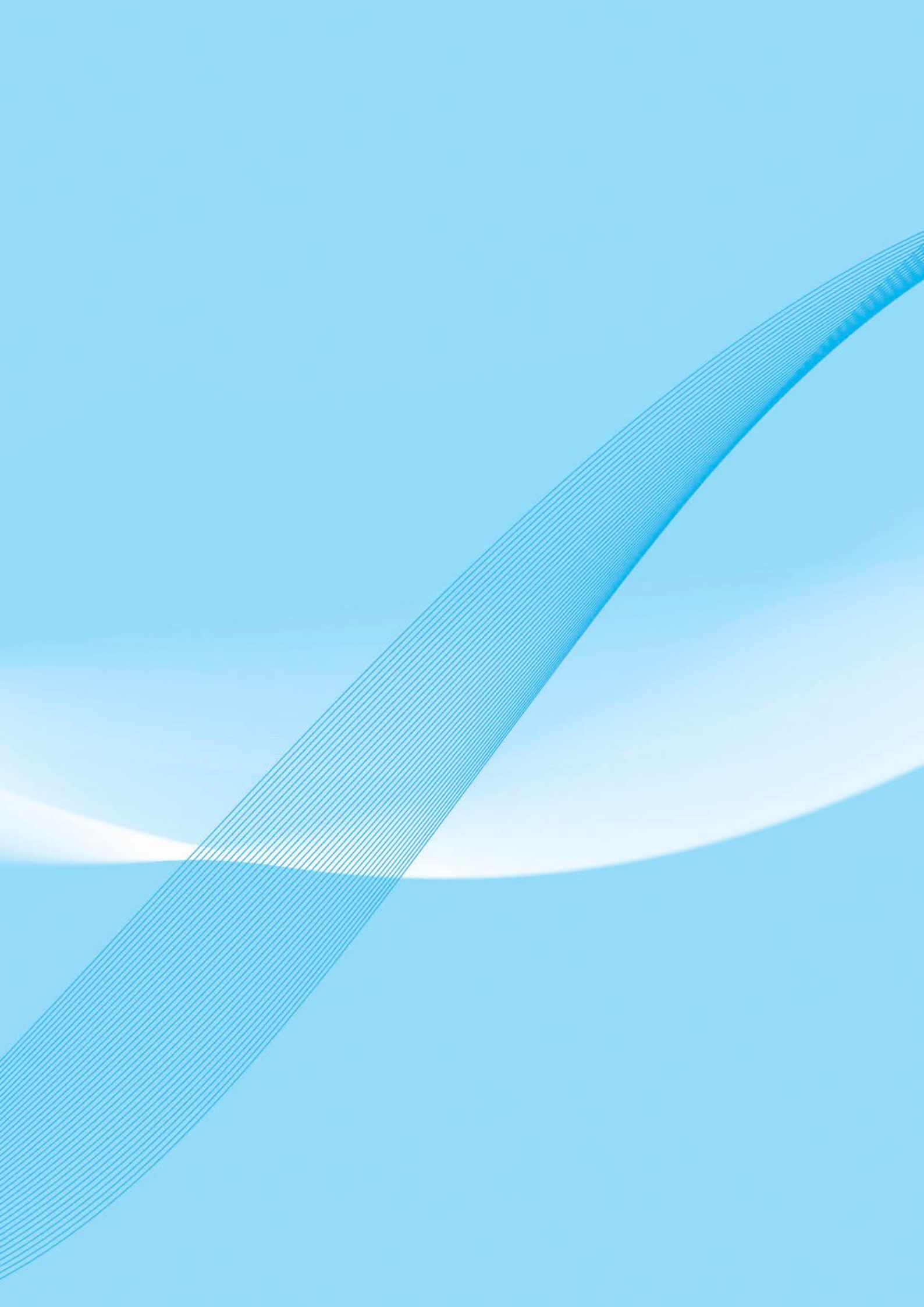




World
Energy
Review
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World
Energy
Review
2 0 2 4

Dear Readers,

I am pleased to present to you the 23rd edition of the **WER "World Energy Review"**. Through this periodic review, we would like to show the evolution of the energy world. With the aim of providing you with an increasingly integrated reading of this complex reality, we have enriched the document with additional information. CO₂ emissions, population, GDP, coal, graphite and manganese, as well as a focus on power generation, are added to the usual monitoring published over the past years on oil, gas, renewables and critical minerals.

As for other sectors, 2023 has been a challenging year for the energy market. The predominant factor was the escalation of geopolitical tensions: in addition to the war between Russia and Ukraine, towards the year end the Israel-Hamas conflict breakout and Houthi attacks on merchant ships in the Strait of Hormuz. The escalation of hostilities has led to new challenges and further uncertainties in a context of important transformations already underway. On the other hand, the global economy performed better than expected, achieving a 'soft landing', with inflation falling steadily as a result of tighter monetary policies implemented by Central Banks. Geopolitical uncertainty continues to represent a downside risk to growth prospects and future scenarios that are increasingly complex and challenging.

Even in such an uncertain environment, **World primary energy consumption** confirmed the growth trend in 2023, with a broadly unchanged energy mix.

Global oil consumption increased, exceeding pre-pandemic levels, with non-OECD countries leading the way, mainly China. At the same time, **world production**¹, supported by non-OPEC countries notably the U.S., also grew. The OPEC+ alliance continued to be the main player in ensuring market stability, as its policy of production cuts has supported prices in the 80 \$/b range.

Divergent dynamics on a global scale have drawn **global gas demand**, which remained stable overall. Favorable weather and a weakened economic environment reduced consumption in Europe and constrained growth in Asia, enabling supply to meet demand and stocks filling. Prices, in the major hubs, have fallen by about 60% however, far away from the historical pre-energy crisis averages.

2023 was the year of reaching the historical high for installed **renewable sources** (solar PV and wind) confirming the exponential growth of recent years. Global production of **biofuels**, a significant driver of the decarbonization of the transport sector, increased. **Critical minerals**, crucial elements for key technologies related to the energy transition, also experienced strong growth in production, spearheaded by lithium, essential for batteries.

Finally, we cannot overlook how the energy global setup has influenced global **CO₂**² emissions, which increased by approx. 1% in 2023, reaching a new record. China topped the list, accounting for one-third of global emissions, followed by the U.S. and third is India, overtaking the EU for the first time.

Claudio Descalzi
Chief Executive Officer

¹ Crude and non-conventional oil, natural gas liquids.

² Energy related.

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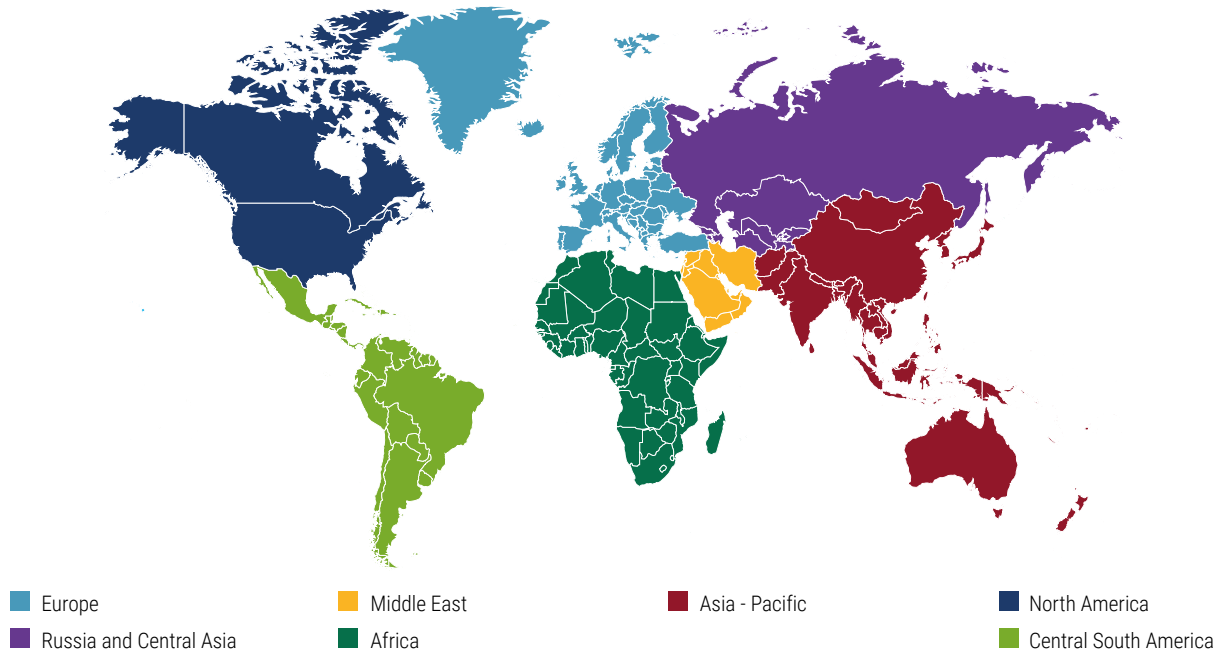
Introduction

LIST OF COUNTRIES

NOTES AND METHODS

WORLD ENERGY MIX

List of Countries



List of Countries:

- **Europe:** Albania, Austria, Belarus, Belgium, Bosnia Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Gibraltar, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Lithuania, Luxembourg, Malta, Moldova, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye, Ukraine and United Kingdom.
- **Russia and Central Asia:** Russia, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.
- **Middle East:** Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates and Yemen.
- **Africa:** Algeria, Angola, Benin, Cameroon, Chad, Congo, Côte d'Ivoire, Dem. Rep. Congo, Egypt, Equatorial Guinea, Ethiopia, Gabon, Ghana, Kenya, Libya, Madagascar, Mauritania, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Tanzania, Tunisia, Uganda, Zambia and Zimbabwe.
- **Asia - Pacific:** Afghanistan, Australia, Bangladesh, Bhutan, Brunei, China, East Timor, Hong Kong, India, Indonesia, Japan, Malaysia, Mongolia, Myanmar, Nepal, New Zealand, North Korea, Pakistan, Papua New Guinea, Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand and Vietnam.
- **Americas:** North America and Central South America.
- **North America:** Canada and the United States.
- **Central South America:** Argentina, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Curacao, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay and Venezuela.
- **European Union 27:** Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.
- **OECD:** Australia, Austria, Belgium, Canada, Chile, Colombia, Costa Rica, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Türkiye United Kingdom and United States.
- **OPEC:** Algeria, Angola, Congo, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, United Arab Emirates and Venezuela.
- **MENA (Middle East and North Africa):** Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen and Algeria, Egypt, Libya, Morocco and Tunisia.

This Review adopts the most commonly used names for countries and not necessarily the official name.

The names used do not in any way indicate the opinion of Eni on the legal status of countries, territories, cities or areas mentioned. The term "country" is used to indicate, when necessary, also a territory or area. Borders between countries are indicated on the maps and do not imply judgement of any kind or the position of Eni with regard to current international disputes. This Review has been prepared by the Market Scenarios and Strategic Options Unit.

Notes and Methods

Economy

The sources of the data is S&P Global.

In all the chapters of economy, total may differ from the sum of the individual figures as a result of rounding up/down. Percentages have been calculated before rounding.

In all the chapters, the list of the "The world top 10" is drawn up by ordering the countries on the basis of the last available year.

Oil

The sources of the data are: CME, DECC, EIA DOE, Enerdata, Energy Intelligence, ICE, ICIS Consulting, International Energy Agency, Italian Ministry of Environment and Energy Security, JODI, Norwegian Petroleum Directorate, Oil & Gas Journal, OPEC, S&P Global, Wood MacKenzie and other official sources.

In all the chapters of oil, in some countries figures may include oil from non conventional sources and others sources of supply.

The figures for "Reserves" refer to proven reserves as at 31st December. The figures for other chapters indicate annual averages.

Blank spaces in the tables indicate that the figure was not available, zero indicates a figure that is not significant (except for the chapters "Production Quality" where "zero" is used for both not available and not significant figures). Total may differ from the sum of the individual figures as a result of rounding up/down. Percentages have been calculated before rounding.

Supply and Demand - Trade and Prices

The difference between the Consumption and the Production of oil is given by the change in stocks, the processing gains obtained in refining and the amount of biofuels which is not included in Production.

In all the chapters, the list of the "The world top 10..." is drawn up by ordering the countries on the basis of the last available year. In the chapters "Reserves/Production Ratio" and "Production/Consumption Ratio", the list of the "The world top 10..." is drawn up by selecting the largest producers in the last available year and ordering them on the basis of the value of the reserves/production and production/consumption ratio. In the chapter "Per Capita Consumption", the list of the world top is drawn up by selecting the largest consumers in the last available year and ordering them by the value of per capita consumption.

Production Quality

In the chapter "Production Quality" figures for total oil production in each area or country do not coincide with the figures in the "Production" chapter of the Review. This is due to the exclusion of natural gas liquids and extra heavy crude from the figures for the first (except for Venezuela). Moreover, it has not been possible to allocate or define total production. In some countries the 'Ultra Light' category also includes, in total or in part, the production of condensates. For Canada the production includes syncrude.

API degree is used universally to express a crude's relative density. The arbitrary formula used to obtain it is: $API\ gravity = (141.5/SG\ at\ 60^{\circ}F) - 131.5$, where SG is the specific gravity of the fluid. Lighter the crude, higher the API gravity. The API scale was designed so that most values would fall between 10 and 70 API gravity degrees. Fresh water has an API density of 10.

For the definition of the qualitative parameters for single crudes, the data of "Eni-R&M downstream laboratories" have been used, wherever possible. Quality levels, indicating API gravity and sulphur content, are defined as follows.

Quality levels - API gravity and sulphur content

Ultra Light	API level equal to or greater than 50° and a low sulphur content
Light & Sweet	API level equal to or greater than 35° and less than 50°, sulphur content less 0.5%
Light & Medium Sour	API level equal to or greater than 35° and less than 50°, sulphur content equal to or greater than 0.5% and less than 1%
Light & Sour	API level equal to or greater than 35° and less than 50°, sulphur content equal to or greater than 1%
Medium & Sweet	API level equal to or greater than 26° and less than 35°, sulphur content less 0.5%
Medium & Medium Sour	API level equal to or greater than 26° and less than 35°, sulphur content equal to or greater than 0.5% and less than 1%
Medium & Sour	API level equal to or greater than 26° and less than 35°, sulphur content equal to or greater than 1%
Heavy & Sweet	API level equal to or greater than 10° and less than 26°, sulphur content less 0.5%
Heavy & Medium Sour	API level equal to or greater than 10° and less than 26°, sulphur content equal to or greater than 0.5% and less than 1%
Heavy & Sour	API level equal to or greater than 10° and less than 26°, sulphur content equal to or greater than 1%

Refining Industry

The "Refining Capacity" set of tabulations provides the following information:

- Refineries: includes asphalt and lube oriented units, when dedicated topping capacity is present. Condensate refineries are included.
- Primary Capacity: represents a pro rated annual average of available capacity, excluding turnarounds.
- Conversion Capacity (FCC eqv.): sum of conversion capacity, converted to "Catcracking (FCC) equivalent" capacity. "FCC equivalent" capacity equals 1; other conversion capacities can be higher or lower than 1 (the equivalent factors are reported below in the next table).
- Complexity Ratio - FCC eqv.: ratio of Conversion Capacity (converted to FCC equivalent) over Primary Capacity, calculated on a weight basis. The higher is the complexity index, the higher is the capability of a refinery to produce high equivalent quality and value products.
- Complexity Ratio - NCI (Nelson Complexity Index): is another measure of secondary conversion capacity in comparison to the primary distillation capacity. The units are rated in terms of their costs relative to the primary distillation unit. The higher is the index the higher is the capability of a refinery to produce high quality and value products.

The equivalent factors for the FCC equivalent calculation, reported below, change according to the type and the configuration of the conversion unit and are from ICIS Consulting. The factors for the Nelson calculation are standard factors, modified as necessary by Eni. Oxygenates and Aromatics are excluded.

Conversion type			Conversion type		
Alkylation	0.00	10.00	Hydrodesulf-diesel	0.00	2.50
Alkylation-hydrofluoric	0.00	10.00	Hydrodesulf-gasoline	0.00	2.50
Alkylation-sulfonic	0.00	10.00	Hydrodesulf-kero	0.00	2.50
Asphalt	0.25	1.50	Hydrodesulf-mid-distillates	0.00	2.50
Coking-delayed	1.35	6.00	Hydrodesulf-naphta	0.00	2.50
Coking-f/d	1.35	6.00	Hydrodesulf-residue	0.20	2.50
Coking-fluid	1.35	6.00	Hydrodesulf-gvgo	0.05	2.50
Coking-fxc	1.35	6.00	Isomerization-c4	0.00	15.00
Condensate distillation	0.00	1.00	Isomerization-In	0.00	15.00
Crude	0.00	1.00	Lube	0.50	60.00
Deasphalting	0.00	1.50	Polymerization	0.00	10.00
Deasphalting-c3	0.00	1.50	Reforming-aromax	0.00	5.00
Deasphalting-c4	0.00	1.50	Reforming-btx	0.00	5.00
Deep catcracking	1.10	6.00	Reforming-cc	0.00	5.00
Distillate dewaxing	0.10	85.00	Reforming-cyclic	0.00	5.00
Fluid cat-cracking	1.00	6.00	Reforming-lpg feed	0.00	5.00
Fluid catcracking-residue	1.90	6.00	Reforming-sr	0.00	5.00
Heavy residual gasification	1.30	12.00	Thermal cat-cracking	0.80	2.75
Hydrocracking-distillates	1.30	6.00	Thermal cracking	0.65	2.75
Hydrocracking-mild	0.30	6.00	Vacuum	0.00	2.00
Hydrocracking-residue	0.40	6.00	Visbreaking	0.25	2.75

Coal

The sources of the data are IEA (2024) Extended Balances data and Eni's estimates on them.

In all the chapters ("Consumption" and "Production"), the list of the "The world top 10" is drawn up by ordering the countries on the basis of the last available year.

CO₂ Emissions

The sources of the data is IEA (2024) Greenhouse Gas Emissions from Energy.

In this chapter, total may differ from the sum of the individual figures as a result of rounding up/down. Percentages have been calculated before rounding.

In this chapter, the list of the "The world top 10" is drawn up by ordering the countries on the basis of the last available year.

Blank spaces in the tables indicate that the figure was not available.

Power Generation

The sources of the data is IEA (2024) Extended Balances data.

In all the chapters of Power Generation focus ("Hydroelectric" and "Nuclear"), total may differ from the sum of the individual figures as a result of rounding up/down. Percentages have been calculated before rounding.

In all the chapters, the list of the "The world top 10" is drawn up by ordering the countries on the basis of the last available year.

Blank spaces in the tables indicate that the figure was not available.

Natural Gas - Renewables

The sources of the data are: EIA DOE, Enerdata, International Energy Agency (IEA), International Renewable Energy Agency (IRENA), Italian Ministry of Environment and Energy Security, Norwegian Petroleum Directorate, Oil & Gas Journal, OPEC, S&P Global, Wood MacKenzie and other official sources.

Blank spaces in the tables indicate that the figure was not available, zero indicates a figure that is not significant (except for the two chapters "Imports by Country of Origin" and "LNG Liquefaction and Regasification Capacity" in the section "Natural Gas" and for the whole section "Renewables").

Total may differ from the sum of the individual figures as a result of rounding up/down.

Percentages have been calculated before rounding.

In all the chapters of natural gas, the figures of some countries may include natural gas from non conventional sources and others sources of supply.

The figures for "Reserves" of natural gas refer to proven reserves as at 31st December. The figures for other chapters indicate annual averages.

In the chapters "Production", "Consumption", "Exports" and "Imports" of natural gas, figures are assessed by using the same calorific value per cubic metre (40 MJ/cm, GCV), in order to make data among countries comparable.

In the chapter "Production" of natural gas, the figures concern traded production and do not include quantities of flared, dispersed or re-injected gas.

In the chapter "Imports" of natural gas, the figure reported as total imports for a single country may differ from the sum of "Imports by LNG and pipeline" for the same country, because of the different sources and different calorific attached to the cubic metre. The imports of liquefied natural gas cover only the dry marketable equivalent after regasification.

In all the chapters, the list of the "The world top 10 or 5..." is drawn up by ordering the countries on the basis of the last available year. In the chapters "Reserves/Production Ratio" and "Production/Consumption Ratio" of natural gas, the list of the "The world top 10..." is drawn up by selecting the largest producers in the last available year and ordering them on the basis of the value of the reserves/production and production/consumption ratio. In the chapter "Per Capita Consumption" of natural gas, the list of the world top is drawn up by selecting the largest consumers in the last available year and ordering them by the value of per capita consumption.

In the chapter "Trade and Prices" of natural gas, the annual averages of gas prices are calculated by taking into account the delivery period of the quotations.

Critical Minerals

The source of the data is U.S. Geological Survey.

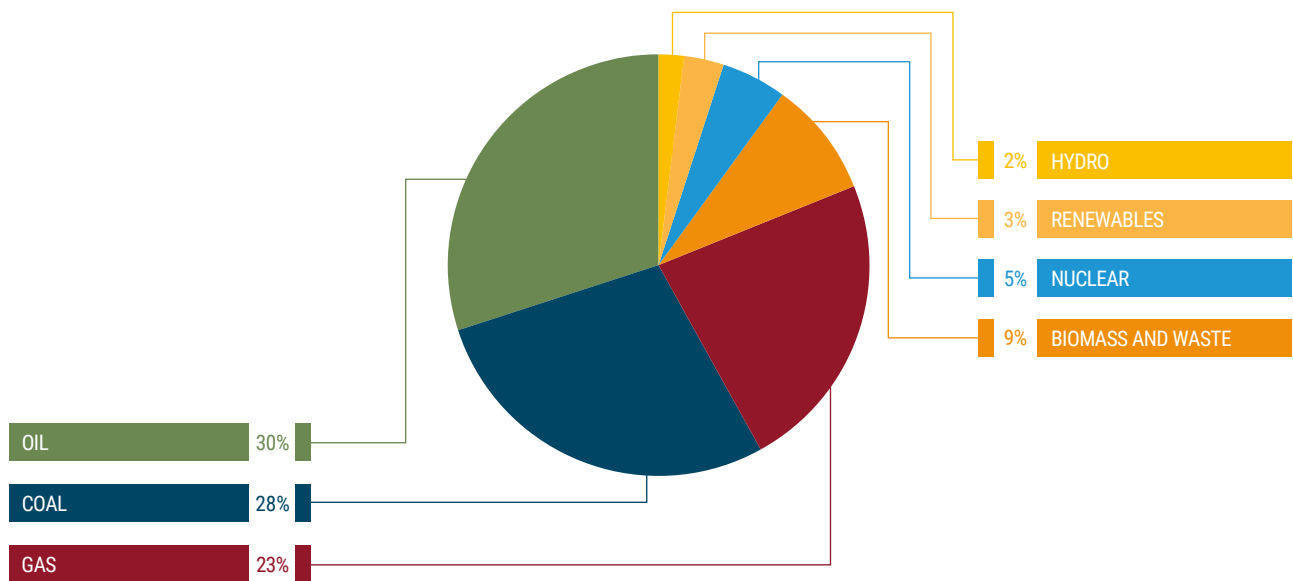
In all the chapters, the list of the "The world top 10..." is drawn up by ordering the countries on the basis of the last available year.

World Energy Mix

In 2023, the World's **primary energy consumption** reached ~15 Gtoe, with an approximate growth rate of 2%, confirming the almost uninterrupted trend of recent decades. Fossil fuels continue to account for about 80% of energy demand, with shares remaining broadly unchanged (oil 30%, coal 28%, and gas 23%), in line with the last 30 years' trend. The share of solar PV and wind in the energy mix is growing, albeit it remains limited (below 3%).

World Energy Mix 2023^(*)

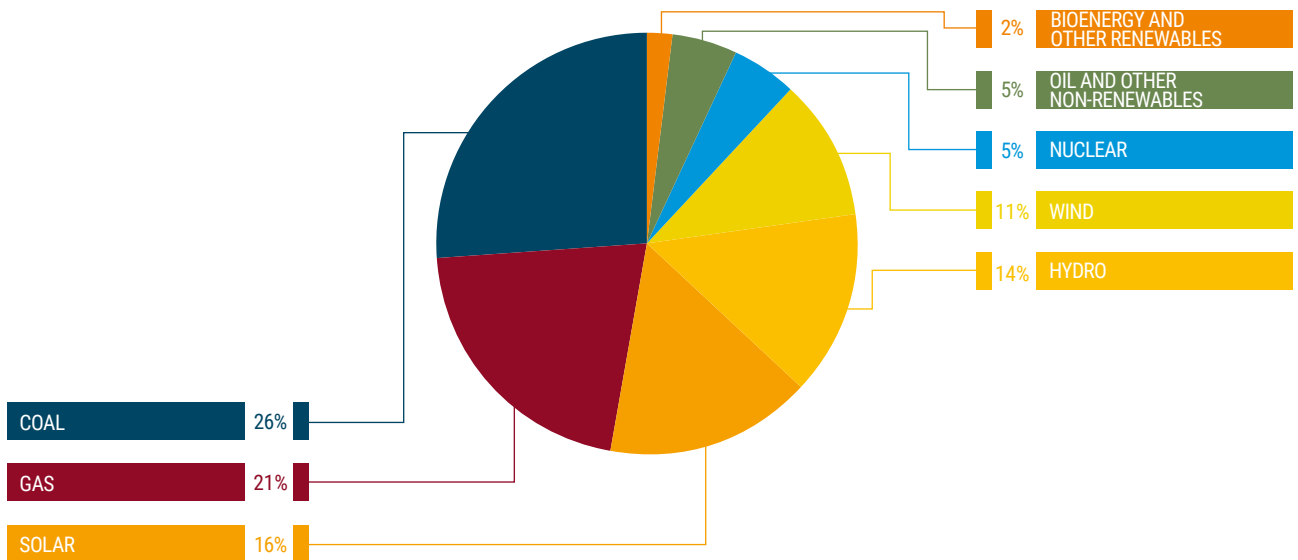
(~15 Gtoe)



^(*) Data source: Eni preliminary estimates.

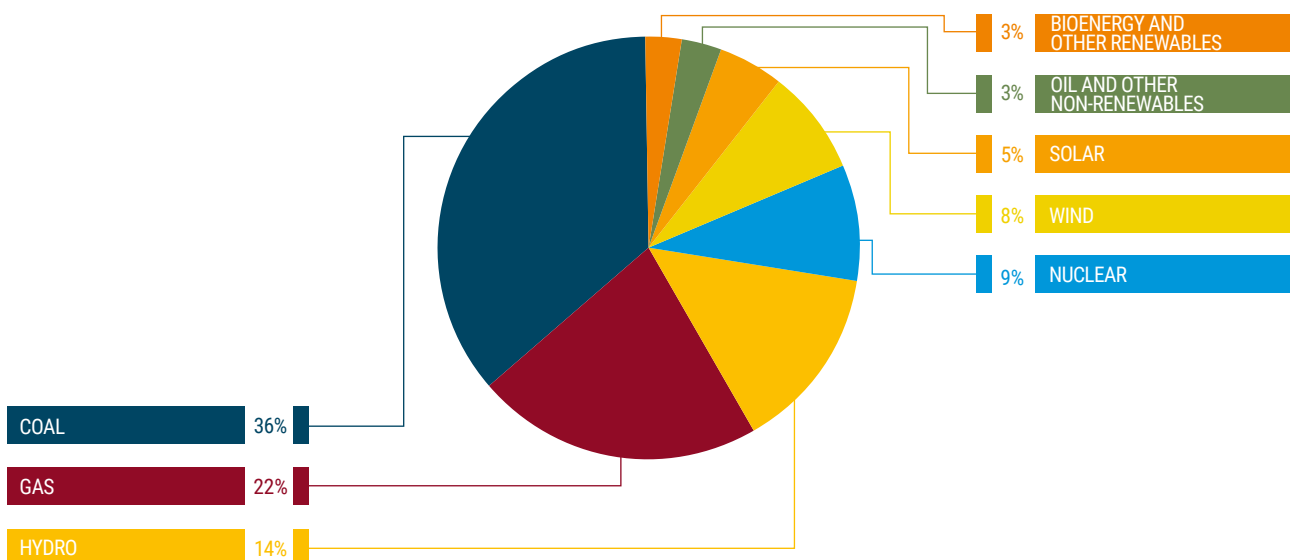
World Power Capacity Mix 2023^(*)

(~8,900 GW)

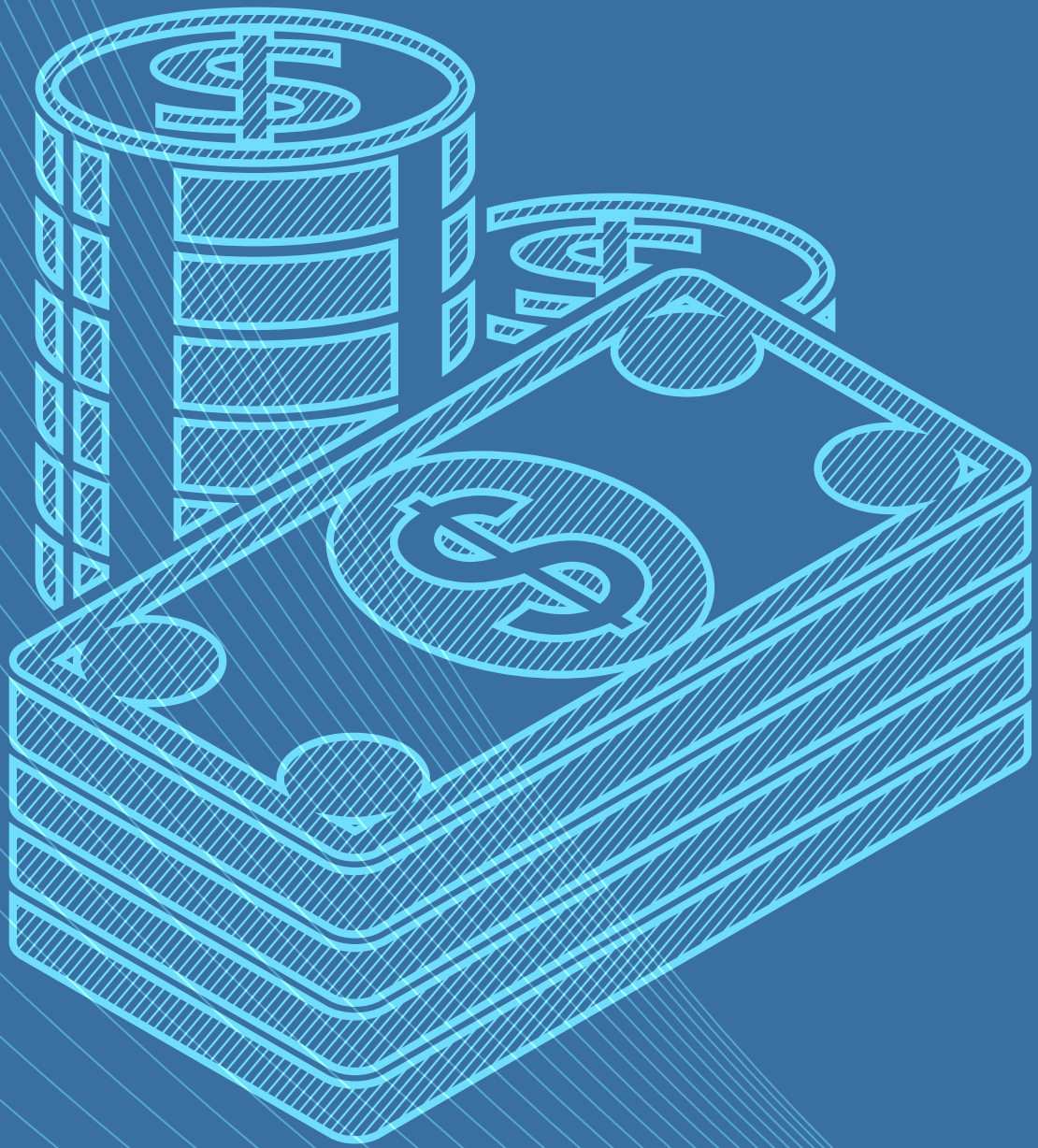


World Power Generation Mix 2023^(*)

(~29,800 TWh)



^(*) Data source: Eni preliminary estimates.





Economy

In 2023, the global population witnessed a 0.9% increase (+70 million), reaching 8 billion people. Notably, this growth was concentrated in Africa (+2.3%) and the Middle East (+1.7%), with Europe being the only region to experience a decline (-0.4%). This marks the second consecutive contraction for Europe, following the one recorded in 2022 (-0.5% compared to 2021).

At a country level, India, with more than 1.4 billion people, surpassed China for the first time and became the most populous country in the world. Among the top ten by population, the most significant increases came from African countries (Ethiopia +2.6% and Nigeria +2.4%), followed by Pakistan, Bangladesh, and the United States. Population declined in Russia with a downward since 2019.

In 2023, despite concerns about a global recession, the **global economy** demonstrated remarkable resilience. Global **GDP** grew by 2.7%, in line with 2022, thanks to favourable demand developments, including higher-than-expected government spending and household consumption, and a supply-side expansion that helped alleviate inflationary pressures. This resilience was particularly noteworthy in a weak growth environment due to significant interest rate hikes by major central banks aimed at curbing inflation.

Global economic growth in 2023 revealed distinct trends. European countries experienced a slowdown due to the lingering effects of the 2022 energy crisis, which have continued in 2023. Asian economies, on the other hand, fell short of expectations. China, grappling with weak domestic consumption and deteriorating housing market conditions, saw a slower post-Covid recovery than anticipated (+5.2% in 2023 vs. CAGR 2010-2023 +6.5%). However, there were bright spots. The U.S. (+2.5%) defied expectations, posting higher-than-expected growth. This surprising growth was largely due to an exceptionally expansionary fiscal policy that bolstered consumption, despite high interest rates.



Economy



POPULATION

Areas and Aggregates

The World Top 10

Countries



REAL GDP LEVELS

Areas and Aggregates

The World Top 10

Countries

Population

Areas and Aggregates^(*)

(million of persons)

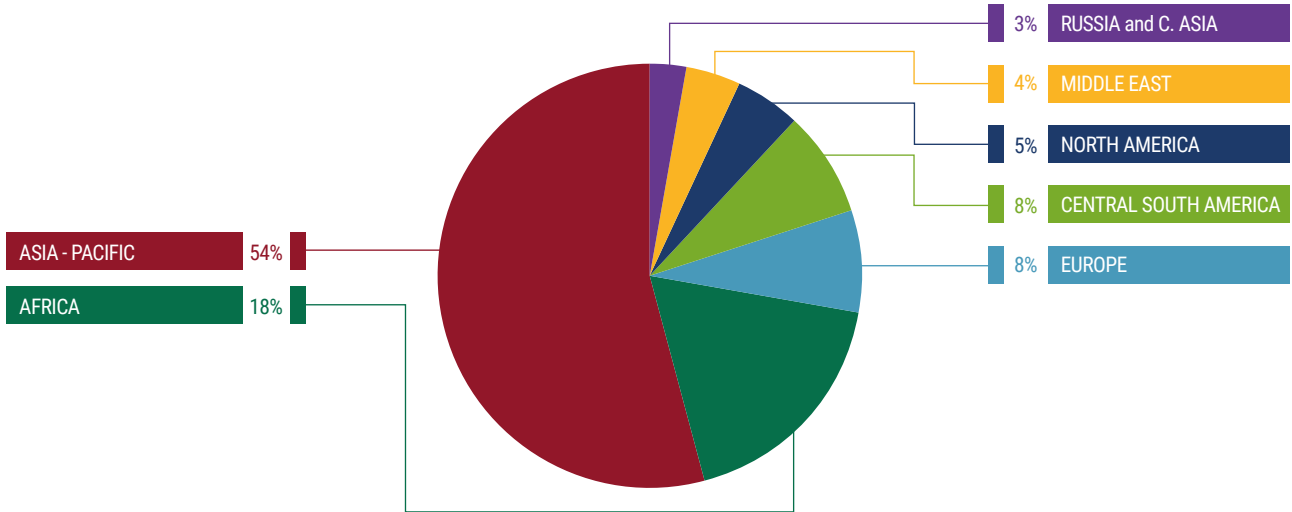
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	665.2	676.1	681.5	682.9	683.7	684.0	680.7	678.1	-0.4%	0.1%
Russia and Central Asia	223.1	230.4	235.2	236.6	237.7	238.4	239.3	240.3	0.4%	0.6%
Middle East	223.3	249.1	263.1	267.8	271.3	274.5	278.8	283.7	1.7%	1.9%
Africa	1,059.9	1,206.1	1,301.0	1,333.6	1,366.7	1,400.0	1,433.4	1,467.0	2.3%	2.5%
Asia - Pacific	3,888.6	4,091.4	4,202.3	4,235.2	4,265.5	4,291.1	4,313.7	4,338.1	0.6%	0.8%
Americas	933.8	979.9	1,006.1	1,013.9	1,020.5	1,025.7	1,032.4	1,041.0	0.8%	0.8%
- North America	344.2	357.8	365.8	368.1	369.6	370.7	373.3	377.2	1.0%	0.7%
- Central South America	589.7	622.2	640.4	645.9	650.8	655.0	659.1	663.8	0.7%	0.9%
World	6,993.9	7,433.1	7,689.2	7,769.9	7,845.4	7,913.6	7,978.3	8,048.1	0.9%	1.1%
European Union 27	439.3	441.8	443.3	443.9	444.2	444.2	444.0	443.7	-0.1%	0.1%
MENA	392.3	434.3	458.3	466.1	472.7	478.8	486.1	493.8	1.6%	1.8%
OECD	1,288.5	1,330.2	1,353.6	1,360.5	1,365.6	1,369.0	1,373.6	1,379.1	0.4%	0.5%
NON OECD	5,705.4	6,102.9	6,335.7	6,409.4	6,479.8	6,544.6	6,604.7	6,669.0	1.0%	1.2%
OPEC	409.9	461.8	491.4	500.5	509.0	517.4	526.9	537.1	1.9%	2.1%
NON OPEC	6,584.0	6,971.3	7,197.9	7,269.4	7,336.4	7,396.2	7,451.4	7,511.0	0.8%	1.0%

^(*)Data source: S&P Global data.

