

2022 Results

Outstanding performance

Supporting a historic contribution for Colombia



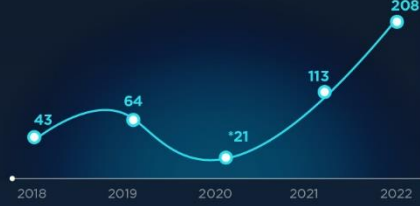
Generate Value through TESG

TRIF



Lowest incident rate in history

Renewable Energy Capacity (MW)



* Bioenergy Divestment

208 MW Commissioning of Brisas Solar Ecopark

Social Investment*

COP 615 billion



* Portfolio created in 2019 and 2022 data includes ISA

Sustainable Development Projects

Water management
Water neutrality by 2045



Decarbonization
Carbon neutral certification earned by the Midstream segment, 11 of ISA's subsidiaries and Esenttia



Dow Jones Sustainability Index Results
76/100: recognized as one of the most sustainable companies in the world

Cutting-Edge Knowledge



Science, Technology and Innovation agenda secured benefits for USD 596 million (COP 2.5 trillion)
Sustainable Development and Energy Transition alliance with the State of Bavaria, Germany

Competitive Returns



Grow with the Energy Transition

GAS
56% EBITDA margin

HYDROGEN
Positive results from samples in 3 basins white H₂

HYDROCARBONS

Reserve Replacement Ratio **104%**

Average Reserve Life **8.4 YEARS**

Downstream Historic Gross Margin **21 USD/BI in 2022**

Production **4.5% growth in 2022 vs 2021**

TRANSMISSION AND TOLL ROADS

Allocation

7 Energy Transmission Projects

2,200 km Energized Transmission Lines



During 2022, the Ecopetrol Group continued delivering record operating and financial results and above the targets set at the beginning of the year. This, together with environmental, social and governance actions consistent with best industry practices and standards, and in line with our commitment to generate sustainable value society and our shareholders. The above occurred within a reliable and safe operation that covers all Ecopetrol Group contractors and employees, which is reflected in a low accident rate, with a TRIF (Total Recordable Incidents Frequency) of 0.33, the lowest in Ecopetrol's history, placing us as an international reference.

Full year 2022 reported revenues of COP 159.5 trillion, a net income of COP 33.4 trillion, an EBITDA of COP 75.2 trillion, and an EBITDA margin of 47.2%. Furthermore, the gross debt/EBITDA ratio was 1.5 times and the return on capital employed (ROACE) was 18.8%. Investments for 2022 totaled USD 5,488 million (COP 23.4 trillion), figure that falls in the top of the range set for the year (USD 4.8 - 5.8 billion or COP 20.4 - 24.7 trillion) and reflects an increase of 26.1% versus 2021.

Our contribution to the country was outstanding: in 2022 around COP 42.4 trillion were provided to the Republic of Colombia in the form of dividends, royalties, and taxes, compared to COP 16.8 trillion in 2021. Likewise, COP 2.1 trillion were delivered to our minority shareholders.

During 2022, Ecopetrol Group was consolidated in three business lines, which we will further explain, that will continue to position us as a diversified energy Group in the region.

In the **Low Emission Solutions** line, in 2022 the contribution of gas and its derivatives to the consolidated production was 24%. With the exploratory and development activity in the Piedemonte, in the continental Caribbean and offshore, we are contributing to the country's energy safety, leveraging the competitive supply of gas, which is a critical energy source for local industry and residential consumption. Additionally, on the social gas front, during this year, we installed 13,447 new connections, an increase of 119% compared to 2021, confirming our commitment to expand gas access to more Colombian families.

On the hydrogen front, in 2022 Ecopetrol strengthened its position as a leader in the

development of this new energy source, becoming the first company in Colombia to carry out a pilot test to produce green hydrogen under industrial conditions. In addition, we made significant advances to positively identify white hydrogen resources in Colombia, following the completion of surface and subsoil sampling in three of our basins, finding positive results. In 2022, USD 7.5 million (COP 31.9 billion) were invested in this endeavor, which confirms Ecopetrol's commitment to the development of low-emissions hydrogen.

Finally, during the fourth quarter, we incorporated 95 MW of non-conventional renewable energy sources into our energy matrix through: i) the entry into operation of the Brisas solar eco-park with an installed capacity of 26 MW, ii) the execution of a long-term energy contract for a solar photovoltaic source with a capacity of 65 MW; and, iii) the acquisition of the Cantayús Small Hydroelectric Plant, the first hydroelectric generation asset acquired by the Ecopetrol Group, with a capacity of 4.3 MW. In 2022, we reached an operation of 208 MW, in addition to 102 MW under construction, bringing Ecopetrol closer to its target of between 400 - 450 MW by 2024.

In the **Hydrocarbons** line, the Ecopetrol Group achieved a Reserve Replacement Ratio of 104% in 2022, incorporating 249 MBOE, due to the management of development fields, reflected in the optimal and timely maturation of new projects, better execution capacity and implementation of expansion projects with enhanced recovery. Of the total balance of reserves, 75% were liquids and 25% were gas, while the average life of reserves is 8.4 years.

We highlight the positive performance of the production, which closed 2022 at 709.5 mboed, exceeding the annual target of 700 to 705 mboed, an increase of 4.5% compared to 2021. We also highlight December's production exit rate, which reached 735 mboed, the highest recorded since February 2020. Among the main factors contributing to the increase in production were the following: i) production growth in Permian and Caño Sur, and ii) the increase in gas and white products volumes due to the commercial strategy and the recovery after the public order situation in 2021.

On the exploration front, during 2022, we recorded seven successful wells (four more wells than in 2021), which allowed progressing more than 50% of the prospective volumes drilled to discovered resources. Those wells are located in basins of significant interest to Ecopetrol in the country, including wells in the Colombian off-shore (Uchuva-

1, Gorgon-2), Upper Magdalena Valley (El Niño-2 and Ibamaca-2ST), Middle Magdalena Valley (Morito-1), Llanos Orientales (Tejón-1) and in the Lower Magdalena Valley (Coralino-1), which will contribute to the country's energy safety.

The downstream segment recorded a consolidated throughput of 357.5 mbd (an increase of 1.1% over the 2021 throughput, and a figure that falls in the upper bracket of the annual target set of 340 to 360 mbd), the highest in the last three years, as well as a historical annual gross margin of 21 USD/Bl. The segment's results were supported by operational and commercial strategies that resulted in: i) adjustments in the execution of the maintenances strategy aimed at capturing the benefits from market conditions and operational stability in the refinery units and petrochemical plants, and ii) a comprehensive logistic chain plan for maximizing the consumption of domestic crude oil in the refineries. The entry into operation of the Cartagena Crude Plant Interconnection Project (IPCC for its Spanish acronym) in September 2022 is also worth noting, allowing the Cartagena refinery to increase its production capacity by 50 mbd, thus reaching 200 mbd. This expansion allows the Ecopetrol S.A to meet the country's growing demand for fuels and contributes to Colombia's energy safety.

In the midstream segment, the total transported volume for 2022 amounted to 1,070.7 mbd, and exceeded the year's target of one million barrels per day. This represents an increase of 6.3% compared to 2021, mainly explained by the 5.8% increase in crude oil transported, which primarily resulted from higher production from the Llanos operations.

As part of our decarbonization strategy roadmap and in line with our commitment to achieve net zero carbon emissions by 2050, we sold four shipments of 4.0 million barrels of carbon-compensated Castilla Blend® to the United States, India and Spain. Additionally, by year-end 2022, we began selling carbon-compensated extra gasoline to wholesale distributors, thus contributing to climate change mitigation in Latin America and the region. We also conducted tests on the application of asphalt modified with recycled plastic on roads in Bogotá and Medellín, thus making concrete progress in our circular economy projects.

In the **Transmission and Toll Roads** line, during 2022 ISA developed projects aimed at promoting a cleaner energy matrix in the region, with the entry into operation of seven energy transmission projects, one battery project and 76 reinforcements, as well as improvements to the CTEEP network. These

achievements complement the solid financial results, maintaining the growth path and guaranteeing the segment's growth and profitability. Net income amounted to COP 2.2 trillion, an increase of 32% compared to 2021, while EBITDA stood at COP 8.6 trillion, 11% higher than in 2021.

On the **commercial** front, the Ecopetrol Group's strategy continues to focus on diversifying markets and destinations, supported by stable blend qualities and a reliable supply chain. The above drove local sales volumes to increase by 11.4% in 2022 versus 2021, and exports by 2.5% during the same period. Furthermore, Ecopetrol Trading Asia (ECPTA), our subsidiary in Singapore, started operations in March 2022, and has allowed us to consolidate our crude oil exports and strengthen new relationships with customers in the Asian market. Finally, given the performance of gasoline and diesel price spreads in the local market versus the international benchmark price, the account receivable from the Fuel Price Stabilization Fund (FEPC for its Spanish acronym), which corresponds to a cumulative balance between 2Q22 and 4Q22 for Ecopetrol and 4Q22 for Reficar, amounts to COP 26.3 trillion as of year-end 2022.

Regarding the TESG result, the following is worth highlighting:

On the **environmental** front, by year-end 2022 we exceeded the annual emissions reduction target (262,761 tCO₂e) recording total emission reductions of 416,672 tCO₂e which exceeds the year-end target by 59%. Also, in 2022, a carbon credit trading desk was created to manage the Group's needs at a national and global level. In terms of water management, we reported positive results, with an annual reuse rate of 77.5%, compared to the total water required to operate. Finally, in 4Q22 Ecopetrol became the first company in Latin America's hydrocarbon sector to verify its water footprint, thus reinforcing our commitment and progress towards achieving our water-neutrality target by 2045.

On the **social** front, we continued to positively impact the regions, in line with our commitment to improve Colombians' quality of life and the generation of value in the territory, with contributions focused on closing inequality gaps. In that sense, this year we allocated COP 615 billion in resources for sustainable development projects and initiatives. Some of our most significant investments in education included the remodeling of nine educational institutions in the Department of Casanare, improvements to the Luis Carlos López School in Cartagena (Bolívar), and improvements and modifications to four Schools in San Vicente de

Chucurí (Santander). Additionally, through the "Works in Lieu of Taxes" mechanism, the Group has delivered 38 of the 59 projects assigned for a total of COP 348 billion. The assigned projects will benefit more than 1.6 million Colombians in 73 municipalities across the country, employing initiatives that seek to address the needs of the most vulnerable population by accelerating the energy transition, closing gaps in road infrastructure, supporting public education, and improving access to drinking water and basic sanitation. Since the creation of the program, the Ecopetrol Group has accumulated a total allocation of COP 558 billion.

Furthermore, we highlight the work of the Ecopetrol Group's companies, which in 2022 procured goods and services for COP 32.6 trillion, of which COP 5 trillion came from local suppliers, and generated more than 130 thousand jobs, including over 28 thousand jobs for people with disabilities, ethnic groups, victims of the armed conflict, and individuals for whom this is their first job. This is evidence of the Ecopetrol Group's contribution and importance to the local economy and its commitment to inclusion and business development in Colombia.

During 2022 the Company's Science, Technology and Innovation agenda secured USD 595.7 million in benefits, which represents an increase of 71% over the USD 347.4 million certified in 2021. In December 2022 at the Caribbean Innovation Center, an agreement was signed with the Ministry of Commerce, Industry and Tourism, the Ministry of Mines and Energy, Grupo de Energía de Bogotá, Promigas, Siemens Energy, the Colombian

Embassy in Germany and LATAM, to seek financing mechanisms for the development of renewable energy and green hydrogen projects in the country, reinforcing Ecopetrol's commitment to the energy transition.

We would like to finish by highlighting the awards and recognitions received by Ecopetrol and some of its subsidiaries, including: i) the Business Merit Award granted by the Simón Bolívar University in the social responsibility and shared value category, for the implementation of the "Social Gas" program in Barranquilla (Atlántico), ii) the recognition of our commitment to the promotion of gender equality granted by the "She Is Foundation" within the framework of 2022 She Is Global Forum: Women of The Future, held in Cartagena (Bolívar), iii) recognition of the result (A-) and leadership in the Climate Change program by CDP (Disclosure Insight Action), exceeding the average performance of the industry (B) and the regional and global performance (C), and iv) recognition of the Ecoreserves by the UN (Global Compact Network Colombia - Best Practices SDG 15).

As we look ahead to 2023, we remain steadfast in our aim to contribute to the country's energy safety, the transition to low-emission energy, and to generate sustainable value for both society and our shareholders, within a solid corporate governance and robust institutional framework.

Felipe Bayón
CEO Ecopetrol S.A.

Bogotá D.C., February 28, 2023. Ecopetrol S.A. (BVC: ECOPETROL; NYSE: EC) announced today the Ecopetrol Group's financial results for the fourth quarter and full year 2022, prepared in accordance with the International Financial Reporting Standards applicable in Colombia.

The Ecopetrol Group ended 2022 generating the best financial results in its history by obtaining a net income of COP 33.4 trillion, doubling the one generated in 2021, and an EBITDA of COP 75.2 trillion with an EBITDA margin of 47%.

This solid financial performance was leveraged by: i) favorable price environment, ii) higher contribution to production from Permian and Ecopetrol S.A., iii) record results in the refineries, and iv) solid results from ISA. The above allowed us to offset: i) inflation and the exchange rate effect on operating costs and expenses, ii) higher interest on debt, iii) higher exploratory expenses and iv) an increase in the nominal income tax rate for 2022.

Table 1: Financial Summary Income Statement - Ecopetrol Group

Billion (COP)	4Q 2022	4Q 2021	Δ (\$)	Δ (%)	12M 2022	12M 2021	Δ (\$)	Δ (%)
Total sales	39,678	31,761	7,917	24.9%	159,474	91,744	67,730	73.8%
Depreciation and amortization	3,049	2,404	645	26.8%	11,410	9,599	1,811	18.9%
Variable cost	16,015	12,685	3,330	26.3%	61,406	34,678	26,728	77.1%
Fixed cost	4,943	4,043	900	22.3%	16,642	11,305	5,337	47.2%
Cost of sales	24,007	19,132	4,875	25.5%	89,458	55,582	33,876	60.9%
Gross income	15,671	12,629	3,042	24.1%	70,016	36,162	33,854	93.6%
Operating and exploratory expenses	3,655	2,206	1,449	65.7%	9,635	6,568	3,067	46.7%
Operating income	12,016	10,423	1,593	15.3%	60,381	29,594	30,787	104.0%
Financial income (loss), net	(1,469)	(1,518)	49	(3.2%)	(6,835)	(3,698)	(3,137)	84.8%
Share of profit of companies	112	201	(89)	(44.3%)	768	426	342	80.3%
Income before income tax	10,659	9,106	1,553	17.1%	54,314	26,322	27,992	106.3%
Income tax	(2,945)	(2,099)	(846)	40.3%	(17,254)	(7,598)	(9,656)	127.1%
Net income consolidated	7,714	7,007	707	10.1%	37,060	18,724	18,336	97.9%
Non-controlling interest	(844)	(930)	86	(9.2%)	(3,630)	(2,031)	(1,599)	78.7%
Net income attributable to owners of Ecopetrol before impairment	6,870	6,077	793	13.0%	33,430	16,693	16,737	100.3%
(Expense) recovery for impairment long-term assets	(282)	(35)	(247)	705.7%	(288)	(33)	(255)	772.7%
Deferred tax of impairment	263	35	228	651.4%	264	35	229	654.3%
Net income attributable to owners of Ecopetrol	6,851	6,077	774	12.7%	33,406	16,695	16,711	100.1%
EBITDA	15,996	13,981	2,015	14.4%	75,244	41,967	33,277	79.3%
EBITDA Margin	40.3%	44.0%	-	(3.7%)	47.2%	45.7%	-	1.5%

The financial information included in this report has been audited and is expressed in billions of Colombian pesos (COP), or US dollars (USD), or thousands of barrels of oil equivalent per day (mboed) or tons, as noted. For presentation purposes, certain figures in this report were rounded to the nearest decimal place.

