279	(44,010)	124,237	64,958
Colombia	13,356	1,148	32,017	18,661
Colombia	12,661	5,256	72,859	60,198
Perú	6,275	1,319	39,833	33,558
México	16	(35)	20	4
México	20	(31)	24	4
Colombia	2,499,319	167,727	2,630,351	131,032
Perú	543,621	(237,752)	1,568,795	1,025,174
Colombia	103,344	29,188	167,801	64,457

Compañía	Moneda funcional	Porcentaje participación Ecopetrol	Actividad	País/ Domicilio
Asociadas				
Gases del Caribe S.A. E.S.P.	Peso Colombiano	25,40%	Distribución y comercialización de gas natural.	Colombia
Gas Natural del Oriente S.A. E.S.P.	Peso Colombiano	17,91%	Distribución y comercialización de gas natural.	Colombia
Gases de la Guajira S.A. E.S.P.	Peso Colombiano	5,36%	Distribución y comercialización de gas natural.	Colombia
Colombiana de Extrusión S.A. -Extrucol S.A.	Peso Colombiano	18,16%	Producción de tuberías y accesorios de Polietileno	Colombia
E2 Energía Eficiente S. A. E.S.P.	Peso Colombiano	9,92%	Servicios energéticos, suministro, optimización, desarrollo, renovación e innovación de los recursos e infraestructura energética	Colombia
Serviport S.A. (2)	Peso Colombiano	49%	Servicios para el apoyo de cargue y descargue de naves petroleras, suministro de equipos para el mismo propósito, inspecciones técnicas y mediciones de carga	Colombia
Sociedad Portuaria Olefinas y Derivados S.A. (3)	Peso Colombiano	50%	Construcción, uso, mantenimiento, adecuación y administración de instalaciones portuarias, puertos, muelles privados o de servicio al público en general	Colombia

Área geográfica de operaciones	Patrimonio neto	Ganancia (pérdida) del ejercicio	Total activos	Total pasivos
Colombia	489,367	278,329	2,132,231	1,642,864
Colombia	111,181	52,956	202,644	91,463
Colombia	55,265	18,128	170,937	115,672
Colombia	39,620	7,493	66,110	26,490
Colombia	28,802	4,062	93,736	64,934
Colombia	17,430	568	45,457	28,027
Colombia	4,432	562	8,196	3,764

- (1) Compañías en proceso de liquidación judicial. Ver Nota 2.2 Bases de Consolidación.
(2) Información disponible al 30 de septiembre de 2020, la inversión se encuentra totalmente deteriorada.
(3) Información disponible al 30 de noviembre de 2020.

37. Anexo 2. Condiciones de los préstamos más significativos (valores nominales)

Clase de crédito	Compañía	Fecha inicio	Fecha vencimiento	Moneda
Bonos Moneda Nacional	Ecopetrol S.A.	dic-10	dic-20	COP
		dic-10	dic-40	
		ago-13	ago-23	
		ago-13	ago-28	
		ago-13	ago-43	
Crédito sindicado moneda nacional	Oleoducto Bicentenario	jul-12	jul-24	COP
Crédito Comercial	Invercolsa Consolidado	nov-20	ago-25	COP
		ago-20	ago-21	
		sep-19	jul-25	
Bonos moneda extranjera	Ecopetrol S.A.	sep-13	sep-23	USD
		sep-13	sep-43	
		may-14	may-45	
		sep-14	may-25	
		jun-15	jun-26	
		jun-16	sep-23	
		abr-20	abr-30	
	Oleoducto Central S.A.	may-14	may-21	USD
Créditos comerciales internacionales - Refinería de Cartagena	Ecopetrol S.A.	dic-17	dic-27	USD
		dic-17	dic-27	
		dic-17	dic-27	
		dic-17	dic-27	
		dic-17	dic-25	
Línea comprometida	Ecopetrol S.A.	abr-20	sep-23	USD

Valor nominal en moneda origen	Saldo pendiente 31-dic-2020	Saldo pendiente 31-dic-2019	Tipo de interés	Amortización del principal	Pago de interés
479.900	-	479.900			
284.300	284.300	284.300			
168.600	168.600	168.600	Flotante	Bullet	Semestral
347.500	347.500	347.500			
262.950	262.950	262.950			
2.100.000	800.450	1,543,250	Flotante	Trimestral	Trimestral
110.000	110.000	-	Flotante	Semestral	Semestral
50.000	43.000	-	Flotante	Bullet	Trimestral
70.912	21.681	70.912	Flotante	Semestral	Semestral
1.300	1.300	1.300			
850	850	850			
2.000	2.000	2.000			
1.200	1.200	1.200	Fijo	Bullet	Semestral
1.500	1.500	1.500			
500	500	500			
2.000	2.000	2.000			
500	500	500	Fijo	Bullet	Semestral
2.001	1.305	1.530	Fijo		
76	49	58	Flotante		
73	48	56	Fijo	Semestral	Semestral
159	103	121	Flotante		
359	257	288	Flotante		
665	665	-	Flotante	Bullet	Semestral



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