Population

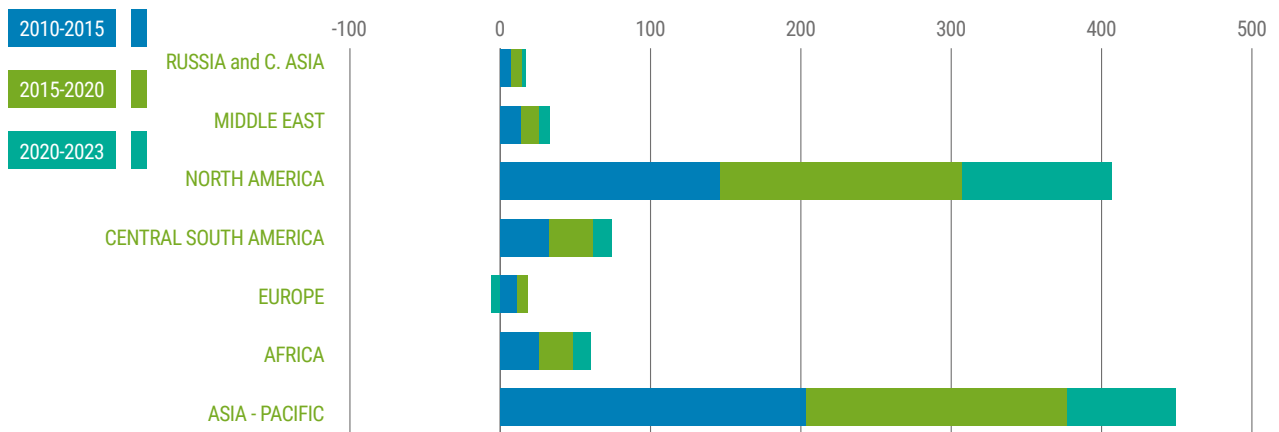
World Population (2023)

8,048.1 million of persons



World Population Growth (2010-2023)

1,054.2 million of persons



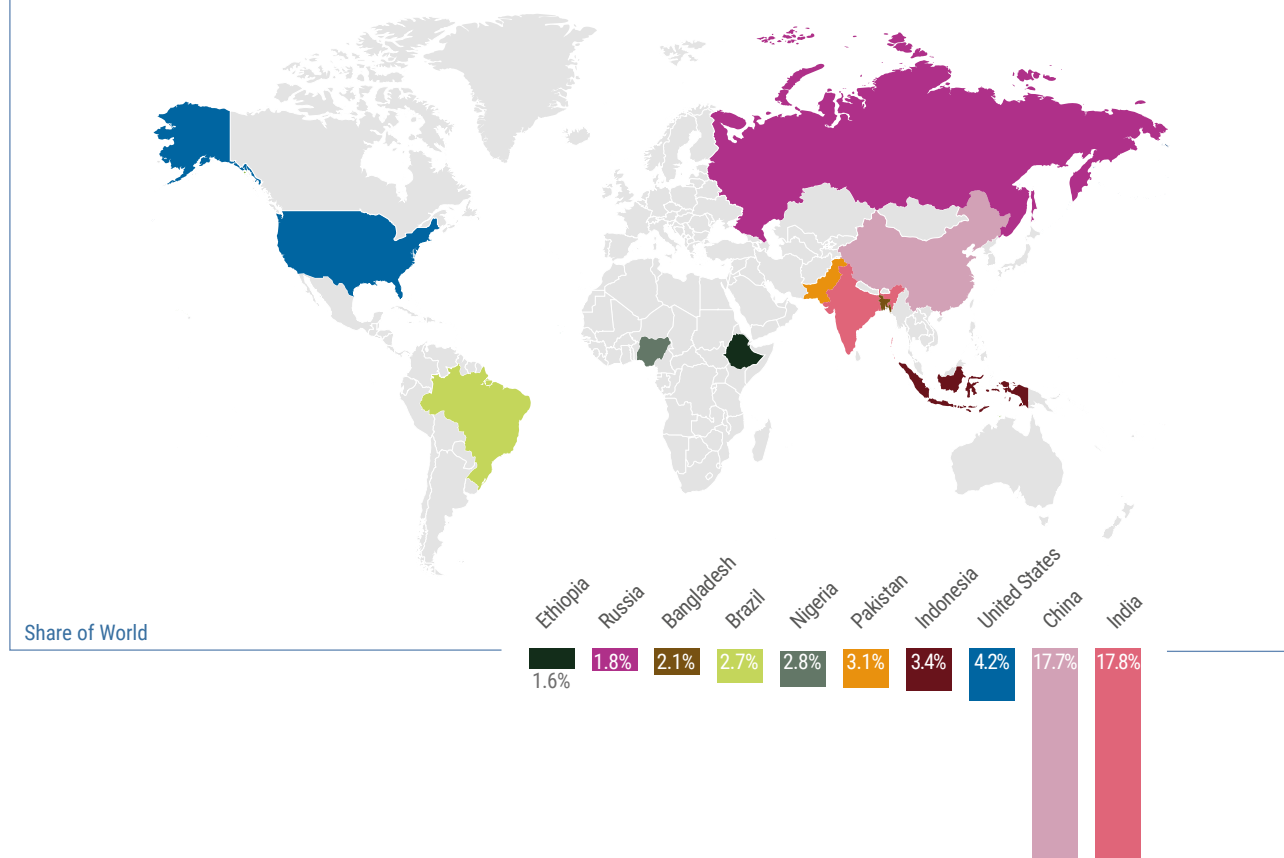
Population

The World Top 10^(*)

(million of persons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
India	1,240.6	1,322.9	1,369.0	1,383.1	1,396.4	1,407.6	1,417.2	1,428.6	0.8%	1.1%
China	1,348.2	1,393.7	1,417.1	1,421.9	1,424.9	1,425.9	1,425.9	1,425.7	0.0%	0.4%
United States	310.2	322.0	328.7	330.6	331.8	332.5	334.9	338.4	1.1%	0.7%
Indonesia	244.0	259.1	267.1	269.6	271.9	273.8	275.5	277.5	0.7%	1.0%
Pakistan	199.2	217.3	226.9	230.8	235.0	239.5	243.7	247.5	1.6%	1.7%
Nigeria	161.0	184.0	198.4	203.3	208.3	213.4	218.5	223.8	2.4%	2.6%
Brazil	196.4	205.2	210.2	211.8	213.2	214.3	215.3	216.4	0.5%	0.8%
Bangladesh	152.2	159.4	163.5	164.9	166.3	167.7	169.4	171.5	1.2%	0.9%
Russia	143.2	144.7	145.7	145.7	145.6	145.1	144.7	144.4	-0.2%	0.1%
Ethiopia	90.5	103.9	112.7	115.7	118.9	122.1	125.4	128.7	2.6%	2.7%
The World Top 10	4,085.5	4,312.1	4,439.2	4,477.4	4,512.3	4,541.9	4,570.5	4,602.5	0.7%	0.9%
Rest of the World	2,908.3	3,121.0	3,250.0	3,292.5	3,333.1	3,371.8	3,407.8	3,445.6	1.1%	1.3%
World	6,993.9	7,433.1	7,689.2	7,769.9	7,845.4	7,913.6	7,978.3	8,048.1	0.9%	1.1%

The World Top 10 (2023)



^(*)Data source: S&P Global data.

Population

Countries^(*)

(million of persons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	665.2	676.1	681.5	682.9	683.7	684.0	680.7	678.1	-0.4%	0.1%
Albania	2.9	2.9	2.9	2.9	2.8	2.8	2.8	2.8	-0.3%	-0.2%
Austria	8.4	8.6	8.8	8.9	8.9	8.9	8.9	9.0	0.2%	0.5%
Belarus	9.7	9.7	9.7	9.7	9.6	9.6	9.5	9.5	-0.4%	-0.2%
Belgium	10.9	11.2	11.4	11.5	11.6	11.6	11.7	11.7	0.3%	0.6%
Bosnia Herzegovina	3.8	3.5	3.4	3.4	3.3	3.3	3.2	3.2	-0.7%	-1.3%
Bulgaria	7.4	7.2	7.1	7.0	6.9	6.9	6.8	6.8	-0.8%	-0.7%
Croatia	4.4	4.3	4.2	4.1	4.1	4.1	4.0	4.0	-0.5%	-0.7%
Cyprus	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	1.1%	0.9%
Czech Republic	10.5	10.6	10.7	10.7	10.7	10.7	10.7	10.7	0.1%	0.2%
Denmark	5.6	5.7	5.8	5.8	5.8	5.9	5.9	5.9	0.5%	0.5%
Estonia	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	-0.4%	-0.1%
Finland	5.4	5.5	5.5	5.5	5.5	5.5	5.5	5.5	0.1%	0.3%
France	62.4	63.8	64.3	64.4	64.5	64.5	64.6	64.8	0.2%	0.3%
Germany	81.3	82.1	82.9	83.1	83.3	83.4	83.4	83.3	-0.1%	0.2%
Greece	11.0	10.8	10.6	10.6	10.5	10.4	10.4	10.3	-0.4%	-0.5%
Hungary	9.9	9.8	9.7	9.7	9.7	9.6	9.6	9.6	-0.3%	-0.3%
Iceland	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	1.9%	1.5%
Ireland	4.5	4.7	4.8	4.9	4.9	5.0	5.0	5.1	0.7%	0.9%
Italy	59.8	60.2	59.9	59.7	59.5	59.2	59.0	58.9	-0.3%	-0.1%
Kosovo	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.2%	0.2%
Latvia	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.8	-1.1%	-1.1%
Lithuania	3.1	3.0	2.9	2.8	2.8	2.8	2.8	2.7	-1.2%	-1.1%
Luxembourg	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.7	1.1%	2.0%
Malta	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3%	1.9%
Moldova	2.9	2.8	2.7	2.7	2.6	2.6	2.6	2.5	-2.0%	-1.0%
Montenegro	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.0%	0.2%
Netherlands	16.6	17.0	17.3	17.4	17.4	17.5	17.6	17.6	0.3%	0.5%
North Macedonia	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	-0.4%	0.0%
Norway	4.9	5.2	5.3	5.3	5.4	5.4	5.4	5.5	0.7%	0.9%
Poland	38.3	38.0	37.9	37.9	37.8	37.8	37.7	37.7	-0.2%	-0.1%
Portugal	10.6	10.4	10.3	10.3	10.3	10.3	10.3	10.2	-0.2%	-0.3%
Romania	20.5	19.9	19.5	19.4	19.2	19.1	19.0	18.9	-0.5%	-0.6%
Serbia	7.3	7.1	7.0	6.9	6.9	6.8	6.8	6.8	-0.6%	-0.6%
Slovakia	5.4	5.4	5.5	5.5	5.5	5.5	5.5	5.5	0.0%	0.1%
Slovenia	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	0.0%	0.2%
Spain	46.6	46.4	46.8	47.1	47.4	47.5	47.6	47.5	-0.1%	0.2%
Sweden	9.4	9.8	10.2	10.3	10.4	10.5	10.5	10.6	0.6%	1.0%
Switzerland	7.8	8.3	8.5	8.6	8.6	8.7	8.7	8.8	0.6%	0.9%
Türkiye	73.2	79.6	82.8	83.5	84.1	84.8	85.3	85.8	0.6%	1.2%
Ukraine	45.7	45.0	44.4	44.2	43.9	43.5	39.7	36.7	-7.4%	-1.7%
United Kingdom	62.8	65.2	66.4	66.8	67.1	67.3	67.5	67.7	0.3%	0.6%
Other Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5%	0.8%

^(*)Data source: S&P Global data.

Population

Countries^(*)

(million of persons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia and Central Asia	223.1	230.4	235.2	236.6	237.7	238.4	239.3	240.3	0.4%	0.6%
Russia	143.2	144.7	145.7	145.7	145.6	145.1	144.7	144.4	-0.2%	0.1%
Armenia	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8	-0.1%	-0.5%
Azerbaijan	9.2	9.9	10.2	10.2	10.3	10.3	10.4	10.4	0.5%	0.9%
Georgia	3.8	3.8	3.8	3.8	3.8	3.8	3.7	3.7	-0.4%	-0.2%
Kazakhstan	16.8	18.1	18.9	19.2	19.5	19.7	20.0	20.3	1.5%	1.5%
Kyrgyzstan	5.5	5.9	6.2	6.3	6.4	6.5	6.6	6.7	1.6%	1.6%
Tajikistan	7.6	8.5	9.1	9.3	9.5	9.8	10.0	10.1	1.9%	2.2%
Turkmenistan	5.3	5.8	6.1	6.2	6.3	6.3	6.4	6.5	1.3%	1.6%
Uzbekistan	28.6	30.9	32.4	33.0	33.5	34.1	34.6	35.2	1.5%	1.6%

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Middle East	223.3	249.1	263.1	267.8	271.3	274.5	278.8	283.7	1.7%	1.9%
Bahrain	1.2	1.4	1.5	1.5	1.5	1.5	1.5	1.6	2.4%	2.0%
Iran	75.4	81.8	85.6	86.6	87.3	87.9	88.6	89.2	0.7%	1.3%
Iraq	31.0	37.6	40.3	41.2	42.1	43.1	44.1	45.1	2.3%	2.9%
Israel	7.3	8.0	8.5	8.6	8.8	8.9	9.0	9.2	1.5%	1.7%
Jordan	6.9	9.5	10.5	10.7	10.9	11.1	11.3	11.3	0.5%	3.9%
Kuwait	2.9	3.9	4.3	4.4	4.4	4.3	4.3	4.3	1.0%	3.0%
Lebanon	5.0	6.5	6.0	5.8	5.7	5.7	5.7	5.8	0.5%	1.0%
Oman	2.8	4.2	4.6	4.6	4.5	4.5	4.7	5.0	6.7%	4.8%
Qatar	1.7	2.4	2.8	2.8	2.8	2.7	2.7	2.7	0.8%	3.6%
Saudi Arabia	29.4	32.7	35.0	35.8	36.0	36.0	36.4	36.9	1.5%	1.8%
Syria	22.3	19.2	19.3	20.1	20.8	21.3	22.1	23.2	5.0%	0.3%
United Arab Emirates	8.5	8.9	9.1	9.2	9.3	9.4	9.4	9.5	0.8%	0.9%
Yemen	24.7	28.5	30.8	31.5	32.3	33.0	33.7	34.4	2.2%	2.6%
Other Middle East	4.0	4.5	4.8	4.9	5.0	5.1	5.3	5.4	2.3%	2.3%

^(*)Data source: S&P Global data.

Population

Countries^(*)

(million of persons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Africa	1,059.9	1,206.1	1,301.0	1,333.6	1,366.7	1,400.0	1,433.4	1,467.0	2.3%	2.5%
Algeria	35.9	39.5	41.9	42.7	43.5	44.2	44.9	45.6	1.6%	1.9%
Angola	23.4	28.1	31.3	32.4	33.4	34.5	35.6	36.7	3.1%	3.5%
Benin	9.4	10.9	11.9	12.3	12.6	13.0	13.4	13.7	2.7%	2.9%
Cameroon	19.7	22.8	24.8	25.5	26.2	26.9	27.6	28.4	2.7%	2.9%
Chad	11.9	14.1	15.6	16.1	16.6	17.2	17.7	18.3	3.1%	3.4%
Congo	4.4	5.1	5.4	5.6	5.7	5.8	6.0	6.1	2.3%	2.5%
Côte d'Ivoire	22.5	25.2	27.5	28.2	28.9	29.6	30.4	31.2	2.5%	2.5%
Dem. Rep. Congo	68.6	81.0	90.0	92.9	96.0	99.1	102.4	105.8	3.3%	3.4%
Egypt	87.3	97.7	103.7	105.6	107.5	109.3	111.0	112.7	1.6%	2.0%
Equatorial Guinea	1.1	1.3	1.5	1.6	1.6	1.6	1.7	1.7	2.4%	3.5%
Ethiopia	90.5	103.9	112.7	115.7	118.9	122.1	125.4	128.7	2.6%	2.7%
Gabon	1.7	2.0	2.2	2.2	2.3	2.3	2.4	2.4	2.0%	2.8%
Ghana	25.5	28.7	30.6	31.3	31.9	32.5	33.1	33.8	1.9%	2.2%
Kenya	41.6	47.1	50.2	51.2	52.2	53.2	54.3	55.1	1.6%	2.2%
Libya	6.5	6.2	6.5	6.6	6.7	6.7	6.8	6.9	1.1%	0.5%
Madagascar	21.7	24.9	26.8	27.5	28.2	28.9	29.6	30.3	2.4%	2.6%
Mauritania	3.4	3.9	4.3	4.4	4.5	4.6	4.7	4.9	2.7%	2.7%
Morocco	32.5	34.7	35.9	36.3	36.7	37.1	37.5	37.8	1.0%	1.2%
Mozambique	23.0	26.5	29.0	29.9	30.8	31.7	32.7	33.6	3.0%	3.0%
Namibia	2.1	2.4	2.6	2.7	2.7	2.8	2.9	3.0	2.5%	2.6%
Niger	16.6	20.1	22.6	23.4	24.3	25.3	26.2	27.2	3.8%	3.8%
Nigeria	161.0	184.0	198.4	203.3	208.3	213.4	218.5	223.8	2.4%	2.6%
Rwanda	10.3	11.6	12.5	12.8	13.1	13.5	13.8	14.1	2.3%	2.4%
Senegal	12.6	14.6	15.9	16.4	16.8	17.2	17.7	18.1	2.4%	2.8%
Sierra Leone	6.4	7.3	7.9	8.0	8.2	8.4	8.6	8.8	2.2%	2.4%
Somalia	12.0	13.8	15.4	16.0	16.5	17.1	17.6	18.1	3.1%	3.2%
South Africa	51.8	55.9	57.3	58.1	58.8	59.4	59.9	60.4	0.9%	1.2%
South Sudan	9.7	11.2	10.4	10.4	10.6	10.7	10.9	11.1	1.6%	1.0%
Sudan	33.7	38.2	42.0	43.2	44.4	45.7	46.9	47.8	2.1%	2.7%
Tanzania	44.8	52.0	57.4	59.2	61.0	62.8	64.7	66.6	2.9%	3.1%
Tunisia	10.9	11.6	11.9	12.0	12.2	12.3	12.4	12.5	0.8%	1.0%
Uganda	32.4	37.5	41.6	43.0	44.5	45.9	47.3	48.7	2.8%	3.2%
Zambia	14.0	16.4	18.0	18.5	19.1	19.6	20.2	20.7	2.8%	3.1%
Zimbabwe	12.8	14.2	15.1	15.4	15.7	16.0	16.3	16.7	2.1%	2.0%
Other Africa	98.2	111.5	120.1	123.1	126.2	129.4	132.5	135.8	2.4%	2.5%

^(*)Data source: S&P Global data.

Population

Countries^(*)

(million of persons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Asia - Pacific	3,888.6	4,091.4	4,202.3	4,235.2	4,265.5	4,291.1	4,313.7	4,338.1	0.6%	0.8%
Afghanistan	28.2	33.8	36.7	37.8	39.0	40.1	41.1	42.2	2.7%	3.2%
Australia	22.0	23.8	25.0	25.4	25.7	25.9	26.2	26.4	1.0%	1.4%
Bangladesh	152.2	159.4	163.5	164.9	166.3	167.7	169.4	171.5	1.2%	0.9%
Bhutan	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.6%	0.8%
Brunei	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.8%	1.0%
China	1,348.2	1,393.7	1,417.1	1,421.9	1,424.9	1,425.9	1,425.9	1,425.7	0.0%	0.4%
East Timor	1.1	1.2	1.3	1.3	1.3	1.3	1.3	1.4	1.4%	1.7%
Hong Kong	7.1	7.4	7.5	7.5	7.5	7.5	7.5	7.5	0.0%	0.4%
India	1,240.6	1,322.9	1,369.0	1,383.1	1,396.4	1,407.6	1,417.2	1,428.6	0.8%	1.1%
Indonesia	244.0	259.1	267.1	269.6	271.9	273.8	275.5	277.5	0.7%	1.0%
Japan	128.1	127.3	126.3	125.8	125.2	124.6	124.0	123.3	-0.5%	-0.3%
Malaysia	28.7	31.1	32.4	32.8	33.2	33.6	33.9	34.3	1.1%	1.4%
Mongolia	2.7	3.0	3.2	3.2	3.3	3.3	3.4	3.4	1.4%	1.9%
Myanmar	49.4	51.5	52.7	53.0	53.4	53.8	54.2	54.6		
Nepal	27.2	27.6	28.5	28.8	29.3	30.0	30.5	30.9	1.1%	1.0%
New Zealand	4.3	4.6	4.8	5.0	5.1	5.1	5.2	5.2	0.8%	1.4%
North Korea	24.7	25.3	25.6	25.8	25.9	26.0	26.1	26.2	0.4%	0.4%
Pakistan	199.2	217.3	226.9	230.8	235.0	239.5	243.7	247.5	1.6%	1.7%
Papua New Guinea	7.6	8.7	9.3	9.5	9.7	9.9	10.1	10.3	1.8%	2.4%
Philippines	94.6	103.0	108.6	110.4	112.2	113.9	115.6	117.3	1.5%	1.7%
Singapore	5.2	5.7	5.8	5.9	5.9	5.9	6.0	6.0	0.7%	1.2%
South Korea	48.8	51.0	51.7	51.8	51.8	51.8	51.8	51.8	-0.1%	0.5%
Sri Lanka	20.7	21.3	21.6	21.6	21.7	21.8	21.8	21.9	0.3%	0.4%
Taiwan	23.1	23.5	23.7	23.8	23.8	23.9	23.9	23.9	0.1%	0.3%
Thailand	68.3	70.3	71.1	71.3	71.5	71.6	71.7	71.8	0.1%	0.4%
Vietnam	87.4	92.2	94.9	95.8	96.6	97.5	98.2	98.9	0.7%	1.0%
Other Asia - Pacific	24.0	25.8	26.9	27.3	27.6	28.0	28.3	28.6	1.2%	1.3%

^(*)Data source: S&P Global data.

Population

Countries^(*)

(million of persons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Americas	933.8	979.9	1,006.1	1,013.9	1,020.5	1,025.7	1,032.4	1,041.0	0.8%	0.8%
Argentina	41.1	43.3	44.4	44.7	45.0	45.3	45.5	45.8	0.6%	0.8%
Barbados	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1%	0.2%
Belize	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.4%	1.9%
Bolivia	10.2	11.1	11.6	11.8	11.9	12.1	12.2	12.4	1.3%	1.5%
Brazil	196.4	205.2	210.2	211.8	213.2	214.3	215.3	216.4	0.5%	0.8%
Canada	34.0	35.7	37.0	37.5	37.9	38.2	38.5	38.8	0.9%	1.0%
Chile	17.0	17.9	18.7	19.0	19.3	19.5	19.6	19.6	0.1%	1.1%
Colombia	44.8	47.1	49.3	50.2	50.9	51.5	51.9	52.1	0.4%	1.2%
Costa Rica	4.6	4.8	5.0	5.0	5.0	5.1	5.1	5.1	0.5%	0.9%
Cuba	11.3	11.3	11.3	11.3	11.3	11.3	11.2	11.2	-0.2%	-0.1%
Curacao	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5%	1.4%
Dominican Republic	9.8	10.4	10.8	10.9	11.0	11.1	11.2	11.3	0.9%	1.1%
Ecuador	15.1	16.3	17.0	17.3	17.5	17.7	17.8	18.0	0.9%	1.4%
El Salvador	6.1	6.2	6.3	6.3	6.3	6.3	6.3	6.4	0.5%	0.3%
Guatemala	14.5	16.0	16.8	17.1	17.4	17.6	17.8	18.1	1.6%	1.7%
Guyana	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.6%	0.7%
Haiti	9.8	10.6	11.0	11.2	11.3	11.4	11.6	11.7	1.2%	1.4%
Honduras	8.5	9.3	9.8	10.0	10.1	10.3	10.4	10.6	1.5%	1.8%
Jamaica	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	-0.1%	0.3%
Mexico	112.5	120.1	124.0	125.1	126.0	126.7	127.5	128.5	0.7%	1.0%
Nicaragua	5.9	6.3	6.6	6.7	6.8	6.9	6.9	7.0	1.4%	1.4%
Panama	3.6	4.0	4.2	4.2	4.3	4.3	4.4	4.5	1.3%	1.6%
Paraguay	5.7	6.2	6.4	6.5	6.6	6.7	6.8	6.8	1.2%	1.4%
Peru	29.2	30.7	32.2	32.8	33.3	33.7	34.0	34.4	0.9%	1.3%
Suriname	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.8%	1.0%
Trinidad and Tobago	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.3%	0.7%
United States	310.2	322.0	328.7	330.6	331.8	332.5	334.9	338.4	1.1%	0.7%
Uruguay	3.3	3.4	3.4	3.4	3.4	3.4	3.4	3.4	-0.1%	0.2%
Venezuela	28.7	30.5	29.8	29.0	28.5	28.2	28.3	28.8	1.9%	0.0%
Other Americas	5.3	5.1	5.0	5.0	5.0	5.0	5.0	5.0	0.4%	-0.4%

^(*)Data source: S&P Global data.

Real GDP levels

Areas and Aggregates^(*)

(billions of 2019 U.S. dollars)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	17,917.7	19,171.6	20,545.7	20,913.4	19,681.4	20,987.6	21,687.0	21,843.4	0.7%	1.5%
Russia and Central Asia	1,740.0	1,920.4	2,028.4	2,078.4	2,024.2	2,141.7	2,139.9	2,224.6	4.0%	1.9%
Middle East	2,040.9	2,471.4	2,655.8	2,691.9	2,578.1	2,700.1	2,871.1	2,897.8	0.9%	2.7%
Africa	1,993.8	2,370.6	2,583.1	2,647.5	2,579.4	2,706.3	2,799.2	2,888.1	3.2%	2.9%
Asia - Pacific	19,949.3	25,567.1	29,581.1	30,735.0	30,468.4	32,498.7	33,564.1	35,015.7	4.3%	4.4%
Americas	23,696.6	26,505.5	28,167.6	28,739.0	27,800.5	29,472.5	30,192.1	30,919.4	2.4%	2.1%
- North America	18,901.3	21,152.8	22,714.3	23,265.1	22,700.9	24,009.1	24,506.6	25,106.3	2.4%	2.2%
- Central South America	4,795.2	5,352.8	5,453.3	5,473.9	5,099.6	5,463.5	5,685.5	5,813.1	2.2%	1.5%
World	67,338.2	78,006.7	85,561.6	87,805.1	85,132.1	90,506.9	93,253.4	95,789.0	2.7%	2.7%
European Union 27	13,742.6	14,474.2	15,499.8	15,792.0	14,878.7	15,798.4	16,336.8	16,422.6	0.5%	1.4%
MENA	2,652.6	3,121.6	3,392.0	3,443.0	3,300.0	3,464.7	3,657.0	3,717.3	1.6%	2.6%
OECD	45,362.8	49,821.1	53,274.0	54,238.9	52,050.9	55,102.4	56,596.9	57,530.5	1.6%	1.8%
NON OECD	21,975.4	28,185.6	32,287.6	33,566.2	33,081.2	35,404.5	36,656.5	38,258.5	4.4%	4.4%
OPEC	2,239.8	2,681.4	2,767.6	2,772.4	2,635.2	2,752.1	2,900.8	2,944.7	1.5%	2.1%
NON OPEC	65,098.4	75,325.4	82,794.0	85,032.7	82,496.9	87,754.7	90,352.6	92,844.3	2.8%	2.8%

^(*)Data source: S&P Global data.

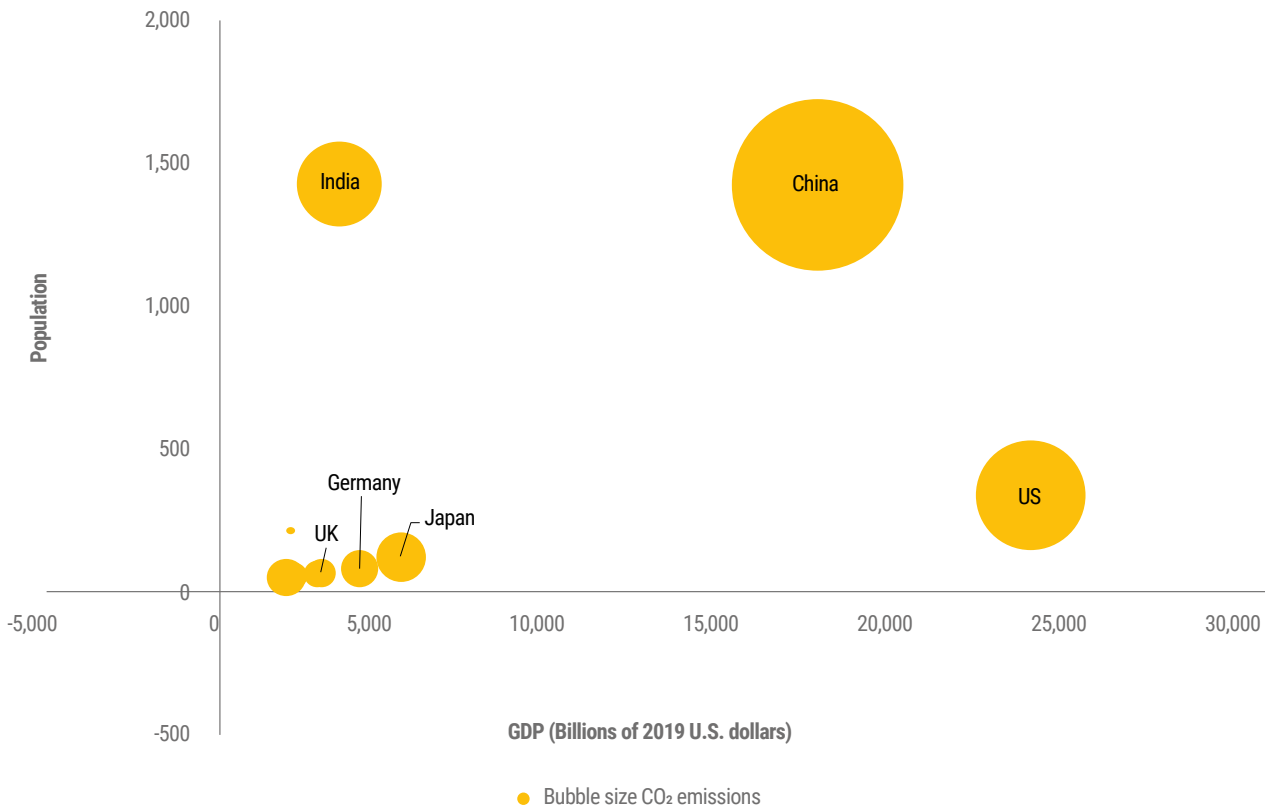
Real GDP levels

The World Top 10^(*)

(billions of 2019 U.S. dollars)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
United States	17,462.7	19,553.1	21,003.2	21,521.4	21,045.0	22,265.7	22,696.6	23,273.7	2.5%	2.2%
China	7,549.5	11,048.1	13,471.9	14,278.3	14,594.2	15,827.7	16,294.8	17,150.2	5.2%	6.5%
Japan	4,730.5	4,983.9	5,137.6	5,117.2	4,901.8	5,038.1	5,095.7	5,180.9	1.7%	0.7%
Germany	3,386.1	3,684.9	3,923.6	3,964.0	3,787.2	3,924.7	3,981.6	3,979.1	-0.1%	1.2%
India	1,630.0	2,233.4	2,741.9	2,850.8	2,684.5	2,947.7	3,155.5	3,412.4	8.1%	5.8%
United Kingdom	2,397.9	2,643.7	2,804.9	2,850.9	2,555.5	2,777.2	2,897.9	2,900.9	0.1%	1.5%
France	2,412.8	2,551.4	2,670.4	2,725.8	2,518.8	2,690.9	2,761.4	2,792.3	1.1%	1.1%
Italy	1,990.1	1,924.4	2,001.4	2,011.0	1,829.0	1,980.4	2,062.5	2,083.5	1.0%	0.4%
Brazil	1,753.3	1,855.8	1,850.7	1,873.1	1,806.3	1,898.5	1,958.0	2,014.9	2.9%	1.1%
South Korea	1,332.0	1,554.1	1,711.1	1,750.7	1,738.5	1,818.6	1,868.2	1,894.5	1.4%	2.7%
The World Top 10	44,644.9	52,032.6	57,316.7	58,943.3	57,460.9	61,169.6	62,772.2	64,682.3	3.0%	2.9%
Rest of the World	22,693.3	25,974.1	28,244.9	28,861.8	27,671.2	29,337.2	30,481.2	31,106.7	2.1%	2.5%
World	67,338.2	78,006.7	85,561.6	87,805.1	85,132.1	90,506.9	93,253.4	95,789.0	2.7%	2.7%

The World Top 10^(**) (2023)



(*) Data source: S&P Global data.

(**) Population and GDP data source: S&P Global data; CO₂ emissions data source: IEA (2024) *Greenhouse Gas Emissions from Energy*.

Real GDP levels

Countries^(*)

(billions of 2019 U.S. dollars)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	17,917.7	19,171.6	20,545.7	20,913.4	19,681.4	20,987.6	21,687.0	21,843.4	0.7%	1.5%
Albania	12.4	13.5	15.1	15.4	14.9	16.2	17.0	17.6	3.5%	2.7%
Austria	388.1	410.0	438.1	444.5	414.6	432.7	453.8	450.6	-0.7%	1.2%
Belarus	58.1	61.6	63.5	64.4	64.0	65.5	62.5	64.9	3.9%	0.9%
Belgium	469.0	500.3	524.1	535.9	507.4	542.6	558.9	566.6	1.4%	1.5%
Bosnia Herzegovina	16.6	18.2	20.5	20.9	20.3	21.8	22.6	23.0	1.6%	2.5%
Bulgaria	56.9	60.9	66.3	68.9	66.1	70.8	73.8	75.3	2.0%	2.2%
Croatia	55.4	55.1	60.8	62.9	57.5	65.0	69.6	71.7	3.1%	2.0%
Cyprus	22.4	20.7	24.6	25.9	25.1	27.5	28.9	29.6	2.5%	2.2%
Czech Republic	206.1	223.6	248.2	256.9	243.2	252.9	260.1	260.2	0.0%	1.8%
Denmark	295.5	313.9	339.6	345.4	339.3	364.3	369.9	379.1	2.5%	1.9%
Estonia	22.6	26.6	30.1	31.3	31.0	33.3	33.2	32.1	-3.1%	2.7%
Finland	246.3	247.2	265.3	268.5	262.2	269.6	273.2	270.0	-1.2%	0.7%
France	2,412.8	2,551.4	2,670.4	2,725.8	2,518.8	2,690.9	2,761.4	2,792.3	1.1%	1.1%
Germany	3,386.1	3,684.9	3,923.6	3,964.0	3,787.2	3,924.7	3,981.6	3,979.1	-0.1%	1.2%
Greece	241.6	196.9	201.1	204.7	186.2	201.2	212.7	216.9	2.0%	-0.8%
Hungary	125.6	139.1	156.4	164.0	156.4	167.4	175.0	173.8	-0.7%	2.5%
Iceland	18.2	20.9	24.2	24.7	23.0	24.2	26.3	27.4	4.1%	3.2%
Ireland	228.6	317.4	385.7	406.2	431.4	499.2	542.5	511.7	-5.7%	6.4%
Italy	1,990.1	1,924.4	2,001.4	2,011.0	1,829.0	1,980.4	2,062.5	2,083.5	1.0%	0.4%
Kosovo	5.4	6.6	7.5	7.9	7.5	8.3	8.6	8.9	3.3%	4.0%
Latvia	26.1	30.9	34.0	34.2	33.0	35.1	36.2	36.2	0.0%	2.6%
Lithuania	39.1	47.1	52.4	54.8	54.9	58.3	59.7	59.5	-0.3%	3.3%
Luxembourg	56.5	62.8	67.7	69.6	69.0	74.0	75.0	74.2	-1.1%	2.1%
Malta	9.3	12.1	14.9	16.0	14.7	16.5	17.9	18.9	5.7%	5.6%
Moldova	8.3	10.0	11.3	11.7	10.8	12.3	11.5	11.6	0.7%	2.6%
Montenegro	4.3	4.7	5.3	5.5	4.7	5.3	5.6	6.0	6.0%	2.6%
Netherlands	806.7	843.6	908.0	928.9	893.4	948.8	996.4	997.2	0.1%	1.6%
North Macedonia	10.1	11.3	12.1	12.6	12.0	12.6	12.8	13.0	1.0%	2.0%
Norway	354.6	386.7	405.4	409.9	402.4	418.5	430.9	434.0	0.7%	1.6%
Poland	426.0	496.6	570.3	595.3	583.3	623.3	660.1	660.8	0.1%	3.4%
Portugal	224.5	215.2	233.7	240.0	220.1	232.7	248.6	254.2	2.3%	1.0%
Romania	178.5	204.5	240.7	250.0	241.3	255.0	265.5	271.1	2.1%	3.3%
Serbia	42.9	44.8	49.4	51.5	51.0	55.0	56.4	57.8	2.5%	2.3%
Slovakia	83.5	94.5	103.1	105.7	102.2	107.1	109.1	110.8	1.6%	2.2%
Slovenia	45.4	46.4	52.7	54.5	51.8	56.2	57.8	58.8	1.8%	2.0%
Spain	1,260.8	1,259.7	1,367.2	1,394.3	1,238.6	1,317.9	1,393.9	1,428.8	2.5%	1.0%
Sweden	439.2	488.5	519.4	532.7	521.0	550.9	559.6	559.3	-0.1%	1.9%
Switzerland	613.8	670.0	713.5	721.8	705.4	744.6	767.8	773.5	0.7%	1.8%
Türkiye	469.4	659.2	754.4	760.6	773.8	865.1	911.0	957.2	5.1%	5.6%
Ukraine	154.3	137.5	149.2	153.9	148.2	153.3	109.2	115.0	5.3%	-2.2%
United Kingdom	2,397.9	2,643.7	2,804.9	2,850.9	2,555.5	2,777.2	2,897.9	2,900.9	0.1%	1.5%
Other Europe	8.8	8.9	9.5	9.6	9.2	9.5	9.9	10.1	1.2%	1.0%

^(*)Data source: S&P Global data.