Forward-looking statements: This release contains statements that may be considered forward-looking statements within the meaning of Section 27A of the U.S. Securities Act of 1933 and Section 21E of the U.S. Securities Exchange Act of 1934. All forward-looking statements, whether made in this release or in future filings or press releases or orally, address matters that involve risks and uncertainties, including in respect of Ecopetrol's prospects for growth and its ongoing access to capital to fund Ecopetrol's business plan, among others. Consequently, changes in the following factors, among others, could cause actual results to differ materially from those included in the forward-looking statements: market prices of oil & gas, our exploration and production activities, market conditions, applicable regulations, the exchange rate, Ecopetrol's competitiveness, our ability to successfully integrate our recently acquired subsidiary, ISA, and the performance of Colombia's economy and industry, to mention a few. We do not intend, and do not assume any obligation to update these forward-looking statements.

Financial and Operating Results

Sales Revenue

Cumulative sales revenues as of year-end 2022 increased 73.8% or COP +67.7 trillion as compared to 2021, totaling COP 159.5 trillion, primarily as a result of:

- An increase of +28.7 USD/BI (COP +37.7 trillion) in the weighted average sales price of crude oil, products, and natural gas, primarily due to a higher Brent benchmark price and the strengthening of the middle distillates and gasoline spread compared to Brent.
- A positive effect on revenues (COP +14.6 trillion), due to a higher average exchange rate.
- An increase in services (COP +9.7 trillion), mainly due to the consolidation of ISA's financial results for all of 2022 compared to only four months in 2021.
- An increase in sales volume (COP +5.7 trillion, +59.7 mboed), primarily due to an increase in production in the Permian basin and Ecopetrol S.A., and an increase in domestic demand for fuel and gas products. This was partially offset by lower exports of middle distillates, due to major scheduled maintenance at the refineries.

Sales revenue during 4Q22 increased by 24.9% or COP 7.9 trillion compared to 4Q21, with a total of COP 39.7 trillion, as a combined result of:

- A positive impact on revenues (COP +6.1 trillion), due to a higher average exchange rate.
- An increase of +10.3 USD/BI (COP +3.3 trillion) in the weighted average sales price of crude oil, products, and natural gas, due to the net effect between a higher Brent benchmark price, the strengthening of the middle distillates spread compared to Brent, and a weakening of the negotiated crude oil spread.
- An increase in services (COP +0.8 trillion), mainly from the energy transmission and toll road segment.
- A decrease in sales volume (COP -2.3 trillion, -89.9 mboed) mainly attributed to a decrease in crude exports, as cargoes remained in transit at the end of December, with expected delivery for 1Q23. This was partially offset by an increase in the Permian's production.

Table 2: Sales Volume –Ecopetrol Group

Local Sales Volume - mboed	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)
Medium Distillates	174.1	163.6	6.4%	171.6	145.5	17.9%
Gasoline	153.7	154.8	(0.7%)	151.9	135.1	12.4%
Natural Gas	90.4	97.2	(7.0%)	96.0	92.0	4.3%
Industrials and Petrochemicals	23.3	21.6	7.9%	22.5	21.9	2.7%
LPG and Propane	19.7	20.8	(5.3%)	19.0	19.4	(2.1%)
Crude Oil	6.0	2.3	160.9%	3.1	2.4	29.2%
Fuel Oil	0.2	0.1	100.0%	0.1	0.3	(66.7%)
Total Local Volumes	467.4	460.4	1.5%	464.2	416.6	11.4%
Export Sales Volume - mboed	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)
Crude Oil	372.6	460.3	(19.1%)	400.3	375.8	6.5%
Products	76.3	89.4	(14.7%)	83.0	98.0	(15.3%)
Natural Gas*	7.9	3.9	102.6%	5.8	3.2	81.3%
Total Export Volumes	456.7	553.6	(17.5%)	489.1	477.0	2.5%
Total Sales Volumes	924.1	1,014.0	(8.9%)	953.3	893.6	6.7%

* Natural gas exports correspond to local sales of Ecopetrol América LLC and Ecopetrol Permian LLC.

Total volume sold during 4Q22 amounted to 924.1 mboed, decreasing 8.9% compared to 4Q21. This decrease was primarily the result of lower export sales, mainly of crude oil from in-transit shipments that will be reflected as revenues in the first month of 2023. In 2022 sales totaled 953.3 mboed, an increase of 6.7% compared to 2021, mainly due to higher crude oil production (+15 mbod) and a significant increase in domestic fuel demand (+48 mbod).

Sales in Colombia, which account for 51% of the total sales, increased by 1.5% or 6.9 mboed in 4Q22 versus 4Q21, mainly due to the combined effect of:

- An increase in middle distillates sales (+10.5 mbod) due to a stronger domestic demand, which was primarily driven by the country's economic recovery, following the recovery of the negative effects due to the COVID pandemic.
- An increase in petrochemicals and industrials sales (+1.7 mboed) due to a higher demand for asphalt locally and internationally (+1.0 mboed) and higher polyethylene availability (+0.5 mboed).
- A decrease in gas sales (-6.8 mboed) as a result of preventive maintenance activities performed in Cusiana in 4Q22.
- A decrease in LPG sales (-1.1 mboed) due to intensification in co-dilution injection (+1.4 mboed) from the Cusiana and Apiay fields to substitute imported naphtha for the dilution of crude.

International sales, which account for 49% of total sales, decreased by 17.5% or -96.9 mboed in 4Q22 compared to 4Q21, mainly due to the combined effect of:

- Lower crude exports (-87.7 mbd) due to in-transit and connected shipments delivered in 4Q22 compared to 4Q21 (-96.0 mbd), offset by higher production in the United States subsidiaries (+12.0 mbd).
- Lower products exports (-13.2 mbd), mainly diesel, which was allocated to the supply of domestic demand.
- Higher sales in Permian (+4 mboed) due to an increased production potential of wells in the Midland area.

Table 3: Average Realization Prices - Ecopetrol Group

USD/BI	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)
Brent	88.6	79.7	11.2%	99.0	70.9	39.6%
Natural Gas Basket	27.6	26.0	6.2%	27.6	24.9	10.8%
Crude Oil Basket	76.3	73.8	3.4%	90.9	66.8	36.1%
Products Basket	107.9	89.7	20.3%	118.2	79.6	48.5%

Crudes: Crude oil basket prices increased by 2.5 USD/BI, from 73.8 USD/BI to 76.3 USD/BI in 4Q22 in comparison to 4Q21, primarily as a result of: i) a strong Brent price, and ii) the result of the continued implementation of the market diversification strategy focusing on new markets and destinations, which is supported by stable blend quality and supply reliability. Sales volumes continue to be negotiated under DAP (Delivered at Place) to various destinations such as South Korea, India, Brunei, and the Gulf Coast of the United States.

Refined products: The product sales basket increased by 18.2 USD/BI, from 89.7 USD/BI to 107.9 USD/BI in 4Q22 compared to 4Q21, mainly due to the recovery of international price indicators, driven by: i) the reactivation of demand in light of the lifting of mobility restrictions and ii) the tightening of middle distillate (diesel and jet) spreads caused by the Ukraine-Russia conflict.

Natural Gas: Gas sales prices increased by 1.6 USD/BI from 26.0 USD/BI to 27.6 USD/BI in 4Q22 versus 4Q21, primarily due to the indexation of domestic supply contracts to the United State PPI (Producer Price Index).

Hedging Program: During 4Q22, Ecopetrol executed six tactical hedges for 5.95 million barrels: i) 4.5 million barrels of crude oil exports, ii) 1.2 million barrels of crude oil imports, and iii) 0.25 million barrels of refined product exports. Ecopetrol Trading Asia (ECPTA) executed two hedges for 0.95 million barrels in 4Q22.

Cost of Sales

Cost of sales increased by 60.9% or COP +33.9 trillion in 2022 compared to 2021, and by 25.5% or COP +4.9 trillion in 4Q22 versus 4Q21.

Variable Costs:

Cumulative variable costs increased by 77.1% or COP +26.7 trillion in 2022 compared to 2021, explained by:

- An increase in the purchase of crude, gas and products (COP +24.5 trillion), resulting from: i) an increase in the weighted average price of domestic purchases and imports of +29.3 USD/BI (COP +14.8 trillion), ii) the effect of the increase in the average exchange rate on purchases (COP +6.2 trillion), iii) an increase in the volume purchased (COP +3.5 trillion, +33.8 mboed), mainly due to greater fuel import requirements needed to meet the domestic market's economic reactivation, and the execution of scheduled major maintenances in the refineries and higher purchases due to the commissioning of IPCC.
- Increase in other variable costs (COP +1.6 trillion), due to an increase in operating activities, and the impact of higher average exchange rates and the inflationary effect on costs.
- Inventory fluctuations valued at a greater price (COP +0.6 trillion).

Variable costs increased 26.3% in 4Q22 versus 4Q21, equivalent to COP +3.3 billion, as a combined result of: i) increase in the average exchange rate on purchases (COP +2.9 trillion), ii) higher weighted average purchase price of +8.1 USD/BI (COP +1.3 trillion), iii) higher volume purchased (COP +0.2 trillion, +11.6 mboed), mainly of crude oil for the commissioning of the IPCC project, iv) increase in other variable costs (COP +0.5 trillion), due to the aforementioned accumulated factors. The above was offset by an accumulation of inventories (COP -1.6 trillion), associated to the higher level of crude oil in transit inventory at the end of 4Q22.

Fixed Costs:

Fixed costs increased by 47.2% or COP +5.3 trillion in 2022 compared to 2021 and 22.3% equivalent to COP +0.9 trillion in 4Q22 compared to 4Q21, due to: i) higher costs of maintenance and field operation services, ii) an increase in contract fees, iii) exchange rate impact on contracts indexed to US the dollar, due to the devaluation of the Colombian peso and the inflationary effect. Cumulative fixed costs also increased given the consolidation of ISA's fixed costs during all 2022 compared to four months of 2021.

Depreciation and Amortization:

Depreciation and amortization increased by 18.9% or COP +1.8 trillion during 2022 compared to 2021, primarily as a result of: i) the consolidation of ISA's depreciation, during all 2022 compared to four months of 2021, ii) increased level of capital expenditures, iii) the exchange rate effect in the depreciation of subsidiaries of the Group with US dollar as functional currency, given the devaluation of the Colombian peso, and iv) the increase in the production of Permian and Ecopetrol S.A. The above was partially offset by a higher incorporation of reserves in the previous year, resulting in a lower depreciation rate.

In 4Q22 compared to 4Q21 depreciation and amortization increased by 26.8% or COP +0.6 trillion, as a consequence of: i) higher capital expenditures, ii) exchange impact due to higher average COP/USD exchange rate, and iii) increase in Permian's production. This was partially offset by a higher level of reserves, which translates into a lower depreciation rate.

Operating Expenses, net of other income (before impairment of long-term assets)

Increase of 46.7% or COP +3.1 trillion compared to 2021, mainly due to:

- One-time recognition of an income of COP +0.7 trillion in Cenit and Oleoducto Bicentenario, as a result of the settlement agreed with Frontera.
- Incorporation of ISA's results for all of 2022 versus four months of 2021 for COP +0.6 trillion.
- Increase in exploration expenses by COP +0.6 trillion, generated by: i) recognition of exploratory activity of unsuccessful wells and ii) higher activity in Ecopetrol, Brazil and Hocol.
- Increase in customs operation mainly due to the higher number of sales under DAP modality for COP +0.5 trillion.
- Higher expenses for social investment through agreements and community assistance, as well as higher taxes and control fees COP +0.5 trillion.
- Asset write-off associated with the exit of the Rydberg project in Ecopetrol America after the technical and economic feasibility analysis in 1Q22, which was partially offset by income from the sale of assets in the CEGOC area (Casanare, Estero, Garcero, Orocue and Corocora) in 3Q22.
- An increase in labor expenses of COP +0.2 trillion mainly due to salary increase.

In 4Q22 versus 4Q21 there was an increase of 65.7% or COP 1.4 trillion mainly due to: i) one-time income from the settlement agreement with Frontera recognized in 4Q21 (COP +0.7 trillion), ii) an increase in exploration expenses (COP +0.5 trillion), iii) higher customs operations (COP +0.2 trillion) and iv) higher commissions, fees and others (COP +0.1 trillion).

Financial Result (Non-Operating)

Financial expense (non-operating) increased 84.8%, or COP -3.1 trillion in 2022 versus 2021, as a result of:

- Incorporation of ISA's net financial result during all of 2022 versus four months in 2021 (COP -1.9 trillion), which includes: interest, exchange difference, financial yields and others.
- Increase in financial expense (COP -1.0 billion), mainly due to higher interest expenses related to the debt acquired the second half of 2021 to finance the purchase of ISA and the exchange rate effect on the interest of the US dollar-denominated debt.
- Increase in the exchange difference expense (COP -0.5 trillion), mainly due to the income associated with the translation adjustment of Savia's investment in dollars, resulting from its sale (COP -0.4 trillion) in 2021, as well as the devaluation of the Colombian peso against the US dollar given the Ecopetrol Group's net liability position in US dollars in 2022.
- The above was partially offset by higher yields and valuation of the investment portfolio and bank accounts (COP +0.3 trillion).

In 4Q22 versus 4Q21 there was a 3.2% decrease in the financial expense equivalent to COP 49 billion, mainly due to: i) gain in the exchange difference (COP +0.3 trillion), as a result of the use of hedge accounting during 4Q22 on our US denominated debt in the amount of USD 950 million, which allowed us to partially mitigate a negative exchange effect and ii) higher yields and valuation of the financial assets portfolio (COP +0.2 trillion). The above was offset by an increase in the financial expenses (COP -0.5 trillion), mainly due to higher debt interest, given the negative exchange rate effect and the increase in inflation in debt instruments indexed to this indicator.

The **Effective Tax Rate** for 2022 was 31.4% versus 28.8% in 2021 and 25.8% for 4Q22 versus 22.8% in 4Q21. The increase for both periods is primarily the result of: i) a higher nominal rate for the companies in Colombia, which went from 31% to 35%, ii) better results in subsidiary companies with special taxation regime, as is the case of the Cartagena refinery, ISA Brazil and the companies in the United States, and iii) the effect of updating the deferred tax asset as a result of a tax reform in Colombia.

Impairment of Long-Term Assets

As a result of the annual exercise of comparing asset book values versus market values under IFRS standards, a long-term asset impairment of COP 288 billion before taxes was recorded for 2022, as follows:

- **Upstream:** an impairment expense of COP -890 billion before taxes was recognized, mainly due to: i) a decline in the reserves of Ecopetrol's Cusiana and Llanito fields in Ecopetrol, ii) lower prospects in Hocol's Upía and Cicuco fields, iii) an increase in the discount rate, and iv) the impact of the tax reform in the non-deductibility of royalties.
- **Midstream:** an impairment expense of COP -406 billion before taxes was recognized, primarily due to a decrease in the volumetric forecast, which results in a decrease of the utilization of the Southern systems (Puerto Tumaco and TransAndino pipeline) and Northern systems (Caño Limón).
- **Downstream:** an impairment recovery of COP +1,096 billion before taxes was recognized in the Cartagena refinery, primarily as a result a better operating performance and higher refining margins captured in the short and medium term, which compensated the increase of the discount rate.
- **Transmission and Toll Roads:** an impairment expense of COP -88 billion was recognized, mainly due to lower margins and the lower performance of Internexa Brazil.

Balance Sheet

The Ecopetrol Group's **assets** grew COP +62.1 trillion compared to the previous year, mainly due to:

- An increase in **accounts receivable** (COP +28.8 trillion) mainly due to a higher value of the FEPC account (COP 18.5 trillion) and the positive exchange effect on assets for concessions at ISA Brazil.
- Increase in **property, plant, equipment and natural resources** (COP +20.6 trillion) generated by: i) higher capital expenditure mainly in the projects of Ecopetrol S.A. and Permian, and ii) positive translation effect in companies with functional currency different from the Colombian peso. The above was offset by the depreciation of the year.
- Higher **deferred tax asset** (COP +6.0 trillion) generated mainly by the update of the deferred tax asset.
- Increase in **inventories**, mainly due to ships in transit at the end of the year (COP +3.5 trillion).
- Increase in **investments in affiliated companies and joint ventures** (COP + 2.6 trillion), mainly due to the positive exchange effect of the translation of investments in foreign currency.

The increase (COP +36.8 trillion) in total **liabilities** during 2022 was mainly due to:

- Increase in **debt** (COP +20.1 trillion) mainly due to the effect of the devaluation of the Colombian peso against the US dollar in 2022. The exchange effect on our debt is recognized mainly in equity as a result of the application of hedge accounting on our net investment abroad and cash flow.
- Increase in **income tax** (COP +8.4 trillion), mainly due to better results of the Ecopetrol Group companies.
- Increase in **accounts payable** (COP +6.4 trillion) in line with the higher activity and prices for the year.
- Increase in **employee benefits** (COP +1.9 trillion), mainly due to lower valuation of autonomous patrimonies.

The total **equity** of the Ecopetrol Group at the end of 2022 was COP 119.1 trillion. Equity attributable to Ecopetrol shareholders was COP 91 trillion, with an increase of COP +19.3 trillion compared to December 2021, mainly as a result of the effect of the net profit generated during the year.

Cash Flow and Debt

Table 4: Cash Position – Ecopetrol Group

Billion (COP)	4Q 2022	4Q 2021	12M 2022	12M 2021
Initial cash and cash equivalents	12,918	10,087	14,550	5,082
(+) Cash flow from operations	11,359	11,003	36,236	22,536
(-) CAPEX	(8,444)	(4,543)	(21,879)	(13,295)
(+/-) Investment portfolio movement	909	163	1,301	1,283
(-) Acquisition of subsidiaries, net of cash acquired	0	0	0	(8,952)
(+) Other investment activities	497	566	2,481	446
(+/-) Acquisition, borrowings and interest payments of debt	(376)	(1,711)	(5,492)	9,729
(-) Dividend payments	(2,170)	(1,347)	(13,357)	(2,771)
(+/-) Exchange difference (cash impact)	778	332	1,646	492
(-) Return of capital	(70)	0	(85)	0
Final cash and cash equivalents	15,401	14,550	15,401	14,550
Investment portfolio	2,726	2,917	2,726	2,917
Total cash	18,127	17,467	18,127	17,467

Cash Flow:

As of 4Q22, the Ecopetrol Group closed with cash of approximately COP 18.1 trillion (38% COP and 62% USD). The effect of the consolidation of ISA contributed COP 6.5 trillion in cash as of December 2022.

During 2022, the main movements in the Ecopetrol Group's liquidity were: i) cash flows from operating activities for COP 36.2 trillion, ii) debt service for COP 5.5 trillion and, iii) dividend payments for COP 13.4 trillion.

In 2022 there was an increase in working capital due to the increase in the FEPC account receivable, associated to a higher international gasoline and diesel prices compared to regulated prices in Colombia (as of December, this account receivable amounted to COP 26.3 trillion). The above was partially offset by the increase in current tax assets and liabilities and the collection of COP 18.3 trillion of this FEPC account receivable, of which COP 6.8 trillion were more than offset by dividends to the Nation in the amount of COP 11.5 trillion in cash.

The main cash outflows for the year were: i) capital expenditures disbursements for COP 21.9 trillion, made mainly in Ecopetrol S.A, Permian and ISA and, ii) payment of dividends for COP 13.4 trillion, which include the payment from Ecopetrol to its shareholders (majority and minority) and from subsidiaries to non-controlling third parties.

In 4Q22, operating cash flow represented 31.5% of the operating cash flow generated in the whole year, given the outstanding performance of the quarter, resulting from the performance of reference prices and the collection of COP 4 trillion of the FEPC account receivable.

Debt:

At the end of December 2022, the balance sheet debt amounted COP 115.1 trillion, equivalent to USD 23,936 million (ISA's consolidated debt accounts for USD 7,173 million), a COP +20 trillion increase compared to December 2021. This increase is mainly due to the negative effect of the devaluation of the Colombian peso against the US dollar (+COP 829) presented during the year on the debt in dollars. The counterpart to this increase is mainly recognized in equity in the other comprehensive Income (OCI) account, given the use of accounting hedges by Ecopetrol to mitigate the foreign exchange exposure.

The strengthening of the Ecopetrol Group's EBITDA allowed for a Gross Debt/EBITDA ratio at year-end 2022 of 1.5 times, compared to 2.3 times at year-end 2021, which is within the guidance set in the Ecopetrol Group's strategy. The Debt/Equity ratio at year-end 2022 is 0.97 times.

As part of its integral debt management strategy, in September 2022 Ecopetrol S.A. made a disbursement for USD 1,200 millions of the committed credit line entered into in August 2021. These resources were used entirely to the prepayment of the loan originally disbursed for the acquisition of ISA, with a remaining balance of USD 472 million, that was refinanced with an international bond issuance in January 2023.

Likewise, in December 2022 Ecopetrol S.A. signed a credit agreement for USD 1,000 million with The Bank of Nova Scotia (USD 700 million) and Sumitomo Mitsui Banking Corporation (USD 300 million), which has a term of five years commencing on the signing date. These resources were mainly destined for the substitution of the nominal amount of USD 665 million under the non-revolving committed line entered on September 20, 2018, with Mizuho Bank Ltd., The Bank of Nova Scotia and Banco Sabadell and to make principal payments on certain debt instruments of Cartagena refinery, which have been assumed by Ecopetrol S.A.

Efficiencies

In 2022, the Ecopetrol Group worked on a comprehensive strategy that focused on mitigating the effects that the international markets and the Russia-Ukraine conflict have brought on the cost structure of operations and investments, and on the complexity of its commercial strategies. Consequently, at the end of 2022, the Ecopetrol Group incorporated cumulative efficiencies totaling COP 3.6 trillion, the highest amount since 2015, with the main activities being summarized below:

1. Activities focused on mitigating the impacts on the Ecopetrol Group's EBITDA margin, totaling COP 2.5 trillion, centered around:
 - Strategies implemented by the upstream segment focused on optimizing lifting costs.
 - Dilution and evacuation strategy for heavy and extra-heavy crudes, resulting from optimizing the crude dilution factor, which decreased from 13.50% in 2021 to 12.38% in 2022.
 - Operational improvements implemented in the midstream segment companies.
 - Margin and revenue improvement strategies deployed by the commercial area, downstream operations, and revenues from energy surplus sales, among other activities.

- Initiatives implemented by the Ecopetrol Group's corporate and support areas.
 - Activities deployed by the downstream segment that impacted cash cost.
2. Activities focused on improving the operational and technical performance of investment projects, amounting to COP 1.1 trillion, centered around:
- Continuous improvement strategies for drilling and well completion.
 - Implementation of strategies for the use of material and inventories among projects, design and engineering cost optimization, improved management strategies, savings in development and feasibility studies, and lean construction strategies.
 - Optimizations in the midstream segment investment plan focused on the use of materials and inventory management, along with improvement strategies for major maintenance and integrity work.
 - Optimization in the purchase and management of equipment required for plant shutdowns and in the design and engineering strategies of the downstream segment projects.

Investments

Table 5: Investments by Segment – Ecopetrol Group and ISA

Million (USD)	Ecopetrol S.A.	Affiliates and Subsidiaries	Total 12M 2022	% Share
Production	2,156	982	3,138	70.2%
Downstream	220	218	438	9.8%
Exploration	280	158	439	9.8%
Midstream*	0	320	320	7.2%
Corporate**	134	0	134	3.0%
Total excluding ISA	2,790	1,679	4,468	100.0%
Energy Transmission	0	858	858	84.1%
Toll Roads	0	141	141	13.8%
Telecommunications	0	21	21	2.1%
Total ISA	0	1,020	1,020	100.0%
Total	2,790	2,698	5,488	-

* Includes total amount of investments in each of the subsidiaries and affiliates of Ecopetrol Group (both controlling and non-controlling interests).

** Includes investments in energy transition projects.

In 2022, Ecopetrol Group's organic capital investments amounted to USD 5,488 million, which falls in the higher bracket of the target set for 2022 (between USD 4,800 million and USD 5,800 million). Of the total organic investments in the oil and gas business, 79% were in Colombia and the remaining 21% were in the United States and Brazil.

In 2022, investments focused on the expansion of the gas chain represented 10% of the total investments made during the year, with investments of around USD 540 million, increasing close to USD 250 million compared to 2021. These investments were mainly driven by the execution of projects in the Piedemonte, primarily in the Floreña, Cupiagua and Cusiana assets, offshore exploration, as well as projects developed by Hocol.

ISA's investments during 2022 amounted to USD 1,020 million, mainly concentrated in the energy transmission business with a participation of 84% (USD 858 million), while toll roads and telecommunications represented 14% (USD 141 million) and 2% (USD 21 million) of the allocated amount respectively. Brazil and Colombia accounted for 33% and 23% of total investments, respectively, and the remaining 44% was mostly related to investments made in Chile and Peru.

The allocation of the Ecopetrol Group's main investments during 2022 is detailed below:

Upstream: This segment accounted for 65% of the Ecopetrol Group's organic investments in 2022, achieving a total of 536 development wells drilled and completed, and 555 workovers, activities that were primarily concentrated in Rubiales, Caño Sur, Castilla, Casabe and Permian. In terms of exploration, 24 wells were drilled, out of which 10 were gas wells. Of the total of wells drilled, 12 were executed by Hocol and one by Ecopetrol

America. During 2022, projects were also executed in the Permian basin and Brazil, for close to USD 850 million, which focused on increasing development activities in the Permian basin, located in the state of Texas in the United States, and in exploratory activities in Gato do Mato in Brazil.

Midstream: For year-end 2022, investments made by Cenit and its subsidiaries represented 6% of the Ecopetrol Group's investments, and were mainly focused on operational continuity projects and optimization of the operation of its oil and multipurpose pipelines.

Downstream: Investments in 2022 focused on operational continuity (83%), aiming to maintain the efficiency, reliability, and integrity of the refineries' operations. The segment's expansion investments were allocated to the execution of the IPCC project and to the expansion of Esenttia's production capacity.

TESG: USD 295 million were allocated to decarbonization, efficient water management, energy efficiency, fuel quality and hydrogen projects during the year. With the investments in decarbonization projects, progress was made in the development of renewable energy projects, energy efficiency and fugitive emissions, which will allow the Ecopetrol's Group target of being carbon neutral by 2050. In projects associated with efficient water management in operations, progress was made in the reuse of production water and captured water, which will enable the Company to meet the objectives set for 2045. In addition, investments in technology and innovation, with a focus on digital transformation, amounted to USD 62 million.

Energy Transmission and Toll Roads:

- **Transmission:** Investments totaling USD 858 million were executed in 2022. These investments sought to advance in the construction of more than 2,200 km of electric power lines, and improvements to increase the reliability of the existing grid. Investments were allocated as follows: i) 27% was executed in Colombia, in the construction of several transmission projects awarded by UPME in previous years, ii) 39% in Brazil, mainly in the Minuano and Triangulo Mineiro project, and iii) the remaining 34% was executed in Peru and Chile.
- **Toll Roads:** Investments totaling USD 141 million were executed in 2022, primarily to regulatory safety works in the concessions already in operation in Chile, with investments allocated to the Ruta del Maipo road pair project and the construction of Rutas del Loa.

II. Results by Business Line

As we seek to execute toward our 2040 Strategy, since 2022 the Ecopetrol Group aligned its current segments to the new Ecopetrol Group's business lines. In that regard, for operational purposes, the company realigned the corporate operational divisions from Exploration and Production, Transportation and Logistics, Refining, Petrochemicals and Biofuels, and Sales and Marketing, to the following: (i) **Hydrocarbons**, which includes the Exploration and Production, Transportation and Logistics, Refining and Petrochemicals, (i) **Low Emissions Solutions**, which includes exploration, production and commercialization of gas, biogas, LPG, power, renewables, hydrogen, and Carbon Capture, Use and Storage (CCUS), and (iii) **Energy Transmission and Toll Roads**. For purposes of this report, we continue to present our operational information under the prior business lines. It is expected that before the end of 2023, this report will reflect the new lines of business at an operational and financial level.

1. HYDROCARBONS

1.1 Upstream

Reserves

At year-end 2022, the net proven reserves of the Ecopetrol Group amounted to 2,011 MBOE. The Reserve-Replacement Ratio was 104% and the average reserve life was equivalent to 8.4 years. The Ecopetrol Group incorporated 249 MBOE of proven reserves, and the total accumulated production for the year was 240 MBOE. Of the total balance of reserves, 75% are liquid reserves and 25% are gas reserves.

The management of the development fields, reflected in an optimized and timely maturation of new projects, better execution capacity, and implementation of improved recovery enhancement projects in fields such as Chichimene, Castilla, and Akacias, among others, provided 215 MBOE of the reserves.

Additional reserves were incorporated through the acquisition and qualitative selection in areas of the Permian basin in the United States (48 MBOE).

Table 6: Reserves – Ecopetrol Group

mboe	2022	2021
Initial Proven Reserves	2,002	1,770
Revisions	63	315
Enhanced Recovery	81	139
Purchases	48	0
Sales	0	(1)
Extensions and Recoveries	57	12
Production	(240)	(231)
Proven Reserves Year End	2,011	2,002

Exploration

During 2022, Ecopetrol and its partners drilled 24 exploratory wells, in line with the proposed target of the Business Plan. Seven exploratory successes were obtained in basins of great interest to Ecopetrol in the country, that will contribute to Colombia's energy safety, as follows: (i) Uchuva-1, Gorgon-2¹ in the Colombian offshore, (ii) El Niño-2 and Ibamaca-2ST in the Upper Magdalena Valley, (iii) Morito-1 in the Mid Magdalena Valley, (iv) Tejón-1 in the Llanos Orientales, and, (v) Coralino-1 in Lower Magdalena Valley. Additionally, six of the wells are under evaluation, 10 were declared dry and one study well was plugged and abandoned.