Real GDP levels

Countries^(*)

(billions of 2019 U.S. dollars)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia and Central Asia	1,740.0	1,920.4	2,028.4	2,078.4	2,024.2	2,141.7	2,139.9	2,224.6	4.0%	1.9%
Russia	1,469.5	1,579.8	1,657.0	1,693.5	1,648.5	1,745.2	1,723.5	1,786.4	3.6%	1.5%
Armenia	9.1	11.2	12.7	13.7	12.7	13.5	15.2	16.5	8.7%	4.7%
Azerbaijan	43.2	47.7	47.0	48.2	46.2	48.7	51.0	51.6	1.1%	1.4%
Georgia	11.6	14.7	16.6	17.5	16.3	18.0	19.8	21.3	7.5%	4.8%
Kazakhstan	126.1	158.7	173.8	181.6	177.1	184.7	190.6	200.4	5.1%	3.6%
Kyrgyzstan	6.2	7.9	9.0	9.4	8.7	9.2	10.0	10.6	6.2%	4.2%
Tajikistan	4.5	6.3	7.7	8.3	8.7	9.5	10.2	11.1	8.3%	7.2%
Turkmenistan	35.6	45.5	47.6	45.9	44.6	46.8	49.7	52.8	6.3%	3.1%
Uzbekistan	34.3	48.6	56.9	60.3	61.5	66.0	69.8	74.0	6.0%	6.1%

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Middle East	2,040.9	2,471.4	2,655.8	2,691.9	2,578.1	2,700.1	2,871.1	2,897.8	0.9%	2.7%
Bahrain	27.9	33.3	36.8	37.6	35.7	36.7	38.6	39.5	2.6%	2.7%
Iran	192.2	195.0	214.0	207.5	214.4	224.3	232.7	244.6	5.1%	1.9%
Iraq	142.0	192.5	220.7	232.9	204.9	208.1	222.7	220.4	-1.0%	3.4%
Israel	283.4	339.9	386.4	400.9	393.5	432.1	459.3	468.2	1.9%	3.9%
Jordan	35.9	41.1	43.8	44.6	43.8	44.8	45.9	47.1	2.6%	2.1%
Kuwait	114.4	136.7	137.7	140.9	134.1	137.1	145.1	139.9	-3.6%	1.6%
Lebanon	47.4	52.4	52.7	49.1	37.0	37.8	36.6	36.5	-0.5%	-2.0%
Oman	66.6	83.5	89.1	88.1	85.1	87.3	95.6	96.9	1.3%	2.9%
Qatar	124.6	170.6	175.2	176.4	170.1	172.9	180.1	182.2	1.2%	3.0%
Saudi Arabia	600.7	781.8	829.5	838.6	808.5	849.6	913.2	906.3	-0.8%	3.2%
Syria	58.2	27.9	26.3	26.7	26.5	27.0	27.2	27.6	1.5%	-5.6%
United Arab Emirates	303.6	383.7	413.4	418.0	397.3	414.6	445.7	461.8	3.6%	3.3%
Yemen	32.1	17.9	13.4	13.7	12.1	11.7	11.4	10.9	-4.5%	-8.0%
Other Middle East	12.0	15.1	16.9	17.1	15.2	16.3	16.9	16.0	-5.5%	2.2%

^(*)Data source: S&P Global data.

Real GDP levels

Countries^(*)

(billions of 2019 U.S. dollars)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Africa	1,993.8	2,370.6	2,583.1	2,647.5	2,579.4	2,706.3	2,799.2	2,888.1	3.2%	2.9%
Algeria	154.2	179.3	191.7	193.5	183.6	190.7	197.6	205.6	4.1%	2.2%
Angola	69.2	87.4	83.9	83.4	78.6	79.5	82.1	82.8	0.8%	1.4%
Benin	9.2	11.6	13.5	14.4	14.9	16.0	17.0	18.1	6.4%	5.3%
Cameroon	26.9	34.1	38.3	39.7	39.8	41.2	42.7	44.4	4.0%	3.9%
Chad	8.9	10.9	10.6	11.3	11.1	11.0	11.3	11.7	3.5%	2.2%
Congo	13.7	16.4	13.8	14.0	13.1	13.2	13.4	13.7	1.9%	0.0%
Côte d'Ivoire	26.1	46.6	56.2	59.9	60.9	65.2	69.6	73.8	6.0%	8.3%
Dem. Rep. Congo	27.8	40.3	45.3	47.3	48.2	51.1	55.5	59.1	6.4%	6.0%
Egypt	242.2	276.4	316.6	334.4	346.4	357.9	381.5	395.4	3.7%	3.8%
Equatorial Guinea	14.8	14.9	12.0	11.4	10.9	10.8	11.1	10.5	-5.8%	-2.6%
Ethiopia	41.1	67.9	85.5	92.7	98.3	103.8	109.4	117.2	7.2%	8.4%
Gabon	12.2	15.7	16.2	16.9	16.6	16.8	17.3	17.7	2.6%	2.9%
Ghana	38.2	54.1	64.2	68.3	68.7	72.2	74.4	76.6	2.9%	5.5%
Kenya	63.8	83.5	95.5	100.4	100.1	107.7	112.9	119.2	5.6%	4.9%
Libya	95.7	55.5	78.3	69.5	49.0	62.9	51.2	57.3	11.9%	-3.9%
Madagascar	10.6	12.1	13.5	14.1	13.1	13.9	14.4	14.9	3.8%	2.7%
Mauritania	5.5	6.8	7.7	8.1	8.0	8.2	8.8	9.1	3.4%	4.0%
Morocco	95.8	115.1	125.3	128.9	119.7	129.4	131.4	135.9	3.4%	2.7%
Mozambique	9.6	13.5	15.0	15.4	15.2	15.6	16.2	17.1	5.4%	4.6%
Namibia	9.7	12.6	12.6	12.5	11.5	11.9	12.6	13.1	4.2%	2.3%
Niger	7.4	10.2	12.2	12.9	13.4	13.6	15.2	15.6	2.5%	5.8%
Nigeria	365.7	460.0	465.0	475.3	466.8	483.8	499.5	513.8	2.9%	2.7%
Rwanda	5.6	7.9	9.5	10.4	10.0	11.1	12.0	12.7	6.0%	6.6%
Senegal	15.1	18.4	22.4	23.4	23.7	25.3	26.3	27.7	5.5%	4.8%
Sierra Leone	2.8	3.4	3.9	4.1	4.0	4.2	4.3	4.4	2.7%	3.7%
Somalia	4.3	6.9	9.1	9.4	9.1	9.4	9.7	9.9	2.8%	6.6%
South Africa	337.4	375.4	388.2	389.2	365.2	383.3	390.6	393.3	0.7%	1.2%
Sudan	49.0	44.0	45.4	44.3	42.7	41.9	40.8	32.6	-20.0%	-3.1%
Tanzania	32.3	45.0	54.9	58.7	61.6	64.6	67.7	71.1	5.1%	6.3%
Tunisia	35.7	38.9	41.3	41.9	38.3	40.1	41.1	41.3	0.4%	1.1%
Uganda	24.7	30.7	35.0	37.8	37.2	39.4	41.9	43.8	4.5%	4.5%
Zambia	16.0	20.5	22.9	23.3	22.6	24.0	25.3	26.8	5.9%	4.1%
Zimbabwe	15.4	21.8	24.1	22.6	21.4	22.7	23.5	24.5	4.1%	3.6%
Other Africa	107.3	132.5	153.5	158.4	155.7	164.0	170.8	177.2	3.7%	3.9%

^(*)Data source: S&P Global data.

Real GDP levels

Countries^(*)

(billions of 2019 U.S. dollars)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Asia - Pacific	19,949.3	25,567.1	29,581.1	30,735.0	30,468.4	32,498.7	33,564.1	35,015.7	4.3%	4.4%
Afghanistan	13.2	17.6	18.6	19.4	18.9	15.0	14.1	13.7	-2.7%	0.3%
Australia	1,100.0	1,259.5	1,362.8	1,387.5	1,358.0	1,432.9	1,488.4	1,517.6	2.0%	2.5%
Bangladesh	194.6	264.4	324.0	349.5	361.5	386.6	414.1	438.0	5.8%	6.4%
Bhutan	1.7	2.2	2.6	2.7	2.5	2.6	2.7	2.8	4.0%	3.9%
Brunei	13.2	13.1	13.0	13.5	13.6	13.4	13.2	13.4	1.4%	0.1%
China	7,549.5	11,048.1	13,471.9	14,278.3	14,594.2	15,827.7	16,294.8	17,150.2	5.2%	6.5%
East Timor	1.3	1.7	1.6	2.0	2.7	2.8	2.2	1.9	-14.4%	2.8%
Hong Kong	287.8	332.9	363.1	357.0	333.6	355.2	342.1	353.3	3.3%	1.6%
India	1,630.0	2,233.4	2,741.9	2,850.8	2,684.5	2,947.7	3,155.5	3,412.4	8.1%	5.8%
Indonesia	701.4	917.9	1,065.4	1,118.9	1,095.8	1,136.4	1,196.7	1,257.1	5.0%	4.6%
Japan	4,730.5	4,983.9	5,137.6	5,117.2	4,901.8	5,038.1	5,095.7	5,180.9	1.7%	0.7%
Malaysia	232.7	301.8	349.7	365.2	345.2	356.7	388.4	402.2	3.5%	4.3%
Mongolia	7.2	11.6	13.5	14.2	13.6	13.8	14.5	15.5	7.0%	6.1%
Myanmar	40.9	58.1	69.4	74.0	67.3	59.2	61.6	62.2	1.0%	3.3%
Nepal	22.1	27.3	32.1	34.2	33.4	35.1	37.0	37.8	2.0%	4.2%
New Zealand	157.8	181.0	203.9	210.5	208.4	220.7	225.7	227.5	0.8%	2.9%
North Korea	16.5	16.9	16.3	16.3	15.6	15.6	15.6	16.1	3.6%	-0.2%
Pakistan	199.9	239.5	283.3	292.2	289.4	306.1	325.0	324.3	-0.2%	3.8%
Papua New Guinea	16.4	21.8	23.7	24.8	24.0	23.8	25.0	25.7	2.7%	3.5%
Philippines	217.6	291.5	355.3	376.8	341.8	360.6	388.2	409.8	5.6%	5.0%
Singapore	266.7	331.8	372.0	376.9	362.3	397.4	412.7	417.1	1.1%	3.5%
South Korea	1,332.0	1,554.1	1,711.1	1,750.7	1,738.5	1,818.6	1,868.2	1,894.5	1.4%	2.7%
Sri Lanka	58.8	78.0	89.2	89.0	84.9	88.5	82.0	80.1	-2.3%	2.4%
Taiwan	473.9	546.9	593.3	611.5	632.2	674.0	691.5	700.3	1.3%	3.1%
Thailand	410.0	474.2	532.6	543.9	511.0	519.0	531.7	541.8	1.9%	2.2%
Vietnam	188.3	254.0	311.5	334.4	344.0	352.7	381.4	400.6	5.0%	6.0%
Other Asia - Pacific	85.2	104.0	121.7	123.6	89.8	98.6	96.2	119.0	23.8%	2.6%

^(*)Data source: S&P Global data.

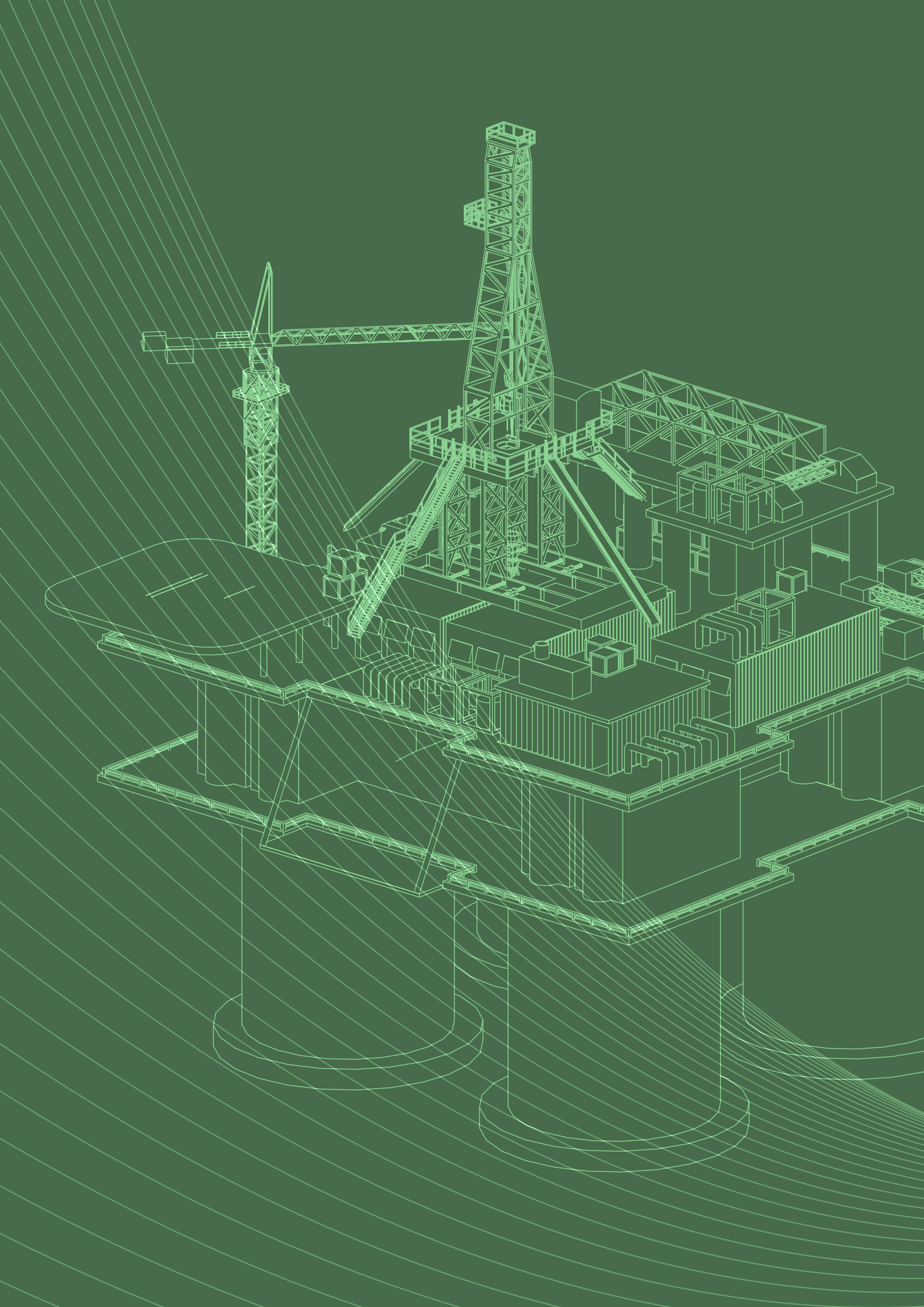
Real GDP levels

Countries^(*)

(billions of 2019 U.S. dollars)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Americas	23,696.6	26,505.5	28,167.6	28,739.0	27,800.5	29,472.5	30,192.1	30,919.4	2.4%	2.1%
Argentina	432.1	465.0	455.9	446.8	402.5	444.6	468.0	460.5	-1.6%	0.5%
Barbados	5.2	5.2	5.3	5.4	4.7	4.6	5.2	5.4	4.4%	0.2%
Belize	2.0	2.3	2.3	2.4	2.1	2.4	2.6	2.8	4.6%	2.6%
Bolivia	27.1	35.3	40.0	40.9	37.3	39.6	41.0	42.3	3.1%	3.5%
Brazil	1,753.3	1,855.8	1,850.7	1,873.1	1,806.3	1,898.5	1,958.0	2,014.9	2.9%	1.1%
Canada	1,438.7	1,599.7	1,711.0	1,743.7	1,655.8	1,743.4	1,810.0	1,832.6	1.2%	1.9%
Chile	212.9	257.6	276.7	278.2	260.5	290.6	296.7	297.5	0.3%	2.6%
Colombia	234.7	295.0	313.1	323.1	299.9	332.2	356.5	358.6	0.6%	3.3%
Costa Rica	47.1	56.8	63.3	64.8	62.0	66.9	70.0	73.6	5.1%	3.5%
Cuba	86.2	99.0	103.6	103.4	92.2	93.4	95.0	96.6	1.6%	0.9%
Curaçao	3.3	3.3	3.1	3.0	2.4	2.5	2.7	2.9	4.2%	-1.1%
Dominican Republic	55.7	70.9	84.7	88.9	83.0	93.1	97.7	100.0	2.4%	4.6%
Ecuador	78.7	101.0	107.4	107.6	97.6	107.2	113.9	116.6	2.4%	3.1%
El Salvador	21.5	24.4	26.2	26.9	24.8	27.7	28.5	29.5	3.5%	2.5%
Guatemala	56.0	67.8	74.2	77.2	75.8	81.8	85.2	88.2	3.5%	3.6%
Guyana	3.7	4.6	5.1	5.4	7.7	9.3	15.0	20.1	33.9%	13.9%
Haiti	11.6	13.4	14.3	14.0	13.6	13.3	13.1	12.9	-1.9%	0.8%
Honduras	18.0	21.4	24.3	24.9	22.7	25.5	26.6	27.5	3.6%	3.3%
Jamaica	14.6	15.0	15.7	15.8	14.3	14.9	15.7	16.1	2.6%	0.8%
Mexico	1,089.1	1,239.2	1,309.9	1,304.8	1,193.2	1,268.0	1,314.8	1,356.9	3.2%	1.7%
Nicaragua	9.5	12.4	13.1	12.7	12.5	13.8	14.3	14.9	4.6%	3.6%
Panama	40.5	58.7	67.5	69.7	57.4	66.5	73.7	79.1	7.3%	5.3%
Paraguay	27.8	33.8	38.1	37.9	37.6	39.1	39.2	41.0	4.7%	3.1%
Peru	162.9	205.8	227.9	233.0	207.4	235.6	241.9	240.7	-0.5%	3.0%
Suriname	3.8	4.1	4.2	4.3	3.6	3.5	3.6	3.6	2.1%	-0.4%
Trinidad and Tobago	25.1	25.9	23.7	23.8	21.6	21.4	21.7	22.3	2.6%	-0.9%
United States	17,462.7	19,553.1	21,003.2	21,521.4	21,045.0	22,265.7	22,696.6	23,273.7	2.5%	2.2%
Uruguay	50.4	59.5	61.7	62.2	57.6	60.8	63.7	63.9	0.4%	1.8%
Venezuela	161.6	162.4	91.3	70.7	57.5	60.9	69.1	70.4	1.9%	-6.2%
Other Americas	160.8	157.0	150.2	153.0	141.9	145.5	152.3	154.5	1.5%	-0.3%

^(*)Data source: S&P Global data.





Oil

2023 was characterized by uncertainty and volatility. The ongoing Russia-Ukraine war was accompanied, at the end of the year, by the conflict between Israel and Hamas.

In this context, the **Brent price** averaged 82.6 \$/b, about 18% lower than in 2022. In the first half of the year, despite concerns about the global economy and uncertainties related to the Chinese economy, rising demand and OPEC+ policies kept Brent prices around 80 \$/b. In the third quarter, demand reached new highs. This trend, coupled with Saudi Arabia's unilateral production cut of 1 Mb/d, led to a marked increase in Brent, which exceeded 90 \$/b in September. The fourth quarter began with prices supported by conflicts in the Middle East, keeping the market in a state of uncertainty; however, by the end of the year, doubts about OPEC+ policy compliance and concerns about oil demand sustainability caused a drop in prices.

In 2023, the **global oil demand** increased by 2.3 Mb/d, reaching 102 Mb/d, surpassing 2019 (100.6 Mb/d). This growth was mainly driven by the increase in jet-kerosene consumption due to the post-COVID aviation sector recovery and the rising demand for feedstock in the petrochemical industry (naphtha, LPG, and ethane), fueled by the sector's continuous expansion in China. Global growth is driven by non-OECD economies, with China alone accounting for almost 80% of the increase in 2023.

Production grew by 1.8 Mb/d compared to 2022, reaching 96.6 Mb/d (excluding biofuels and processing gains), with growth concentrated in non-OPEC, particularly the United States, where production grew by 1.5 Mb/d YoY. OPEC production fell by 0.4 Mb/d, reflecting the cuts introduced during the year. Saudi Arabia reached around 9 Mb/d in the second half of the year, the lowest production level since 2011 (excluding the pandemic period). The production decline was partly offset by strong growth in Iran, which does not adhere to the OPEC+ agreement, with oil production at its highest since 2018, reaching 4.2 Mb/d. Despite Western sanctions, Russia kept production levels almost unchanged from the previous year, at about 11 Mb/d. In terms of crude quality, the production mix (light, medium, and heavy) remained largely stable.

Lastly, **primary refining capacity** increased in 2023, reaching 104 Mb/d, with a net increase of 1.8 Mb/d compared to 2022, the most significant in the last 20 years. The Middle East contributed more than 40% of the total increase. Specifically, among the most important projects were the startup of Al Zour in Kuwait (615 kb/d), Duqm in Oman (230 kb/d), and Karbala in Iraq (140 kb/d).



Oil - Supply and Demand

RESERVES

Areas and Aggregates
The World Top 10 Reserves Holders
Countries

PRODUCTION

Areas and Aggregates
The World Top 10 Producers
Countries
The World Top 10 Natural Gas Liquids Producers

RESERVES/PRODUCTION RATIO

Areas and Aggregates
The World Top 10 Producers Ranked by Reserves/Production Ratio
Countries

CONSUMPTION

Areas and Aggregates
The World Top 10 Consumers
Countries

PER CAPITA CONSUMPTION

Areas and Aggregates
The World Top 10 Consumers Ranked by Per Capita Consumption Ratio
Countries

PRODUCTION/CONSUMPTION RATIO

Areas and Aggregates
The World Top 10 Producers Ranked by Production/Consumption Ratio
Countries

Reserves

Areas and Aggregates^(*)

(million barrels as at 31st December)

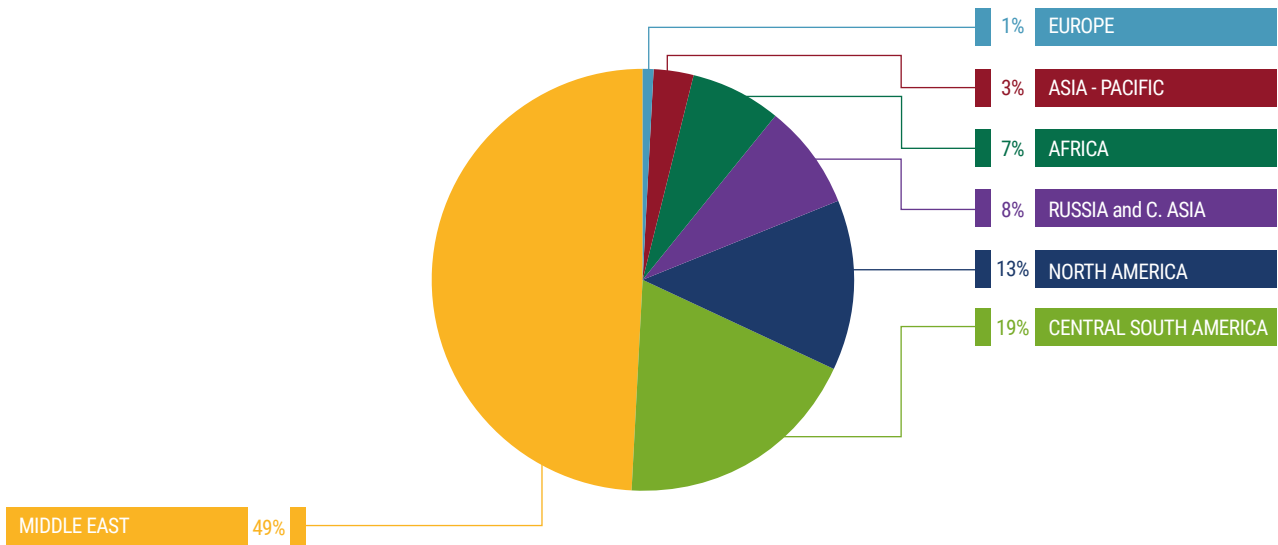
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	13,949	13,591	14,802	14,522	13,733	12,977	11,942	11,911	-0.3%	-1.2%
Russia and Central Asia	125,086	135,729	143,525	144,504	145,825	145,818	145,818	145,818	0.0%	1.2%
Middle East	793,605	802,663	803,169	863,343	865,330	869,535	871,535	871,573	0.0%	0.7%
Africa	131,566	127,331	126,052	124,712	123,971	119,199	119,230	119,763	0.4%	-0.7%
Asia - Pacific	50,607	47,900	46,602	46,846	45,534	45,718	44,910	46,296	3.1%	-0.7%
Americas	564,218	547,079	578,227	578,764	568,955	576,729	578,132	581,702	0.6%	0.2%
- North America	225,201	204,678	239,525	241,192	232,056	238,364	237,814	240,439	1.1%	0.5%
- Central South America	339,017	342,402	338,702	337,572	336,899	338,364	340,318	341,263	0.3%	0.1%
World	1,679,031	1,674,294	1,712,378	1,772,690	1,763,348	1,769,975	1,771,567	1,777,062	0.3%	0.4%
European Union 27	3,165	2,595	2,357	2,357	2,335	2,326	2,160	2,129	-1.4%	-3.0%
MENA	857,794	868,001	867,186	927,579	929,420	933,537	935,800	935,838	0.0%	0.7%
OECD	257,935	236,001	265,015	265,878	255,387	260,843	259,296	262,010	1.0%	0.1%
NON OECD	1,421,096	1,438,293	1,447,363	1,506,812	1,507,962	1,509,132	1,512,271	1,515,052	0.2%	0.5%
OPEC	1,165,844	1,180,767	1,182,528	1,241,281	1,242,377	1,241,819	1,243,523	1,243,881	0.0%	0.5%
NON OPEC	513,186	493,527	529,850	531,409	520,971	528,156	528,044	533,181	1.0%	0.3%

^(*)Data source: Eni's estimates on Enerdata *Global Energy Market & CO₂ Data* and other official data sources.

Reserves

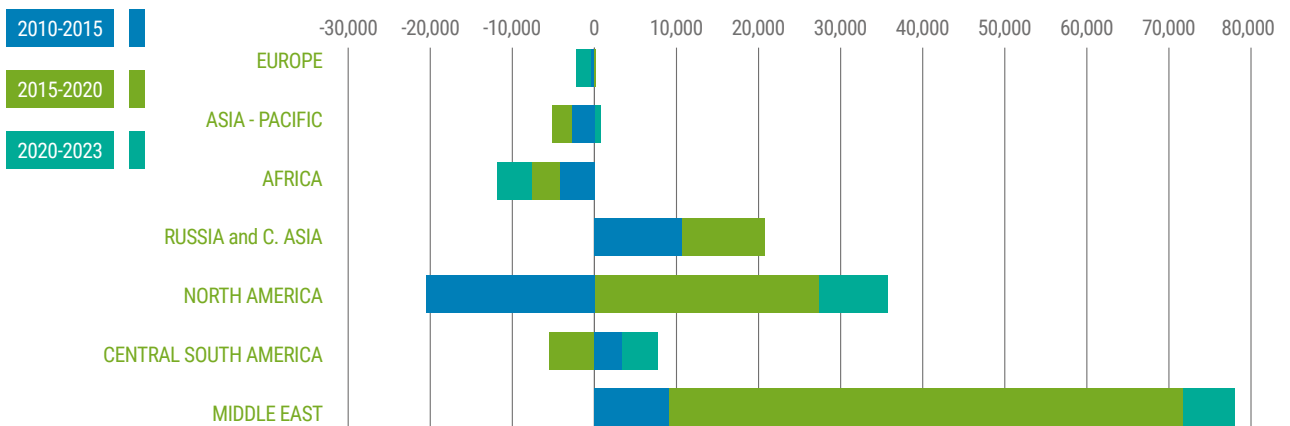
World Oil Reserves (2023)

1,777,062 thousand barrels/day



World Oil Reserves Growth (2010-2023)

98,031 million barrels



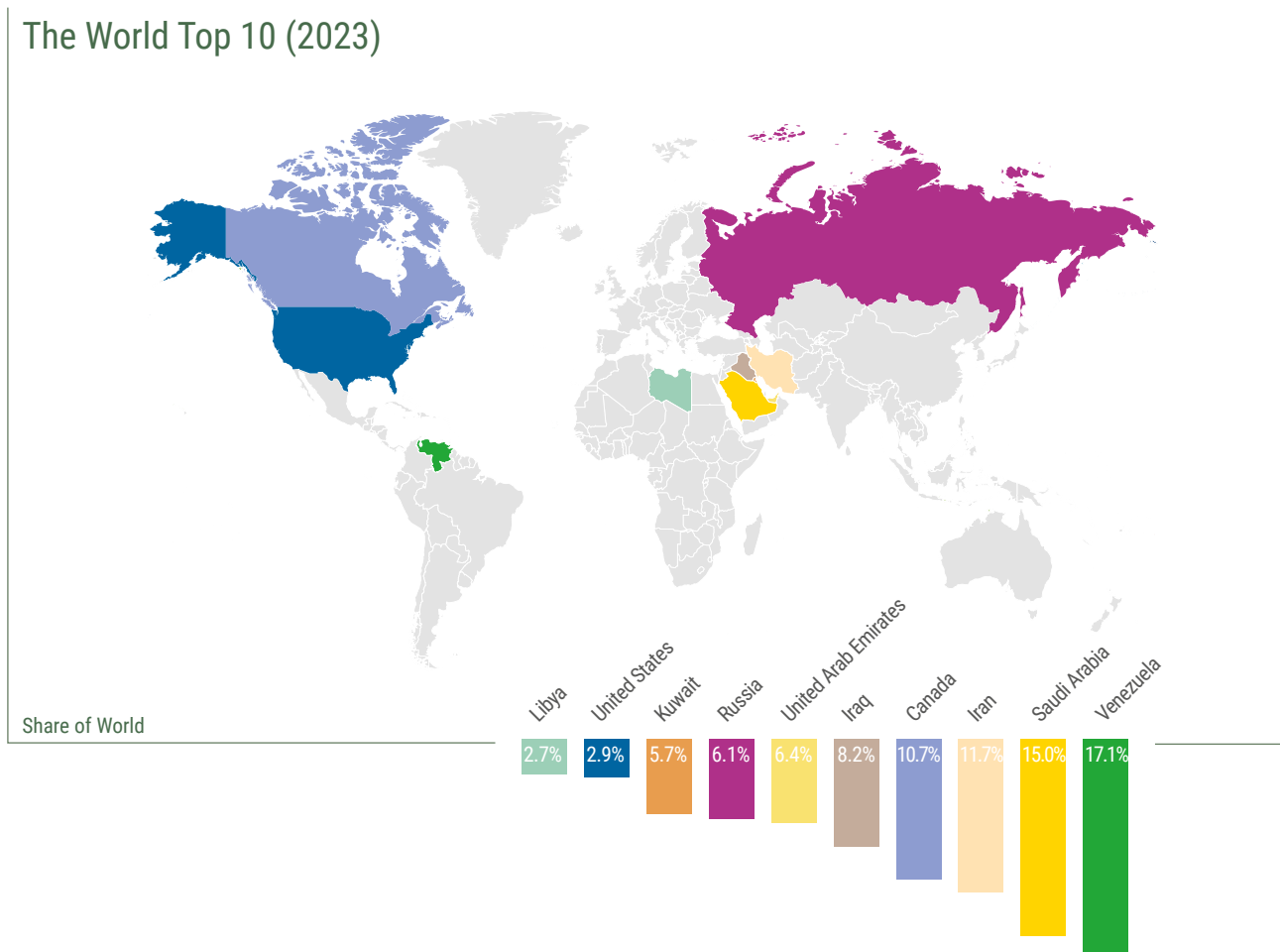
Reserves

The World Top 10 Reserves Holders^(*)

(million barrels as at 31st December)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Venezuela	296,501	300,878	303,806	303,806	303,561	303,468	303,221	303,008	-0.1%	0.2%
Saudi Arabia	264,516	266,455	267,026	267,073	267,082	267,192	267,192	267,230	0.0%	0.1%
Iran	151,170	158,400	155,600	208,600	208,600	208,600	208,600	208,600	0.0%	2.5%
Canada	200,020	169,448	192,472	194,085	193,844	193,946	189,493	189,493	0.0%	-0.4%
Iraq	143,100	142,503	145,019	145,019	145,019	145,019	145,019	145,019	0.0%	0.1%
United Arab Emirates	97,800	97,800	97,800	105,000	107,000	111,000	113,000	113,000	0.0%	1.1%
Russia	76,876	97,703	105,500	106,471	107,799	107,799	107,799	107,799	0.0%	2.6%
Kuwait	101,500	101,500	101,500	101,500	101,500	101,500	101,500	101,500	0.0%	0.0%
United States	25,181	35,230	47,053	47,107	38,212	44,418	48,321	50,946	5.4%	5.6%
Libya	47,097	48,363	48,363	48,363	48,363	48,363	48,363	48,363	0.0%	0.2%
The World Top 10	1,403,761	1,418,280	1,464,138	1,527,024	1,520,980	1,531,306	1,532,509	1,534,958	0.2%	0.7%
Rest of the World	275,269	256,014	248,240	245,667	242,368	238,669	239,058	242,104	1.3%	-1.0%
World	1,679,031	1,674,294	1,712,378	1,772,690	1,763,348	1,769,975	1,771,567	1,777,062	0.3%	0.4%

The World Top 10 (2023)



^(*)Data source: Eni's estimates on Enerdata *Global Energy Market & CO₂ Data* and other official data sources.

Reserves

Countries^(*)

(million barrels as at 31st December)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	13,949	13,591	14,802	14,522	13,733	12,977	11,942	11,911	-0.3%	-1.2%
Albania	219	183	146	146	146	146	197	197	0.0%	-0.8%
Austria	44	51	44	37	37	37	37	37	0.0%	-1.4%
Belarus	183	197	197	197	197	197	197	197	0.0%	0.6%
Bulgaria	15	15	15	15	15	15	15	15	0.0%	0.0%
Croatia	73	66	73	73	73	73	73	73	0.0%	0.0%
Czech Republic	7	15	7	15	7	7	7	7	0.0%	0.0%
Denmark	927	540	423	423	416	423	336	336	0.0%	-7.5%
France	88	80	58	58	58	131	80	80	0.0%	-0.7%
Germany	299	248	212	204	131	117	110	110	0.0%	-7.4%
Greece	7	7	7	7	7	7	7	7	0.0%	0.0%
Hungary	29	22	22	15	15	15	15	15	0.0%	-5.2%
Italy ^(**)	559	595	554	532	583	582	576	545	-5.4%	-0.2%
Lithuania	15	15	15	15	15	15	15	15	0.0%	0.0%
Netherlands	307	110	73	117	139	73	66	66	0.0%	-11.2%
Norway	6,818	7,242	8,607	8,483	7,716	7,483	6,818	6,818	0.0%	0.0%
Poland	80	102	102	95	88	80	73	73	0.0%	-0.7%
Romania	562	584	599	599	599	599	599	599	0.0%	0.5%
Serbia	80	80	80	80	80	80	80	80	0.0%	0.0%
Slovakia	7	7	7	7	7	7	7	7	0.0%	0.0%
Spain	146	139	146	146	146	146	146	146	0.0%	0.0%
Türkiye	314	358	321	365	365	365	365	365	0.0%	1.2%
Ukraine	365	394	394	394	394	394	394	394	0.0%	0.6%
United Kingdom	2,805	2,542	2,700	2,500	2,500	1,986	1,730	1,730	0.0%	-3.6%

^(*) Data source: Eni's estimates on Enerdata *Global Energy Market & CO₂ Data* and other official data sources.