Most of the activity took place during the last quarter of 2022, when 11 wells were drilled. The successful discovery in the Ibamaca-2 ST well, fully operated by Hocol, confirmed the presence of 17° API crude from the Ibamaca-1 well located in the Tolima Exploration and Production Agreement, drilled in 2021.

The successes in exploration, in areas close to existing production fields, were reflected in the incorporation of 9.2 MBOE of proven reserves in approximately two years, originated from the El Niño-2 and Ibamaca discoveries, located in the Upper Magdalena Valley and the Recetor West field (Liria YW12 well) located in the Piedemonte.

Average production from exploratory assets in 2022 reached 3.0 mboed, of which 53% corresponds to gas and 47% to oil. This production comes mainly from the extensive testing of the following wells: Liria YW12, Ibamaca-1, Arrecife-1 ST, Arrecife-3, Flamencos-2, Flamencos-3, Lorito-1, El Niño-2 and Tejón-1.

Additionally, the subsidiary Hocol acquired participation in the Exploration and Production Blocks (E&P) SSJN-3-1 and VIM-42 located in the Lower Magdalena Valley in the Sinú San Jacinto and in the Lower Magdalena Valley basins, respectively. Hocol has a 50% participation and Lewis Energy is the operator with the remaining 50%. The agreement has already been made official before the National Hydrocarbons Agency (ANH for its Spanish acronym).

In regards to seismic activity, in an effort to boost the potential of the exploratory areas already awarded, progress is being made in the acquisition of nationwide seismic information through the Flamencos 3D program operated by Ecopetrol, and the SSJN1 2D program operated by Hocol. Both programs are currently in their operational and pre-operational phase and are expected to complete the logging phase in 2023. Additionally, Ecopetrol S.A. purchased 2,639 km² of 3D seismic data in the Llanos Orientales to improve the technical knowledge of this prolific basin, and the subsidiary Hocol purchased 923 Km² of 3D seismic and 472 Km of 2D seismic data in various areas of interest, located in the Llanos Basin and in northern Colombia. During 2022, Ecopetrol S.A and Hocol reprocessed and reinterpreted 13,107 km equivalent of seismic information in Colombia, contributing to reducing

¹ The Gorgon-2 well is composed of Gorgon-2 ST1 (pilot well) and Gorgon-2 ST2.

uncertainty, and thus generating an improved seismic image, which allows the Ecopetrol Group to move forward with the maturation of new opportunities.

Production

Table 7: Gross Production – Ecopetrol Group

Production - mboed	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)
Crude Oil	496.9	492.9	0.8%	492.8	485.9	1.4%
Natural Gas	126.0	129.8	(2.9%)	132.7	125.2	6.0%
Total Ecopetrol S.A.	622.9	622.8	0.0%	625.5	611.1	2.4%
Crude Oil	17.8	16.3	9.2%	17.1	18.1	(5.5%)
Natural Gas	18.5	20.9	(11.5%)	19.8	19.4	2.1%
Total Hocol	36.3	37.2	(2.4%)	36.9	37.5	(1.6%)
Crude Oil	0.0	0.0	-	0.0	0.2	(100.0%)
Total Savia	0.0	0.0	-	0.0	0.2	(100.0%)
Crude Oil	6.4	8.5	(24.7%)	8.1	9.4	(13.8%)
Natural Gas	1.0	1.2	(16.7%)	1.2	1.5	(20.0%)
Total Ecopetrol America	7.5	9.7	(22.7%)	9.3	10.9	(14.7%)
Crude Oil	32.9	16.3	101.8%	23.8	13.5	76.3%
Natural Gas	20.5	8.7	135.6%	14.0	5.8	141.4%
Total Ecopetrol Permian	53.5	25.0	114.0%	37.8	19.3	95.9%
Crude Oil	554.1	534.0	3.8%	541.8	527.1	2.8%
Natural Gas	166.1	160.6	3.4%	167.6	151.9	10.3%
Total Ecopetrol Group	720.1	694.7	3.7%	709.5	679.0	4.5%

Note 1: Gross production includes royalties and is prorated by the Ecopetrol participation in each entity. Natural gas production includes white products.

Note 2: At the request of the ANH, condensate production is considered as production of crude oil and not of white products in the Gibraltar field, which adjusts the distribution between crude oil and natural gas in 1Q22 and 2Q22.

During 2022, Ecopetrol Group production increased by 30.5 mboed compared to 2021, closing at 709.5 mboed, primarily due to: i) the entry into operation of the first fluid treatment train at Caño Sur during the second half of 2022, which resulted in a production of 18 mboed by December, ii) incremental production from the Permian subsidiary, iii) increase in gas sales due to renewed commercial strategies and the reestablishment of gas and white products sales volumes restricted in 2021 due to public order situation in Colombia, iv) the lifting of water management restrictions on the operations in Castilla, v) the reversal of the Asociación Nare agreement, and, vi) a greater share of production from the Caño Limón, Quifa and La Cira-Infantas fields given the high price scenario. The contribution of gas and white products to production in 2022 stands out with a 24% share, as well as the performance of fields with recovery technologies, which represent 40% of the Ecopetrol Group's production in 2022.

In 4Q22, production reached 720.1 mboed, with an increase of 25.5 mboed compared to 4Q21, and a decrease of 0.3 mboed compared to 3Q22, mainly explained by a major scheduled shutdown in Cusiana that took place from October 8 through 19, 2022. Some of the aspects that contributed to production 4Q22 include: i) outstanding incremental production in the Caño Sur, Rubiales, Castilla, and Permian fields, and ii) the recovery of production in Chichimene following the maintenance carried out between July 25 and November 2.

Meanwhile, regarding Ecopetrol S.A and OXY's joint operation in the Permian basin, drilling operations in the Delaware area began in December, with 88 wells being drilled, and 106 wells being enabled for production in 2022.

For 2023, it is expected: i) a continued increase in production from both the Permian and Caño Sur operations, ii) the execution of campaigns aimed to increase production in the Rubiales, Piedemonte, Quifa, Arauca and Akacías fields, and iii) the execution of scheduled maintenance activities in the Castilla and Chichimene fields throughout the year, as well as the scheduled shutdown of the Floreña plant in April.

In terms of drilling, by year-end 2022, 536 development wells were drilled and completed, which represents a 36% increase compared to 2021. On average, 28 rigs were active during the year.

Regarding recovery technologies, is worth noting: i) the Air Injection Plant (PIAR for its Spanish acronym) in the Chichimene field, which was primarily responsible for an increase in production of 1.8 mboed as of December 2022, along with the water injection operations in the same field that enabled 30 mboed in production, and ii) the successful implementation of the first stage of the water injection recovery cycle in the K2 arena and the optimization of the K1 arena in the Castilla field, which generated an increase in production of approximately 54 mboed.

Lifting and Dilution Cost

Table 8: Lifting and Dilution Cost – Ecopetrol Group

USD/BI	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)	% USD
Lifting Cost*	9.13	8.97	1.8%	9.21	8.30	11.0%	22.4%
Dilution Cost**	4.96	4.85	2.3%	5.66	4.27	32.6%	100.0%

* Calculated based on produced barrels without royalties. ** Calculated based on sold barrels

Lifting Cost

The cumulative lifting cost for 2022 was 9.21 USD/BI, 0.91 USD/BI over that recorded in 2021, mainly explained by:

Cost Effect (+2.61 USD/BI): Increased costs due to reactivation of activities versus 2021, explained by increases in: i) electricity rates due to inflationary pressures, ii) well interventions to reduce field declining rates, iii) services and number of equipment contracted, and iv) maintenance activities.

Exchange Rate Effect (-1.26 USD/BI): Impact from the increase in the average COP/USD exchange rate of COP +512 per USD.

Volume Effect (-0.44 USD/BI): Higher production levels.

Dilution Cost

The cumulative dilution cost for 2022 was 5.66 USD/BI, +1.39 USD/BI over that recorded in 2021, mainly explained by:

Price Effect (+1.94 USD/BI): +22.3 USD/BI increase in the purchase price of naphtha due to the positive change in the Brent benchmark indicator and recovery in market conditions.

Exchange Rate Effect (-0.78 USD/BI): Impact from the increase in the average COP/USD exchange rate of COP +512 per USD.

Volume Effect (+0.23 USD/BI): A lower purchase volume of naphtha barrels (1.47 mbed), due to a decrease in the dilution factor, associated to the substitution of naphtha for own LPG in the Castilla, Chichimene, Akacías and Cusiana fields.

Financial Results

Table 9: Income Statement – Upstream

Billion (COP)	4Q 2022	4Q 2021	Δ (\$)	Δ (%)	12M 2022	12M 2021	Δ (\$)	Δ (%)
Total revenue	20,979	19,603	1,376	7.0%	90,883	63,112	27,771	44.0%
Depreciation, amortization and depletion	1,888	1,460	428	29.3%	7,139	6,624	515	7.8%
Variable costs	6,725	7,737	(1,012)	(13.1%)	27,876	24,145	3,731	15.5%
Fixed costs	3,240	2,703	537	19.9%	11,734	9,566	2,168	22.7%
Total cost of sales	11,853	11,900	(47)	(0.4%)	46,749	40,335	6,414	15.9%
Gross income	9,126	7,703	1,423	18.5%	44,134	22,777	21,357	93.8%
Operating and exploratory expenses	2,367	1,793	574	32.0%	6,022	4,489	1,533	34.2%
Operating income	6,759	5,910	849	14.4%	38,112	18,288	19,824	108.4%
Financial result, net	(363)	(621)	258	(41.5%)	(1,928)	(2,113)	185	(8.8%)
Share of profit of companies	21	(3)	24	(800.0%)	30	10	20	200.0%
Income before income tax	6,417	5,286	1,131	21.4%	36,214	16,185	20,029	123.8%
Provision for income tax	(1,809)	(1,385)	(424)	30.6%	(12,167)	(4,737)	(7,430)	156.9%
Consolidated net income	4,608	3,901	707	18.1%	24,047	11,448	12,599	110.1%
Non-controlling interest	29	24	5	20.8%	95	89	6	6.7%
Net income attributable to owners of Ecopetrol before impairment	4,637	3,925	712	18.1%	24,142	11,537	12,605	109.3%
(Expense) income from impairment of long-term assets	(890)	438	(1,328)	(303.2%)	(890)	438	(1,328)	(303.2%)
Deferred tax on impairment	312	(135)	447	(331.1%)	311	(135)	446	(330.4%)
Net income attributable to owners of Ecopetrol	4,059	4,228	(169)	(4.0%)	23,563	11,840	11,723	99.0%
EBITDA	8,973	7,737	1,236	16.0%	46,357	25,723	20,634	80.2%
EBITDA Margin	42.8%	39.5%	-	3.3%	51.0%	40.8%	-	10.2%

Revenues for 2022 and 4Q22 increased compared to the same periods of 2021 mainly supported by higher Brent price and exchange rate. For year-end 2022, the increase in production led to higher crude oil exports.

Cost of sales in 2022 increased compared to the same period of 2021 due to:

- Higher cost in purchases due to an increase in crude oil prices and exchange rate, offset by lower volumes of purchases from third parties.
- Higher execution cost primarily due to increases in: i) global energy tariffs given the increase in inflation and the development of projects to change the source of self-generation to reduce carbon footprint, ii) number of well interventions, maintenance and integrity works associated with increased activity in the year ended December 31, 2022, iii) process materials and support areas associated with the reactivation of operational activity.
- Higher transportation costs due to: i) increase in the average COP/USD exchange rate, ii) annual update of tariffs in pipelines and multipurpose pipelines, and iii) higher gas transportation of Teca-Nare partially offset by savings in tariffs following the acquisition of the El Morro-Araguaney pipeline and lower costs for reversals.

However, cost of sales in 4Q22 compared to 4Q21 decreased mainly due to lower prices of crude oil purchases from third parties, which mitigated the increase in tariff rates and volume.

Operating expenses (net of other income) in 2022 and 4Q22 increased compared to the same periods of 2021 respectively, mainly due to: i) higher expenses associated with higher execution of investment projects, ii) increase in customs operations mainly due to the higher number of sales under the DAP modality, iii) higher maintenance of external roads and facilities and attention to operating contingencies, and iv) higher labor expenses due to the increase in the Consumer Price Index (CPI).

Net financial expense (non-operating) for 2022 and 4Q22 decreased as compared to the same periods of the previous year, mainly due to: i) higher income in exchange differences due to the accounting effect of hedging operations and ii) the segment's liability position.

1.2 Midstream

Table 10: Volumes Transported – Ecopetrol Group

mbd	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)
Crude Oil	783.7	759.0	3.3%	772.6	730.0	5.8%
Products	305.6	289.6	5.5%	298.1	277.2	7.5%
Total	1,089.3	1,048.6	3.9%	1,070.7	1,007.2	6.3%

Note: Reported volumes subject to adjustments in volumetric quality compensation (CVC), associated to official volumetric balances.

The total volume transported by year-end 2022 reached 1,070.7 mbd, with an increase of 63.5 mbd versus 2021, mainly attributed to a 5.8% increase in crude transported as a result of increased production, mainly in the Llanos area. There was a noteworthy 7.5% increase in the volume of refined products transported in 2022 versus the previous year. In 4Q22, the total volume transported increased by 40.7 mbd compared to 4Q21, mainly due to the aforementioned reasons.

Crudes: Crude volumes transported increased year over year by 5.8% and by 3.3% in 4Q22 compared to 4Q21, in each case primarily as a result of: i) increase in domestic production, mainly in the Llanos region, ii) crude contributions from Asociación Nare in the Vasconia - GRB system, and iii) approximately 9.3 mbd of additional third-party barrels captured that were previously outside the pipeline infrastructure network. Approximately 84.2% of the crude volume transported during 2022 is owned by the Ecopetrol Group.

During 4Q22, the Caño Limón-Coveñas pipeline was affected by third parties, which represents an 88% decrease in the number of incidents versus 4Q21. Similarly, the installation of illicit valves decreased by 26% in 4Q22 compared to 4Q21. Overall, during 2022, pipeline damages caused by third parties and the installation of illicit valves decreased by 32% and 8%, respectively, as compared to 2021.

The lower rate of incidents affecting activities in the Caño Limón-Coveñas pipeline led to a decrease in the number of reversal cycles of the Bicentenario pipeline, resulting in only one cycle in April, in contrast to 19 cycles in 2021, eight of these during 4Q21.

Refined Products: In 2022 and 4Q22, volumes transported increased by 7.5% and 5.5% respectively versus the same periods of the previous year, in each case mainly as a result of a recovery in economic activities and a stabilization in demand after the effects of the pandemic, as a result of greater production availability at the refineries, and operational optimizations in the transport systems.

In 4Q22 and for the second consecutive quarter, evacuation reached a record of 305.6 mbd, which improved product availability at the Barrancabermeja refinery. Approximately 26% of the volume transported by multipurpose pipelines during 2022 in Colombia corresponded to Ecopetrol products.