^(**) The original data are from Italian Ministry of Environment and Energy Security. They have been converted by Eni considering 1 ton of oil equal to 7.3 barrels.

Reserves

Countries^(*)

(million barrels as at 31st December)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia and Central Asia	125,086	135,729	143,525	144,504	145,825	145,818	145,818	145,818	0.0%	1.2%
Russia	76,876	97,703	105,500	106,471	107,799	107,799	107,799	107,799	0.0%	2.6%
Azerbaijan	6,950	6,950	6,950	6,950	6,950	6,950	6,950	6,950	0.0%	0.0%
Georgia	37	37	37	37	37	37	37	37	0.0%	0.0%
Kazakhstan	38,960	29,799	29,799	29,799	29,799	29,791	29,791	29,791	0.0%	-2.0%
Kyrgyzstan	37	37	37	37	37	37	37	37	0.0%	0.0%
Tajikistan	15	15	15	15	15	15	15	15	0.0%	0.0%
Turkmenistan	1,643	599	599	599	599	599	599	599	0.0%	-7.5%
Uzbekistan	569	591	591	599	591	591	591	591	0.0%	0.3%

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Middle East	793,605	802,663	803,169	863,343	865,330	869,535	871,535	871,573	0.0%	0.7%
Bahrain	124	124	110	95	183	168	168	168	0.0%	2.4%
Iran	151,170	158,400	155,600	208,600	208,600	208,600	208,600	208,600	0.0%	2.5%
Iraq	143,100	142,503	145,019	145,019	145,019	145,019	145,019	145,019	0.0%	0.1%
Israel	4	15	15	15	15	15	15	15	0.0%	11.3%
Jordan	1	1	1	1	1	1	1	1	0.0%	0.0%
Kuwait	101,500	101,500	101,500	101,500	101,500	101,500	101,500	101,500	0.0%	0.0%
Oman	5,110	5,271	5,336	5,336	5,336	5,336	5,336	5,336	0.0%	0.3%
Qatar	25,382	25,244	25,244	25,244	25,244	25,244	25,244	25,244	0.0%	0.0%
Saudi Arabia	264,516	266,455	267,026	267,073	267,082	267,192	267,192	267,230	0.0%	0.1%
Syria	2,343	2,482	2,650	2,482	2,482	2,482	2,482	2,482	0.0%	0.4%
United Arab Emirates	97,800	97,800	97,800	105,000	107,000	111,000	113,000	113,000	0.0%	1.1%
Yemen	2,555	2,869	2,869	2,978	2,869	2,978	2,978	2,978	0.0%	1.2%

^(*) Data source: Eni's estimates on Enerdata *Global Energy Market & CO₂ Data* and other official data sources.

Reserves

Countries^(*)

(million barrels as at 31st December)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Africa	131,566	127,331	126,052	124,712	123,971	119,199	119,230	119,763	0.4%	-0.7%
Algeria	12,200	12,200	12,200	12,200	12,200	12,200	12,200	12,200	0.0%	0.0%
Angola	9,055	9,524	8,160	7,783	7,231	2,516	2,550	2,550	0.0%	-9.3%
Benin	7	7	7	7	7	7	7	7	0.0%	0.0%
Cameroon	175	197	197	197	197	197	197	197	0.0%	0.9%
Chad	1,489	1,577	1,577	1,489	1,577	1,489	1,489	1,489	0.0%	0.0%
Congo	2,000	2,982	2,982	1,947	1,811	1,811	1,811	1,811	0.0%	-0.8%
Côte d'Ivoire	102	102	102	102	102	102	102	102	0.0%	0.0%
Dem. Rep. Congo	175	175	175	197	197	175	175	175	0.0%	0.0%
Egypt	4,468	4,373	3,051	3,278	3,124	3,015	3,278	3,278	0.0%	-2.4%
Equatorial Guinea	1,705	1,100	1,100	1,100	1,100	1,100	1,100	1,100	0.0%	-3.3%
Gabon	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	0.0%	0.0%
Ghana	657	657	657	657	657	657	657	657	0.0%	0.0%
Libya	47,097	48,363	48,363	48,363	48,363	48,363	48,363	48,363	0.0%	0.2%
Mauritania	102	22	22	22	22	22	22	22	0.0%	-11.2%
Morocco	1	1	1	1	1	1	1	1	0.0%	-0.7%
Mozambique	15	15	15	15	15	15	15	15	0.0%	0.0%
Niger	146	146	146	146	146	146	146	146	0.0%	0.0%
Nigeria	37,200	37,062	36,972	36,890	36,910	37,050	36,967	37,500	1.4%	0.1%
Sierra Leone	438	438	438	438	438	438	438	438	0.0%	0.0%
South Africa	15	15	15	15	15	15	15	15	0.0%	0.0%
South Sudan	4,621	3,500	3,500	3,500	3,500	3,500	3,500	3,500	0.0%	-2.1%
Sudan	6,482	1,475	1,489	1,489	1,475	1,475	1,292	1,292	0.0%	-11.7%
Tunisia	423	402	402	394	402	423	423	423	0.0%	0.0%
Uganda	993	1,000	2,482	2,482	2,482	2,482	2,482	2,482	0.0%	7.3%

^(*) Data source: Eni's estimates on Enerdata *Global Energy Market & CO₂ Data* and other official data sources.

Reserves

Countries^(*)

(million barrels as at 31st December)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Asia - Pacific	50,607	47,900	46,602	46,846	45,534	45,718	44,910	46,296	3.1%	-0.7%
Afghanistan	88	88	88	88	88	88	88	88	0.0%	0.0%
Australia	4,052	3,957	2,460	2,453	1,789	1,621	1,475	1,475	0.0%	-7.5%
Bangladesh	29	29	29	29	29	29	29	29	0.0%	0.0%
Brunei	1,095	1,095	1,095	1,095	1,095	1,095	1,095	1,095	0.0%	0.0%
China	23,268	25,132	25,927	26,154	26,023	26,491	27,003	27,889	3.3%	1.4%
India	8,767	4,636	4,420	4,420	4,610	4,490	4,370	4,849	11.0%	-4.5%
Indonesia	3,990	3,230	3,170	3,150	2,480	2,440	2,250	2,270	0.9%	-4.2%
Japan	44	44	44	44	44	44	44	44	0.0%	0.0%
Malaysia	3,739	3,600	3,600	3,600	3,600	3,600	2,700	2,700	0.0%	-2.5%
Mongolia	15	256	256	314	314	314	314	314	0.0%	26.6%
Myanmar	51	51	139	139	139	139	139	139	0.0%	8.0%
New Zealand	153	88	66	51	44	51	58	58	0.0%	-7.2%
Pakistan	285	350	343	336	533	533	533	533	0.0%	4.9%
Papua New Guinea	88	175	168	161	161	146	146	146	0.0%	4.0%
Philippines	139	139	102	139	139	139	139	139	0.0%	0.0%
Taiwan	2	2	2	2	2	2	2	2	0.0%	0.0%
Thailand	431	686	321	299	102	153	153	153	0.0%	-7.6%
Vietnam	4,373	4,344	4,373	4,373	4,344	4,344	4,373	4,373	0.0%	0.0%
Americas	564,218	547,079	578,227	578,764	568,955	576,729	578,132	581,702	0.6%	0.2%
Argentina	2,497	2,394	2,000	2,000	2,497	2,467	2,818	2,818	0.0%	0.9%
Barbados	2	3	3	2	2	2	2	2	0.0%	0.8%
Belize	7	7	7	7	7	7	7	7	0.0%	0.0%
Bolivia	445	212	190	241	241	241	241	241	0.0%	-4.6%
Brazil	13,987	13,034	13,239	12,713	11,925	13,243	14,858	15,896	7.0%	1.0%
Canada	200,020	169,448	192,472	194,085	193,844	193,946	189,493	189,493	0.0%	-0.4%
Chile	146	146	146	146	146	146	146	146	0.0%	0.0%
Colombia	1,891	1,986	1,767	1,949	2,022	1,810	2,029	2,029	0.0%	0.5%
Cuba	124	124	124	124	124	124	124	124	0.0%	0.0%
Ecuador	7,206	8,273	8,273	8,273	8,273	8,273	8,273	8,273	0.0%	1.1%
Guatemala	80	95	146	124	88	95	80	80	0.0%	0.0%
Mexico	13,992	13,017	7,695	7,010	7,042	7,319	7,328	7,448	1.6%	-4.7%
Peru	1,234	1,409	978	891	642	840	854	854	0.0%	-2.8%
Suriname	80	102	88	88	88	88	95	95	0.0%	1.3%
Trinidad and Tobago	825	723	241	197	241	241	241	241	0.0%	-9.0%
United States	25,181	35,230	47,053	47,107	38,212	44,418	48,321	50,946	5.4%	5.6%
Venezuela	296,501	300,878	303,806	303,806	303,561	303,468	303,221	303,008	-0.1%	0.2%

^(*) Data source: Eni's estimates on Enerdata *Global Energy Market & CO₂ Data* and other official data sources.

Production

Areas and Aggregates^(*)

Crude and non conventional oil, natural gas liquids
(thousand barrels/day)

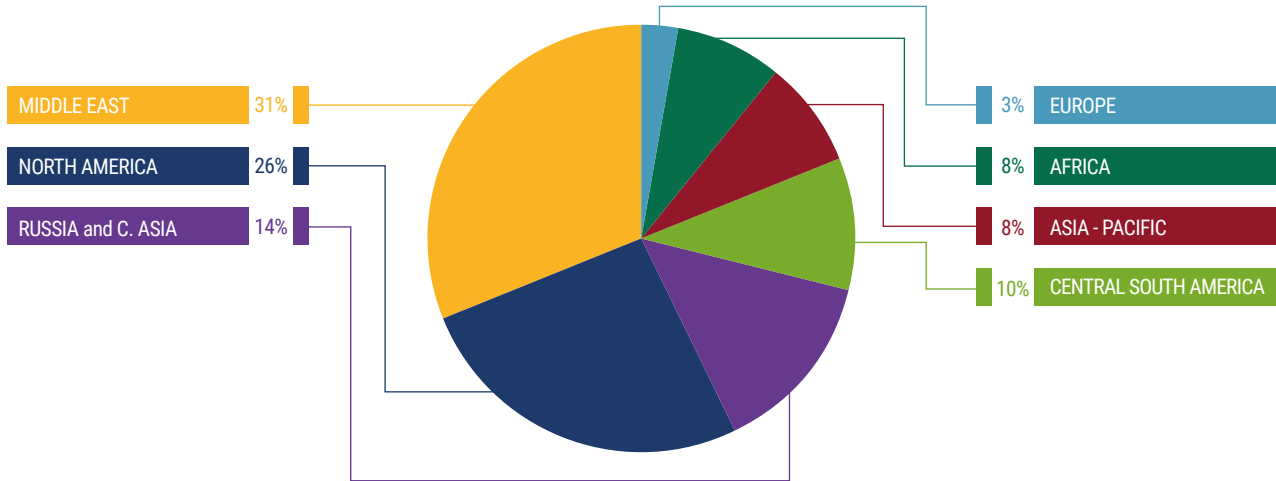
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	4,408	3,708	3,676	3,579	3,799	3,608	3,329	3,350	0.6%	-2.1%
Russia and Central Asia	13,415	13,950	14,491	14,559	13,413	13,679	13,849	13,793	-0.4%	0.2%
Middle East	25,366	29,701	31,555	30,129	27,781	28,062	31,049	30,382	-2.1%	1.4%
Africa	10,240	8,324	8,285	8,438	7,030	7,406	7,139	7,297	2.2%	-2.6%
Asia - Pacific	8,376	8,316	7,648	7,699	7,511	7,426	7,363	7,379	0.2%	-1.0%
Americas	21,407	27,825	29,533	31,107	29,805	30,322	32,135	34,432	7.1%	3.7%
- North America	11,073	17,382	20,808	22,829	21,920	22,365	23,684	25,277	6.7%	6.6%
- Central South America	10,333	10,442	8,726	8,278	7,885	7,957	8,452	9,155	8.3%	-0.9%
World	83,212	91,823	95,189	95,512	89,339	90,504	94,864	96,633	1.9%	1.2%
European Union 27	714	609	533	486	495	482	451	460	2.2%	-3.3%
MENA	29,531	32,481	34,789	33,450	30,167	31,285	34,235	33,687	-1.6%	1.0%
OECD	19,634	24,927	27,638	29,550	28,760	28,988	30,117	31,853	5.8%	3.8%
NON OECD	63,578	66,897	67,551	65,963	60,578	61,516	64,748	64,780	0.0%	0.1%
OPEC	33,309	36,060	36,869	35,072	30,991	31,722	34,467	34,069	-1.2%	0.2%
NON OPEC	49,903	55,764	58,320	60,441	58,348	58,782	60,398	62,564	3.6%	1.8%

^(*) Data source: Eni's calculations on IEA (2024) *Monthly Oil Data Services* data. All rights reserved.

Production

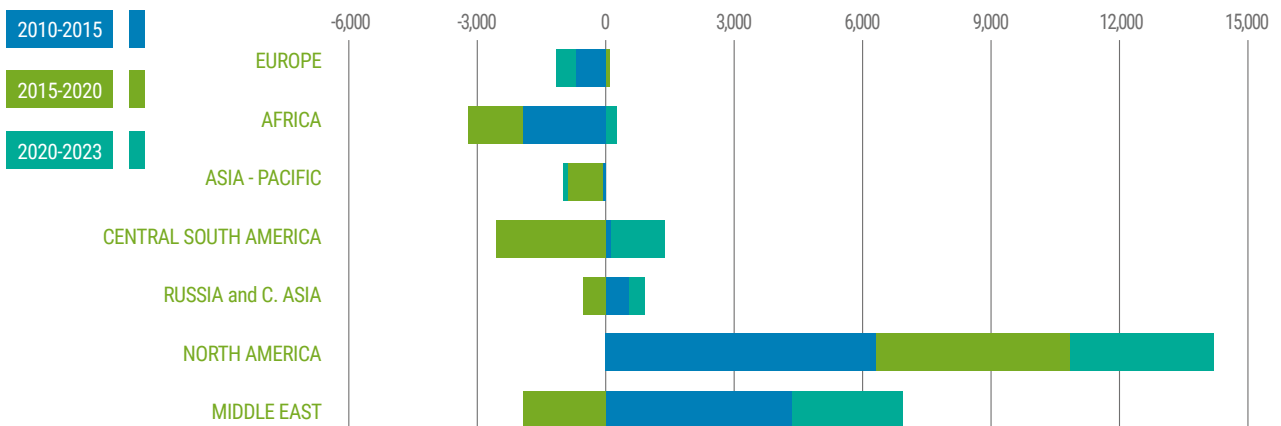
World Oil Production (2023)

96,633 thousand barrels/day



World Oil Production Growth (2010-2023)

13,422 thousand barrels/day



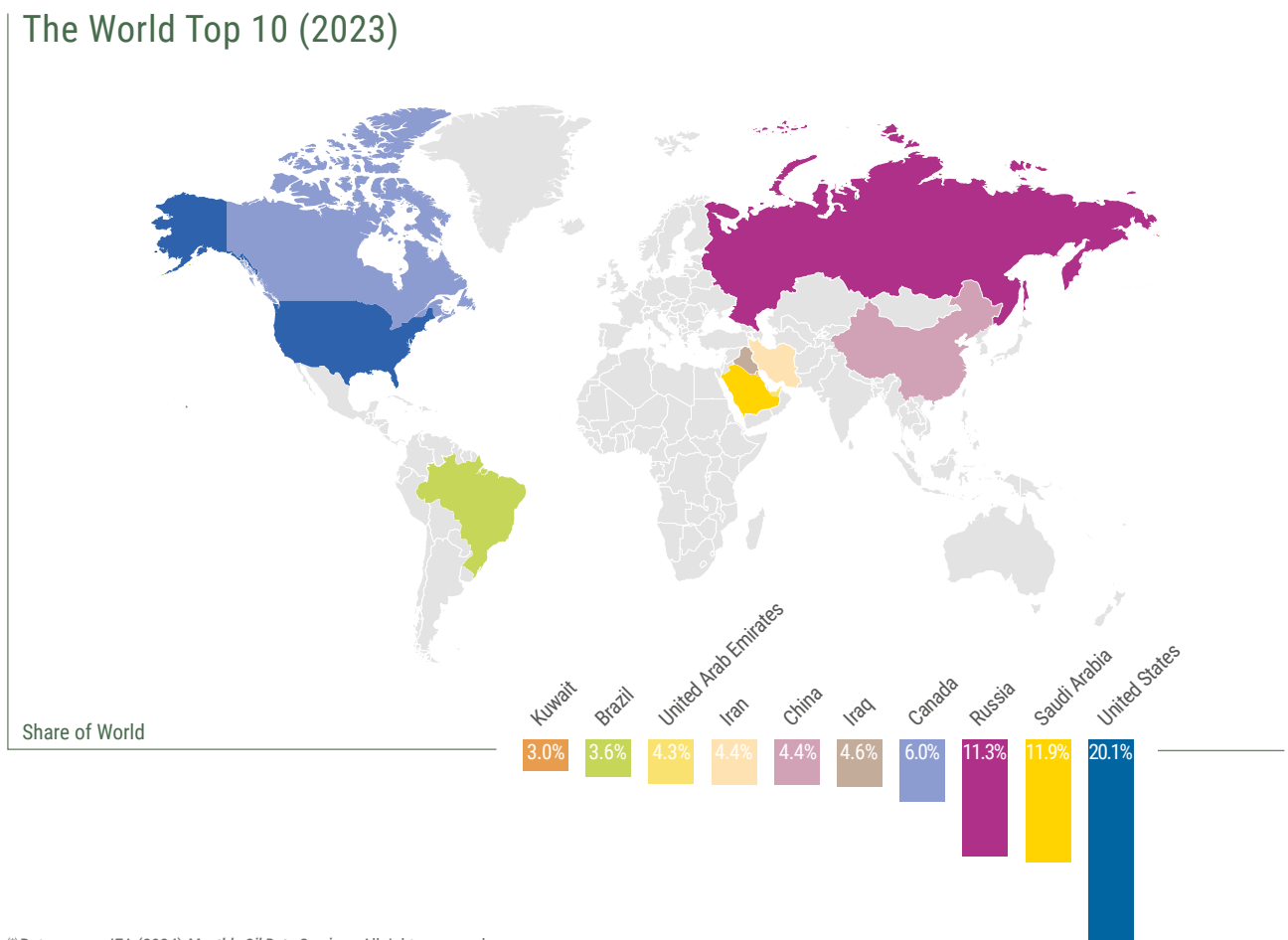
Production

The World Top 10 Producers^(*)

Crude and non conventional oil, natural gas liquids
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
United States	7,615	12,847	15,400	17,219	16,571	16,773	17,928	19,443	8.5%	7.5%
Saudi Arabia	9,971	12,045	12,345	11,914	11,094	10,974	12,390	11,478	-7.4%	1.1%
Russia	10,390	11,084	11,494	11,582	10,607	10,867	11,088	10,959	-1.2%	0.4%
Canada	3,458	4,536	5,408	5,610	5,349	5,593	5,756	5,834	1.4%	4.1%
Iraq	2,430	4,108	4,703	4,852	4,213	4,200	4,622	4,453	-3.7%	4.8%
China	4,038	4,271	3,848	3,921	3,970	4,060	4,177	4,274	2.3%	0.4%
Iran	4,215	3,573	4,582	3,347	3,038	3,504	3,681	4,234	15.0%	0.0%
United Arab Emirates	2,831	3,762	3,831	4,049	3,737	3,621	4,210	4,175	-0.8%	3.0%
Brazil	2,152	2,547	2,713	2,897	3,044	3,002	3,119	3,488	11.8%	3.8%
Kuwait	2,498	3,097	3,030	2,967	2,697	2,699	2,986	2,909	-2.6%	1.2%
The World Top 10	49,598	61,869	67,353	68,358	64,319	65,292	69,957	71,247	1.8%	2.8%
Rest of the World	33,614	29,954	27,836	27,155	25,019	25,212	24,907	25,386	1.9%	-2.1%
World	83,212	91,823	95,189	95,512	89,339	90,504	94,864	96,633	1.9%	1.2%

The World Top 10 (2023)



^(*) Data source: IEA (2024) Monthly Oil Data Services. All rights reserved.

Production

Countries^(*)

Crude and non conventional oil, natural gas liquids
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	4,408	3,708	3,676	3,579	3,799	3,608	3,329	3,350	0.6%	-2.1%
Albania	13	23	16	18	17	16	15	14	-6.8%	0.6%
Austria	21	17	13	13	11	11	10	9	-9.7%	-6.4%
Belarus	34	33	34	34	34	34	32	30	-6.8%	-1.1%
Bulgaria	1	1	1	1	1	1	1	1	0.0%	0.0%
Croatia	18	14	15	14	13	12	12	11	-5.9%	-3.4%
Czech Republic	5	7	6	5	6	6	4	4	-1.8%	-1.6%
Denmark	255	159	117	104	75	69	68	66	-2.2%	-9.8%
Estonia	10	16	22	23	23	22	21	24	11.9%	6.8%
France	41	23	21	28	28	51	58	47	-17.8%	1.1%
Germany	72	66	67	58	73	58	53	57	8.4%	-1.7%
Greece	2	1	4	3	2	2	1	1	0.0%	-3.2%
Hungary	25	18	23	23	20	22	22	23	3.5%	-0.6%
Italy	97	131	110	89	120	111	96	116	20.0%	1.4%
Netherlands	39	36	23	18	19	19	12	9	-30.1%	-10.9%
Norway	2,138	1,948	1,850	1,758	2,041	2,050	1,899	2,018	6.3%	-0.4%
Poland	24	28	32	30	29	26	22	23	4.1%	-0.4%
Portugal	1	0	0	0	0	1	0	0	-100.0%	-100.0%
Romania	89	82	73	73	71	68	64	62	-4.5%	-2.8%
Serbia	17	20	17	17	16	15	14	13	-6.8%	-1.9%
Slovakia	3	4	3	3	3	4	4	7	54.8%	6.4%
Spain	11	5	2	1	1	0	0	0	-26.3%	-40.1%
Türkiye	48	49	58	61	64	67	71	81	14.3%	4.0%
Ukraine	79	54	51	55	54	54	11	0	-100.0%	-100.0%
United Kingdom	1,365	972	1,116	1,150	1,076	890	837	734	-12.4%	-4.7%
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia and Central Asia	13,415	13,950	14,491	14,559	13,413	13,679	13,849	13,793	-0.4%	0.2%
Russia	10,390	11,084	11,494	11,582	10,607	10,867	11,088	10,959	-1.2%	0.4%
Azerbaijan	1,042	849	793	765	699	703	671	620	-7.6%	-3.9%
Georgia	1	1	0	0	0	0	0	0	-6.9%	-8.7%
Kazakhstan	1,694	1,694	1,937	1,943	1,838	1,846	1,817	1,931	6.3%	1.0%
Kyrgyzstan	2	2	4	5	5	5	6	6	4.6%	10.7%
Tajikistan	0	0	0	0	0	0	0	0	-6.7%	6.1%
Turkmenistan	211	268	219	223	226	221	215	210	-2.4%	0.0%
Uzbekistan	75	52	43	40	38	36	51	66	29.6%	-1.0%

^(*) Data source: IEA (2024) *Monthly Oil Data Services*. All rights reserved.

Production

Countries^(*)

Crude and non conventional oil, natural gas liquids
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Middle East	25,366	29,701	31,555	30,129	27,781	28,062	31,049	30,382	-2.1%	1.4%
Bahrain	192	213	208	208	182	185	199	189	-4.6%	-0.1%
Iran	4,215	3,573	4,582	3,347	3,038	3,504	3,681	4,234	15.0%	0.0%
Iraq	2,430	4,108	4,703	4,852	4,213	4,200	4,622	4,453	-3.7%	4.8%
Israel	0	0	0	0	0	0	0	6		
Kuwait	2,498	3,097	3,030	2,967	2,697	2,699	2,986	2,909	-2.6%	1.2%
Oman	871	988	986	979	957	979	1,072	1,057	-1.5%	1.5%
Qatar	1,668	1,856	1,780	1,714	1,760	1,801	1,801	1,819	1.0%	0.7%
Saudi Arabia	9,971	12,045	12,345	11,914	11,094	10,974	12,390	11,478	-7.4%	1.1%
Syria	385	27	24	34	43	43	43	40	-6.6%	-16.0%
United Arab Emirates	2,831	3,762	3,831	4,049	3,737	3,621	4,210	4,175	-0.8%	3.0%
Yemen	306	32	67	67	60	55	46	22	-52.6%	-18.4%
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Africa	10,240	8,324	8,285	8,438	7,030	7,406	7,139	7,297	2.2%	-2.6%
Algeria	1,720	1,590	1,512	1,490	1,346	1,362	1,470	1,432	-2.5%	-1.4%
Angola	1,800	1,796	1,537	1,428	1,311	1,163	1,177	1,137	-3.4%	-3.5%
Cameroon	64	93	69	71	73	69	64	60	-6.8%	-0.5%
Chad	120	139	128	132	131	119	124	124	-0.3%	0.2%
Congo	313	234	331	339	303	275	269	278	3.4%	-0.9%
Côte d'Ivoire	39	26	33	36	28	28	27	29	7.0%	-2.3%
Dem. Rep. Congo	22	21	23	23	22	21	20	19	-4.9%	-1.0%
Egypt	700	696	649	633	619	593	600	596	-0.5%	-1.2%
Equatorial Guinea	311	276	201	186	175	144	121	92	-24.0%	-9.0%
Gabon	249	230	190	212	198	182	188	213	13.3%	-1.2%
Ghana	7	106	177	207	196	170	169	163	-3.6%	27.6%
Libya	1,661	437	1,029	1,159	384	1,225	1,078	1,239	14.9%	-2.2%
Mauritania	9	5	0	0	0	0	0	0		-100.0%
Mozambique	0	0	0	0	0	0	1	5		
Niger	0	15	16	15	14	12	11	10	-9.6%	
Nigeria	2,535	2,246	2,030	2,123	1,879	1,681	1,485	1,566	5.4%	-3.6%
South Africa	141	106	102	104	88	104	97	95	-2.2%	-3.0%
South Sudan	0	148	144	172	165	153	141	148	4.7%	
Sudan	465	105	71	69	61	62	60	55	-7.3%	-15.1%
Tunisia	84	55	43	40	37	44	39	37	-5.0%	-6.0%

^(*) Data source: IEA (2024) *Monthly Oil Data Services*. All rights reserved.

Production

Countries^(*)

Crude and non conventional oil, natural gas liquids
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Asia - Pacific	8,376	8,316	7,648	7,699	7,511	7,426	7,363	7,379	0.2%	-1.0%
Australia	549	371	344	458	455	444	413	382	-7.3%	-2.7%
Bangladesh	7	8	12	11	11	10	10	10	-3.0%	2.7%
Brunei	169	127	111	121	110	108	93	93	0.3%	-4.5%
China	4,038	4,271	3,848	3,921	3,970	4,060	4,177	4,274	2.3%	0.4%
East Timor	88	45	15	23	14	12	10	5	-50.0%	-19.8%
India	880	872	845	803	750	728	704	689	-2.2%	-1.9%
Indonesia	991	817	798	772	734	683	632	628	-0.6%	-3.4%
Japan	18	12	10	11	10	10	9	8	-6.2%	-6.1%
Malaysia	717	701	723	670	604	566	563	561	-0.2%	-1.9%
Mongolia	6	24	19	18	18	17	16	15	-4.9%	7.4%
Myanmar	18	11	9	8	8	8	7	7	-3.0%	-6.8%
New Zealand	60	48	30	30	26	23	21	23	7.2%	-7.2%
Pakistan	72	100	106	104	102	100	98	95	-2.4%	2.2%
Papua New Guinea	32	58	36	35	39	37	34	32	-6.7%	0.0%
Philippines	20	15	13	11	11	10	10	10	-3.0%	-5.3%
South Korea	21	22	29	28	34	37	38	38	-2.4%	4.6%
Thailand	382	452	446	443	411	380	340	327	-3.9%	-1.2%
Vietnam	308	363	252	232	204	192	187	182	-2.7%	-4.0%
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Americas	21,407	27,825	29,533	31,107	29,805	30,322	32,135	34,432	7.1%	3.7%
Argentina	734	650	621	647	609	643	712	765	7.4%	0.3%
Barbados	1	1	1	1	1	1	1	0	-4.7%	-5.5%
Bolivia	56	78	72	68	64	63	60	56	-7.3%	0.0%
Brazil	2,152	2,547	2,713	2,897	3,044	3,002	3,119	3,488	11.8%	3.8%
Canada	3,458	4,536	5,408	5,610	5,349	5,593	5,756	5,834	1.4%	4.1%
Chile	13	6	9	12	9	9	9	10	9.1%	-2.0%
Colombia	788	1,014	873	893	788	744	761	791	3.9%	0.0%
Cuba	55	53	47	42	40	38	36	34	-4.9%	-3.7%
Ecuador	470	548	523	536	484	477	466	453	-2.7%	-0.3%
Guatemala	11	10	9	9	8	8	7	6	-9.5%	-4.2%
Guyana	0	0	0	1	75	117	276	390	41.4%	
Mexico	2,959	2,597	2,073	1,928	1,932	1,954	2,006	2,103	4.8%	-2.6%
Peru	156	150	133	140	125	120	118	114	-3.1%	-2.4%
Suriname	15	16	16	16	16	15	14	13	-4.9%	-0.9%
Trinidad and Tobago	148	109	87	82	76	77	76	68	-10.8%	-5.8%
United States	7,615	12,847	15,400	17,219	16,571	16,773	17,928	19,443	8.5%	7.5%
Venezuela	2,775	2,665	1,548	1,007	615	691	791	863	9.1%	-8.6%

^(*) Data source: IEA (2024) *Monthly Oil Data Services*. All rights reserved.

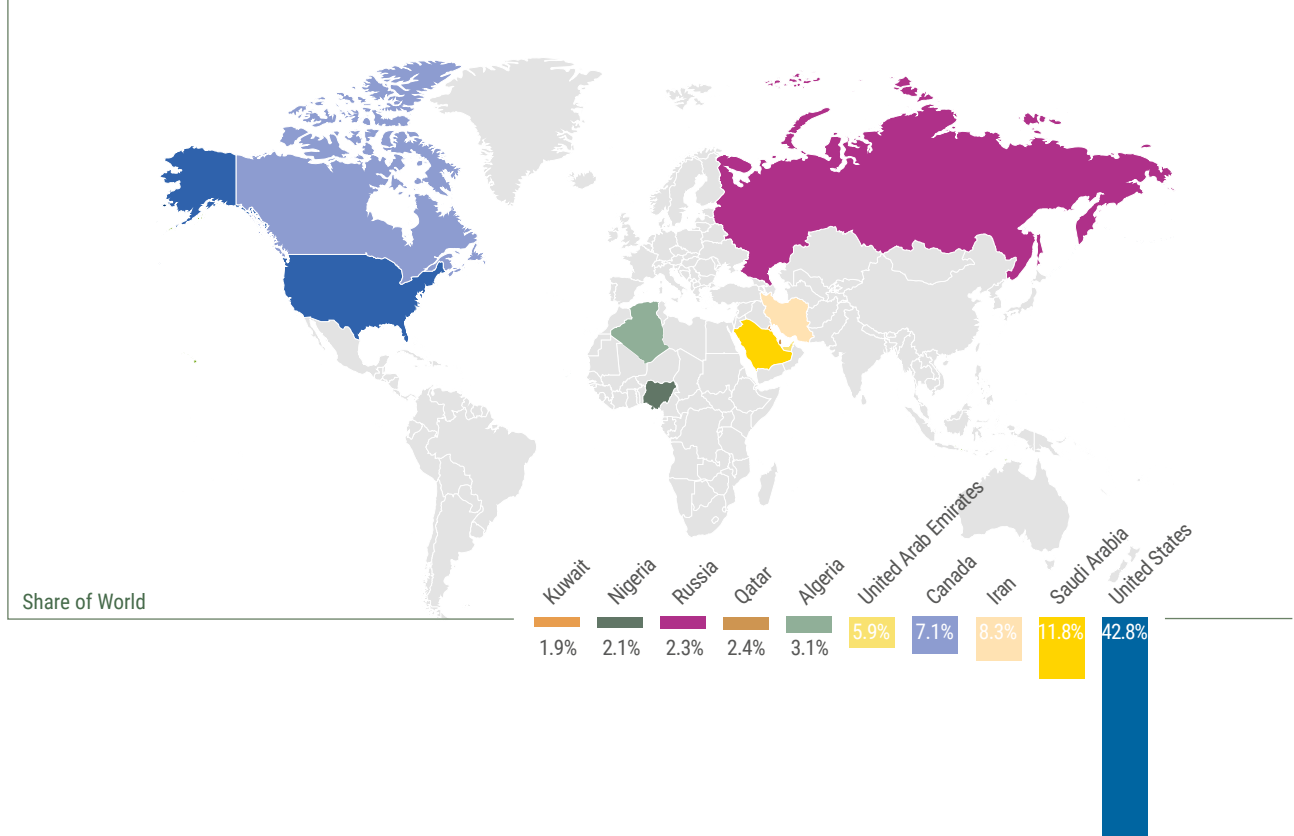
Production

The World Top 10 Natural Gas Liquids Producers^(*)

Crude and non conventional oil, natural gas liquids
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
United States	2,074	3,342	4,369	4,824	5,175	5,425	5,933	6,431	8.4%	9.1%
Saudi Arabia	1,710	1,805	1,939	1,890	1,804	1,742	1,792	1,770	-1.2%	0.3%
Iran	510	727	1,003	987	1,041	1,084	1,135	1,239	9.2%	7.1%
Canada	608	708	904	961	949	976	1,036	1,060	2.3%	4.4%
United Arab Emirates	520	816	803	832	831	842	871	881	1.2%	4.1%
Algeria	515	481	470	466	448	451	459	460	0.3%	-0.9%
Qatar	339	351	331	341	341	353	357	364	2.1%	0.5%
Russia	251	365	333	332	338	343	349	350	0.4%	2.6%
Nigeria	464	459	413	377	369	355	324	313	-3.3%	-3.0%
Kuwait	200	310	285	285	284	283	289	291	0.6%	2.9%
The World Top 10	7,190	9,363	10,850	11,295	11,580	11,855	12,544	13,160	4.9%	4.8%
Rest of the World	2,418	2,268	2,247	2,211	2,078	1,982	1,876	1,858	-1.0%	-2.0%
World	9,608	11,631	13,097	13,507	13,658	13,837	14,420	15,017	4.1%	3.5%

The World Top 10 (2023)



^(*) Data source: IEA (2024) *Monthly Oil Data Services* data. All rights reserved.

Reserves/Production Ratio

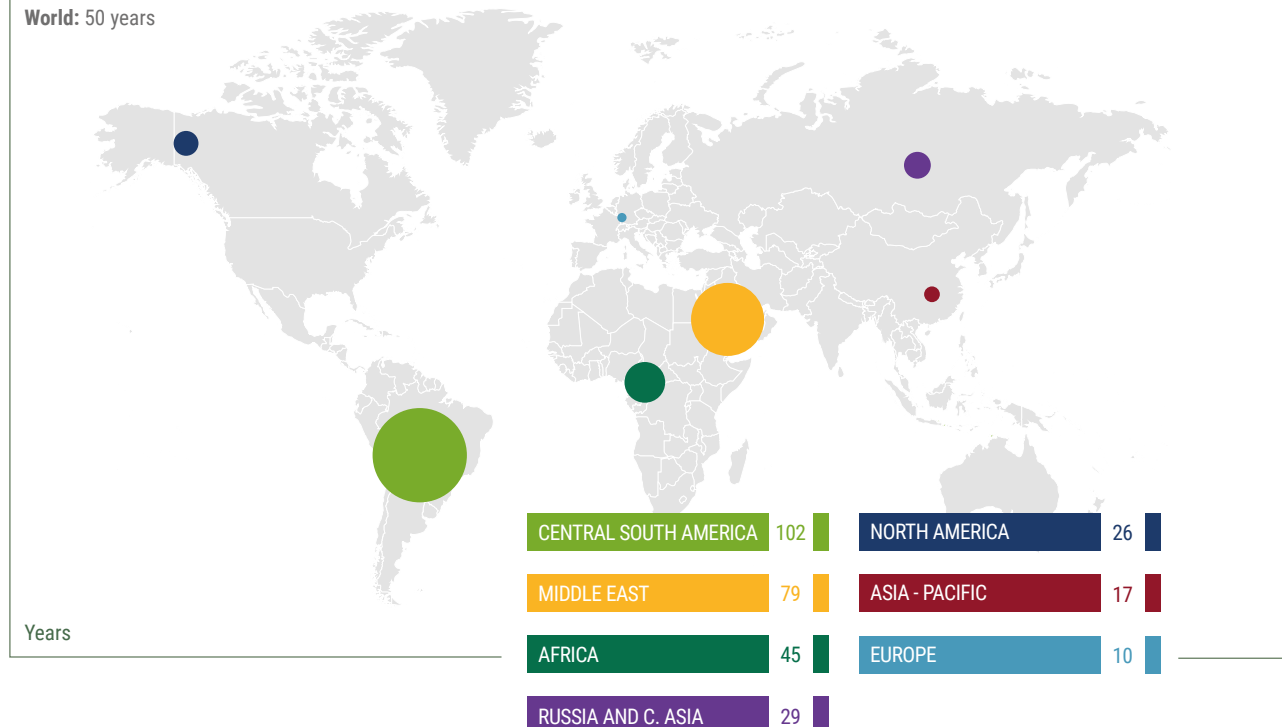
Areas and Aggregates^(*)

(years)

	2010	2015	2018	2019	2020	2021	2022	2023
Europe	9	10	11	11	10	10	10	10
Russia and Central Asia	26	27	27	27	30	29	29	29
Middle East	86	74	70	79	85	85	77	79
Africa	35	42	42	40	48	44	46	45
Asia - Pacific	17	16	17	17	17	17	17	17
Americas	72	54	54	51	52	52	49	46
- North America	56	32	32	29	29	29	28	26
- Central South America	90	90	106	112	117	117	110	102
World	55	50	49	51	54	54	51	50
European Union 27	12	12	12	13	13	13	13	13
MENA	80	73	68	76	84	82	75	76
OECD	36	26	26	25	24	25	24	23
NON OECD	61	59	59	63	68	67	64	64
OPEC	96	90	88	97	110	107	99	100
NON OPEC	28	24	25	24	24	25	24	23

Reserves/Production Ratio (2023)

World: 50 years



^(*) Data source: Eni's calculations on Enerdata *Global Energy Market & CO₂ Data*, IEA (2024) *Monthly Oil Data Services* and other official data sources. All rights reserved.