During 4Q22 and 2022, there was a 50% and 23.9% decrease in the installation of illicit valves compared to 4Q21 and 2021, respectively.

Vasconia Energy Recovery Project (RECVA for its Spanish acronym): At the end of September, OCENSA began operating the RECVA project, which will benefit from the energy dispelled when the crude descends as it passes through the eastern mountain range, capturing and converting it, by employing hydraulic principles, into electric power that will be used to operate the station using a hydraulic power recovery turbine (HPRT). For every year the turbine operates under current conditions, an estimated of 800 tons of CO_{2e} emissions reduction would be achieved.

Cost per Transported Barrel

Table 11: Cost per Transported Barrel –Ecopetrol Group

USD/BI	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)	% USD
Cost per Transported Barrel	3.06	3.35	(8.7%)	2.84	3.00	(5.3%)	16.8%

The cumulative cost per transported barrel in 2022 was 2.84 USD/BI, 0.16 USD/BI less than that recorded in 2021, mainly explained by:

Cost Effect (+0.38 USD/BI): Increased costs, primarily as result of: i) an increase in depreciation given the change in the depreciation method of the Bicentenario pipeline that occurred at the end of 1Q22, ii) increased maintenance and contracted services costs, and iii) higher variable costs resulting from higher consumption of materials and energy, as a result of an increment in volumes transported, plus increases in tariffs attributable to existing market conditions.

Exchange Rate Effect (-0.36 USD/BI): Impact from the increase in the average COP/USD exchange rate of COP +512 per USD.

Volume Effect (-0.18 USD/BI): Lower cost per barrel for additional volume transported (+6.3%) in comparison to 2021 associated with: i) increased domestic production, mainly in the Llanos region, ii) crude contributions from the Asociación Nare in the Vasconia - GRB system, iii) additional third-party barrels captured that were previously outside the pipeline infrastructure network, and iv) gasoline and diesel demand recovery in the country, primarily as a result of the recovery in economic activity.

Financial Results

Table 12: Income Statement – Midstream

Billion (COP)	4Q 2022	4Q 2021	Δ (\$)	Δ (%)	12M 2022	12M 2021	Δ (\$)	Δ (%)
Total revenue	4,087	3,373	714	21.2%	13,956	12,158	1,798	14.8%
Depreciation, amortization and depletion	373	300	73	24.3%	1,415	1,168	247	21.1%
Variable costs	210	157	53	33.8%	720	532	188	35.3%
Fixed costs	629	481	148	30.8%	1,758	1,560	198	12.7%
Total cost of sales	1,212	938	274	29.2%	3,893	3,260	633	19.4%
Gross income	2,875	2,435	440	18.1%	10,063	8,898	1,165	13.1%
Operating expenses	331	(270)	601	(222.6%)	924	269	655	243.5%
Operating income	2,544	2,705	(161)	(6.0%)	9,139	8,629	510	5.9%
Financial result, net	67	59	8	13.6%	(121)	207	(328)	(158.5%)
Share of profit of companies	1	1	0	0.0%	0	1	(1)	(100.0%)
Income before income tax	2,612	2,765	(153)	(5.5%)	9,018	8,837	181	2.0%
Provision for income tax	(912)	(884)	(28)	3.2%	(3,104)	(2,799)	(305)	10.9%
Consolidated net income	1,700	1,881	(181)	(9.6%)	5,914	6,038	(124)	(2.1%)
Non-controlling interest	(351)	(296)	(55)	18.6%	(1,167)	(1,161)	(6)	0.5%
Net income attributable to owners of Ecopetrol before impairment	1,349	1,585	(236)	(14.9%)	4,747	4,877	(130)	(2.7%)
(Expense) income from impairment of long-term assets	(406)	(164)	(242)	147.6%	(406)	(166)	(240)	144.6%
Deferred tax of impairment	142	57	85	149.1%	142	58	84	144.8%
Net income attributable to owners of Ecopetrol	1,085	1,478	(393)	(26.6%)	4,483	4,769	(286)	(6.0%)
EBITDA	2,955	3,070	(115)	(3.7%)	10,695	10,025	670	6.7%
EBITDA Margin	72.3%	91.0%	-	(18.7%)	76.6%	82.5%	-	(5.9%)

Revenues increased in 2022 as compared to 2021 and in 4Q22 as compared to 4Q21, in each case mainly due to the effect of: i) higher average COP/USD exchange rate, ii) annual update of tariffs, iii) higher volumes of crude transported, primarily as a result of an increase in the country's production, added to the capture of additional barrels from third parties, and iv) increase in volumes of refined products transported primarily due to the recovery of the economic activity. These effects were partially offset by: i) a decrease in the number of reversal cycles of the Bicentennial Pipeline, given that in 2022 only one cycle was performed in April, while during 2021 19 cycles

were performed, eight of these during 4Q21, and ii) the one-time recognition of operating income in 2021, derived from the settlement agreement with Frontera for COP 133 billion.

Cost of sales for 4Q22 versus 4Q21, as well as for the full year 2022, increased mainly as a result of: i) higher depreciation derived mainly from the change in depreciation method of Oleoducto Bicentenario, and a higher level of capital investment and a negative exchange effect in the depreciation of subsidiaries of the segment with US dollar as their functional currency given the increase in the average COP/USD exchange rate; ii) higher operation and maintenance activities, and iii) the increase in variable costs related to materials and electricity, mainly associated with higher volumes transported and increases in tariffs, derived from market conditions.

Operating expenses (net of other income) for 4Q22 versus 4Q21, as well as for the full year 2022, increased mainly due to the effect of the extraordinary income generated in 2021 by the settlement agreement with Frontera of COP 672 billion, in which Frontera recognized to Oleoducto Bicentenario the value equivalent to a portion of such subsidiary's syndicated debt, as well as the compensation to Cenit for the early termination of the contracts.

The **net financial result** (non-operating) for the full year 2022 decreased due to the exchange effect of a lower average net asset position in dollars of the segment.

1.3 Downstream

In 2022, the Downstream segment reached a combined throughput of 357.5 mbd, the highest of the past three years, and a record annual gross margin of 21 USD/BI. In 4Q22, the combined throughput was 344.9 mbd and the combined gross margin closed at 19.9 USD/BI.

The segment's results were leveraged by tactical operational strategies and commercial activities that had positive outcomes, such as: i) adjustments in the scheduled maintenance shutdown plan that allowed the Group to capture additional benefits from a positive market environment and operational stability in the refineries and petrochemical plants, and ii) comprehensive logistics chain planning that allowed to maximize the refineries' consumption of domestic crude. There were also additional benefits derived from: i) high product basket spreads versus Brent; ii) further efficiencies in the commercial strategy to capture new business opportunities; iii) an increased volume of RGP (Refinery-Grade Propylene) from the refineries to Esenttia.

Since July 2022, the Ecopetrol Group has delivered fuels with a sulfur content below 50 ppm and, as of January 1, 2023, diesel with a sulfur content of 15 ppm (according to Resolution 40103 on fuel quality), as a result of operational and logistic adjustments made in 2021 and 2022.

Cartagena Refinery

Table 13: Throughput, Utilization Factor, Production and Refining Margin – Cartagena Refinery

Cartagena Refinery	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)
Throughput* (mbd)	120.0	143.2	(16.2%)	139.8	142.6	(2.0%)
Utilization Factor (%)	66.0%	92.1%	(28.3%)	71.9%	81.4%	(11.6%)
Production (mbd)	116.3	136.8	(15.0%)	136.0	136.4	(0.3%)
Gross Margin (USD/BI)	20.0	13.3	50.4%	22.9	8.5	169.4%

* Corresponds to effective throughput volumes, not volumes received

In 2022, the Cartagena refinery reached a throughput of 139.8 mbd and achieved a historic yearly record gross margin, exceeding that of 2021 by 169.4% and by 50.4% that of 4Q22 compared to 4Q21, mainly due to: i) better fuel spreads versus the Brent price, and ii) higher gasoline production yield by maximizing the throughput in the cracking and alkylation units.

Highlights in 4Q22 include the successful execution of: i) the first scheduled major maintenance in the U-100 crude unit, after seven years of continued operation, and ii) test on the co-processing of vegetable oil feedstocks in the U-109 hydrotreater to determine the technical and economic feasibility of producing a better quality fuel, with lower

GHG emissions and offering better performance in vehicles, in line with the segment's commitment to the energy transition.

Barrancabermeja Refinery

Table 14: Throughput, Utilization Factor, Production and Refining Margin – Barrancabermeja Refinery

Barrancabermeja Refinery	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)
Throughput* (mbd)	224.9	196.9	14.2%	217.7	211.0	3.2%
Utilization Factor (%)	77.2%	71.6%	7.8%	74.9%	76.9%	(2.5%)
Production (mbd)	226.6	200.8	12.8%	220.8	214.6	2.9%
Gross Margin (USD/Bl)	19.8	11.9	66.4%	19.8	11.5	72.2%

* Corresponds to effective throughput volumes, not volumes received

In 2022, the Barrancabermeja refinery reached a throughput of 217.7 mbd, the highest over the past three years, mainly attributable to: i) cohesive supply chain planning to maximize the availability of domestic crudes, ii) improvement of crudes, including imported crudes, and iii) the high operational availability of the refinery (94.3%) even with intensive scheduled maintenance shutdowns during the year.

The refinery achieved a historic annual gross margin, exceeding the 2021 gross margin by 72.2% and the 4Q21 gross margin by 66.4%, mainly due to: i) wide spreads in fuel prices versus the Brent benchmark, ii) high domestic gasoline demand in 2S22, primarily due to the upsurge in economic activities, lower availability of ethanol for blending and heightened consumption in border areas, iii) throughput maximization, and iv) the Ecopetrol Group's strategy of decreasing fuel oil production and increasing industrial products such as asphalt.

Also noteworthy, in 4Q22 the successful execution of a major scheduled maintenance in the catalytic cracking unit UOPI was carried out, which was in line with the segment's plans to ensure high operational availability of the assets that will allow the supply of clean fuels to the market.

Esenttia

Table 15. Sales and Margin – Esenttia

Esenttia	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)
Total Sales (KTon)	128.4	131.1	(2.1%)	526.0	536.6	(2.0%)
Total Margin (USD/Ton)	114.7	289.8	(60.4%)	214.9	249.9	(14.0%)

Esenttia's total sales decreased 2.1% in 4Q22 versus 4Q21, due to market factors such as: i) high inflation levels that reduced global demand, ii) increased price competition because of the entry of Asian products into the region, iii) high product supply in South American countries, and iv) continued logistical difficulties in the region.

Total margin decreased by 60.4% in 4Q22 versus 4Q21, as a result of market pressures including the strong incursion of Asian products driving prices down and negatively impacting margins, as well as a weakening in demand due to inflationary pressures that also contributed to a worldwide price decline.

Invercolsa

The volume of natural gas sold by Invercolsa increased by 7.7% in 4Q22 versus 4Q21, mainly due to: i) headway of campaigns encouraging consumption in commercial segments and Natural Gas Vehicles (NGV), ii) connection of new residential units, and iii) installation strategies aiming to increase residential volumes.

Likewise, the number of new installations increased by 3.7% in 4Q22 versus 4Q21, due to the implementation of commercial strategies, including: i) changes in the structuring of contracts to increase the construction capacity of contractors, ii) growth in the number of average installations in Pasto as a result of greater competitiveness through the use of resources from the *Fondo Especial Cuota de Fomento* of Natural Gas, iii) improved

construction projects' dynamics of companies in Ibagué, iv) greater availability of construction materials as supply chains improved, and v) greater digital reach and diversification of communication strategies.

Refining Cash Cost

Table 16: Refining Cash Cost

USD/BI	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)	% USD
Refining Cash Cost	4.84	4.95	(2.2%)	4.48	4.48	0.0%	17.0%

* Includes Barrancabermeja and Cartagena Refineries, and Esentia

The refining cash cost in 2022 remained stable versus 2021, mainly explained by:

Cost and Volume Effect (+0.61 USD/BI): Mainly due to heightened operational activities and the inflationary effect, partially offset by a +4 mbd increase in crude throughput at the refineries.

Exchange Rate Effect (-0.61 USD/BI): Impact from the increase in the average COP/USD exchange rate of COP +512 per USD.

Financial Results

Table 17: Income Statement – Downstream

Billion (COP)	4Q 2022	4Q 2021	Δ (\$)	Δ (%)	12M 2022	12M 2021	Δ (\$)	Δ (%)
Total revenue	23,064	15,938	7,126	44.7%	89,179	50,976	38,203	74.9%
Depreciation, amortization and depletion	485	365	120	32.9%	1,780	1,459	321	22.0%
Variable costs	20,064	14,074	5,990	42.6%	76,341	44,861	31,480	70.2%
Fixed costs	540	601	(61)	(10.1%)	2,211	2,215	(4)	(0.2%)
Total cost of sales	21,089	15,040	6,049	40.2%	80,332	48,535	31,797	65.5%
Gross income	1,975	898	1,077	119.9%	8,847	2,441	6,406	262.4%
Operating expenses	919	502	417	83.1%	2,248	1,718	530	30.8%
Operating income (loss)	1,056	396	660	166.7%	6,599	723	5,876	812.7%
Financial result, net	(421)	(395)	(26)	6.6%	(1,582)	(1,260)	(322)	25.6%
Share of profit of companies	51	37	14	37.8%	222	201	21	10.4%
Loss before income tax	686	38	648	1,705.3%	5,239	(336)	5,575	(1,659.2%)
Provision for income tax	47	293	(246)	(84.0%)	(1,245)	405	(1,650)	(407.4%)
Consolidated net income	733	331	402	121.5%	3,994	69	3,925	5,688.4%
Non-controlling interest	(42)	(37)	(5)	13.5%	(185)	(174)	(11)	6.3%
Net income attributable to owners of Ecopetrol before impairment	691	294	397	135.0%	3,809	(105)	3,914	(3,727.6%)
(Expense) income from impairment of long-term assets	1,102	(309)	1,411	(456.6%)	1,096	(305)	1,401	(459.3%)
Deferred tax of impairment	(221)	113	(334)	(295.6%)	(219)	112	(331)	(295.5%)
Net income attributable to owners of Ecopetrol	1,572	98	1,474	1,504.1%	4,686	(298)	4,984	(1,672.5%)
EBITDA	1,924	1,173	751	64.0%	9,537	3,528	6,009	170.3%
EBITDA Margin	8.3%	7.4%	-	0.9%	10.7%	6.9%	-	3.8%

Revenues increased in 2022 compared to 2021 and in 4Q22 versus 2021 and 4Q21 respectively, due to: i) the strengthening of product spreads associated with market factors, mainly in gasoline and middle distillates, and ii) the growth in domestic demand for fuels. Additionally, Invercolsa observed an increase in its revenues for such periods primarily due to the higher commercialization of natural gas and installations, in line with the 2022 performance. Additionally, we would like to highlight Esentia's strong performance for such periods, primarily due to higher product throughput from refineries and the positive effect of the increase in the average COP/USD exchange rate.