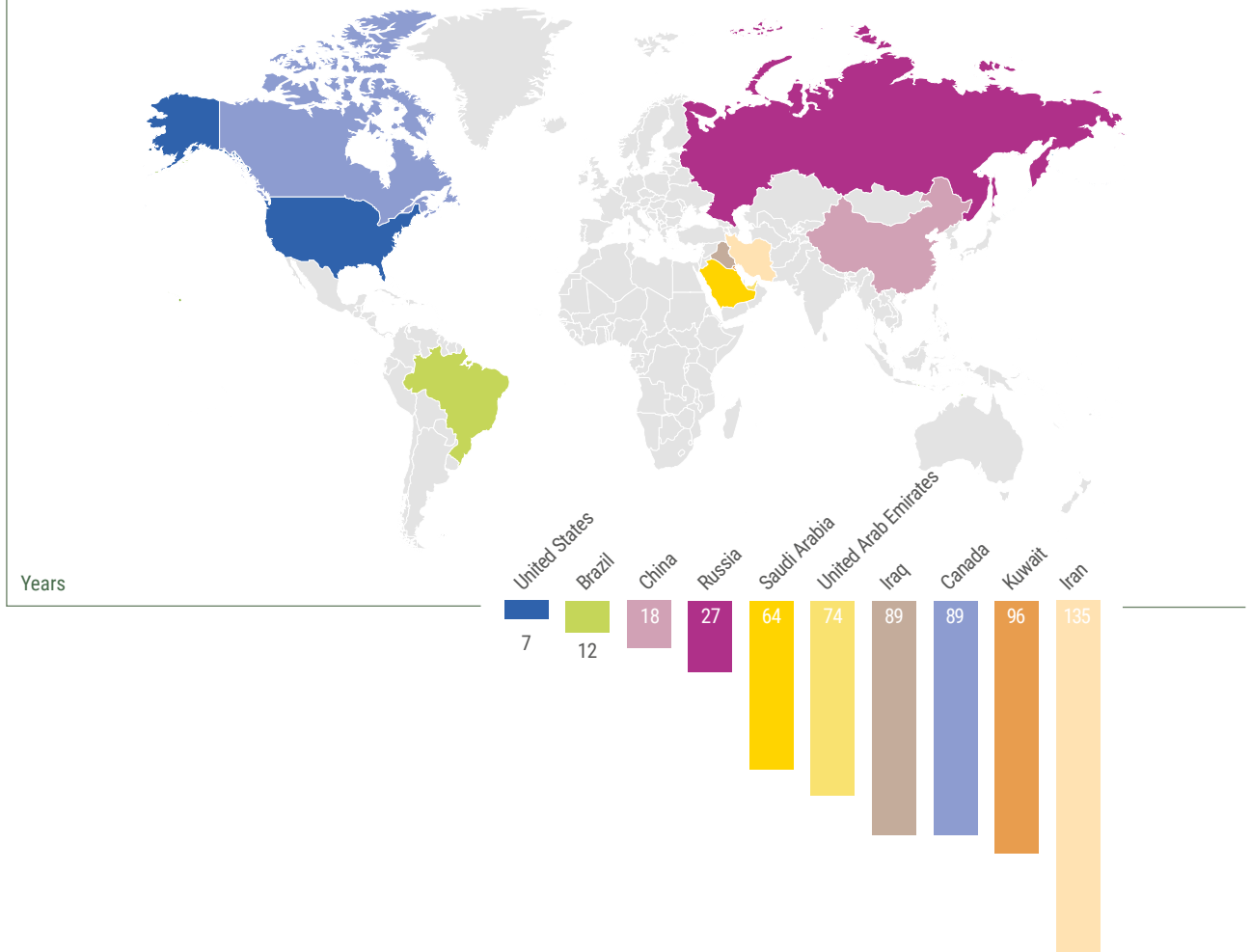
Reserves/Production Ratio

The World Top 10 Producers Ranked by Reserves/Production Ratio^(*)

(years)

	2010	2015	2018	2019	2020	2021	2022	2023
Iran	98	121	93	171	188	163	155	135
Kuwait	111	90	92	94	103	103	93	96
Canada	158	102	98	95	99	95	90	89
Iraq	161	95	84	82	94	95	86	89
United Arab Emirates	95	71	70	71	78	84	74	74
Saudi Arabia	73	61	59	61	66	67	59	64
Russia	20	24	25	25	28	27	27	27
China	16	16	18	18	18	18	18	18
Brazil	18	14	13	12	11	12	13	12
United States	9	8	8	7	6	7	7	7

The World Top 10 (2023)



^(*) Data source: Eni's calculations on Enerdata *Global Energy Market & CO₂ Data*, IEA (2024) *Monthly Oil Data Services* and other official data sources. All rights reserved.

Reserves/Production Ratio

Countries^(*)

(years)

	2010	2015	2018	2019	2020	2021	2022	2023
Europe	9	10	11	11	10	10	10	10
Albania	46	22	25	22	23	25	36	39
Austria	6	8	9	8	9	9	10	11
Belarus	15	16	16	16	16	16	17	18
Bulgaria	40	40	40	40	40	40	40	40
Croatia	11	13	13	14	16	16	17	18
Czech Republic	4	6	3	8	4	4	5	5
Denmark	10	9	10	11	15	17	14	14
France	6	10	8	6	6	7	4	5
Germany	11	10	9	10	5	6	6	5
Greece	9	16	5	6	11	13	13	13
Hungary	3	3	3	2	2	2	2	2
Italy	16	12	14	16	13	14	16	13
Netherlands	22	8	9	18	19	11	14	21
Norway	9	10	13	13	10	10	10	9
Poland	9	10	9	9	8	9	9	9
Romania	17	20	22	22	23	24	25	27
Serbia	13	11	13	13	13	14	16	17
Slovakia	7	4	6	7	6	5	5	3
Spain	36	80	222	491	729			
Türkiye	18	20	15	16	16	15	14	12
Ukraine	13	20	21	20	20	20	97	
United Kingdom	6	7	7	6	6	6	6	6
	2010	2015	2018	2019	2020	2021	2022	2023
Russia and Central Asia	26	27	27	27	30	29	29	29
Russia	20	24	25	25	28	27	27	27
Azerbaijan	18	22	24	25	27	27	28	31
Georgia	119	196						
Kazakhstan	63	48	42	42	44	44	45	42
Kyrgyzstan	60	47	25	21	21	19	17	16
Turkmenistan	21	6	7	7	7	7	8	8
Uzbekistan	21	31	38	41	43	45	32	25

^(*) Data source: Eni's calculations on Enerdata *Global Energy Market & CO₂ Data*, IEA (2024) *Monthly Oil Data Services* and other official data sources. All rights reserved.

Reserves/Production Ratio

Countries^(*)

(years)

	2010	2015	2018	2019	2020	2021	2022	2023
Middle East	86	74	70	79	85	85	77	79
Bahrain	2	2	1	1	3	2	2	2
Iran	98	121	93	171	188	163	155	135
Iraq	161	95	84	82	94	95	86	89
Israel								7
Kuwait	111	90	92	94	103	103	93	96
Oman	16	15	15	15	15	15	14	14
Qatar	42	37	39	40	39	38	38	38
Saudi Arabia	73	61	59	61	66	67	59	64
Syria	17	256	302	202	158	156	159	170
United Arab Emirates	95	71	70	71	78	84	74	74
Yemen	23	246	118	122	130	148	177	374

	2010	2015	2018	2019	2020	2021	2022	2023
Africa	35	42	42	40	48	44	46	45
Algeria	19	21	22	22	25	25	23	23
Angola	14	15	15	15	15	6	6	6
Cameroon	7	6	8	8	7	8	8	9
Chad	34	31	34	31	33	34	33	33
Congo	18	35	25	16	16	18	18	18
Côte d'Ivoire	7	11	8	8	10	10	10	10
Dem. Rep. Congo	22	23	21	23	24	23	24	25
Egypt	17	17	13	14	14	14	15	15
Equatorial Guinea	15	11	15	16	17	21	25	33
Gabon	22	24	29	26	28	30	29	26
Ghana	263	17	10	9	9	11	11	11
Libya	78	303	129	114	345	108	123	107
Mauritania	30	13						
Mozambique							68	8
Niger		26	25	27	29	33	36	40
Nigeria	40	45	50	48	54	60	68	66
South Sudan		65	66	56	58	63	68	65
Sudan	38	39	57	59	66	66	59	64
Tunisia	14	20	25	27	30	27	29	31

^(*) Data source: Eni's calculations on Enerdata *Global Energy Market & CO₂ Data*, IEA (2024) *Monthly Oil Data Services* and other official data sources. All rights reserved.

Reserves/Production Ratio

Countries^(*)

(years)

	2010	2015	2018	2019	2020	2021	2022	2023
Asia - Pacific	17	16	17	17	17	17	17	17
Australia	20	29	20	15	11	10	10	11
Bangladesh	11	10	7	7	7	8	8	8
Brunei	18	24	27	25	27	28	32	32
China	16	16	18	18	18	18	18	18
India	27	15	14	15	17	17	17	19
Indonesia	11	11	11	11	9	10	10	10
Japan	7	10	12	11	12	12	14	15
Malaysia	14	14	14	15	16	17	13	13
Mongolia	7	29	36	47	49	51	54	57
Myanmar	8	13	42	48	48	50	51	53
New Zealand	7	5	6	5	5	6	8	7
Pakistan	11	10	9	9	14	15	15	15
Papua New Guinea	8	8	13	12	11	11	12	12
Philippines	19	25	22	35	35	36	37	38
Thailand	3	4	2	2	1	1	1	1
Vietnam	39	33	47	52	58	62	64	66
Americas	72	54	54	51	52	52	49	46
Argentina	9	10	9	8	11	11	11	10
Barbados	5	10	11	11	10	10	11	
Bolivia	22	7	7	10	10	10	11	12
Brazil	18	14	13	12	11	12	13	12
Canada	158	102	98	95	99	95	90	89
Chile	30	64	44	34	44	47	42	39
Colombia	7	5	6	6	7	7	7	7
Cuba	6	6	7	8	8	9	10	10
Ecuador	42	41	43	42	47	48	49	50
Guatemala	20	26	44	38	28	34	32	35
Mexico	13	14	10	10	10	10	10	10
Peru	22	26	20	17	14	19	20	20
Suriname	15	18	15	15	15	16	19	19
Trinidad and Tobago	15	18	8	7	9	9	9	10
United States	9	8	8	7	6	7	7	7
Venezuela	293	309	538	827	1,352	1,203	1,051	962

^(*) Data source: Eni's calculations on Enerdata *Global Energy Market & CO₂ Data*, IEA (2024) *Monthly Oil Data Services* and other official data sources. All rights reserved.

Consumption^(*)

Areas and Aggregates^(**)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	15,932	14,977	15,486	15,503	13,520	14,380	14,650	14,542	-0.7%	-0.7%
Russia and Central Asia	3,428	4,205	4,254	4,306	4,193	4,469	4,588	4,584	-0.1%	2.3%
Middle East	8,051	9,149	9,119	9,089	8,349	8,640	9,143	9,170	0.3%	1.0%
Africa	3,539	4,139	4,162	4,169	3,887	4,210	4,329	4,323	-0.1%	1.6%
Asia - Pacific	27,637	32,306	35,547	35,975	34,206	35,814	35,969	37,951	5.5%	2.5%
Americas	30,215	31,117	31,672	31,571	27,619	29,992	31,033	31,401	1.2%	0.3%
- North America	21,753	22,128	23,166	22,951	20,263	22,011	22,567	22,812	1.1%	0.4%
- Central South America	8,462	8,989	8,506	8,620	7,356	7,981	8,466	8,589	1.5%	0.1%
World	88,802	95,893	100,240	100,613	91,774	97,505	99,712	101,971	2.3%	1.1%
European Union 27	12,401	11,433	11,756	11,783	10,341	11,032	11,201	11,005	-1.7%	-0.9%
MENA	9,743	10,982	10,803	10,729	9,979	10,463	11,009	11,056	0.4%	1.0%
OECD	47,376	46,889	48,145	47,953	42,169	44,948	46,113	46,198	0.2%	-0.2%
NON OECD	41,426	49,004	52,095	52,660	49,605	52,557	53,599	55,773	4.1%	2.3%
OPEC	8,628	9,898	9,542	9,506	8,573	8,965	9,427	9,454	0.3%	0.7%
NON OPEC	80,174	85,995	90,698	91,107	83,201	88,540	90,285	92,517	2.5%	1.1%

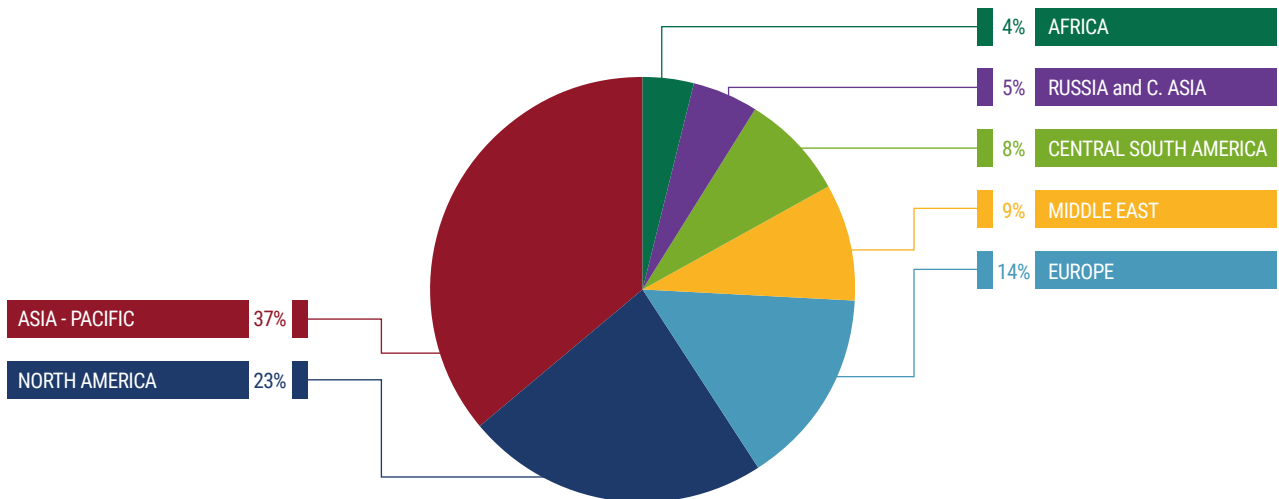
^(*) World Oil Consumption: measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers, refinery fuel, crude for direct burning, oil from non-conventional sources and other sources of supply. Includes biofuels.

^(**) Data source: Eni's calculations on IEA (2024) *Monthly Oil Data Services* data. All rights reserved.

Consumption

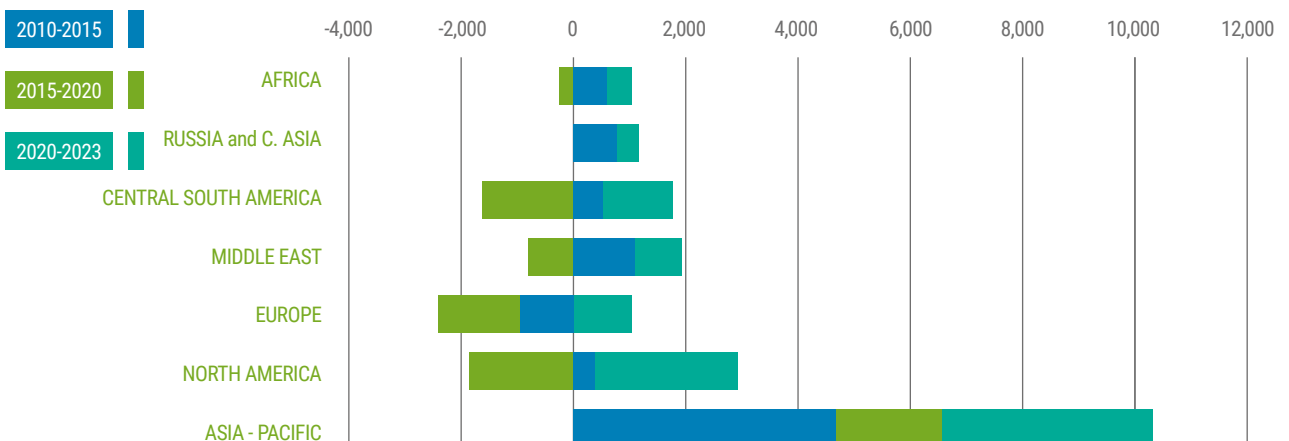
World Oil Consumption (2023)

101,971 thousand barrels/day



World Oil Consumption Growth (2010-2023)

13,169 thousand barrels/day



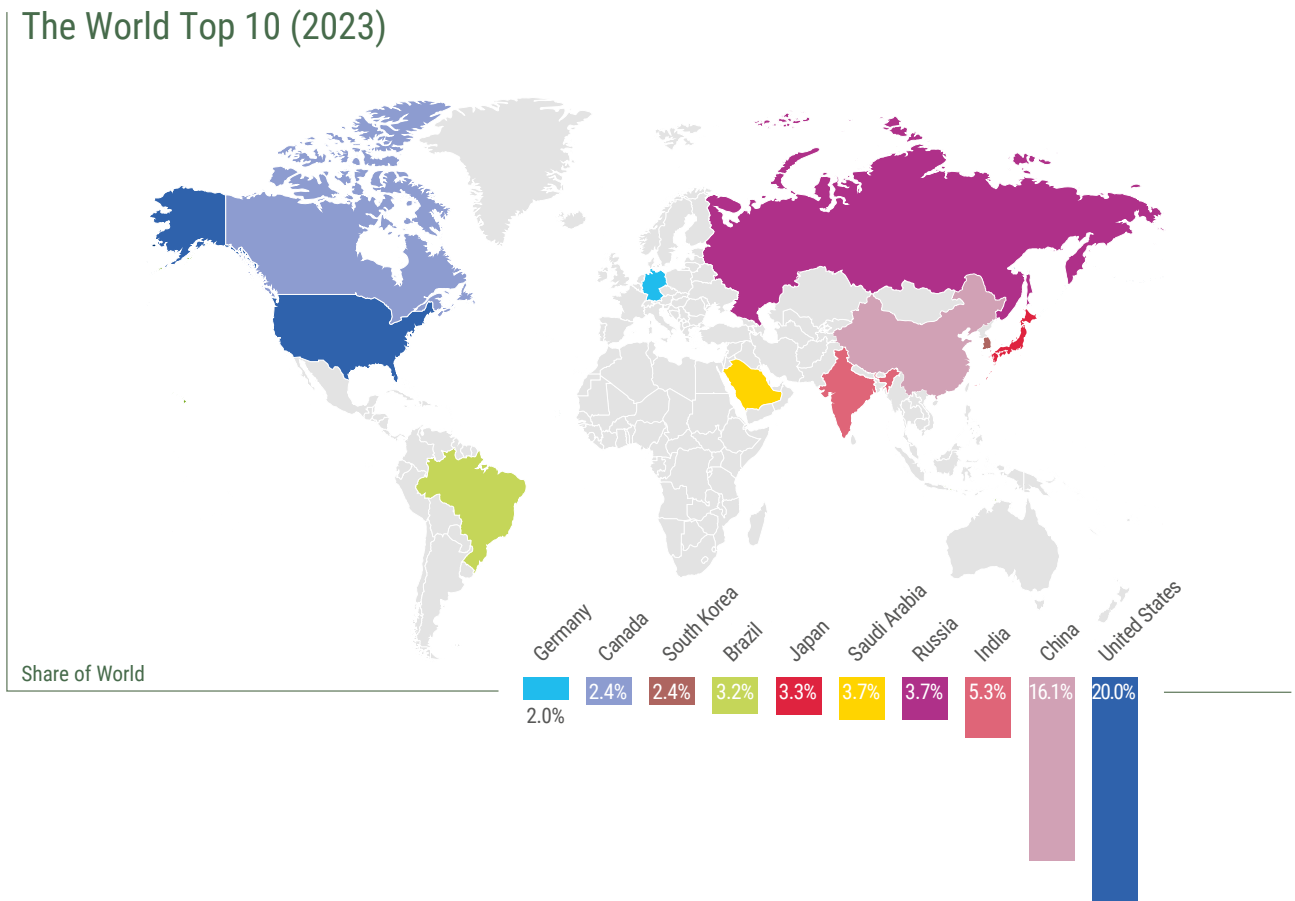
Consumption

The World Top 10 Consumers^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
United States	19,388	19,688	20,654	20,402	18,049	19,753	20,160	20,362	1.0%	0.4%
China	9,031	11,639	13,624	14,146	14,283	15,088	14,736	16,457	11.7%	4.7%
India	3,366	4,288	4,927	4,970	4,635	4,944	5,168	5,415	4.8%	3.7%
Russia	2,828	3,472	3,494	3,568	3,449	3,685	3,782	3,756	-0.7%	2.2%
Saudi Arabia	3,174	3,895	3,608	3,632	3,459	3,507	3,729	3,727	-0.1%	1.2%
Japan	4,399	4,167	3,861	3,766	3,366	3,411	3,376	3,341	-1.0%	-2.1%
Brazil	2,779	3,189	2,975	3,073	2,856	3,028	3,129	3,245	3.7%	1.2%
South Korea	2,269	2,473	2,564	2,596	2,448	2,556	2,547	2,472	-2.9%	0.7%
Canada	2,365	2,440	2,512	2,549	2,214	2,258	2,407	2,450	1.8%	0.3%
Germany	2,467	2,368	2,327	2,355	2,148	2,235	2,179	2,057	-5.6%	-1.4%
The World Top 10	52,066	57,619	60,546	61,057	56,907	60,465	61,213	63,282	3.4%	1.5%
Rest of the World	36,736	38,274	39,694	39,556	34,867	37,040	38,499	38,689	0.5%	0.4%
World	88,802	95,893	100,240	100,613	91,774	97,505	99,712	101,971	2.3%	1.1%

The World Top 10 (2023)



^(*) Data source: IEA (2024) *Monthly Oil Data Services*. All rights reserved.

Consumption

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	15,932	14,977	15,486	15,503	13,520	14,380	14,650	14,542	-0.7%	-0.7%
Albania	26	26	27	29	23	29	29	29	0.0%	0.8%
Austria	278	258	269	277	239	254	244	244	0.0%	-1.0%
Belarus	151	139	151	146	147	152	148	148	0.0%	-0.2%
Belgium	654	625	685	644	562	623	608	588	-3.3%	-0.8%
Bosnia Herzegovina	34	31	35	34	32	34	35	34	-2.9%	0.0%
Bulgaria	84	95	100	104	95	101	103	102	-1.0%	1.5%
Croatia	78	69	72	71	60	68	71	70	-1.4%	-0.8%
Cyprus	57	48	53	53	45	51	53	54	1.9%	-0.4%
Czech Republic	202	196	217	219	192	212	216	211	-2.3%	0.3%
Denmark	167	154	161	165	137	140	148	152	2.7%	-0.7%
Estonia	27	29	30	28	28	28	31	30	-3.2%	0.8%
Finland	213	205	208	209	189	184	190	171	-10.0%	-1.7%
France	1,817	1,747	1,686	1,689	1,428	1,541	1,541	1,547	0.4%	-1.2%
Germany	2,467	2,368	2,327	2,355	2,148	2,235	2,179	2,057	-5.6%	-1.4%
Gibraltar	83	74	82	84	84	84	84	84	0.0%	0.1%
Greece	370	295	300	310	251	269	306	304	-0.7%	-1.5%
Hungary	149	155	179	180	168	182	182	176	-3.3%	1.3%
Iceland	15	17	23	20	13	15	21	20	-4.8%	2.2%
Ireland	164	146	159	159	135	146	154	156	1.3%	-0.4%
Italy	1,544	1,274	1,272	1,255	1,032	1,162	1,195	1,180	-1.3%	-2.0%
Kosovo	11	14	15	16	15	16	16	16	0.0%	2.9%
Latvia	37	37	35	40	35	37	35	35	0.0%	-0.4%
Lithuania	56	57	68	68	64	66	66	68	3.0%	1.5%
Luxembourg	60	56	63	64	53	57	50	49	-2.0%	-1.5%
Malta	47	43	52	54	50	53	57	58	1.8%	1.6%
Moldova	17	18	21	21	20	21	20	20	0.0%	1.3%
Montenegro	7	6	8	9	7	8	8	8	0.0%	1.0%
Netherlands	991	928	924	900	857	853	862	891	3.4%	-0.8%
North Macedonia	18	20	21	22	21	21	20	20	0.0%	0.8%
Norway	233	240	243	248	218	235	218	223	2.3%	-0.3%
Poland	568	541	680	698	661	697	715	708	-1.0%	1.7%
Portugal	274	237	231	249	203	212	233	213	-8.6%	-1.9%
Romania	176	194	214	228	219	228	240	243	1.3%	2.5%
Serbia	81	71	76	78	72	79	80	79	-1.3%	-0.2%
Slovakia	84	79	92	86	87	91	91	93	2.2%	0.8%
Slovenia	55	49	57	55	46	50	53	47	-11.3%	-1.2%
Spain	1,441	1,247	1,332	1,328	1,089	1,192	1,289	1,269	-1.6%	-1.0%
Sweden	341	301	290	295	268	300	289	289	0.0%	-1.3%
Switzerland	261	227	222	220	180	188	191	195	2.1%	-2.2%
Türkiye	675	881	958	987	921	974	1,019	1,083	6.3%	3.7%
Ukraine	293	220	243	244	215	240	176	173	-1.7%	-4.0%
United Kingdom	1,626	1,560	1,605	1,562	1,211	1,252	1,384	1,405	1.5%	-1.1%

^(*) Data source: IEA (2024) *Monthly Oil Data Services*. All rights reserved.

Consumption

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia and Central Asia	3,428	4,205	4,254	4,306	4,193	4,469	4,588	4,584	-0.1%	2.3%
Russia	2,828	3,472	3,494	3,568	3,449	3,685	3,782	3,756	-0.7%	2.2%
Armenia	9	7	8	10	13	13	14	15	7.1%	4.0%
Azerbaijan	74	96	104	112	101	106	110	112	1.8%	3.2%
Georgia	22	26	29	31	29	30	32	33	3.1%	3.2%
Kazakhstan	233	322	326	290	314	325	333	346	3.9%	3.1%
Kyrgyzstan	27	36	41	30	25	32	31	30	-3.2%	0.8%
Tajikistan	11	22	24	26	26	30	32	33	3.1%	8.8%
Turkmenistan	126	142	134	141	134	138	140	141	0.7%	0.9%
Uzbekistan	98	82	94	98	102	110	114	118	3.5%	1.4%
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Middle East	8,051	9,149	9,119	9,089	8,349	8,640	9,143	9,170	0.3%	1.0%
Bahrain	61	61	65	64	55	56	62	64	3.2%	0.4%
Iran	1,848	2,003	1,958	1,907	1,741	1,802	1,773	1,754	-1.1%	-0.4%
Iraq	565	606	705	745	615	642	765	839	9.7%	3.1%
Israel	251	217	232	234	206	205	227	225	-0.9%	-0.8%
Jordan	102	134	111	108	88	99	105	106	1.0%	0.3%
Kuwait	515	523	520	517	483	518	537	500	-6.9%	-0.2%
Lebanon	120	162	168	169	137	132	152	146	-3.9%	1.5%
Oman	127	185	233	213	182	242	255	255	0.0%	5.5%
Qatar	173	287	311	319	281	280	304	305	0.3%	4.5%
Saudi Arabia	3,174	3,895	3,608	3,632	3,459	3,507	3,729	3,727	-0.1%	1.2%
Syria	307	123	145	131	124	125	128	127	-0.8%	-6.6%
United Arab Emirates	660	880	992	979	915	968	1,040	1,057	1.6%	3.7%
Yemen	148	73	71	71	63	64	66	65	-1.5%	-6.1%

^(*) Data source: IEA (2024) *Monthly Oil Data Services*. All rights reserved.

Consumption

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Africa	3,539	4,139	4,162	4,169	3,887	4,210	4,329	4,323	-0.1%	1.6%
Algeria	351	455	444	454	409	420	437	458	4.8%	2.1%
Angola	99	163	139	153	111	150	154	155	0.6%	3.5%
Benin	35	36	51	47	49	48	51	53	3.9%	3.2%
Cameroon	34	39	40	39	37	37	39	40	2.6%	1.3%
Congo	12	15	12	12	11	11	12	13	8.3%	0.6%
Côte d'Ivoire	24	45	52	56	54	57	60	63	5.0%	7.7%
Dem. Rep. Congo	16	21	17	18	19	17	18	18	0.0%	0.9%
Egypt	763	858	715	651	751	861	868	856	-1.4%	0.9%
Ethiopia	44	69	92	102	85	95	104	110	5.8%	7.3%
Gabon	19	22	14	15	13	13	14	14	0.0%	-2.3%
Ghana	70	86	99	100	98	103	107	108	0.9%	3.4%
Kenya	85	104	119	123	109	115	124	129	4.0%	3.3%
Libya	304	218	210	208	175	223	234	240	2.6%	-1.8%
Morocco	257	274	288	297	266	289	296	300	1.4%	1.2%
Mozambique	16	26	28	30	27	28	30	31	3.3%	5.2%
Nigeria	293	415	456	488	427	485	501	465	-7.2%	3.6%
Senegal	38	47	53	52	50	53	56	57	1.8%	3.2%
South Africa	587	637	652	617	528	560	566	574	1.4%	-0.2%
South Sudan	0	14	13	14	13	12	12	13	8.3%	
Sudan	114	122	140	142	126	138	137	119	-13.1%	0.3%
Tanzania	88	102	103	103	94	93	84	73	-13.1%	-1.4%
Tunisia	33	63	63	69	68	68	72	74	2.8%	6.4%
Zambia	17	28	27	30	29	30	31	32	3.2%	5.0%
Zimbabwe	14	28	33	30	24	26	27	27	0.0%	5.2%
Others Africa	226	252	302	319	314	278	295	301	2.0%	2.2%

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Consumption

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Asia - Pacific	27,637	32,306	35,547	35,975	34,206	35,814	35,969	37,951	5.5%	2.5%
Australia	1,050	1,106	1,168	1,150	991	1,018	1,076	1,135	5.5%	0.6%
Bangladesh	80	136	188	179	146	185	190	195	2.6%	7.1%
Brunei	16	17	17	21	24	62	61	61	0.0%	10.8%
China	9,031	11,639	13,624	14,146	14,283	15,088	14,736	16,457	11.7%	4.7%
Hong Kong	415	371	438	412	286	239	222	273	23.0%	-3.2%
India	3,366	4,288	4,927	4,970	4,635	4,944	5,168	5,415	4.8%	3.7%
Indonesia	1,406	1,683	1,858	1,833	1,658	1,729	1,774	1,849	4.2%	2.1%
Japan	4,399	4,167	3,861	3,766	3,366	3,411	3,376	3,341	-1.0%	-2.1%
Malaysia	586	688	712	752	670	710	787	840	6.7%	2.8%
Myanmar	24	74	143	148	137	121	130	128	-1.5%	13.7%
Nepal	22	27	56	45	56	56	59	58	-1.7%	7.7%
New Zealand	153	161	180	185	149	146	149	152	2.0%	-0.1%
North Korea	17	18	18	19	19	18	18	18	0.0%	0.4%
Pakistan	400	526	462	444	513	576	563	472	-16.2%	1.3%
Philippines	314	401	467	478	399	438	485	507	4.5%	3.8%
Singapore	1,162	1,294	1,388	1,352	1,222	1,213	1,315	1,328	1.0%	1.0%
South Korea	2,269	2,473	2,564	2,596	2,448	2,556	2,547	2,472	-2.9%	0.7%
Sri Lanka	88	105	127	134	110	123	79	70	-11.4%	-1.7%
Taiwan	1,138	1,139	1,130	1,067	1,019	1,075	991	926	-6.6%	-1.6%
Thailand	1,118	1,363	1,472	1,477	1,357	1,344	1,403	1,400	-0.2%	1.7%
Vietnam	395	399	489	521	452	502	573	587	2.4%	3.1%
Others Asia - Pacific	188	231	258	280	266	260	267	267	0.0%	2.7%

^(*) Data source: IEA (2024) *Monthly Oil Data Services*. All rights reserved.

Consumption

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Americas	30,215	31,117	31,672	31,571	27,619	29,992	31,033	31,401	1.2%	0.3%
Argentina	656	682	648	625	530	636	697	694	-0.4%	0.4%
Bolivia	59	79	89	91	77	85	87	87	0.0%	3.0%
Brazil	2,779	3,189	2,975	3,073	2,856	3,028	3,129	3,245	3.7%	1.2%
Canada	2,365	2,440	2,512	2,549	2,214	2,258	2,407	2,450	1.8%	0.3%
Chile	322	331	363	362	331	361	370	370	0.0%	1.1%
Colombia	266	338	349	373	324	357	374	380	1.6%	2.8%
Costa Rica	50	53	60	60	50	57	60	61	1.7%	1.5%
Cuba	182	183	167	136	119	148	145	140	-3.4%	-2.0%
Curaçao	69	79	61	55	44	54	53	51	-3.8%	-2.3%
Dominican Republic	123	133	145	153	114	149	157	160	1.9%	2.0%
Ecuador	239	273	278	275	227	260	267	266	-0.4%	0.8%
El Salvador	45	50	51	59	46	57	59	59	0.0%	2.1%
Guatemala	70	89	100	109	101	109	113	114	0.9%	3.8%
Haiti	16	22	23	23	22	21	21	21	0.0%	2.1%
Honduras	46	60	49	56	50	55	57	57	0.0%	1.7%
Jamaica	51	52	60	61	38	56	59	60	1.7%	1.3%
Mexico	2,094	2,006	1,886	1,966	1,626	1,631	1,857	1,846	-0.6%	-1.0%
Nicaragua	29	34	33	34	31	35	36	37	2.8%	1.9%
Panama	122	144	158	176	108	163	181	190	5.0%	3.5%
Paraguay	36	47	63	63	57	61	61	62	1.6%	4.3%
Peru	200	236	266	274	212	255	265	271	2.3%	2.4%
Trinidad and Tobago	43	46	37	31	27	26	28	28	0.0%	-3.2%
United States	19,388	19,688	20,654	20,402	18,049	19,753	20,160	20,362	1.0%	0.4%
Uruguay	51	52	52	54	49	53	56	55	-1.8%	0.6%
Venezuela	788	703	484	396	214	226	231	232	0.4%	-9.0%
Others Americas	126	108	109	115	103	98	103	103	0.0%	-1.5%

^(*) Data source: IEA (2024) *Monthly Oil Data Services*. All rights reserved.