Cost of sales increased in 2022 compared to 2021 and in 4Q22 as compared to 4Q21, in each case mainly due to: i) higher prices of crude feedstock from refineries and product imports, ii) higher throughput volumes given the recovery in demand, iii) higher imports due to scheduled plant shutdowns, iv) commissioning of the IPCC project and v) the higher average COP/USD exchange rate.

Operating expenses (net of other income) increased in 2022 compared to 2021, due to: i) higher commercialization expenses due to the growth in sales and, ii) scheduled major maintenances at the Cartagena refinery.

The **financial result** (non-operating) had a higher expense in 2022 compared to 2021 and in 4Q22 compared to 4Q21 as a result of the negative impact of an increase in the period close COP/USD exchange rate had on the segment's net liability position in US dollars.

2. LOW-EMISSIONS SOLUTIONS

Gas Strategy and Commercialization

The Ecopetrol Group continues to make positive progress in the implementation of the Gas Strategy formulated in 2019. Gas production is key for the generation of synergies in the integrated business chain (exploration, production and refining), such as enhanced recovery programs (injection of miscible gas and thermal recovery), self-generation with gas and supply to refineries.

During 2022, gas demand averaged 1,032 GBTUD (including third parties and self-consumption), registering a 2% increase (15 GBTUD) compared to 2021, mainly due to the recovery of pre-pandemic levels. To date, the Ecopetrol Group supplies ~80% of the domestic natural gas market.

An effective management of the organic portfolio and its constant optimization are key for the future of gas. Ecopetrol has a relevant potential with projects underway, these projects are focused on accelerating time-to-market, securing the market to make the development of projects viable, environmental risks, improving competitiveness, and maintaining optionality in order to protect and increase the value of this portfolio and the country's energy security.

Hydrogen

In 2022 the Ecopetrol Group began the development of its Low Carbon Hydrogen Strategic Plan, launched in March, with the green hydrogen production pilot test under industrial conditions and the acquisition of knowledge for the development of the first industrial-scale projects (two megaprojects, each of 60 MW of electrolysis, to produce 9,000 Ton/year) that are expected to begin operating between 2025 and 2026.

To promote sustainable mobility with hydrogen, Ecopetrol S.A began the construction of two hydrogen generation and refueling stations: one of them for mass passenger transport in Bogotá in the Integrated Public Transportation System (SITP for its Spanish acronym) of 165 kW of electrolysis for the production of 22 tons/year of hydrogen, and the other for a mobility park for the promotion of innovation and entrepreneurship in Cartagena, of 50 kW of electrolysis for the production of 7 tons/year of hydrogen, for the refueling of buses and light vehicles.

Additionally, Ecopetrol S.A made progress in identifying potential white hydrogen resources in Colombia, completing surface and subsurface sampling in three basins where it operates, finding positive and world-class results.

As a result, in June 2022 Ecopetrol S.A became the first company in Latin America to join the Hydrogen Council² and sealed alliances with six world-class companies for the joint development of hydrogen projects for industrial use in Colombia.

Likewise, and with the objective of both progressing in the decarbonization route and advancing in blue hydrogen projects, six subsoil studies were carried out that allowed sizing the CO₂ storage capacity in depleted gas fields and deep aquifers, information that is expected to be used for the implementation of the first CCS (CO₂ capture and storage) proof of concept.

² The World Hydrogen Council is a global initiative led by CEOs from 132 leading energy, transportation, industrial and investment companies with a united, long-term vision to develop the hydrogen economy.

Renewable Energies

By the end of 2022, the Ecopetrol Group incorporated into its matrix a total of 208 MW operative and generating, from non-conventional renewable energy sources: i) 26 MW from the Brisas solar eco-park, which began operations in December; ii) 65 MW from the long-term purchase agreement of solar photovoltaic energy from the Guayepo project, and iii) the acquisition of the *Pequeña Central Hidroeléctrica (PCH for its Spanish acronym)* Cantayús with a capacity of 4.3 MW destined to feed Cenit's Cisneros station in the department of Antioquia, which add to the facilities already in operation by the end of 2021.

In 4Q22, wind measurements began in San Francisco (Huila) and Araguaney (Casanare) which will continue over an 18 months period, at different heights up to a maximum height of 150 meters. Based on these results, the first inland eolic power initiatives are expected to be developed in Colombia.

Energy Efficiency

Between 2018 and 2022, through the energy efficiency program Ecopetrol S.A reached an aggregate energy demand optimization equivalent to 44.7 MW in electrical power (5.5% of 2022 year-end demand), with savings of COP 158 billion and the avoidance of 138 thousand tons of CO_{2e}. Power consumption optimization was achieved primarily due to the incorporation of good operational control practices in the Midstream and Downstream segments and the implementation of technological improvements with high impact on the optimization of energy demand in upstream segment, such as: i) reduced losses in power lines in the Orinoquia Regional Vice-Presidency, ii) technological update of the water disposal and injection process in the Campo Rubiales field, with initiatives such as the installation of new horizontal pumping systems, improvements in hydraulic networks and nanotechnology in water disposal and injection wells.

Moreover, analyses were carried out in the downstream segment to identify new initiatives to improve energy performance at the Barrancabermeja and Cartagena refineries using the ISO50001 methodology, and a technical and financial feasibility study was conducted on previously identified initiatives in both refineries.

For the year 2022, an optimization in electric energy demand equivalent to 16.8 MW was obtained, with savings of COP 52.1 billion and an avoidance of 36.6 thousand tons of CO_{2e}.

3. ENERGY TRANSMISSION AND TOLL ROADS

1. Energy Transmission

During 2022, ISA won three projects, 39 reinforcements and extensions, and signed a bilateral agreement, which combined will total capital expenditure of USD 1,150 million (reference CAPEX), are expected to generate annual revenues of over USD 100 million (offered revenue) and are expected to add more than 1,370 km of electrical circuit to the transmission network as follows:

- **Brazil:** awarded two lots in ANNEL auctions and 37 reinforcements and improvements for the CTEEP network.
- **Colombia:** awarded the *Portón del Sol* connection contract and the installation of FACTS (Smart Valves) through its subsidiary Transelca in Barranquilla.
- **Chile:** awarded the Kimal-Lagunas project that will transport energy from non-conventional renewable sources.
- **Peru:** REP was awarded *Ampliación 21*, an extension of approximately 169 km between the Chilca and Independencia substations.

In 4Q22, the following projects were powered up:

- **Colombia:** commissioning of the New Substation El Río, which is expected to generate annual revenues of USD 12.8 million.
- **Brazil:** i) ISA CTEEP began operating the first large-scale battery energy storage project, which is expected to generate revenues of USD 5.6 million, and ii) the IElvaí project (50% owned by CTEEP and

50% by Taesa), with annual revenues of approximately USD 70 million. Also noteworthy is the commissioning of 28 reinforcements to the ISA CTEEP transmission network, which are expected generate annual revenues of USD 3.4 million.

During 2022, projects aimed at promoting a cleaner energy matrix in the countries where ISA and its subsidiaries operate were developed, with the entry into operation of seven energy transmission projects, one battery storage project and 76 reinforcements and improvements to the CTEEP network. These projects are expected to generate annual revenues of USD 167 million (includes 100% of the income of the companies with shared control) and will add more than 2,200 km of power lines to the network.

ISA will continue with the construction of 32 power transmission projects and 259 reinforcements in Brazil, which represent the addition of over 4,600 km of new power lines to the network and that will generate revenues of approximately USD 460 million when they begin operations (the portfolio of projects under construction includes 100% of CAPEX and income from subsidiaries and subordinates that are not 100% of ISA).

2. Toll Roads

Construction phase continues on Rutas del Loa, which extends over 136 km, and is expected to start operating in 2024. Likewise, progress continues in additional works on the Ruta del Maipo, Ruta del Bosque, Ruta de los Ríos and Ruta de la Araucanía concessions, which will generate new revenues or extend the term of these concessions.

Financial Results

- In 4Q22, ISA's net income was COP 0.4 trillion, decreasing 12.2% compared to 4Q21, mainly explained by: i) the impairment of Internexa's assets, ii) the increase in the expense for exchange differences and readjustable units mainly due to the increase of the UF (*Unidad de Fomento*) in Chile, to which the debt in the road concessions is indexed, and iii) higher interest expenses due to the increase in the indebtedness of the Brazilian subsidiaries in order to finance growth. The contribution to Ecopetrol's consolidated net income attributable to shareholders in 4Q22 was COP +0.1 trillion and for 2022 of COP +0.7 trillion.
- The EBITDA contribution of the Ecopetrol Group was COP 8.6 trillion in 2022 and COP 2.1 trillion in 4Q22, with a share of the energy transmission business of 79.4% and 73.1%. The result for year and the fourth quarter of 2021 was primarily driven by the favorable impact of contractual indicators on Colombia and Chile's operation and the entry of new projects, which allowed mitigating the lower revenues in Brazil due to the behavior of the IPCA (*Índice Nacional de Preços ao Consumidor Amplo* for its Portuguese acronym).
- In addition to the results that come directly from the operation of ISA, this segment assumes the costs and expenses associated with the ISA acquisition, where the financial interest associated with the debt entered into by Ecopetrol to finance the purchase of this subsidiary, net of the associated income tax, for COP -0.1 trillion in 4Q22 and COP -0.6 trillion in 2022.

III. Technology, Environment, Social and Corporate Governance (TESG)

Integrated Water Management

During 4Q22, 35 million cubic meters of water (2.4 million barrels per day) were reused in operations, which means that the Ecopetrol Group avoided the capture and/or discharge of this volume, thus reducing pressure on water resources. This value represents a 25% increase compared to 4Q21 (+18% increase versus 2021) and is equal to 78% of the total water required to operate in this period. In 2022, the percentage of water reused was 77.5%, an increase compared to 2021 (73.4% reuse), primarily as a result of the implementation of water reuse and recirculation best practices in the Barrancabermeja and Cartagena refineries and in the production fields³.

³ In terms of best practices, the reuse/recirculation of water in refineries is highlighted, mainly in condensate recovery and firefighting systems. Likewise, in the production fields, reuse/recirculation is highlighted in: i) drilling activities that reuse domestic and industrial wastewater after tertiary treatments (reverse osmosis and demineralization); ii) preparation of drilling mud; iii) equipment washing; iv) use of cooling water for pumps and industrial uses; v) re-injection to maintain reservoir pressure or increase hydrocarbon production.

During 4Q22, 9.5 million cubic meters of fresh water (0.65 million barrels per day) were captured, which represents a 3% decrease versus 4Q21 and a 6% decrease compared to 2021. This volume was 21% of the total water required to operate in Ecopetrol in 4Q22 and 22.5% for the year.

In 4Q22, 0.9 million cubic meters of treated production water from the Castilla field (61.5 thousand barrels per day on average) were reused in agroforestry activities in the ASA La Guarupaya ecological reserve in the municipality of Acacías (Department of Meta), which represents a 12% reduction compared to 4Q21. In 2022, 3.8 million cubic meters were reused, which represents a 63% increase versus 2021.

Thanks to the reuse of 100% of the production water that allowed closing the discharge on the Acacías River by the end of 2019, and the reuse that takes place in the basin where it is located (Metica River) for the irrigation of agroforestry crops in the ASA Guarupaya Ecoreserve, the Chichimene asset (from the Cubarral Block) was declared the first water-neutral asset of the company.

During 4Q22, Ecopetrol S.A. became the first company in the hydrocarbon sector to verify its water footprint in the country and in Latin America. This was carried out jointly with ICONTEC following the NTC-ISO 14046 standard for 100% of the assets operated, and a corroboration process of the water footprint computation was done for the La Cira - Infantas and Castilla fields, and the Cartagena and Barrancabermeja refineries.

Climate Change - Decarbonization

In 2022, the Ecopetrol Group reduced its greenhouse gas emissions by 416,672 tCO₂e through the implementation of new energy efficiency, fugitive emissions and routine flaring projects. The GHG reduction achieved exceeds the target set for the year (262,761 tCO₂e) by 59%. For the period 2020 – 2022, the cumulative reduction totaled 910,113 tCO₂e.

During 2022, Cenit and all its subsidiaries, together with Esenttia and 11 of ISA's subsidiaries, received the carbon neutrality certification from the Colombian Institute of Technical Standards and Certification (ICONTEC). This certification was completed following the companies' carbon neutrality plans, which include managing greenhouse gas emissions inventories, implementing mitigation practices and offsetting residual emissions through Natural Climate Solutions projects that contribute towards the preservation, conservation, and restoration of the country's strategic ecosystems.

Included in the roadmap of the operations' decarbonization strategy and consistent with the Ecopetrol Group's net zero emissions strategy by 2050, through the purchase of carbon credits, we sold four shipments of 4.0 million barrels of carbon-neutral Castilla Blend® to India, United States and Spain, offsetting as well the emissions associated with the maritime transport of a two million barrel shipment to Vadinar, India, and the sale of approximately 97,000 barrels of carbon-neutral extra gasoline to wholesale distributors.

Biodiversity

Within the framework of the national reforestation initiative "*Sembrar Nos Une*" of the Ecopetrol Group, as of 4Q22, 6,509,818 trees had been planted, which equals 108% of the target set by the Group for year-end 2022 (6,000,000 trees).

Ecopetrol ended 2022 ranked as the second company nationwide that contributes the most biodiversity data to the Biological Information System, with 209,642 records and 168 citations in indexed journal publications.

Social and Environmental Investment

The Ecopetrol Group allocated resources within its Sustainable Development Portfolio to social, environmental and relationship investments totaling COP 298,194 million⁴ during 4Q22 and COP 615,334 million by year-end 2022, which represents an increase of 31% compared to 2021. Investments include those of a strategic and

⁴ Cumulative investment of the Ecopetrol Group to 4Q22 is divided into: i) strategic investment for COP 432,858 million; and ii) mandatory investment for COP 182,476 million. Includes within its strategic value, the execution in 2022 of the "Works In Lieu of Taxes" projects totaling COP 33,083 million by Ecopetrol S.A. Ecopetrol S.A.: cumulative social, environmental and relationship investment totals COP 384,337 million. Subordinates: cumulative socio-environmental investment totals COP 230,997 million.

mandatory nature that during the year diversified local economies and had direct effects on national production. The company also prioritized social investments in education, road and community infrastructure, entrepreneurship, inclusive rural development and access to public services such as water, sewage, gas and electricity. Some of the highlights of the year include the following:

- Education: Benefits for 1.5% of the total number of students in public educational institutions in the country, equivalent to more than 120,000 students.
- Road and community infrastructure: 204 km of tertiary roads built or improved.
- Access to water: More than 763,000 inhabitants with improved access to drinking water. Reduction of the national gap by 1.5%.
- Employment and income generation: More than 6,000 jobs generated by the execution of social investment in 2021 and 2022, of which 2,291 are direct. Between 2019 and 2022, 11,750 entrepreneurs and MSMEs (Micro, Small & Medium Enterprises) benefited.
- Inclusive rural development: Between 2019 and 2022, nearly 4,000 rural families strengthen productive, logistical and commercial capacities and achieve sales of more than COP 16 billion between 2021 and 2022.
- Effectiveness in the construction of works for peace: Leadership in the implementation of the Works in Lieu of Taxes mechanism, contributing to the closing of inequality gaps in 73 municipalities and 15 Departments most affected by the armed conflict and poverty. Participation of 31% of the total national quota allocated for 2021 and 39% between fiscal years 2017 and 2021. In 2022, the Agency for the Renewal of the Territory assigned 16 new projects to the Group for a value of COP 155,216 million.
- Fair and equitable energy transition: allocation through Works in Lieu of Taxes of three solar photovoltaic solution projects for 766 homes in rural Putumayo. Construction of a portfolio of projects that will implement the energy community's model.