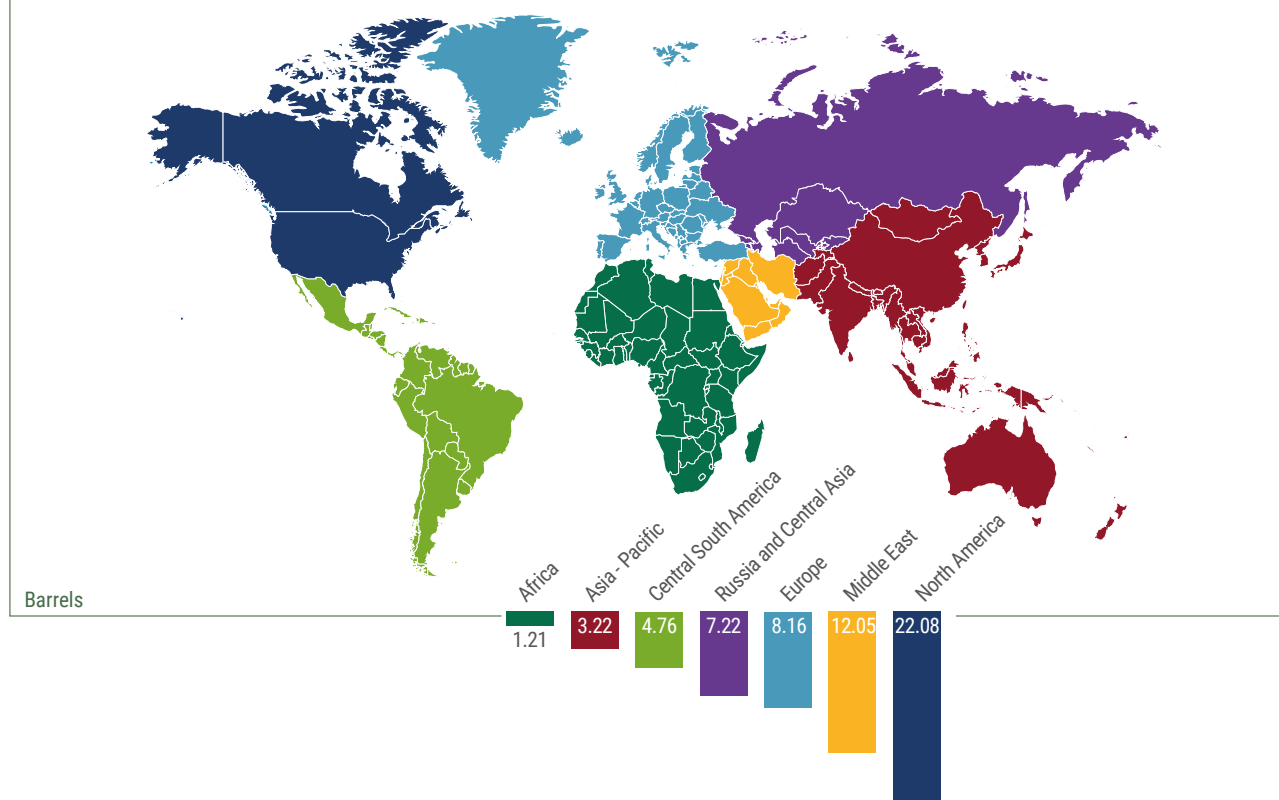
Per Capita Consumption

Areas and Aggregates^(*)

(barrels)

	2010	2015	2018	2019	2020	2021	2022	2023
Europe	9.29	8.56	8.76	8.75	7.61	8.08	8.23	8.16
Russia and Central Asia	5.36	6.48	6.51	6.58	6.41	6.84	7.14	7.22
Middle East	13.38	13.65	12.87	12.60	11.43	11.70	12.20	12.05
Africa	1.37	1.41	1.31	1.28	1.17	1.23	1.24	1.21
Asia - Pacific	2.62	2.91	3.11	3.13	2.95	3.07	3.07	3.22
Americas	11.89	11.66	11.55	11.43	9.93	10.73	11.03	11.07
- North America	23.07	22.58	23.12	22.76	20.01	21.67	22.06	22.08
- Central South America	5.29	5.32	4.89	4.91	4.16	4.49	4.73	4.76
World	4.67	4.75	4.79	4.76	4.30	4.53	4.60	4.66
European Union 27	10.25	9.40	9.63	9.64	8.46	9.03	9.17	9.01
MENA	9.06	9.23	8.60	8.39	7.70	7.97	8.27	8.18
OECD	13.42	12.87	12.98	12.86	11.27	11.98	12.25	12.23
NON OECD	2.68	2.96	3.03	3.03	2.82	2.96	2.99	3.08
OPEC	7.68	7.82	7.08	6.93	6.14	6.32	6.52	6.42
NON OPEC	4.48	4.54	4.64	4.61	4.17	4.40	4.46	4.53

Per Capita Consumption (2023)



^(*) Data source: Eni's calculations on IEA (2024) *Monthly Oil Data Services* and S&P Global data. All rights reserved.

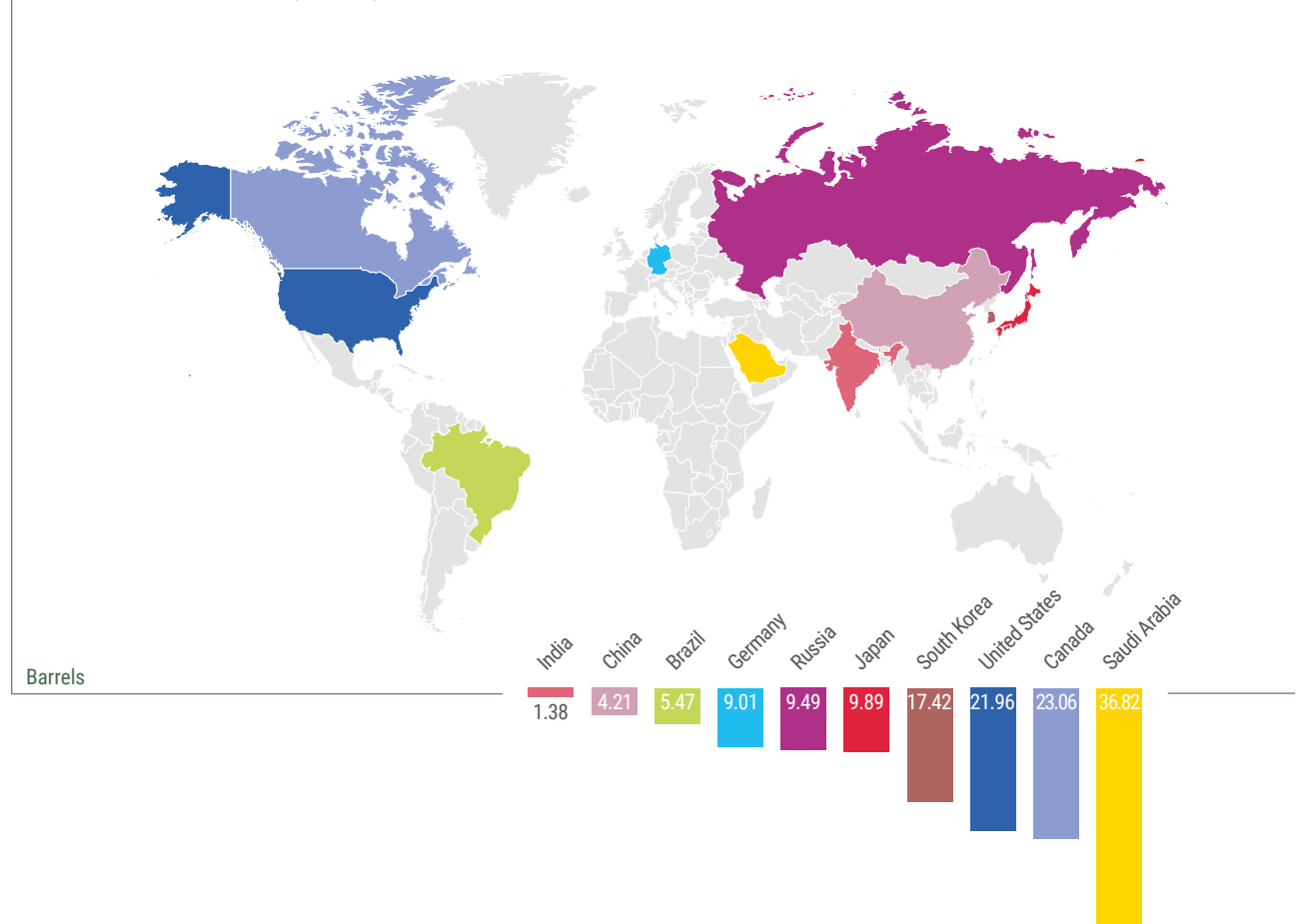
Per Capita Consumption

The World Top 10 Consumers Ranked by Per Capita Consumption Ratio^(*)

(barrels)

	2010	2015	2018	2019	2020	2021	2022	2023
Saudi Arabia	39.39	43.41	37.61	37.00	35.07	35.61	37.38	36.82
Canada	25.42	24.92	24.76	24.80	21.33	21.60	22.85	23.06
United States	22.81	22.31	22.93	22.53	19.86	21.68	21.97	21.96
South Korea	16.97	17.70	18.11	18.29	17.23	18.00	17.94	17.42
Japan	12.53	11.95	11.16	10.93	9.81	9.99	9.94	9.89
Russia	7.21	8.76	8.76	8.94	8.65	9.27	9.54	9.49
Germany	11.07	10.53	10.25	10.34	9.41	9.78	9.54	9.01
Brazil	5.17	5.67	5.17	5.30	4.89	5.16	5.30	5.47
China	2.44	3.05	3.51	3.63	3.66	3.86	3.77	4.21
India	0.99	1.18	1.31	1.31	1.21	1.28	1.33	1.38

The World Top 10 (2023)



^(*) Data source: Eni's calculations on IEA (2024) *Monthly Oil Data Services* and S&P Global data. All rights reserved.

Per Capita Consumption

Countries^(*)

(barrels)

	2010	2015	2018	2019	2020	2021	2022	2023
Europe	9.29	8.56	8.76	8.75	7.61	8.08	8.23	8.16
Albania	3.25	3.29	3.43	3.70	2.95	3.74	3.75	3.76
Austria	12.13	10.90	11.11	11.39	9.79	10.39	9.96	9.94
Belarus	5.66	5.23	5.68	5.51	5.57	5.79	5.67	5.69
Belgium	21.94	20.28	21.84	20.42	17.74	19.58	19.04	18.37
Bosnia Herzegovina	3.26	3.21	3.76	3.69	3.52	3.79	3.95	3.87
Bulgaria	4.13	4.82	5.18	5.42	4.99	5.35	5.49	5.48
Croatia	6.52	5.92	6.32	6.28	5.35	6.11	6.43	6.37
Cyprus	25.40	20.68	22.38	22.09	18.54	20.77	21.35	21.51
Czech Republic	7.00	6.75	7.43	7.48	6.54	7.22	7.34	7.17
Denmark	10.98	9.90	10.19	10.39	8.58	8.73	9.18	9.39
Estonia	7.40	8.05	8.28	7.71	7.70	7.71	8.56	8.31
Finland	14.50	13.66	13.76	13.82	12.48	12.13	12.52	11.26
France	10.62	9.99	9.57	9.57	8.08	8.72	8.70	8.72
Germany	11.07	10.53	10.25	10.34	9.41	9.78	9.54	9.01
Greece	12.24	9.96	10.30	10.70	8.72	9.40	10.75	10.73
Hungary	5.48	5.79	6.73	6.78	6.35	6.90	6.92	6.71
Iceland	17.20	18.74	23.79	20.23	12.94	14.78	20.56	19.45
Ireland	13.23	11.42	12.00	11.85	9.96	10.69	11.19	11.26
Italy	9.42	7.72	7.75	7.67	6.33	7.16	7.39	7.32
Kosovo	2.26	2.84	3.06	3.25	3.04	3.23	3.22	3.21
Latvia	6.43	6.78	6.60	7.62	6.73	7.21	6.90	6.98
Lithuania	6.51	7.02	8.63	8.71	8.28	8.64	8.76	9.13
Luxembourg	43.19	35.90	37.83	37.68	30.69	32.54	28.18	27.32
Malta	40.97	34.38	38.61	39.14	35.41	36.73	39.01	39.57
Moldova	2.16	2.31	2.81	2.85	2.76	2.92	2.80	2.77
Montenegro	4.12	3.52	4.69	5.28	4.11	4.72	4.69	4.69
Netherlands	21.77	19.88	19.51	18.92	17.94	17.79	17.91	18.46
North Macedonia	3.14	3.46	3.63	3.80	3.63	3.64	3.49	3.50
Norway	17.39	16.88	16.70	16.93	14.79	15.88	14.64	14.87
Poland	5.41	5.19	6.55	6.72	6.37	6.73	6.92	6.86
Portugal	9.45	8.35	8.19	8.83	7.19	7.52	8.28	7.59
Romania	3.14	3.55	4.00	4.30	4.16	4.35	4.60	4.68
Serbia	4.05	3.65	3.97	4.10	3.81	4.22	4.29	4.26
Slovakia	5.67	5.30	6.16	5.75	5.82	6.08	6.08	6.22
Slovenia	9.76	8.59	9.88	9.50	7.93	8.61	9.13	8.09
Spain	11.29	9.80	10.39	10.28	8.39	9.16	9.89	9.75
Sweden	13.27	11.15	10.42	10.49	9.43	10.46	10.00	9.94
Switzerland	12.18	10.00	9.52	9.36	7.61	7.90	7.98	8.09
Türkiye	3.37	4.04	4.22	4.32	4.00	4.19	4.36	4.61
Ukraine	2.34	1.79	2.00	2.01	1.79	2.01	1.62	1.72
United Kingdom	9.46	8.73	8.82	8.54	6.59	6.79	7.48	7.57

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Per Capita Consumption

Countries^(*)

(barrels)

	2010	2015	2018	2019	2020	2021	2022	2023
Russia and Central Asia	5.36	6.48	6.51	6.58	6.41	6.84	7.14	7.22
Russia	7.21	8.76	8.76	8.94	8.65	9.27	9.54	9.49
Armenia	1.11	0.89	1.03	1.29	1.69	1.70	1.84	1.97
Azerbaijan	2.92	3.55	3.74	4.00	3.58	3.75	3.88	3.93
Georgia	2.09	2.52	2.81	3.00	2.81	2.91	3.12	3.23
Kazakhstan	5.11	6.59	6.42	5.64	6.04	6.18	6.27	6.44
Kyrgyzstan	1.80	2.22	2.40	1.73	1.42	1.79	1.71	1.63
Tajikistan	0.53	0.94	0.96	1.02	0.99	1.12	1.17	1.19
Turkmenistan	8.73	8.99	8.06	8.36	7.83	7.94	7.95	7.90
Uzbekistan	1.25	0.97	1.06	1.08	1.11	1.18	1.20	1.22
	2010	2015	2016	2017	2018	2019	2020	2021
Middle East	13.38	13.65	12.87	12.60	11.43	11.70	12.20	12.05
Bahrain	18.35	16.35	15.95	15.63	13.59	13.97	15.37	15.73
Iran	8.95	8.94	8.35	8.04	7.28	7.48	7.31	7.18
Iraq	6.60	5.86	6.34	6.54	5.27	5.38	6.28	6.73
Israel	12.50	9.89	10.01	9.92	8.59	8.41	9.17	8.95
Jordan	5.37	5.15	3.87	3.68	2.94	3.24	3.40	3.41
Kuwait	63.86	48.84	43.96	42.49	40.43	44.49	45.91	42.34
Lebanon	8.77	9.24	10.30	10.67	8.83	8.61	10.11	9.95
Oman	16.08	16.11	18.48	16.89	14.62	19.54	20.34	20.04
Qatar	36.85	43.38	41.03	41.48	37.16	38.02	41.17	40.98
Saudi Arabia	39.39	43.41	37.61	37.00	35.07	35.61	37.38	36.82
Syria	5.02	2.34	2.74	2.38	2.18	2.14	2.11	2.00
United Arab Emirates	28.40	36.02	39.61	38.79	35.96	37.73	40.21	40.54
Yemen	2.18	0.93	0.84	0.82	0.71	0.71	0.71	0.69

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Per Capita Consumption

Countries^(*)

(barrels)

	2010	2015	2018	2019	2020	2021	2022	2023
Africa	1.37	1.41	1.31	1.28	1.17	1.23	1.24	1.21
Algeria	3.57	4.20	3.87	3.88	3.44	3.47	3.55	3.67
Angola	1.55	2.12	1.62	1.73	1.21	1.59	1.58	1.54
Benin	1.35	1.20	1.56	1.40	1.41	1.35	1.39	1.41
Cameroon	0.62	0.62	0.58	0.55	0.51	0.50	0.51	0.51
Congo	0.99	1.08	0.80	0.79	0.70	0.69	0.73	0.78
Côte d'Ivoire	0.41	0.70	0.74	0.78	0.74	0.76	0.78	0.80
Dem. Rep. Congo	0.09	0.10	0.07	0.07	0.07	0.06	0.07	0.06
Egypt	3.19	3.20	2.52	2.25	2.55	2.88	2.85	2.77
Ethiopia	0.18	0.25	0.30	0.33	0.26	0.29	0.31	0.32
Gabon	4.05	3.96	2.33	2.44	2.07	2.03	2.14	2.10
Ghana	1.00	1.09	1.17	1.16	1.11	1.15	1.17	1.16
Kenya	0.75	0.81	0.87	0.88	0.77	0.79	0.84	0.85
Libya	17.09	12.85	11.83	11.56	9.60	12.08	12.54	12.72
Morocco	2.89	2.88	2.93	2.99	2.65	2.85	2.88	2.89
Mozambique	0.25	0.35	0.35	0.36	0.32	0.32	0.33	0.33
Nigeria	0.66	0.82	0.84	0.88	0.75	0.83	0.84	0.76
Senegal	1.11	1.19	1.24	1.19	1.11	1.15	1.18	1.17
South Africa	4.14	4.16	4.15	3.88	3.28	3.44	3.45	3.47
South Sudan	0.00	0.46	0.46	0.49	0.45	0.41	0.40	0.43
Sudan	1.23	1.17	1.22	1.20	1.03	1.10	1.07	0.91
Tanzania	0.71	0.71	0.65	0.63	0.56	0.53	0.47	0.40
Tunisia	2.95	3.22	3.15	3.12	2.82	2.77	2.48	2.14
Zambia	0.45	0.63	0.55	0.60	0.56	0.56	0.57	0.57
Zimbabwe	0.40	0.72	0.80	0.71	0.56	0.59	0.60	0.59

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Per Capita Consumption

Countries^(*)

(barrels)

	2010	2015	2018	2019	2020	2021	2022	2023
Asia - Pacific	2.62	2.91	3.11	3.13	2.95	3.07	3.07	3.22
Australia	17.41	16.95	17.07	16.55	14.09	14.33	15.00	15.67
Bangladesh	0.20	0.31	0.42	0.39	0.32	0.40	0.41	0.41
Brunei	14.75	14.72	14.29	17.50	19.83	50.81	49.59	49.20
China	2.44	3.05	3.51	3.63	3.66	3.86	3.77	4.21
Hong Kong	21.24	18.30	21.37	20.06	13.92	11.64	10.82	13.30
India	0.99	1.18	1.31	1.31	1.21	1.28	1.33	1.38
Indonesia	2.10	2.37	2.54	2.48	2.23	2.31	2.35	2.43
Japan	12.53	11.95	11.16	10.93	9.81	9.99	9.94	9.89
Malaysia	7.45	8.08	8.02	8.37	7.37	7.72	8.46	8.94
Myanmar	0.18	0.52	0.99	1.02	0.94	0.82	0.88	0.86
Nepal	0.30	0.36	0.72	0.57	0.70	0.68	0.70	0.69
New Zealand	12.85	12.80	13.58	13.62	10.75	10.39	10.49	10.61
North Korea	0.25	0.26	0.26	0.27	0.27	0.25	0.25	0.25
Pakistan	0.75	0.91	0.77	0.73	0.82	0.91	0.87	0.72
Philippines	1.21	1.42	1.57	1.58	1.30	1.40	1.53	1.58
Singapore	82.14	83.59	87.13	84.12	75.47	74.52	80.32	80.59
South Korea	16.97	17.70	18.11	18.29	17.23	18.00	17.94	17.42
Sri Lanka	1.55	1.80	2.15	2.26	1.85	2.06	1.32	1.17
Taiwan	17.99	17.68	17.38	16.38	15.61	16.44	15.14	14.13
Thailand	5.98	7.08	7.55	7.56	6.93	6.85	7.14	7.12
Vietnam	1.65	1.58	1.88	1.99	1.71	1.88	2.13	2.17

^(*) Data source: Eni's calculations on IEA (2024) *Monthly Oil Data Services* and S&P Global data. All rights reserved.

Per Capita Consumption

Countries^(*)

(barrels)

	2010	2015	2018	2019	2020	2021	2022	2023
Americas	11.89	11.66	11.55	11.43	9.93	10.73	11.03	11.07
Argentina	5.83	5.75	5.33	5.10	4.30	5.13	5.59	5.53
Bolivia	2.11	2.60	2.80	2.82	2.35	2.57	2.60	2.56
Brazil	5.17	5.67	5.17	5.30	4.89	5.16	5.30	5.47
Canada	25.42	24.92	24.76	24.80	21.33	21.60	22.85	23.06
Chile	6.91	6.76	7.08	6.94	6.26	6.76	6.89	6.88
Colombia	2.17	2.62	2.59	2.71	2.32	2.53	2.63	2.66
Costa Rica	3.95	3.95	4.34	4.31	3.56	4.04	4.23	4.27
Cuba	5.88	5.89	5.38	4.39	3.84	4.80	4.72	4.56
Curaçao	158.02	170.05	120.53	103.96	84.84	103.55	101.20	96.91
Dominican Republic	4.59	4.67	4.92	5.13	3.78	4.89	5.10	5.15
Ecuador	5.82	6.15	5.96	5.79	4.71	5.33	5.41	5.34
El Salvador	2.69	2.93	2.97	3.43	2.67	3.29	3.40	3.38
Guatemala	1.76	2.03	2.17	2.33	2.12	2.26	2.31	2.30
Haiti	0.59	0.76	0.76	0.75	0.71	0.67	0.66	0.65
Honduras	1.99	2.36	1.83	2.05	1.80	1.95	1.99	1.96
Jamaica	6.81	6.79	7.79	7.91	4.92	7.23	7.62	7.75
Mexico	6.79	6.09	5.55	5.74	4.71	4.70	5.32	5.25
Nicaragua	1.81	1.97	1.83	1.86	1.67	1.86	1.89	1.92
Panama	12.29	13.28	13.85	15.18	9.18	13.67	14.99	15.52
Paraguay	2.28	2.78	3.57	3.52	3.14	3.32	3.28	3.30
Peru	2.50	2.80	3.01	3.05	2.32	2.76	2.84	2.88
Trinidad and Tobago	11.13	11.50	8.98	7.44	6.49	6.22	6.68	6.66
United States	22.81	22.31	22.93	22.53	19.86	21.68	21.97	21.96
Uruguay	5.55	5.58	5.54	5.75	5.22	5.65	5.97	5.86
Venezuela	10.02	8.40	5.92	4.99	2.74	2.93	2.98	2.94

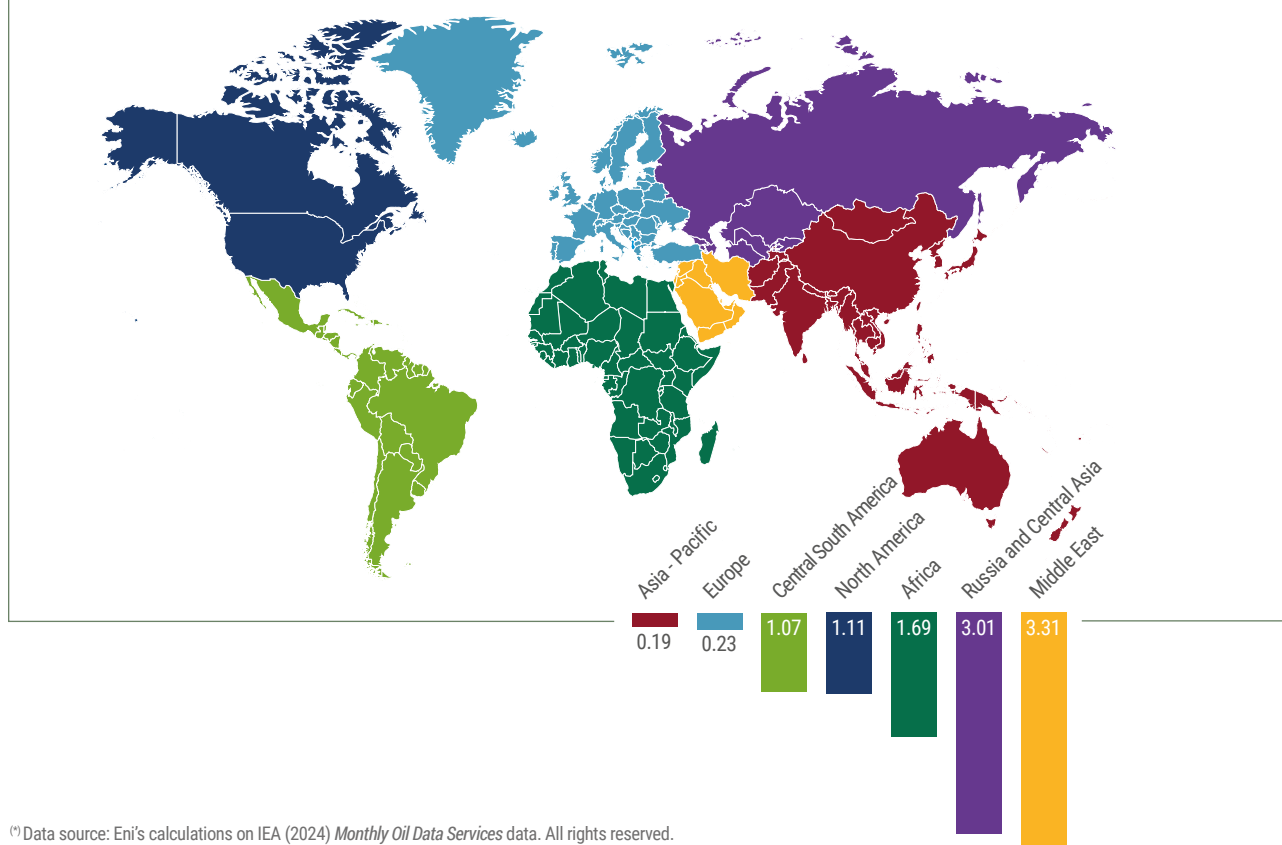
^(*) Data source: Eni's calculations on IEA (2024) *Monthly Oil Data Services* and S&P Global data. All rights reserved.

Production/Consumption Ratio

Areas and Aggregates^(*)

	2010	2015	2018	2019	2020	2021	2022	2023
Europe	0.28	0.25	0.24	0.23	0.28	0.25	0.23	0.23
Russia and Central Asia	3.91	3.32	3.41	3.38	3.20	3.06	3.02	3.01
Middle East	3.15	3.25	3.46	3.31	3.33	3.25	3.40	3.31
Africa	2.89	2.01	1.99	2.02	1.81	1.76	1.65	1.69
Asia - Pacific	0.30	0.26	0.22	0.21	0.22	0.21	0.20	0.19
Americas	0.71	0.89	0.93	0.99	1.08	1.01	1.04	1.10
- North America	0.51	0.79	0.90	0.99	1.08	1.02	1.05	1.11
- Central South America	1.22	1.16	1.03	0.96	1.07	1.00	1.00	1.07
World	0.94	0.96	0.95	0.95	0.97	0.93	0.95	0.95
European Union 27	0.06	0.05	0.05	0.04	0.05	0.04	0.04	0.04
MENA	3.03	2.96	3.22	3.12	3.02	2.99	3.11	3.05
OECD	0.41	0.53	0.57	0.62	0.68	0.64	0.65	0.69
NON OECD	1.53	1.37	1.30	1.25	1.22	1.17	1.21	1.16
OPEC	3.86	3.64	3.86	3.69	3.61	3.54	3.66	3.60
NON OPEC	0.62	0.65	0.64	0.66	0.70	0.66	0.67	0.68

Production/Consumption Ratio (2023)



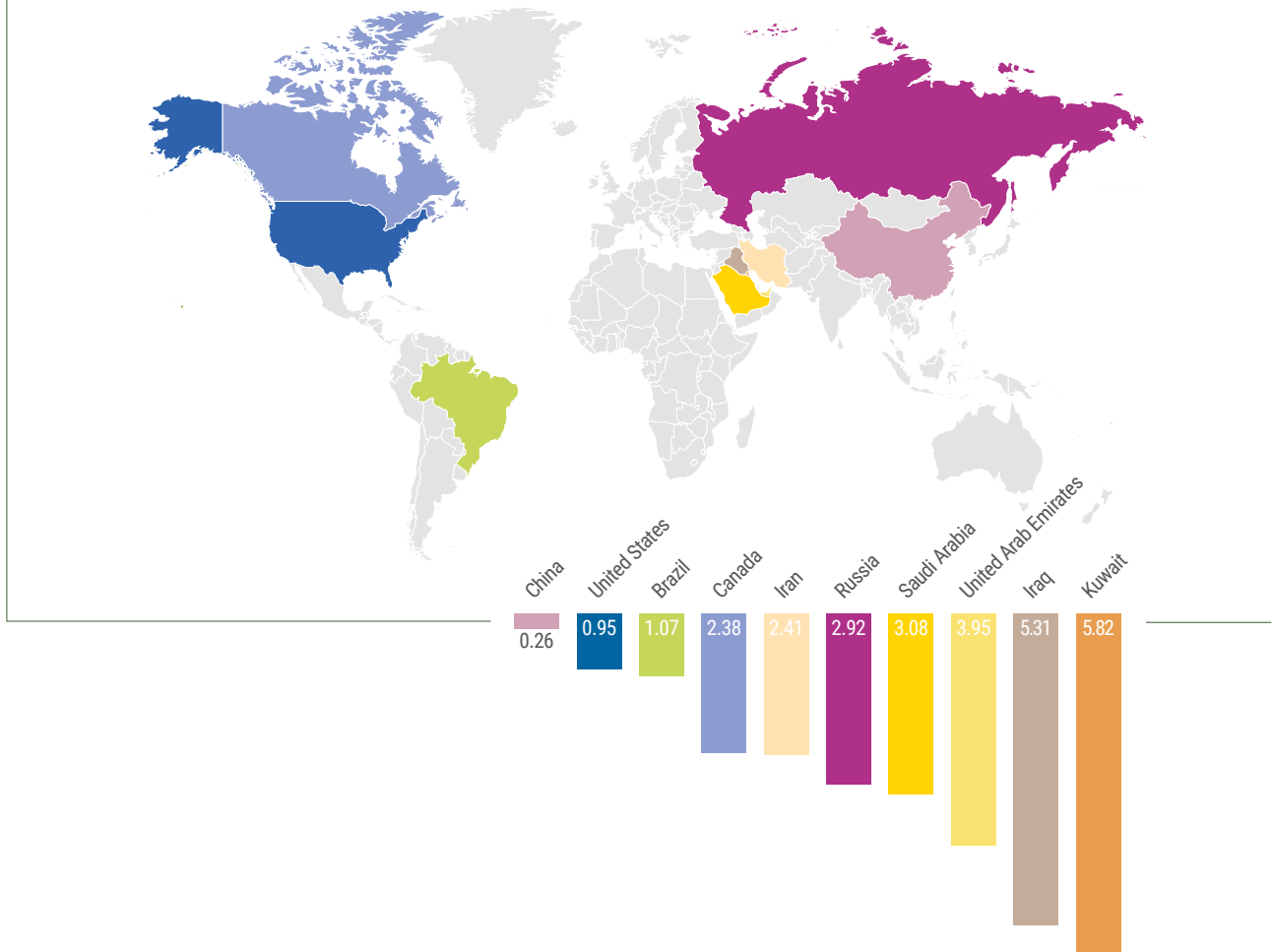
^(*)Data source: Eni's calculations on IEA (2024) *Monthly Oil Data Services* data. All rights reserved.

Production/Consumption Ratio

The World Top 10 Producers Ranked by Production/Consumption Ratio^(*)

	2010	2015	2018	2019	2020	2021	2022	2023
Kuwait	4.85	5.92	5.83	5.74	5.58	5.21	5.56	5.82
Iraq	4.30	6.78	6.67	6.51	6.85	6.54	6.04	5.31
United Arab Emirates	4.29	4.28	3.86	4.14	4.08	3.74	4.05	3.95
Saudi Arabia	3.14	3.09	3.42	3.28	3.21	3.13	3.32	3.08
Russia	3.67	3.19	3.29	3.25	3.08	2.95	2.93	2.92
Iran	2.28	1.78	2.34	1.75	1.74	1.94	2.08	2.41
Canada	1.46	1.86	2.15	2.20	2.42	2.48	2.39	2.38
Brazil	0.77	0.80	0.91	0.94	1.07	0.99	1.00	1.07
United States	0.39	0.65	0.75	0.84	0.92	0.85	0.89	0.95
China	0.45	0.37	0.28	0.28	0.28	0.27	0.28	0.26

The World Top 10 (2023)



^(*) Data source: Eni's calculations on IEA (2024) *Monthly Oil Data Services* data. All rights reserved.

Production/Consumption Ratio

Countries^(*)

	2010	2015	2018	2019	2020	2021	2022	2023
Europe	0.28	0.25	0.24	0.23	0.28	0.25	0.23	0.23
Albania	0.50	0.88	0.59	0.62	0.75	0.55	0.52	0.48
Austria	0.08	0.07	0.05	0.05	0.05	0.04	0.04	0.04
Belarus	0.23	0.24	0.22	0.23	0.23	0.22	0.21	0.20
Bulgaria	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Croatia	0.23	0.20	0.21	0.20	0.21	0.18	0.17	0.16
Czech Republic	0.03	0.04	0.03	0.02	0.03	0.03	0.02	0.02
Denmark	1.53	1.03	0.73	0.63	0.54	0.49	0.46	0.44
Estonia	0.38	0.55	0.72	0.81	0.82	0.78	0.68	0.79
France	0.02	0.01	0.01	0.02	0.02	0.03	0.04	0.03
Germany	0.03	0.03	0.03	0.02	0.03	0.03	0.02	0.03
Greece	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00
Hungary	0.17	0.12	0.13	0.13	0.12	0.12	0.12	0.13
Italy	0.06	0.10	0.09	0.07	0.12	0.10	0.08	0.10
Netherlands	0.04	0.04	0.02	0.02	0.02	0.02	0.01	0.01
Norway	9.18	8.12	7.61	7.09	9.36	8.72	8.71	9.05
Poland	0.04	0.05	0.05	0.04	0.04	0.04	0.03	0.03
Romania	0.50	0.42	0.34	0.32	0.32	0.30	0.27	0.25
Serbia	0.21	0.28	0.22	0.22	0.23	0.19	0.18	0.17
Slovakia	0.04	0.06	0.04	0.04	0.04	0.04	0.05	0.07
Spain	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Türkiye	0.07	0.06	0.06	0.06	0.07	0.07	0.07	0.07
Ukraine	0.27	0.25	0.21	0.23	0.25	0.23	0.06	
United Kingdom	0.84	0.62	0.70	0.74	0.89	0.71	0.60	0.52
	2010	2015	2018	2019	2020	2021	2022	2023
Russia and Central Asia	3.91	3.32	3.41	3.38	3.20	3.06	3.02	3.01
Russia	3.67	3.19	3.29	3.25	3.08	2.95	2.93	2.92
Azerbaijan	14.08	8.85	7.63	6.83	6.92	6.63	6.10	5.54
Georgia	0.04	0.02	0.01	0.01	0.01	0.01	0.01	0.01
Kazakhstan	7.27	5.26	5.94	6.70	5.85	5.68	5.46	5.58
Kyrgyzstan	0.06	0.06	0.10	0.16	0.19	0.17	0.19	0.21
Tajikistan	0.02	0.00	0.02	0.02	0.02	0.02	0.01	0.01
Turkmenistan	1.67	1.89	1.63	1.58	1.68	1.60	1.54	1.49
Uzbekistan	0.77	0.63	0.46	0.41	0.37	0.33	0.44	0.56

^(*) Data source: Eni's calculations on IEA (2024) *Monthly Oil Data Services* data. All rights reserved.

Production/Consumption Ratio

Countries^(*)

	2010	2015	2018	2019	2020	2021	2022	2023
Middle East	3.15	3.25	3.46	3.31	3.33	3.25	3.40	3.31
Bahrain	3.14	3.49	3.20	3.25	3.30	3.31	3.20	2.96
Iran	2.28	1.78	2.34	1.75	1.74	1.94	2.08	2.41
Iraq	4.30	6.78	6.67	6.51	6.85	6.54	6.04	5.31
Israel								0.03
Kuwait	4.85	5.92	5.83	5.74	5.58	5.21	5.56	5.82
Oman	6.86	5.34	4.23	4.59	5.26	4.04	4.20	4.14
Qatar	9.64	6.47	5.72	5.37	6.26	6.43	5.92	5.96
Saudi Arabia	3.14	3.09	3.42	3.28	3.21	3.13	3.32	3.08
Syria	1.25	0.22	0.17	0.26	0.35	0.35	0.33	0.31
United Arab Emirates	4.29	4.28	3.86	4.14	4.08	3.74	4.05	3.95
Yemen	2.07	0.44	0.94	0.94	0.96	0.86	0.70	0.34
	2010	2015	2018	2019	2020	2021	2022	2023
Africa	2.89	2.01	1.99	2.02	1.81	1.76	1.65	1.69
Algeria	4.90	3.50	3.41	3.28	3.29	3.24	3.36	3.13
Angola	18.19	11.02	11.06	9.33	11.82	7.75	7.64	7.33
Cameroon	1.88	2.38	1.72	1.83	1.98	1.86	1.65	1.50
Congo	26.07	15.61	27.55	28.28	27.58	25.02	22.39	21.38
Côte d'Ivoire	1.63	0.58	0.63	0.65	0.52	0.49	0.45	0.46
Dem. Rep. Congo	1.38	1.00	1.35	1.28	1.17	1.25	1.12	1.07
Egypt	0.92	0.81	0.91	0.97	0.82	0.69	0.69	0.70
Gabon	13.11	10.44	13.57	14.17	15.25	13.97	13.45	15.24
Ghana	0.10	1.23	1.79	2.07	2.00	1.65	1.58	1.51
Libya	5.47	2.01	4.90	5.57	2.20	5.49	4.61	5.16
Mozambique							0.02	0.16
Nigeria	8.65	5.41	4.45	4.35	4.40	3.47	2.96	3.37
South Africa	0.24	0.17	0.16	0.17	0.17	0.19	0.17	0.17
South Sudan	0.00	10.55	11.10	12.25	12.66	12.71	11.75	11.36
Sudan	4.08	0.86	0.51	0.49	0.48	0.45	0.43	0.46
Tunisia	0.95	0.54	0.42	0.38	0.39	0.47	0.47	0.51

^(*) Data source: Eni's calculations on IEA (2024) *Monthly Oil Data Services* data. All rights reserved.

Production/Consumption Ratio

Countries^(*)

	2010	2015	2018	2019	2020	2021	2022	2023
Asia - Pacific	0.30	0.26	0.22	0.21	0.22	0.21	0.20	0.19
Australia	0.52	0.34	0.29	0.40	0.46	0.44	0.38	0.34
Bangladesh	0.09	0.06	0.06	0.06	0.07	0.06	0.05	0.05
Brunei	10.57	7.46	6.56	5.76	4.59	1.74	1.52	1.53
China	0.45	0.37	0.28	0.28	0.28	0.27	0.28	0.26
India	0.26	0.20	0.17	0.16	0.16	0.15	0.14	0.13
Indonesia	0.70	0.49	0.43	0.42	0.44	0.39	0.36	0.34
Malaysia	1.22	1.02	1.02	0.89	0.90	0.80	0.72	0.67
Myanmar	0.75	0.15	0.06	0.05	0.06	0.06	0.06	0.06
New Zealand	0.39	0.30	0.17	0.16	0.18	0.16	0.14	0.15
Pakistan	0.18	0.19	0.23	0.23	0.20	0.17	0.17	0.20
Philippines	0.06	0.04	0.03	0.02	0.03	0.02	0.02	0.02
South Korea	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
Thailand	0.34	0.33	0.30	0.30	0.30	0.28	0.24	0.23
Vietnam	0.78	0.91	0.52	0.45	0.45	0.38	0.33	0.31
	2010	2015	2018	2019	2020	2021	2022	2023
Americas	0.71	0.89	0.93	0.99	1.08	1.01	1.04	1.10
Argentina	1.12	0.95	0.96	1.04	1.15	1.01	1.02	1.10
Bolivia	0.94	0.99	0.81	0.74	0.83	0.75	0.69	0.64
Brazil	0.77	0.80	0.91	0.94	1.07	0.99	1.00	1.07
Canada	1.46	1.86	2.15	2.20	2.42	2.48	2.39	2.38
Chile	0.04	0.02	0.02	0.03	0.03	0.02	0.03	0.03
Colombia	2.96	3.00	2.50	2.39	2.43	2.08	2.04	2.08
Cuba	0.30	0.29	0.28	0.31	0.34	0.25	0.25	0.24
Ecuador	1.97	2.01	1.88	1.95	2.13	1.83	1.74	1.70
Guatemala	0.16	0.11	0.09	0.08	0.08	0.07	0.06	0.06
Mexico	1.41	1.29	1.10	0.98	1.19	1.20	1.08	1.14
Peru	0.78	0.63	0.50	0.51	0.59	0.47	0.44	0.42
Trinidad and Tobago	3.45	2.36	2.36	2.65	2.82	2.95	2.72	2.43
United States	0.39	0.65	0.75	0.84	0.92	0.85	0.89	0.95
Venezuela	3.52	3.79	3.20	2.54	2.87	3.06	3.42	3.72

^(*)Data source: Eni's calculations on IEA (2024) *Monthly Oil Data Services* data. All rights reserved.



Oil - Trade and Prices

REGIONAL CRUDE BALANCES

Crude Surplus Deficit by Area

EXPORTS

The World Top 10 Exporters
Countries

IMPORTS

The World Top 10 Importers
Countries

CRUDE FUTURE PRICES

Regional Crude Balances

Crude Surplus Deficit by Area^(*)

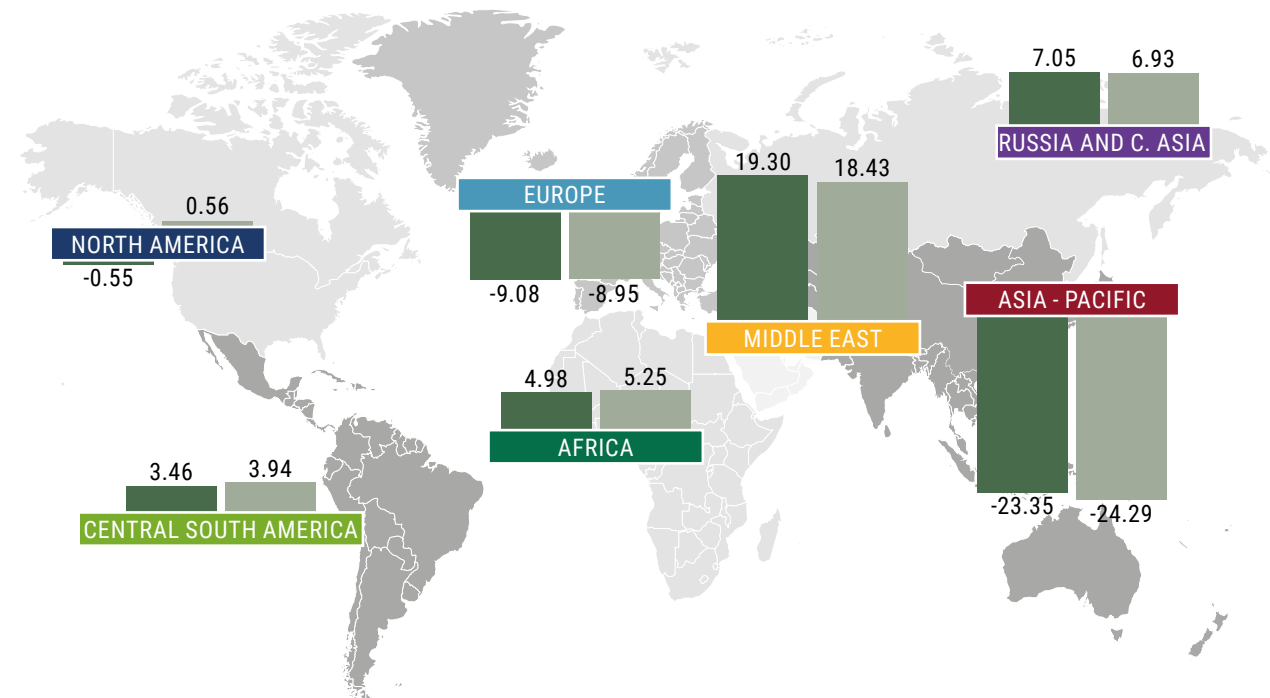
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	-9,522	-9,795	-9,728	-9,718	-7,963	-8,335	-9,083	-8,954	129	568
Russia and Central Asia	7,128	6,735	7,293	7,378	6,653	6,654	7,053	6,931	-123	-197
Middle East	16,017	19,054	20,065	18,839	17,304	16,970	19,298	18,426	-872	2,410
Africa	7,264	5,791	5,790	5,957	4,846	5,163	4,981	5,250	269	-2,014
Asia - Pacific	-15,923	-19,188	-22,654	-23,141	-21,780	-22,861	-23,355	-24,287	-932	-8,364
Americas	-4,639	-224	834	2,550	3,870	2,783	2,903	4,499	1,595	9,138
- North America	-8,162	-4,268	-2,712	-855	371	-512	-555	561	1,116	8,723
- Central South America	3,522	4,044	3,545	3,405	3,499	3,295	3,458	3,937	479	415
World	323	2,372	1,599	1,864	2,930	374	1,798	1,864	66	1,541

Crude Surplus Deficit by Area (2022 and 2023)

(million barrels/day)

2022 2023



^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* and Wood Mackenzie data. All rights reserved.

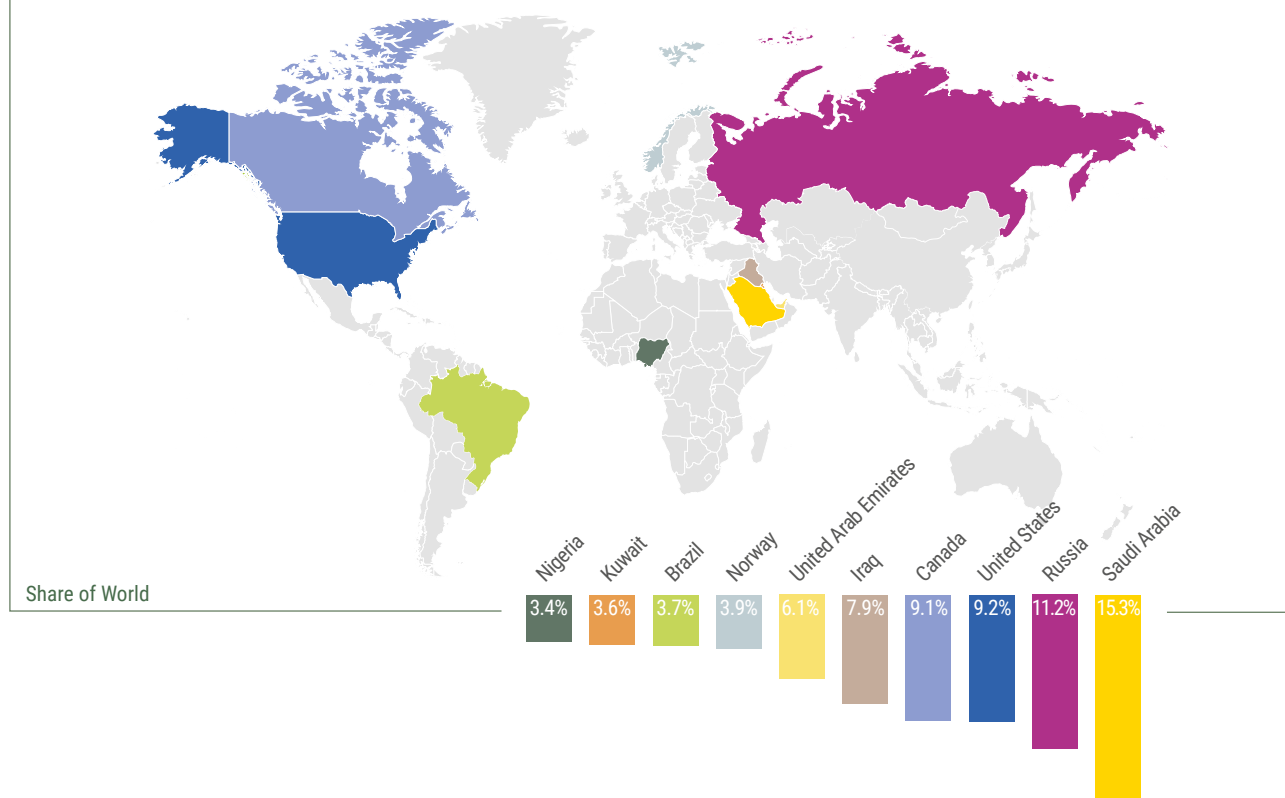
Exports

The World Top 10 Exporters^(*)

Crude and non conventional oil
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Saudi Arabia	6,644	7,163	7,372	7,038	6,659	6,227	7,364	6,659	-9.6%	0.0%
Russia	4,865	4,855	5,197	5,384	4,784	4,654	5,047	4,882	-3.3%	0.0%
United States	42	452	1,977	2,937	3,133	2,937	3,556	4,006	12.7%	41.9%
Canada	1,948	3,029	3,651	3,778	3,640	3,754	3,843	3,963	3.1%	5.6%
Iraq	1,890	3,005	3,862	3,968	3,428	3,440	3,712	3,467	-6.6%	4.8%
United Arab Emirates	2,104	2,441	2,296	2,414	2,418	2,305	2,717	2,651	-2.4%	1.8%
Norway	1,586	1,223	1,243	1,222	1,492	1,549	1,544	1,688	9.3%	0.5%
Brazil	641	756	1,103	1,257	1,403	1,269	1,364	1,624	19.1%	7.4%
Kuwait	1,430	1,964	2,050	1,986	1,826	1,740	1,879	1,568	-16.6%	0.7%
Nigeria	2,464	2,114	1,979	2,008	1,879	1,592	1,388	1,476	6.3%	-3.9%
Rest of the World	17,836	15,137	15,169	13,445	11,517	11,886	11,573	11,679	0.9%	-3.2%
World	41,450	42,140	45,898	45,439	42,181	41,354	43,987	43,663	-0.7%	0.4%

The World Top 10 (2023)



^(*) Data source: Eni's estimates on Enerdata *Global Energy Market & CO₂ Data*, IEA (2024) *Monthly Oil Data Services* and other official data sources. All rights reserved.

Exports

Countries^(*)

Crude and non conventional oil
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe										
Albania	9	18	11	11	11	10	10	9	-6.8%	0.0%
Belarus	0	32	33	33	24	24	24	23	-6.8%	
Belgium	0	0	0	0	0	4	0	0		
Croatia	0	0	0	2	11	10	4	6	44.3%	
Czech Republic	0	1	0	0	0	0	0	0		
Denmark	154	90	56	46	22	17	11	4	-61.1%	-23.8%
France	0	0	0	0	0	2	0	0		
Germany	14	7	0	2	0	0	2	1	-37.9%	-17.4%
Greece	17	2	4	5	2	1	0	3		-13.6%
Hungary	0	2	8	3	4	3	2	5	231.7%	
Ireland	2	0	0	1	4	2	1	3	112.9%	3.8%
Italy	6	14	10	0	4	3	11	21	85.5%	9.7%
Lithuania	2	1	1	1	1	1	0	1	33.3%	-9.2%
Netherlands	10	6	9	8	8	6	0	0	0.0%	-22.6%
Norway	1,586	1,223	1,243	1,222	1,492	1,549	1,544	1,688	9.3%	0.5%
Poland	4	5	6	5	4	4	4	3	-7.7%	-1.7%
Romania	2	1	0	0	0	0	0	0	-15.0%	-12.2%
Slovakia	0	1	0	0	0	0	0	0		
Sweden	0	0	0	6	1	18	0	0		
United Kingdom	733	589	810	827	721	607	546	488	-10.6%	-3.1%
Ukraine	0	0	0	0	2	2	0	0		

^(*) Data source: Eni's estimates on Enerdata *Global Energy Market & CO₂ Data*, IEA (2024) *Monthly Oil Data Services* and other official data sources. All rights reserved.

Exports

Countries^(*)

Crude and non conventional oil
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia and Central Asia										
Russia	4,865	4,855	5,197	5,384	4,784	4,654	5,047	4,882	-3.3%	0.0%
Azerbaijan	853	657	603	554	497	478	437	0		
Georgia	1	3	0	0	0	0	0	0		
Kazakhstan	1,059	1,038	1,169	1,193	1,159	1,128	1,075	1,166	8.5%	0.7%
Kyrgyzstan	0	0	1	1	1	0	0	0		
Tajikistan	0	0	0	0	0	0	0	0		
Turkmenistan	26	69	21	16	19	16	10	0		
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Middle East										
Bahrain	151	149	154	153	149	149	149	148	-0.7%	-0.1%
Iran	2,248	1,081	1,850	651	404	763	901	1,323	46.9%	-4.0%
Iraq	1,890	3,005	3,862	3,968	3,428	3,440	3,712	3,467	-6.6%	4.8%
Kuwait	1,430	1,964	2,050	1,986	1,826	1,740	1,879	1,568	-16.6%	0.7%
Oman	745	844	793	850	786	792	871	665	-23.7%	-0.9%
Qatar	633	564	514	556	529	467	468	468	0.0%	-2.3%
Saudi Arabia	6,644	7,163	7,372	7,038	6,659	6,227	7,364	6,659	-9.6%	0.0%
Syria	163	0	0	0	0	0	0	0		
United Arab Emirates	2,104	2,441	2,296	2,414	2,418	2,305	2,717	2,651	-2.4%	1.8%
Yemen	183	9	34	37	40	38	37	18	-52.6%	-16.5%

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Exports

Countries^(*)

Crude and non conventional oil
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Africa										
Algeria	709	642	571	584	439	446	477	483	1.2%	-2.9%
Angola	1,711	1,711	1,421	1,319	1,220	1,080	1,085	1,064	-1.9%	-3.6%
Cameroon	56	84	57	65	73	70	63	60	-4.8%	0.6%
Chad	123	130	115	121	124	117	124	124	0.1%	0.0%
Congo	288	227	307	309	282	251	243	249	2.6%	-1.1%
Dem. Rep. Congo	22	21	23	23	24	21	20	19	-5.0%	-1.1%
Egypt	136	248	213	206	184	153	97	104	7.3%	-2.0%
Equatorial Guinea	206	182	121	110	115	93	81	54	-33.0%	-9.8%
Gabon	225	206	174	207	196	181	185	204	10.4%	-0.8%
Ghana	0	104	177	203	193	158	149	149	-0.3%	
Ivory Coast	38	27	30	35	27	22	19	21	7.0%	-4.7%
Libya	1,299	288	999	1,036	347	1,091	920	1,024	11.3%	-1.8%
Mauritania	10	5	0	0	0	0	0	0		
Mozambique	1	0	0	0	0	0	0	5		17.7%
Nigeria	2,464	2,114	1,979	2,008	1,879	1,592	1,388	1,476	6.3%	-3.9%
South Africa	0	0	0	0	0	0	0	0		
South Sudan	0	146	143	170	164	149	136	143	4.7%	
Sudan	387	12	18	21	3	3	3	3	2.8%	-31.2%
Tunisia	77	38	28	33	25	29	25	16	-36.5%	-11.4%

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Exports

Countries^(*)

Crude and non conventional oil
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Asia - Pacific										
Afghanistan	0	0	0	0	0	2	1	0		
Australia	311	219	213	246	251	266	254	256	0.7%	-1.5%
Brunei	148	116	92	107	72	71	48	26	-46.1%	-12.6%
Cambodia	0	0	0	0	0	1	1	0		
China	61	57	53	16	33	52	41	28	-30.9%	-5.7%
East Timor	88	45	15	23	14	12	10	5	-50.0%	-19.8%
Indonesia	361	271	179	71	103	141	51	67	30.5%	-12.2%
Malaysia	328	311	290	241	205	172	172	180	4.3%	-4.5%
Mongolia	6	22	17	18	11	12	11	11	-4.9%	5.0%
Myanmar	0	2	5	4	4	4	4	4	-3.0%	
New Zealand	47	39	21	22	18	13	15	17	11.0%	-7.7%
Pakistan	0	6	11	9	6	8	0	0		
Papua New Guinea	9	24	19	14	15	15	16	15	-6.7%	4.0%
Philippines	19	16	13	12	15	9	9	1	-89.3%	-20.7%
Singapore	9	15	15	14	12	13	7	0	-98.2%	-28.6%
Thailand	29	1	31	26	25	16	13	11	-14.6%	-7.0%
Vietnam	161	190	79	80	93	63	56	0		
Americas										
Argentina	57	38	64	68	80	62	119	142	19.4%	7.2%
Barbados	1	1	1	1	1	0	0	0	11.3%	-4.2%
Belize	4	1	1	1	0	0	0	0		
Bolivia	0	1	0	0	0	0	0	0		
Brazil	641	756	1,103	1,257	1,403	1,269	1,364	1,624	19.1%	7.4%
Canada	1,948	3,029	3,651	3,778	3,640	3,754	3,843	3,963	3.1%	5.6%
Chile	0	0	0	0	1	0	1	1	-18.6%	
Colombia	474	839	634	591	573	492	413	444	7.4%	-0.5%
Ecuador	336	412	355	375	346	322	322	313	-2.8%	-0.5%
Guatemala	10	9	6	5	4	3	2	2	-9.5%	-11.3%
Guyana	0	0	0	0	73	115	276	390	41.2%	
Mexico	1,446	1,235	1,271	1,189	1,190	1,081	1,002	1,075	7.3%	-2.3%
Peru	19	8	7	6	11	27	41	16	-61.5%	-1.5%
Trinidad and Tobago	45	31	22	58	56	59	57	50	-11.3%	0.8%
United States	42	452	1,977	2,937	3,133	2,937	3,556	4,006	12.7%	41.9%
Venezuela	1,562	1,974	1,273	847	487	448	438	550	25.6%	-7.7%

^(*) Data source: Eni's estimates on Enerdata *Global Energy Market & CO₂ Data*, IEA (2024) *Monthly Oil Data Services* and other official data sources. All rights reserved.

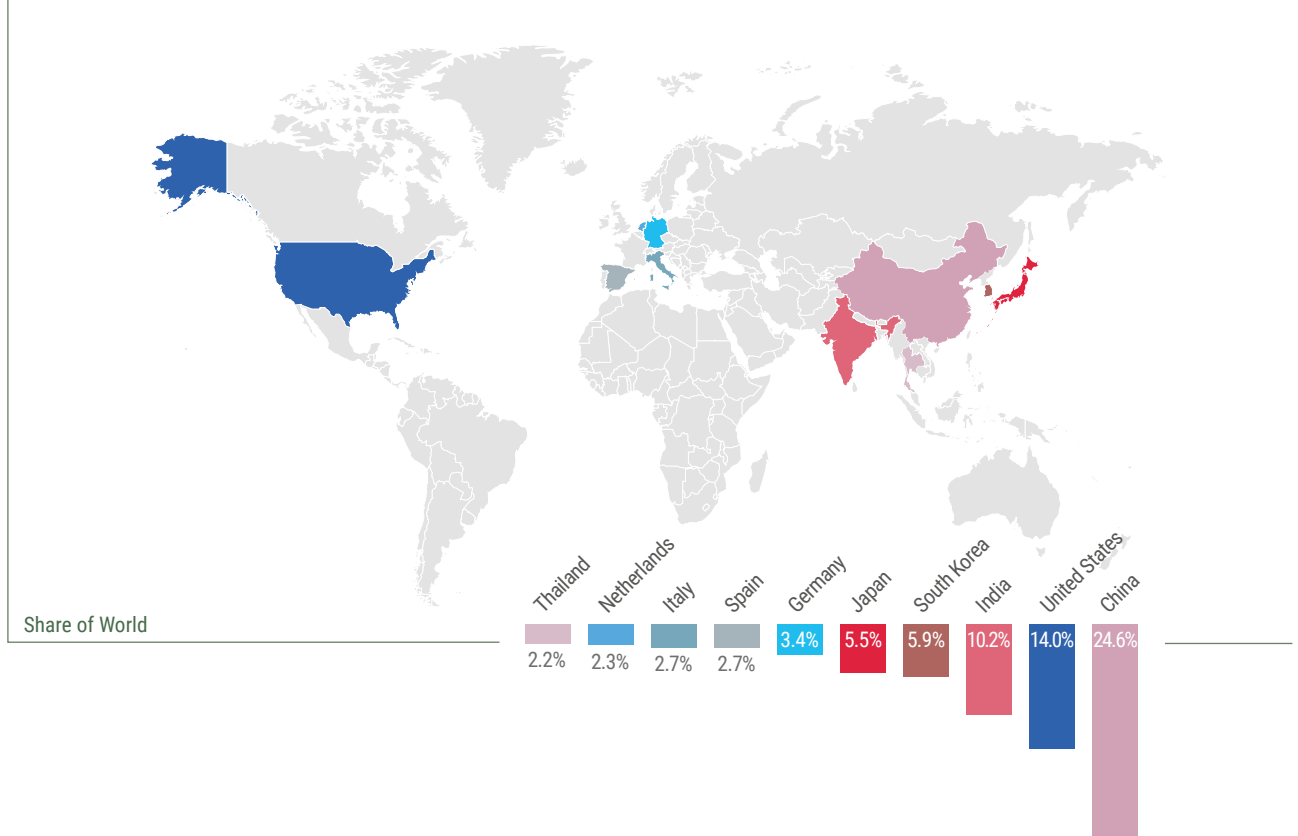
Imports

The World Top 10 Importers^(*)

Crude and non conventional oil
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
China	4,754	6,710	9,238	10,114	10,840	10,258	10,164	11,279	11.0%	6.9%
United States	9,690	7,507	7,654	6,703	5,824	6,043	6,193	6,396	3.3%	-3.1%
India	3,267	4,057	4,530	4,539	3,929	4,240	4,654	4,672	0.4%	2.8%
South Korea	2,355	2,755	3,006	2,896	2,642	2,588	2,733	2,709	-0.9%	1.1%
Japan	3,436	3,203	2,995	2,953	2,416	2,455	2,701	2,519	-6.7%	-2.4%
Germany	1,865	1,825	1,704	1,721	1,655	1,626	1,765	1,543	-12.5%	-1.4%
Spain	1,049	1,295	1,352	1,326	1,097	1,123	1,272	1,231	-3.2%	1.2%
Italy	1,570	1,251	1,241	1,263	1,007	1,134	1,248	1,224	-1.9%	-1.9%
Netherlands	1,023	1,046	1,086	1,142	991	1,050	1,064	1,075	1.0%	0.4%
Thailand	815	890	978	872	878	890	945	989	4.7%	1.5%
Rest of the World	13,194	13,101	13,420	13,194	11,594	11,505	12,134	12,159	0.2%	-0.6%
World	43,017	43,640	47,204	46,723	42,873	42,913	44,873	45,795	2.1%	0.5%

The World Top 10 (2023)



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Imports

Countries^(*)

Crude and non conventional oil
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe										
Austria	135	162	167	172	149	151	103	151	47.3%	0.9%
Belarus	295	458	365	360	319	319	319	337	5.5%	1.0%
Belgium	668	642	660	690	547	574	554	603	8.9%	-0.8%
Bosnia-Herzegovina	23	19	14	0	0	0	0	0		
Bulgaria	109	122	118	140	98	83	143	125	-12.4%	1.1%
Croatia	72	47	60	41	40	36	30	27	-9.8%	-7.2%
Czech Republic	155	143	149	155	123	137	149	148	-0.3%	-0.3%
Denmark	54	83	94	101	93	104	89	95	6.0%	4.4%
Finland	215	203	236	236	209	159	183	192	5.2%	-0.9%
France	1,283	1,135	1,051	967	662	677	816	910	11.5%	-2.6%
Germany	1,865	1,825	1,704	1,721	1,655	1,626	1,765	1,543	-12.5%	-1.4%
Greece	403	442	487	457	455	468	439	467	6.4%	1.1%
Hungary	115	124	134	122	122	120	120	124	3.4%	0.6%
Ireland	61	73	60	52	62	61	63	57	-8.9%	-0.5%
Italy	1,570	1,251	1,241	1,263	1,007	1,134	1,248	1,224	-1.9%	-1.9%
Lithuania	180	170	193	193	157	160	164	182	11.1%	0.1%
Netherlands	1,023	1,046	1,086	1,142	991	1,050	1,064	1,075	1.0%	0.4%
North Macedonia	17	0	0	0	0	0	0	0		
Norway	11	22	63	61	61	48	6	35	490.6%	9.2%
Poland	454	530	537	532	498	472	524	526	0.4%	1.1%
Portugal	220	282	252	225	211	187	201	184	-8.4%	-1.3%
Romania	120	136	170	178	145	140	179	152	-15.3%	1.8%
Serbia	38	37	55	48	52	55	69	65	-6.0%	4.1%
Slovakia	109	118	109	103	113	109	109	108	-0.8%	0.0%
Spain	1,049	1,295	1,352	1,326	1,097	1,123	1,272	1,231	-3.2%	1.2%
Sweden	397	402	398	341	372	359	377	347	-8.1%	-1.0%
Switzerland	90	56	60	55	56	46	61	56	-7.7%	-3.5%
Türkiye	339	501	419	622	587	628	670	628	-6.2%	4.9%
United Kingdom	953	847	883	902	708	727	840	822	-2.1%	-1.1%
Ukraine	155	5	14	16	25	31	10	0		

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Imports

Countries^(*)

Crude and non conventional oil
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia and Central Asia										
Russia	0	44	0	0	0	0	0	0		
Georgia	0	3	0	0	0	0	0	0		
Kazakhstan	120	1	0	1	0	0	0	0		
Kyrgyzstan	0	4	8	3	0	0	0	0		
Tajikistan	0	0	1	0	0	0	0	0		
Turkmenistan	0	0	0	0	0	0	0	5		
Uzbekistan	0	4	24	13	12	13	16	20	25.1%	
Middle East										
Bahrain	235	216	220	223	177	181	213	210	-1.6%	-0.9%
Iran	13	0	0	0	0	0	0	0		
Israel	221	234	231	246	222	234	271	271	0.0%	1.6%
Jordan	68	68	47	46	41	35	41	0		
Saudi Arabia	0	0	0	0	0	0	0	42		
Syria	0	110	119	95	91	86	86	88	2.3%	
United Arab Emirates	0	38	42	53	163	187	187	257	37.1%	

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Imports

Countries^(*)

Crude and non conventional oil
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Africa										
Algeria	6	6	5	3	0	0	0	0		
Cameroon	34	28	11	6	0	0	0	0		
Egypt	49	65	122	109	229	191	146	73	-49.8%	3.2%
Ghana	33	6	4	17	14	1	1	0		
Ivory Coast	59	62	49	58	51	60	53	57	7.0%	-0.4%
Kenya	31	0	0	0	0	0	0	0		
Morocco	109	56	0	0	0	0	0	0		
Senegal	13	22	22	15	21	20	10	0		
South Africa	385	393	485	434	264	153	126	149	17.9%	-7.1%
Sudan	0	6	26	29	12	11	11	11	4.8%	
Tunisia	4	19	11	3	17	26	20	17	-16.5%	11.8%
Zambia	12	13	12	14	4	1	0	0		

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Imports

Countries^(*)

Crude and non conventional oil
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Asia - Pacific										
Afghanistan	0	2	4	2	1	3	2	0		
Australia	469	315	357	325	236	205	168	152	-9.9%	-8.3%
Bangladesh	26	22	22	24	24	29	30	29	-3.9%	0.8%
Brunei	0	0	0	29	126	128	131	118	-9.7%	
China	4,754	6,710	9,238	10,114	10,840	10,258	10,164	11,279	11.0%	6.9%
India	3,267	4,057	4,530	4,539	3,929	4,240	4,654	4,672	0.4%	2.8%
Indonesia	284	369	308	202	244	319	353	412	16.9%	2.9%
Japan	3,436	3,203	2,995	2,953	2,416	2,455	2,701	2,519	-6.7%	-2.4%
Malaysia	181	162	179	203	137	129	171	192	12.0%	0.4%
New Zealand	98	102	99	103	79	68	16	0		
North Korea	11	11	11	11	11	11	11	11	3.3%	0.3%
Pakistan	133	119	180	134	176	186	163	197	20.4%	3.1%
Papua New Guinea	20	12	26	26	29	29	30	28	-6.7%	2.8%
Philippines	182	213	235	166	90	81	119	94	-20.4%	-4.9%
Singapore	910	987	1,129	1,074	929	949	966	798	-17.4%	-1.0%
Sri-Lanka	36	34	35	37	35	23	12	18	42.1%	-5.4%
South Korea	2,355	2,755	3,006	2,896	2,642	2,588	2,733	2,709	-0.9%	1.1%
Taiwan	1,017	976	1,021	1,031	858	885	944	937	-0.8%	-0.6%
Thailand	815	890	978	872	878	890	945	989	4.7%	1.5%
Vietnam	10	4	104	156	235	201	213	234	9.9%	27.6%

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Imports

Countries^(*)

Crude and non conventional oil
(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Americas										
Argentina	0	17	8	0	0	0	0	0		
Brazil	344	305	191	176	172	142	249	264	5.7%	-2.0%
Canada	770	570	759	922	720	703	742	759	2.3%	-0.1%
Chile	158	169	171	183	146	163	145	177	22.7%	0.9%
Colombia	0	0	0	0	1	6	8	16	90.3%	
Costa Rica	10	0	0	0	0	0	0	0		
Cuba	89	78	45	43	32	31	32	35	9.8%	-7.0%
Curaçao	89	185	65	0	0	0	0	0		
Dominican Republic	27	16	25	24	10	25	24	0		
El Salvador	15	0	0	0	0	0	0	0		
Jamaica	23	24	21	27	22	23	22	0		
Mexico	0	0	4	0	0	0	0	0		
Nicaragua	15	15	13	11	11	14	16	0		
Peru	97	87	115	107	42	57	56	109	93.7%	0.9%
Trinidad and Tobago	68	78	63	0	0	0	0	0		
United States	9,690	7,507	7,654	6,703	5,824	6,043	6,193	6,396	3.3%	-3.1%
Uruguay	39	39	42	39	38	39	40	0		
Venezuela	9	33	2	4	6	6	71	40	-43.7%	12.4%

^(*) Data source: Eni's estimates on Enerdata *Global Energy Market & CO₂ Data*, IEA (2024) *Monthly Oil Data Services* and other official data sources. All rights reserved.

Crude Future Prices^(*)

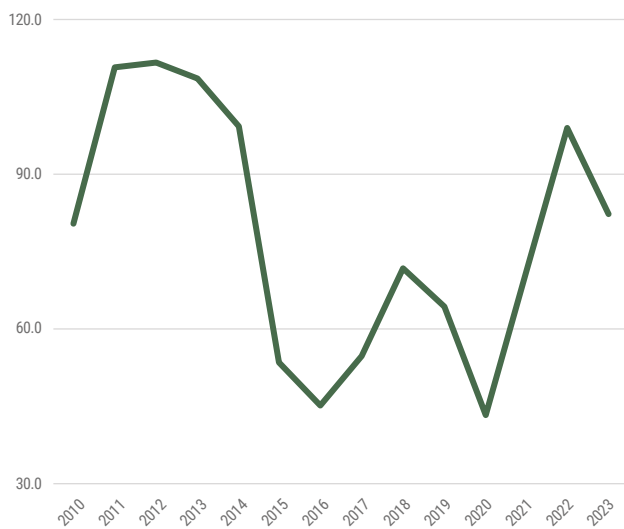
Crude Future Prices

(US\$/barrel)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
ICE Brent	80.3	53.6	71.7	64.2	43.2	70.9	99.0	82.2	-17.0%	0.2%
CME WTI	79.6	48.8	64.9	57.0	39.3	68.1	94.3	77.6	-17.7%	-0.2%

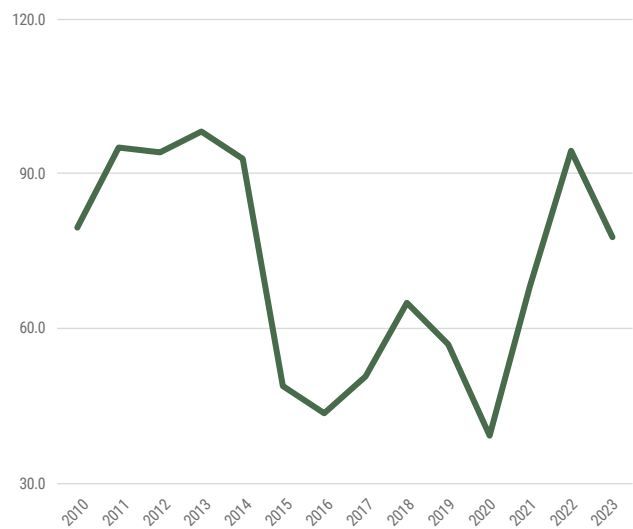
ICE Brent Price 1 Month^(*)

(US\$/barrel)



CME WTI Price

(US\$/barrel)



^(*) Data source: ICE London and CME New York.