Additionally, within the framework of the “*Obras por Impuestos*” (Works in Lieu of Taxes) mechanism, the Ecopetrol Group has been assigned 59 projects valued at COP 557,608 million between 2017 and 2021. As of 4Q22, 38 projects have been accomplished totaling COP 347,650 million, highlighting in 4Q22 the completion of a road paving project in the municipality of Paz de Ariporo, which benefits 11,172 inhabitants and required an investment of COP 9,870 million.

Regarding environmental investment projects, the following are currently underway: i) establishing eco reserves, developing Strengthening and Biodiversity Plans (F&B for its Spanish acronym), and related programs: ii) strengthening the enterprises of the *Proyecto Vida Silvestre* wildlife project in prioritized environments to apply a methodology in the grasslands of the Orinoquia to quantify carbon capture in these ecosystems, iii) find a methodology to quantify carbon emissions in freshwater wetlands to reduce CO₂ emissions by more than 3 million tons, and iv) identify, design and implement financial instruments to facilitate compliance with the Ecopetrol Group's decarbonization goals.

Furthermore, investments were made to comply with environmental obligations, including: i) control and surveillance services for conservation and/or reforested areas; ii) management and oversight services to monitor conservation agreements; and iii) the implementation and maintenance of sustainable use systems (agroforestry and silvopastoral).

To comply with 1% requirements and environmental compensation, Ecopetrol has implemented conservation agreements with communities, who commit to preserve forest cover for 3 to 4 years, with incentives in agroforestry and silvopastoral systems. In 2022, 455 new agreements were signed and 164 agreements from previous years were monitored. In 2022, 3,705 hectares of conserved forest were added for a total of 5,039 hectares and 37.04 hectares of agroforestry and silvopastoral systems were added for a total of 109.53 hectares implemented. In addition, four 295-hectare conservation plots were purchased and titled from regional authorities under a conservation commitment.

Environmental Planning and Authorizations

During 2022, Ecopetrol S.A. was granted 75 environmental authorizations to carry out its projects and operations (7 by the ANLA⁵ and 68 by the CAR⁶), of which 30 were obtained during 4Q22 (3 by the ANLA and 27 by the CAR). Additionally, 194 procedures were filed in 2022 of which 130 were national filings with ANLA and 64 were with regional environmental authorities (CAR), Out of the 194 filings 49 were filed during the fourth quarter.

Communities and Environment

Communities and Environment - Community Relations: During 2022, democratic and inclusive social dialogue processes were arranged in all areas of influence with communities, institutions, unions and associations in Magdalena Medio, the Caribbean, Casanare, Huila and Meta, on social issues, hiring of labor and local goods and services, transportation and social investment, among others. These scenarios of mutual recognition and trust-building are conducive to strengthening the relationship with stakeholders and contribute to sustainable development and the consolidation of governance in the different territories in which we operate.

Communities and Environment - Ethnic Relations: Intercultural dialogue and consensus with the Alto Unuma Resguardo (Meta) of the Sikuani ethnic group, adjacent to the Rubiales field continued, respecting cultural differences and indigenous self-government. In 2022, two major meetings were held between Ecopetrol executives and authorities of the Unuma Resguardo, one in their territory and the other in the Bogotá offices.

Human Rights

In 4Q22 the consultancy to review and update Ecopetrol's human rights strategy was completed, providing a proposal to mainstream human rights issues into the 2040 Strategy, with a special focus on incorporating human rights guidelines in the path outlined for energy transition (fair energy transition).

Corporate Governance and Corporate Bodies

On January 26, 2023, Ecopetrol S.A. announced that Felipe Bayón Pardo will remain as President of Ecopetrol S.A. until March 31, 2023. The selection, recruitment and appointment process for the new President will be conducted following the succession policy established for the President of Ecopetrol S.A. which entails a rigorous selection process, to be carried out methodically and in such manner reduce any possible adverse financial and reputational impact from such change.

Science, Technology, and Innovation

During 4Q22, the implementation of the science, technology and innovation portfolio continued with year-end 2022 benefits captured totaling USD 595.67 million, an increase of 71% versus 2021 (USD 347.4 million). Among the achievements of 4Q22, the following stand out:

- An industrial test of renewable diesel production was carried out employing Ecopetrol's Biocetano® technology in a hydrotreatment unit of the Cartagena refinery, incorporating up to 5% of bleached palm oil in the unit's throughput. As a result of this test, approximately 120 thousand barrels of diesel with a 2% renewable diesel content were produced, which complied with national quality parameters (Resolution 40103 of 2021) and were marketed in the northern part of the country.
- The implementation of the Exploration and Production Technology Plan leveraged the production of 5.06 million barrels during 2022. These technologies include: i) enhanced recovery technologies, such as air and foam injection for steam recovery (a process that reduced carbon intensity by 55.4% and increased energy efficiency by 54.9%), ii) well stimulation technologies, such as water control and productivity increase through the use of nanotechnology in Castilla and Apiay (Nano Water Wetter, Nano RPM and EcoRPM), and iii) the digital solution Integrated Fields.

⁵ ANLA: national environmental licensing authority.

⁶ CARs: autonomous regional corporations.

Regarding **intellectual property**, in 4Q22, Ecopetrol was granted four new invention patents, three in Colombia and one in the United States, that corresponded to: i) the addition of hydrogen in a refining process to increase the production of distillates, ii) a system for the treatment of production water, iii) a system to determine with greater accuracy the real volume of extra-heavy crudes mixtures with light hydrocarbons, and iv) additives in a dilution reduction for the transport of heavy hydrocarbons. Including the aforementioned, Ecopetrol S.A obtained a total of 16 patents in 2022, twice as many patents as in 2021, totaling 124 patents in force to date. Two trade secrets were also declared, one related to improvements in the recovery process, and a methodology to improve water management associated with hydrocarbon production.

In **cybersecurity**, the Ecopetrol S.A continued working on standardizing cybersecurity practices at the Ecopetrol Group level, defining cyber maturity under the Cybersecurity Capability Maturity Model (C2M2) framework, military grade clearance for priority information assets, and completion of the first stage of the cybersecurity integration plan with ISA.

V. Risks

In compliance with "Appendix 1 - Periodic Information from Issuers" established by External Circular 012 of 2022 issued by the Superintendence of Finance of Colombia concerning the format and detailed content of the quarterly reports and following the provisions of Art. 5.2.4.2.3. of Decree 2555 of 2010, during 4Q22 there were no material variations in the degree of risk exposure concerning the immediately preceding quarter. Furthermore, no new risks were identified during the aforementioned period.

VI. Results Presentation

Ecopetrol's management will host two conference calls to review the fourth-quarter and full year 2022 results:

Spanish

March 1, 2023
08:00 a.m. Colombia
08:00 a.m. New York

English

March 1, 2023
10:00 a.m. Colombia
10:00 a.m. New York

The webcasts can be accessed through the following links:

Spanish: <https://xegmenta.co/ecopetrol/conferencia-de-resultados-4t-2022/>

English: <https://xegmenta.co/ecopetrol/results-conference-call-4th-2022/>

Please check if your browser allows the normal operation of the online presentation. We recommend using the latest versions of Internet Explorer, Google Chrome and Mozilla Firefox.

The results report, the presentation, the webcast and the replay of the conference will be available on the Ecopetrol website: www.ecopetrol.com.co

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Ecopetrol Group Appendices

Table 1: Income Statement - Ecopetrol Group

Billion (COP)	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)
Revenue						
Local	22,689	15,637	45.1%	83,652	44,822	86.6%
Export	16,989	16,124	5.4%	75,822	46,922	61.6%
Total revenue	39,678	31,761	24.9%	159,474	91,744	73.8%
Cost of sales						
Depreciation, amortization and depletion	3,049	2,404	26.8%	11,410	9,599	18.9%
Variable depreciation, amortization and depletion	1,789	1,372	30.4%	6,774	6,328	7.0%
Fixed cost depreciation	1,260	1,032	22.1%	4,636	3,271	41.7%
Variable costs	16,015	12,685	26.3%	61,406	34,678	77.1%
Imported products	7,987	5,679	40.6%	31,230	16,944	84.3%
Local purchases	7,166	5,089	40.8%	26,688	16,438	62.4%
Hydrocarbon transportation services	350	253	38.3%	1,220	918	32.9%
Inventories and others	512	1,664	(69.2%)	2,268	378	500.0%
Fixed costs	4,943	4,043	22.3%	16,642	11,305	47.2%
Contracted services	1,343	915	46.8%	4,437	3,310	34.0%
Construction services	914	732	24.9%	2,802	732	282.8%
Maintenance	1,118	900	24.2%	3,771	2,638	42.9%
Labor costs	998	796	25.4%	3,436	2,597	32.3%
Other	570	700	(18.6%)	2,196	2,028	8.3%
Total cost of sales	24,007	19,132	25.5%	89,458	55,582	60.9%
Gross income	15,671	12,629	24.1%	70,016	36,162	93.6%
Operating expenses	3,655	2,206	65.7%	9,635	6,568	46.7%
Administration expenses	2,780	1,783	55.9%	8,123	5,608	44.8%
Exploration and projects expenses	875	423	106.9%	1,512	960	57.5%
(Recovery) expense for impairment long-term assets	0	0	-	0	0	-
Operating income	12,016	10,423	15.3%	60,381	29,594	104.0%
Finance result, net	(1,469)	(1,518)	(3.2%)	(6,835)	(3,698)	84.8%
Foreign exchange, net	253	(21)	(1,304.8%)	(125)	330	(137.9%)
Interest, net	(1,278)	(1,092)	17.0%	(4,551)	(2,829)	60.9%
Financial income/loss	(444)	(405)	9.6%	(2,159)	(1,199)	80.1%
Share of profit of companies	112	201	(44.3%)	768	426	80.3%
Income before income tax	10,659	9,106	17.1%	54,314	26,322	106.3%
Income tax	(2,945)	(2,099)	40.3%	(17,254)	(7,598)	127.1%
Net income consolidated	7,714	7,007	10.1%	37,060	18,724	97.9%
Non-controlling interest	(844)	(930)	(9.2%)	(3,630)	(2,031)	78.7%
Net income attributable to owners of Ecopetrol before impairment	6,870	6,077	13.0%	33,430	16,693	100.3%
(Expense) recovery for impairment long-term assets	(282)	(35)	705.7%	(288)	(33)	772.7%
Deferred tax of impairment	263	35	651.4%	264	35	654.3%
Net income attributable to owners of Ecopetrol	6,851	6,077	12.7%	33,406	16,695	100.1%
EBITDA	15,996	13,981	14.4%	75,244	41,967	79.3%
EBITDA margin	40.3%	44.0%	(3.7%)	47.2%	45.7%	1.5%

Table 2: Statement of Financial Position - Ecopetrol Group

Billion (COP)	December 31, 2022	September 30, 2022	Δ (%)
Current assets			
Cash and cash equivalents	15,401	12,918	19.2%
Trade and other receivables	39,225	33,551	16.9%
Inventories	11,880	10,784	10.2%
Current tax assets	6,784	5,685	19.3%
Other financial assets	1,162	2,235	(48.0%)
Other assets	2,779	2,763	0.6%
	77,231	67,936	13.7%
Non-current assets held for sale	46	76	(39.5%)
Total current assets	77,277	68,012	13.6%
Non-current assets			
Investments in associates and joint ventures	9,497	8,933	6.3%
Trade and other receivables	32,155	28,493	12.9%
Property, plant and equipment	100,997	96,556	4.6%
Natural and environmental resources	42,324	40,965	3.3%
Assets by right of use	628	605	3.8%
Intangibles	18,147	17,308	4.8%
Deferred tax assets	17,219	14,951	15.2%
Other financial assets	1,564	965	62.1%
Goodwill and Other assets	6,562	6,344	3.4%
Total non-current assets	229,093	215,120	6.5%
Total assets	306,370	283,132	8.2%
Current liabilities			
Loans and borrowings	22,199	22,614	(1.8%)
Trade and other payables	19,938	17,090	16.7%
Provision for employees benefits	2,754	2,217	24.2%
Current tax liabilities	7,631	6,517	17.1%
Accrued liabilities and provisions	1,533	1,118	37.1%
Other liabilities	2,727	1,803	51.2%
Liabilities related to non-current assets held for sale	0	30	(100.0%)
Total current liabilities	56,782	51,389	10.5%
Non-current liabilities			
Loans and borrowings	92,936	85,126	9.2%
Trade and other payables	57	64	(10.9%)
Provision for employees benefits	10,212	11,023	(7.4%)
Non-current taxes	13,669	12,589	8.6%
Accrued liabilities and provisions	11,223	12,929	(13.2%)
Other liabilities	2,404	2,173	10.6%
Total non-current liabilities	130,501	123,904	5.3%
Total liabilities	187,283	175,293	6.8%
Equity			
Equity attributable to owners of the company	91,035	81,865	11.2%
Non-controlling interests	28,052	25,974	8.0%
Total equity	119,087	107,839	10.4%
Total liabilities and equity	306,370	283,132	8.2%

Table 3: Cash Flow Statement - Ecopetrol Group

Billion (COP)	4Q 2022	4Q 2021	12M 2022	12M 2021
Cash flow provided by operating activities				
Net income attributable to owners of Ecopetrol S.A.	6,851	6,077	33,406	16,695
Adjustments to reconcile net income to cash provided by operating activities				
Non-controlling interests	844	930	3,630	2,031
Income tax	2,682	2,064	16,990	7,563
Depreciation, depletion and amortization	3,379	2,776	12,129	10,160
Foreign exchange (gain) loss	(253)	21	125	32
Gain on other comprehensive income realized	0	0	0	(362)
Finance costs recognized in profit or loss	2,076	1,573	7,521	4,139
Dry wells	595	136	1,032	486
Loss (gain) on disposal of non-current assets	81	7	380	62
Impairment of current and non-current assets	338	100	390	117
Fair value (gain) on financial assets valuation	102	(46)	(77)	(7)
Gain on financial derivatives	(33)	20	(1)	19
Gain on assets for sale	(13)	3	(280)	(4)
(Gain) loss on share of profit of associates and joint ventures	(112)	(201)	(768)	(426)
Exchange difference on export hedges and ineffectiveness	601	132	1,280	387
Provisions and contingencies	369	715	716	715
Others minor items	8	16	7	24
Net changes in operating assets and liabilities	(4,401)	(2,059)	(31,485)	(13,392)
Income tax paid	(1,755)	(1,261)	(8,760)	(5,703)
Cash provided by operating activities	11,359	11,003	36,235	22,536
Cash flows from investing activities				
Investment in joint ventures	(120)	308	(329)	(45)
Acquisition of subsidiaries, net of cash acquired	0	0	0	(8,952)
Investment in property, plant and equipment	(3,508)	(2,135)	(8,768)	(6,118)
Investment in natural and environmental resources	(4,490)	(2,171)	(11,963)	(6,733)
Payments for intangibles	(446)	(237)	(1,148)	(444)
(Purchases) sales of other financial assets	909	163	1,301	1,283
Interest received	354	136	967	266
Dividends received	292	111	1,471	206
Proceeds from sales of assets	(29)	11	374	19
Net cash used in investing activities	(7,038)	(3,814)	(18,095)	(20,518)
Cash flows from financing activities				
Proceeds (repayment of) from borrowings	1,590	(92)	435	13,399
Interest paid	(1,844)	(1,514)	(5,492)	(3,334)
Lease Payments	(122)	(105)	(435)	(336)
Return of capital	(70)	0	(85)	0
Dividends paid	(2,170)	(1,347)	(13,357)	(2,771)
Net cash used in financing activities	(2,616)	(3,058)	(18,934)	6,958
Exchange difference in cash and cash equivalents	778	332	1,645	492
Net (decrease) increase in cash and cash equivalents	2,483	4,463	851	9,468
Cash and cash equivalents at the beginning of the period	12,918	10,087	14,550	5,082
Cash and cash equivalents at the end of the period	15,401	14,550	15,401	14,550

Table 4: EBITDA Reconciliation - Ecopetrol Group

Billion (COP)	4Q 2022	4Q 2021	12M 2022	12M 2021
Net income attributable to the owners of Ecopetrol	6,851	6,077	33,406	16,695
(+) Depreciation, amortization and depletion	3,379	2,776	12,129	10,160
(+/-) Impairment of long-term assets	282	35	288	33
(+/-) Financial result, net	1,469	1,518	6,835	3,698
(+) Income tax	2,682	2,064	16,990	7,563
(+) Taxes and others	489	581	1,966	1,787
(+/-) Non-controlling interest	844	930	3,630	2,031
Consolidated EBITDA	15,996	13,981	75,244	41,967

Table 5: Reconciliation of EBITDA by Segment (4Q22)

Billion (COP)	Upstream	Downstream	Midstream	Energy	Eliminations	Consolidated
Net income attributable to the owners of Ecopetrol	4,059	1,572	1,085	135	0	6,851
(+) Depreciation, amortization and depletion	2,026	569	386	398	0	3,379
(+/-) Impairment of long-term assets	890	(1,102)	406	88	0	282
(+/-) Financial result, net	363	421	(67)	699	53	1,469
(+) Income tax	1,497	174	770	241	0	2,682
(+) Other taxes	167	248	24	50	0	489
(+/-) Non-controlling interest	(29)	42	351	481	(1)	844
Consolidated EBITDA	8,973	1,924	2,955	2,092	52	15,996

Ecopetrol S.A. Appendices

Following are the Income Statements and Statements of Financial Situation of Ecopetrol S.A.

Table 6: Income Statement

Billion (COP)	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)
Local	20,804	13,491	54.2%	77,985	43,041	81.2%
Exports	13,296	12,362	7.6%	56,664	35,147	61.2%
Total revenue	34,100	25,853	31.9%	134,649	78,188	72.2%
Variable costs	20,915	15,228	37.3%	76,344	44,365	72.1%
Fixed costs	3,886	3,333	16.6%	13,898	11,797	17.8%
Total cost of sales	24,801	18,561	33.6%	90,242	56,162	60.7%
Gross income	9,299	7,292	27.5%	44,407	22,026	101.6%
Operating expenses	1,867	1,688	10.6%	4,569	4,193	9.0%
Operating income	7,432	5,604	32.6%	39,838	17,833	123.4%
Financial income/loss	(955)	(1,010)	(5.4%)	(4,067)	(3,607)	12.8%
Share of profit of companies	2,643	2,685	(1.6%)	10,171	6,627	53.5%
Income before income tax	9,120	7,279	25.3%	45,942	20,853	120.3%
Income tax	(1,834)	(1,149)	59.6%	(12,101)	(4,105)	194.8%
Net income attributable to owners of Ecopetrol	7,286	6,130	18.9%	33,841	16,748	102.1%
Impairment	(669)	(82)	715.9%	(669)	(82)	715.9%
Deferred tax of impairment	234	29	706.9%	234	29	706.9%
Net income attributable to owners of Ecopetrol	6,851	6,077	12.7%	33,406	16,695	100.1%
EBITDA	9,354	7,531	24.2%	47,212	25,417	85.7%
EBITDA margin	27.4%	29.10%	(1.7%)	35.10%	32.50%	2.6%

Table 7: Statement of Financial Position / Balance Sheet

Billion (COP)	December 31, 2022	September 30, 2022	Δ (%)
Current assets			
Cash and cash equivalents	5,788	4,147	39.6%
Trade and other receivables	33,573	28,906	16.1%
Inventories	7,226	6,793	6.4%
Current tax assets	5,617	4,426	26.9%
Other financial assets	1,428	4,137	(65.5%)
Other assets	1,657	1,599	3.6%
	55,289	50,008	10.6%
Non-current assets held for sale	34	47	(27.7%)
Total current assets	55,323	50,055	10.5%
Non-current assets			
Investments in associates and joint ventures	92,417	86,235	7.2%
Trade and other receivables	430	533	(19.3%)
Property, plant and equipment	27,503	26,211	4.9%
Natural and environmental resources	25,188	25,452	(1.0%)
Assets by right of use	2,989	2,935	1.8%
Intangibles	351	370	(5.1%)
Deferred tax assets	10,461	8,642	21.0%
Other financial assets	929	310	199.7%
Goodwill and other assets	1,257	1,229	2.3%
Total non-current assets	161,525	151,917	6.3%
Total assets	216,848	201,972	7.4%
Current liabilities			
Loans and borrowings	18,898	19,490	(3.0%)
Trade and other payables	16,323	14,463	12.9%
Provision for employees benefits	2,463	1,939	27.0%
Current tax liabilities	5,190	4,883	6.3%
Accrued liabilities and provisions	1,086	738	47.2%
Other liabilities	1,117	1,292	(13.5%)
Total current liabilities	45,077	42,805	5.3%
Non-current liabilities			
Loans and borrowings	61,717	56,289	9.6%
Provision for employees benefits	9,704	10,110	(4.0%)
Non-current tax liabilities	435	348	25.0%
Accrued liabilities and provisions	8,548	10,223	(16.4%)
Other liabilities	332	332	0.0%
Total non-current liabilities	80,736	77,302	4.4%
Total liabilities	125,813	120,107	4.8%
Equity			
Equity attributable to owners of the company	91,035	81,865	11.2%
Total equity	91,035	81,865	11.2%
Total liabilities and equity	216,848	201,972	7.4%

Table 8: Export Destinations - Ecopetrol Group

Crudes - mboed	4Q 2022	4Q 2021	% Share	12M 2022	12M 2021	% Share
U.S. Gulf Coast	168.4	160.6	45.2%	170.3	131.6	42.5%
Asia	178.0	260.0	47.8%	190.3	213.6	47.5%
Central America / Caribbean	0.0	5.4	0.0%	11.7	6.4	2.9%
Others	15.9	7.5	4.3%	10.6	4.4	2.6%
Europe	10.4	16.7	2.8%	14.0	12.7	3.5%
U.S. West Coast	0.0	8.4	0.0%	3.5	6.1	0.9%
South America	0.0	1.7	0.0%	0.0	1.1	0.0%
U.S. East Coast	0.0	0.0	0.0%	0.0	0.0	0.0%
Total	372.6	460.3	100.0%	400.3	375.8	100.0%

Products - mboed	4Q 2022	4Q 2021	% Share	12M 2022	12M 2021	% Share
Central America / Caribbean	28.5	24.0	37.4%	43.7	34.7	52.7%
U.S. Gulf Coast	23.8	18.0	31.3%	18.8	16.1	22.7%
Asia	9.6	21.6	12.5%	7.0	16.3	8.5%
South America	5.4	7.8	7.1%	6.0	9.9	7.2%
U.S. East Coast	0.0	14.3	0.0%	1.9	16.6	2.3%
Europe	8.5	0.0	11.1%	5.5	2.8	6.6%
U.S. West Coast	0.0	0.0	0.0%	0.0	0.0	0.0%
Others	0.5	3.8	0.6%	(0.0)	1.6	0.0%
Total	76.3	89.5	100.0%	82.9	98.0	100.0%

Note: The information is subject to change after the end of the quarter, as some destinations are reclassified according to the final result of exports.

Table 9: Local Purchases and Imports - Ecopetrol Group

Local Purchases - mboed	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)
Crude Oil	207.3	200.9	3.2%	190.0	189.0	0.5%
Gas	4.0	1.4	185.7%	2.9	2.0	45.0%
Products	3.4	2.9	17.2%	3.3	2.8	17.9%
Diluent	0.0	0.0	-	0.0	0.0	-
Total	214.7	205.2	4.6%	196.2	193.9	1.2%

Imports - mboed	4Q 2022	4Q 2021	Δ (%)	12M 2022	12M 2021	Δ (%)
Crude Oil	22.3	20.7	7.7%	33.1	24.5	35.1%
Products	109.0	117.5	(7.2%)	107.0	91.4	17.1%
Diluent	42.5	33.6	26.5%	35.3	27.9	26.5%
Total	173.8	171.8	1.2%	175.4	143.8	22.0%
Total	388.5	377.0	3.1%	371.6	337.7	10.0%

Table 10: Exploratory Wells Detail - Ecopetrol Group

#	Quarter	Name	Initial Well Classification (Lahee)	Block	Basin	Operator/Partner	Status	TD Date
1	First	Bololó-1	A3	VIM-8	Low Magdalena Valley	Hocol 100% (Operador)	Dry	January 3/2022
2	First	El Niño-2	A1	Boqueron	High Magdalena Valley	Perenco 30% (Operador), ECP 50%, CNOOC 20%	Successful	January 13/2022
3	First	EST-SN-15	Estratigráfico	SN-15	Sinú - San Jacinto	Hocol 100% (Operador)	Plugged and Abandoned	January 15/2022
4	First	Pilonera-1	A3	SSJN1	Sinú - San Jacinto	Hocol 50 % Lewis Energy 50% (Operador)	Dry	January 20/2022
5	First	Boranda Sur-3	A1	Boranda	Middle Magdalena Valley	Parex 50% (Operador) ECP 50%	Dry	February 23/2022
6	Drynd	Chinchorro-1G	A3	GUA-2	Lower Guajira	Hocol 100%	Dry	April 16/2022

7	Drynd	Boranda Norte-1	A1	Boranda	Middle Magdalena Valley	Parex 50% (Operador) ECP 50%	Dry	May 15/2022
8	Drynd	Tejon-1	A2B	CPO-9	Llanos Orientales	ECP 55% (Operador) Repsol 45%	Successful	May 22/2022
9	Drynd	Morito-1	A3	Convenio de Explotacion del Magdalena Medio	Middle Magdalena Valley	ECP 100%	Successful	June 30/2022
10	Third	Gorgon-2*	A3	COL-5	Caribe Offshore	ECP 50% Shell 50% (Operador)	Successful**	July 09/2022
11	Third	Uchuva-1	A3	Tayrona	Caribe Offshore	ECP 55.6% Petrobras 44.4% (Operador)	Successful**	July 16/2022
12	Third	Kinacú-1	A2A	Area Sur	PutuMay	ECP 100% (Operador)	Dry	July 27/2022
13	Third	Coralino-1	A3	VIM-8	Low Magdalena Valley	Hocol 100% (Operador)	Successful	Sept 01/2022
14	Cuarto	Guarapo-1 ST1	A3	Fortuna	Middle Magdalena Valley	Parex 80% (Operador) ECP 20%	Under Evaluation	October 08/2022
15	Cuarto	Yoda-A1	A3	YDSN-1	Sinú - San Jacinto	Hocol 100% (Operador)	Under Evaluation	October 09/2022
16	Cuarto	Starman-1	A3	MC 412	Gulf of Mexico_Mississippi Canyon	Chevron 50% (Operador) EAI 25% BHP 25%	Dry	October 13/2022
17	Cuarto	Yoda-B1	A3	YDSN-1	Sinú - San Jacinto	Hocol 100% (Operador)	Dry	November 14/2022
18	Cuarto	Sinuano-1	A3	SN-8	Sinú - San Jacinto	Hocol 100% (Operador)	Dry	November 14/2022
19	Cuarto	Arrecife Norte-1	A3	VIM-8	Low Magdalena Valley	Hocol 100% (Operador)	Under Evaluation	November 16/2022
20	Cuarto	Alqamari-2	A3	PutuMay Occidental	PutuMay	ECP 100% (Operador)	Under Evaluation	November 28/2022
21	Cuarto	Tororo-1	A3	LLA-87	Llanos Orientales	Geopark 50% (Operador) Hocol 50%	Under Evaluation	December 03/2022
22	Cuarto	Ibamaca-2	A1	Tolima	High Magdalena Valley	Hocol 100% (Operador)	Dry	December 04/2022
23	Cuarto	Ibamaca-2 ST	A1	Tolima	High Magdalena Valley	Hocol 100% (Operador)	Successful	December 18/2022
24	Cuarto	Tinamú-1	A3	CPO-9	Llanos Orientales	ECP 55% (Operador) Repsol 45%	Under Evaluation	December 22/2022
Wells drilled by partners at sole risks basis								
25	First	Cayena-2	A1	Fortuna	Middle Magdalena Valley	Parex 80% (Operador) ECP 20% A sólo riesgo por el socio	Dry	Marzo 14/2022
26	First	Caño Caranal DT-1	A3	Cosecha	Llanos Orientales	Sierracol 50% (Operador) ECP 50 % A sólo riesgo por el socio	Dry	Marzo 14/2022
27	Drynd	Fidalga-1 ST	A2C	Fortuna	Middle Magdalena Valley	Parex 80% (Operador) ECP 20% A sólo riesgo por el socio	Dry	Abril 02/2022
28	Drynd	Caño Caranal DT-1 ST1	A3	Cosecha	Llanos Orientales	Sierracol 50% (Operador) ECP 50 % A sólo riesgo por el socio	Dry	Abril 25/2022
29	Drynd	Fidalga-1 ST2	A2C	Fortuna	Middle Magdalena Valley	Parex 80% (Operador) ECP 20% A sólo riesgo por el socio	Successful	June 23/2022

30	Cuarto	Santa Beatriz-1	A2b	Las Monas	Middle Magdalena Valley	Petrosantander 70% (Operador) ECP 30% A sólo riesgo por el socio	Under Evaluation	December 31/2022
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* The Gorgon-2 project was executed according to the initial plan established, which contemplated the drilling of a pilot well for the identification and initial evaluation of the zone of interest, as well as the drilling of a sidetrack for coring and production tests. ** The result of the well was successful, however, it was necessary to proceed with its plugging and definitive abandonment to comply with the national regulation established by the Ministry of Mines and Energy of Colombia.

Table 11: HSE Performance (Health, Safety and Environment)

HSE Indicators*	4Q 2022	4Q 2021	12M 2022	12M 2021
Frequency of total registrable injuries (No. Recordable cases / Million man hours)	0.38	0.22	0.33	0.44
Environmental incidents**	0	1	6	7

* The results of the indicators are subject to change after the end of the quarter due to the fact that some of the accidents and incidents are reclassified according to the final result of the investigations. ** Environmental incidents are those hydrocarbon spills greater than 1 barrel, with environmental impact.