Oil - Production Quality

WORLD

Crude Production by Quality
Crude Production by Gravity
Crude Production by Sulphur Content
Quality and Production Volume of Main Crudes

EUROPE

Crude Production by Quality
Quality and Production Volume of Main Crudes
Countries

RUSSIA AND CENTRAL ASIA

Crude Production by Quality
Quality and Production Volume of Main Crudes
Countries

MIDDLE EAST

Crude Production by Quality
Quality and Production Volume of Main Crudes
Countries

AFRICA

Crude Production by Quality
Quality and Production Volume of Main Crudes
Countries

ASIA - PACIFIC

Crude Production by Quality
Quality and Production Volume of Main Crudes
Countries

AMERICAS

Crude Production by Quality
Quality and Production Volume of Main Crudes
Countries

World

Crude Production by Quality (Gravity and Sulphur Content)^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
World (A)	74,258	80,696	82,428	82,268	75,908	76,844	80,549	81,668		
Ultra Light	2,765	2,984	2,994	3,011	2,959	2,977	3,041	3,134	3.7%	3.8%
Light & Sweet	13,681	15,834	18,463	19,326	17,347	17,742	17,920	18,758	18.4%	23.0%
Light & Medium Sour	3,466	3,660	3,938	4,001	3,634	3,613	3,918	3,557	4.7%	4.4%
Light & Sour	2,330	2,730	2,940	3,038	2,926	2,946	3,109	3,305	3.1%	4.0%
Medium & Sweet	8,654	9,058	8,122	8,736	8,754	8,854	8,869	9,256	11.7%	11.3%
Medium & Medium Sour	2,965	3,384	3,891	4,413	4,677	4,599	4,692	5,150	4.0%	6.3%
Medium & Sour	29,758	31,515	29,841	28,266	25,242	25,798	28,129	27,157	40.1%	33.3%
Heavy & Sweet	1,403	1,081	1,070	1,122	1,104	1,089	1,108	1,102	1.9%	1.3%
Heavy & Medium Sour	2,193	2,296	2,057	1,631	1,507	1,532	1,719	2,059	3.0%	2.5%
Heavy & Sour	6,039	7,525	8,488	8,041	7,105	7,086	7,482	7,606	8.1%	9.3%
Unassigned production: (B)	1,002	628	624	683	654	609	562	583	1.3%	0.7%
% Unassigned production (B/A)	1.3	0.8	0.8	0.8	0.9	0.8	0.7	0.7		

Crude Production by Gravity^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
World	74,258	80,696	82,428	82,268	75,908	76,844	80,549	81,668		
Light	22,243	25,208	28,335	29,377	26,866	27,277	27,988	28,754	30.0%	35.2%
Medium	41,377	43,958	41,854	41,414	38,673	39,251	41,690	41,563	55.7%	50.9%
Heavy	9,635	10,902	11,615	10,794	9,715	9,707	10,309	10,767	13.0%	13.2%
Unassigned production	1,002	628	624	683	654	609	562	583	1.3%	0.7%

Crude Production by Sulphur Content^(*)

(thousand barrels/day)

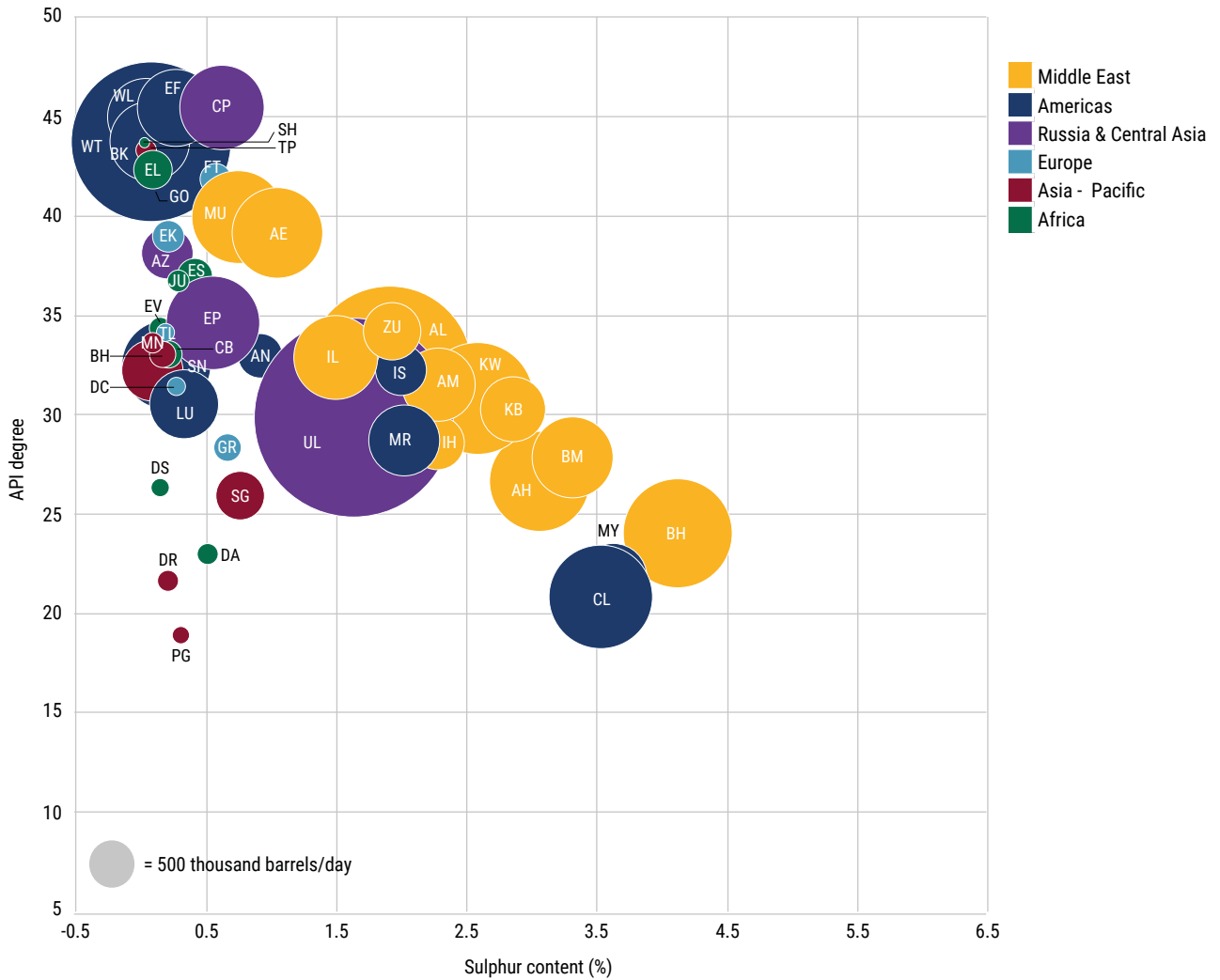
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
World	74,258	80,696	82,428	82,268	75,908	76,844	80,549	81,668		
Sweet	26,503	28,957	30,649	32,195	30,164	30,662	30,938	32,250	35.7%	39.5%
Medium Sour	8,625	9,340	9,887	10,045	9,817	9,743	10,329	10,767	11.6%	13.2%
Sour	38,127	41,770	41,269	39,346	35,273	35,830	38,721	38,067	51.3%	46.6%
Unassigned production	1,002	628	624	683	654	609	562	583	1.3%	0.7%

^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All right reserved.

World

Quality and Production Volume of Main Crudes 2023^(*)

(thousand barrels/day)



- AC Algerian C.te (Algeria)
- AE Arab Extra L. (Saudi Arabia)
- AH Arab Heavy (Saudi Arabia)
- AL Arab Light (Saudi Arabia)
- AM Arab Medium (Saudi Arabia)
- AN Alaskan Nth. Sl. (U.S.A.)
- AZ Azeri Light (Azerbaijan)
- BH Bach Ho (Vietnam)
- BH Basrah Heavy (Iraq)
- BK Bakken Blend (U.S.A.)
- BM Basrah Medium (Iraq)
- CB Cabinda (Angola)
- CL Cold Lake (Canada)

- CP CPC Blend (Kazakh-Russia)
- DA Dalia (Angola)
- DC DUC Blend (Denmark)
- DQ Daqing (China)
- DR Duri (Indonesia)
- DS Dar Blend (Sudan)
- EF Eagle Ford (U.S.A.)
- EK Ekofisk (U.K., Norway)
- EL El Sharara (Libya)
- EP Espo (Russia)
- ES Es Sider (Libya)
- EV Escravos (Nigeria)
- FT Forties (U.K.)

- GO Goliat (Norway)
- GR Grane (Norway)
- IH Iran Heavy (Iran)
- IL Iran Light (Iran)
- IS Isthmus (Mexico)
- JU Jubilee (Ghana)
- KB Kirkuk Blend (Iraq)
- KW Kuwait (Kuwait)
- LU Lula (Brazil)
- MN Minas (Indonesia)
- MR Mars (U.S.A.)
- MU Murban (U.A.E.)
- MY Maya (Mexico)

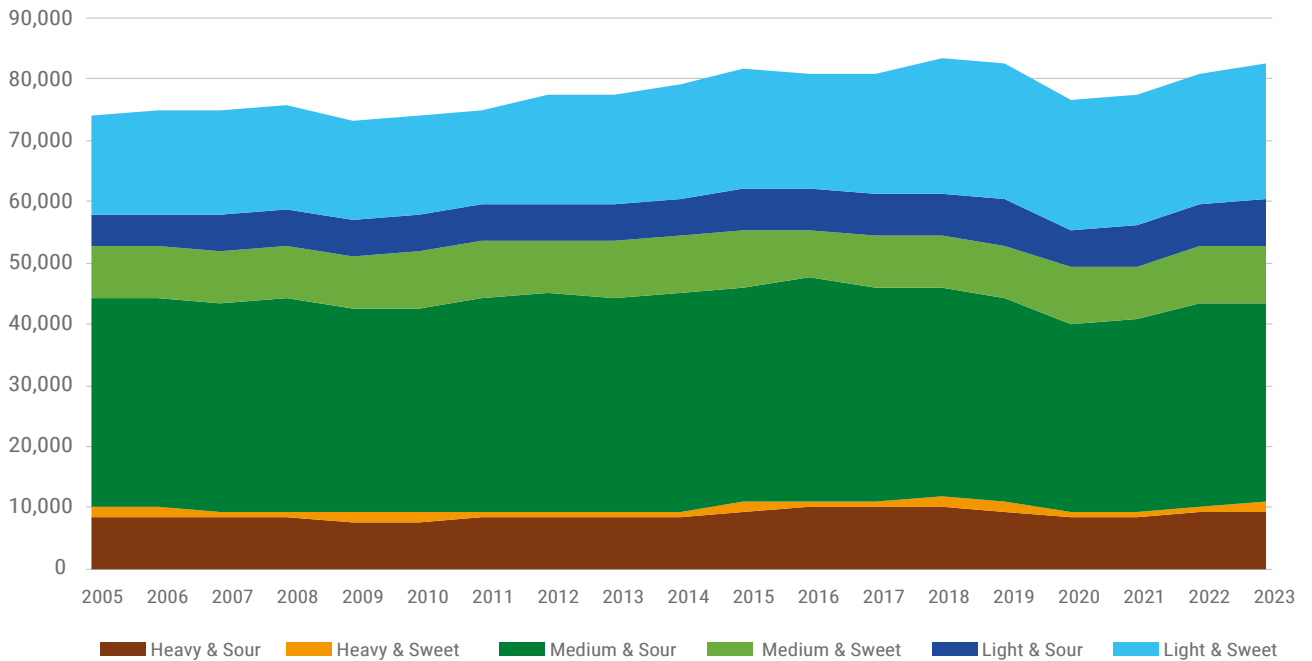
- NK N'Kossa (Congo)
- PG Peng Lai (China)
- SG Shengli (China)
- SH Saharan B. (Algeria)
- SN Syncrude (Canada)
- TL Troll (Norway)
- TP Tapis (Malaysia)
- UL Urals (Russia)
- WL West Texas Light (USA)
- WT West Texas Int. (U.S.A.)
- ZU Upper Zakum (U.A.E.)

^(*) Data source: Eni.

World

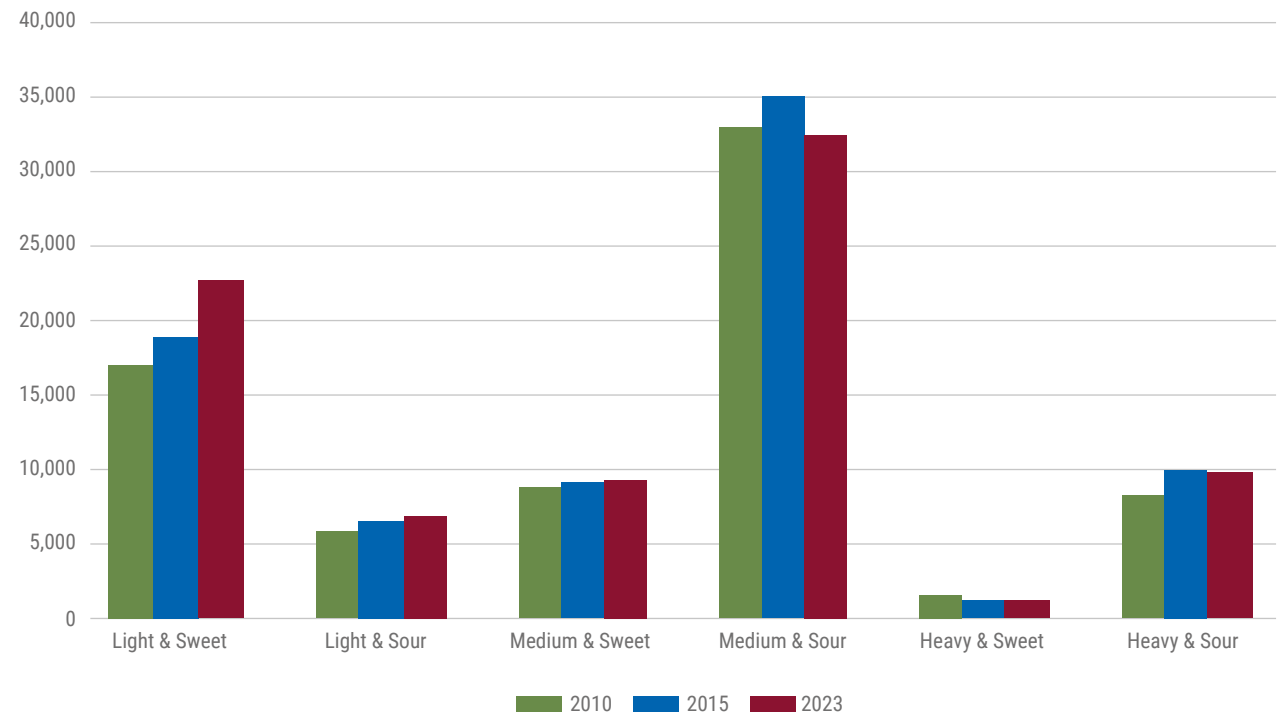
Crude Production by Quality^(*)

(thousand barrels/day)



Crude Production by Quality^(*)

(selected years, thousand barrels/day)



^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Europe

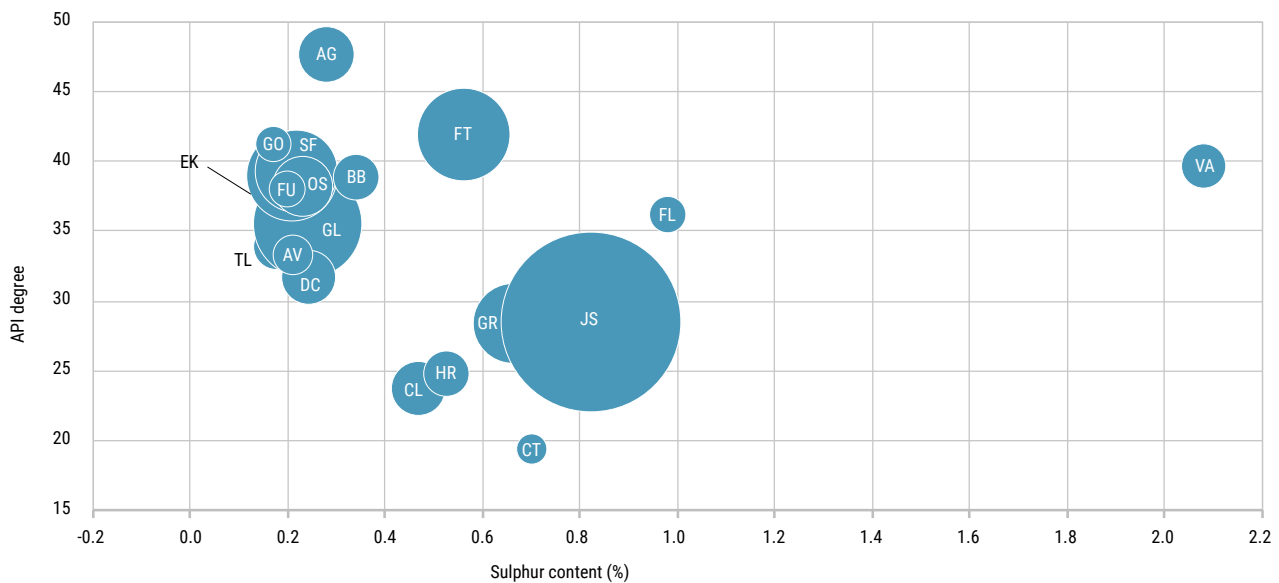
Crude Production by Quality^(*)


(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Europe (A)	3,776	3,093	3,036	2,977	3,179	3,059	2,874	2,881		
Ultra Light	72	43	30	29	22	12	19	20	1.9%	0.7%
Light & Sweet	1,668	1,391	1,192	1,130	1,132	1,091	1,017	1,051	44.2%	36.5%
Light & Medium Sour	646	512	534	522	465	371	342	223	17.1%	7.7%
Light & Sour	68	77	75	63	58	52	47	42	1.8%	1.5%
Medium & Sweet	555	445	411	342	283	249	216	164	14.7%	5.7%
Medium & Medium Sour	86	79	71	394	717	790	769	928	2.3%	32.2%
Medium & Sour	29	15	0	0	0	0	0	0	0.8%	0.0%
Heavy & Sweet	85	39	132	158	149	141	143	126	2.2%	4.4%
Heavy & Medium Sour	276	199	325	80	75	76	69	65	7.3%	2.3%
Heavy & Sour	57	40	32	29	57	55	41	47	1.5%	1.6%
Unassigned production: (B)	234	253	234	229	222	223	211	214	6.2%	7.4%
% Unassigned production (B/A)	6.2	8.2	7.7	7.7	7.0	7.3	7.3	7.4		

Quality and Production Volume of Main Crudes 2023^(**)

(thousand barrels/day)



 = 50 thousand barrels/day

- | | | | |
|----------------------------------|----------------------------------|--------------------------------|------------------------------------|
| AG Asgard (Norway) | DC DUC Blend (Denmark) | GO Goliat (Norway) | OS Oseberg (Norway) |
| AV Alvheim blend (Norway) | EK Ekofisk (U.K., Norway) | GL Gullfaks (Norway) | SF Statfjord (U.K., Norway) |
| BB Brent Blend (U.K.) | FL Flotta (U.K.) | GR Grane (Norway) | TL Troll (Norway) |
| CL Clair (U.K.) | FT Forties (U.K.) | HR Heidrun (Norway) | VA Val d'Agri Blend (Italy) |
| CT Captain (U.K.) | FU Fulmar (U.K.) | JS J. Sverdrup (Norway) | |

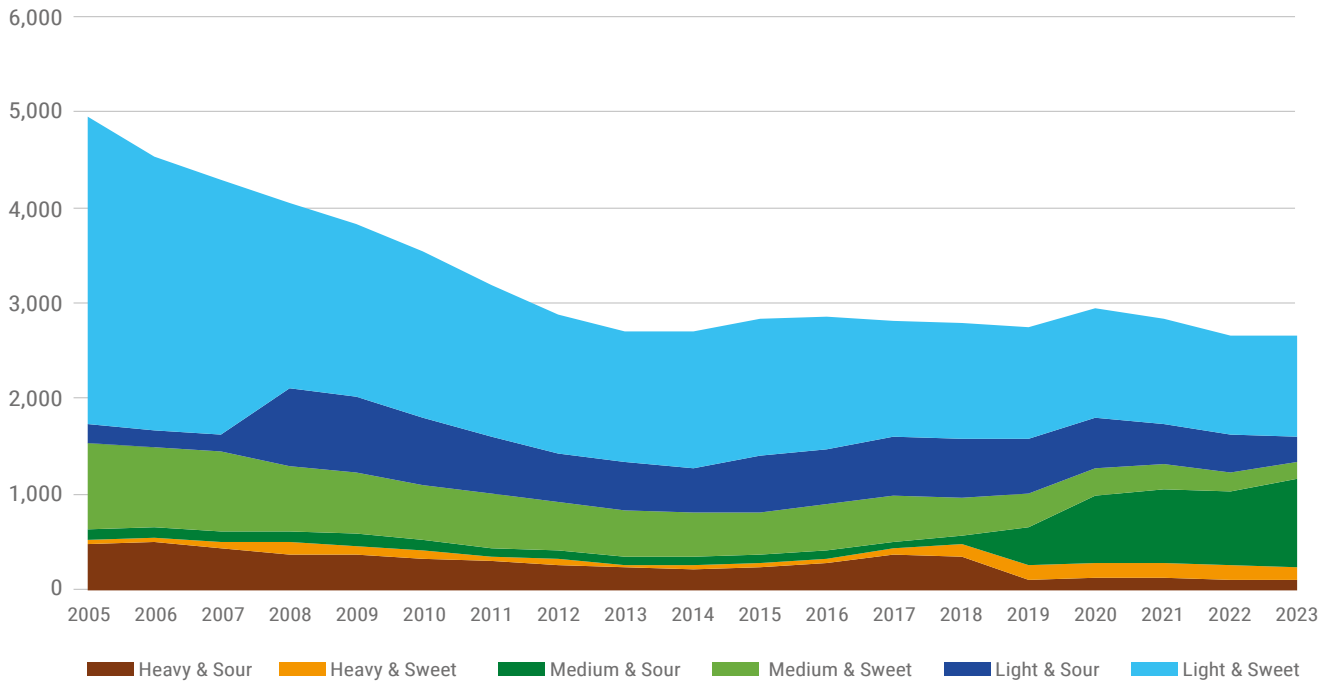
^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

^(**) Data source: Eni.

Europe

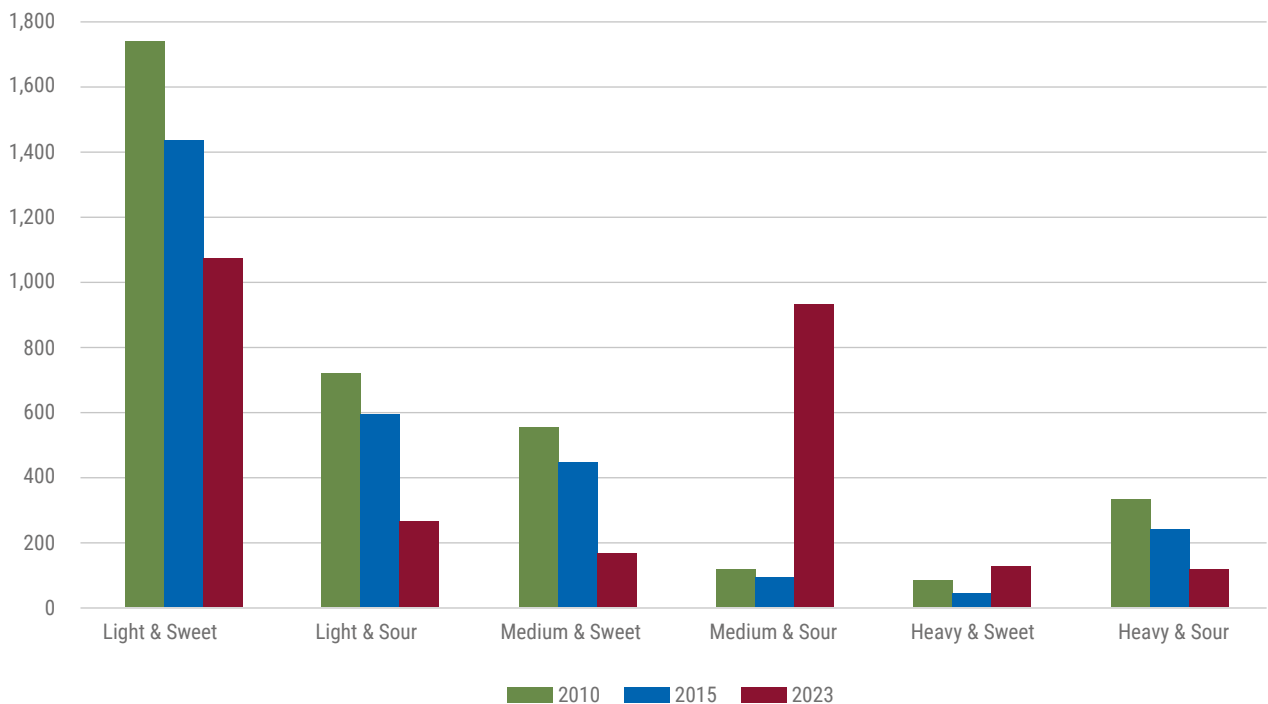
Crude Production by Quality^(*)

(thousand barrels/day)



Crude Production by Quality^(*)

(selected years, thousand barrels/day)



^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Europe

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Denmark	255	156	114	101	71	66	65	63		
Light & Sweet	24	9	5	4	3	3	2	2	9.5%	2.9%
Medium & Sweet	231	148	109	97	68	63	62	61	90.5%	97.1%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Italy	96	100	90	78	102	97	84	86		
Light & Sweet	6	1	0	0	0	0	0	0	6.4%	0.2%
Light & Sour	68	77	75	63	58	52	47	42	71.3%	48.9%
Medium & Sour										
Heavy & Sour	21	23	14	14	44	45	36	44	22.3%	51.0%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Norway	1,871	1,610	1,515	1,458	1,751	1,800	1,709	1,814		
Ultra Light	72	43	30	29	22	12	19	20	3.8%	1.1%
Light & Sweet	1,240	1,111	899	816	825	827	784	781	66.3%	43.0%
Light & Medium Sour	31	14	8	5	5	3	3	2	1.6%	0.1%
Medium & Sweet	277	266	278	232	202	179	149	100	14.8%	5.5%
Medium & Medium Sour				324	649	724	707	869		47.9%
Medium & Sour	29	15							1.6%	
Heavy & Medium Sour	222	162	300	52	49	55	47	42	11.9%	2.3%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Romania	86	79	71	70	68	66	62	59		
Medium & Medium Sour	86	79	71	70	68	66	62	59	100.0%	100.0%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
United Kingdom	1,235	894	1,012	1,041	965	807	744	645		
Light & Sweet	398	272	287	309	304	261	230	269	32.2%	41.7%
Light & Medium Sour	616	499	526	517	460	367	339	220	49.8%	34.2%
Medium & Sweet	47	31	24	14	13	7	4	3	3.8%	0.5%
Medium & Sour										
Heavy & Sweet	85	39	132	158	149	141	143	126	6.8%	19.6%
Heavy & Medium Sour	54	36	26	28	26	20	22	23	4.4%	3.6%
Heavy & Sour	36	18	18	15	13	10	5	3	2.9%	0.5%

^(*)Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Russia and Central Asia

Crude Production by Quality^(*)

(thousand barrels/day)

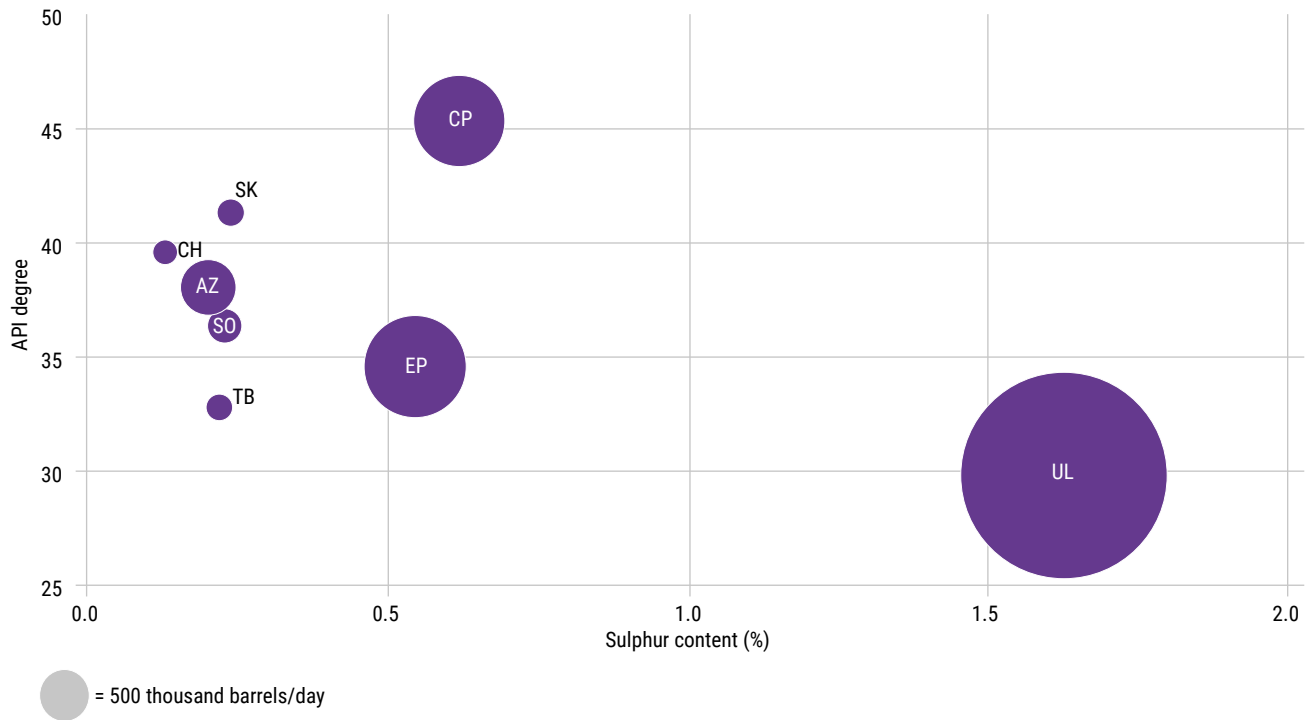
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Russia and Central Asia (A)	13,248	13,654	14,224	14,295	13,143	13,404	13,523	13,440		
Ultra Light	721	1,022	1,096	1,142	1,182	1,224	1,299	1,376	5.4%	10.2%
Light & Sweet	1,446	1,122	1,142	1,108	1,011	999	800	885	10.9%	6.6%
Light & Medium Sour	1,090	1,263	1,569	1,626	1,489	1,564	1,505	1,646	8.2%	12.2%
Light & Sour	75	52	43	40	38	36	34	33	0.6%	0.2%
Medium & Sweet	333	260	212	228	246	230	239	227	2.5%	1.7%
Medium & Medium Sour	617	1,301	1,589	1,663	1,667	1,672	1,768	1,818	4.7%	13.5%
Medium & Sour	8,920	8,602	8,536	8,445	7,466	7,633	7,860	7,445	67.3%	55.4%
Heavy & Sweet										
Heavy & Medium Sour										
Heavy & Sour										
Unassigned production (B)	46.3	31.5	37.6	42.8	44.0	45.2	18.3	11.0	0.3%	0.1%
% Unassigned production (B/A)	0	0	0	0	0	0	0	0		

^(*)Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Russia and Central Asia

Quality and Production Volume of Main Crudes 2023^(*)

(thousand barrels/day)



AZ Azeri Light (Azerbaijan)
 CH Cheleken (Turkmenistan)
 CP CPC Blend (Kazakh-Russia)
 EP Espo (Russia)

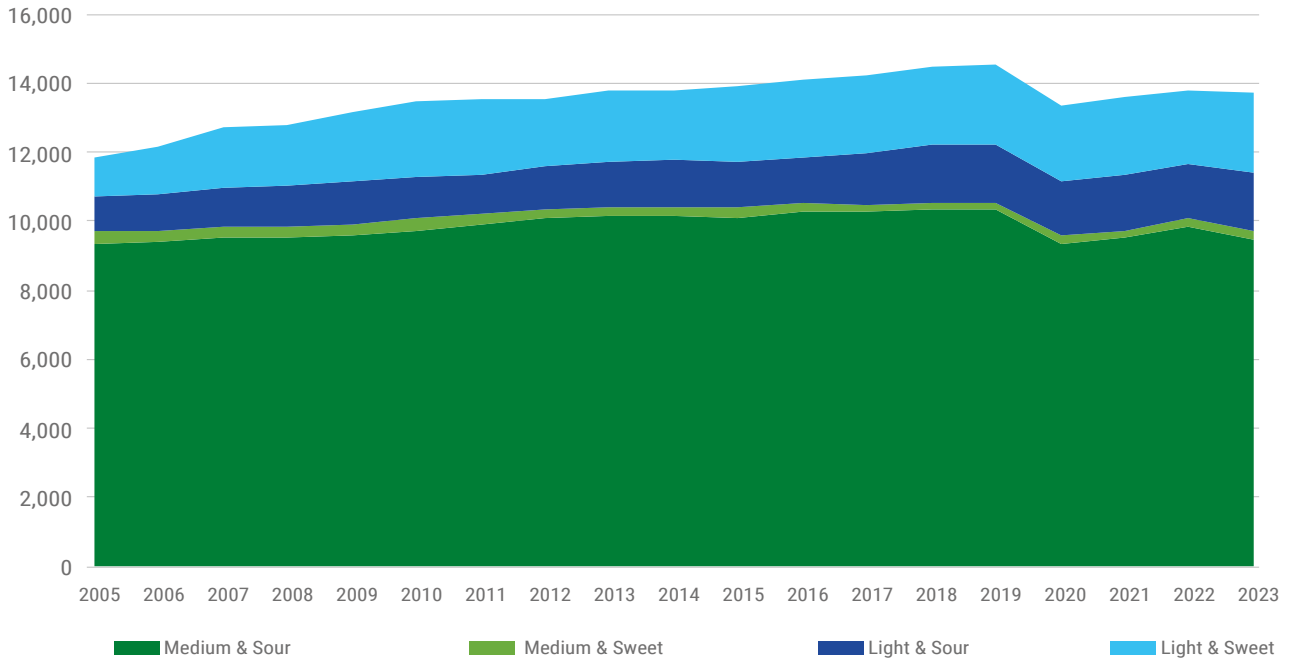
SK Sakhalin Blend (Russia)
 SO Sokol (Russia)
 TB Turkmenistan Blend (Turkmenistan)
 UL Urals (Russia)

^(*) Data source: Eni.

Russia and Central Asia

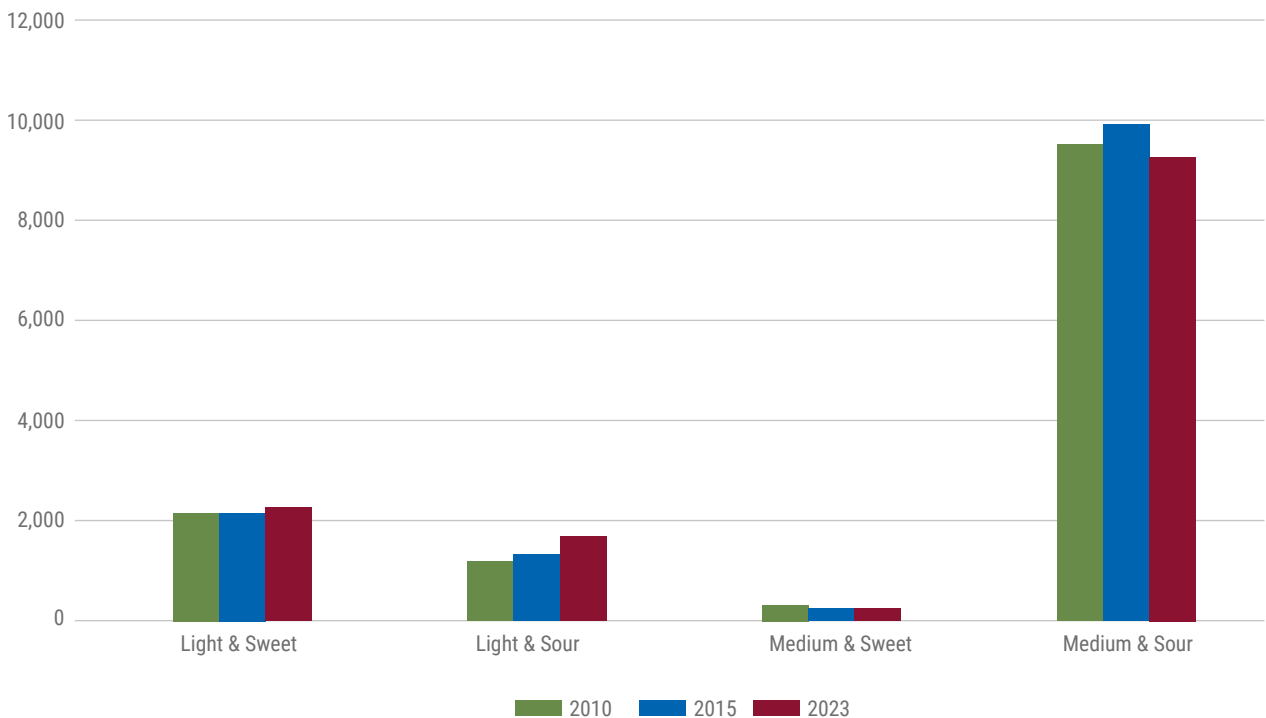
Crude Production by Quality^(*)

(thousand barrels/day)



Crude Production by Quality^(*)

(selected years, thousand barrels/day)



^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Russia and Central Asia

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Russia	10,139	10,719	11,161	11,251	10,269	10,524	10,740	10,609		
Ultra Light	402	667	750	820	847	905	989	1,049	4.0%	9.9%
Light & Sweet	267	279	355	362	345	318	165	295	2.6%	2.8%
Light & Medium Sour	136	103	147	161	157	166	141	161	1.3%	1.5%
Medium & Sweet	96								1.0%	
Medium & Medium Sour	318	1,069	1,373	1,463	1,455	1,502	1,585	1,659	3.1%	15.6%
Medium & Sour	8,920	8,602	8,536	8,445	7,466	7,633	7,860	7,445	88.0%	70.2%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Azerbaijan	1,041	848	792	764	698	703	671	620		
Light & Sweet	900	710	668	639	575	590	550	504	86.4%	81.2%
Medium & Sweet	141	139	125	125	123	112	121	117	13.6%	18.8%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Kazakhstan	1,694	1,694	1,937	1,943	1,838	1,846	1,817	1,931		
Ultra Light	270	301	300	277	294	278	271	288	16.0%	14.9%
Light & Sweet	171								10.1%	
Light & Medium Sour	954	1,160	1,421	1,465	1,332	1,397	1,363	1,485	56.3%	76.9%
Medium & Medium Sour	299	233	216	200	212	171	183	158	17.6%	8.2%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Turkmenistan	211	268	219	223	226	221	215	210		
Ultra Light	7	13	13	13	12	13	13	14	3.1%	6.4%
Light & Sweet	109	134	119	106	91	91	84	86	51.5%	41.1%
Medium & Sweet	96	122	87	104	123	117	118	110	45.4%	52.4%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Uzbekistan	117	93	76	71	68	64	61	58		
Ultra Light	42	41	34	31	30	28	27	26	35.9%	43.8%
Light & Sour	75	52	43	40	38	36	34	33	64.1%	56.2%

^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Middle East

Crude Production by Quality^(*)

(thousand barrels/day)

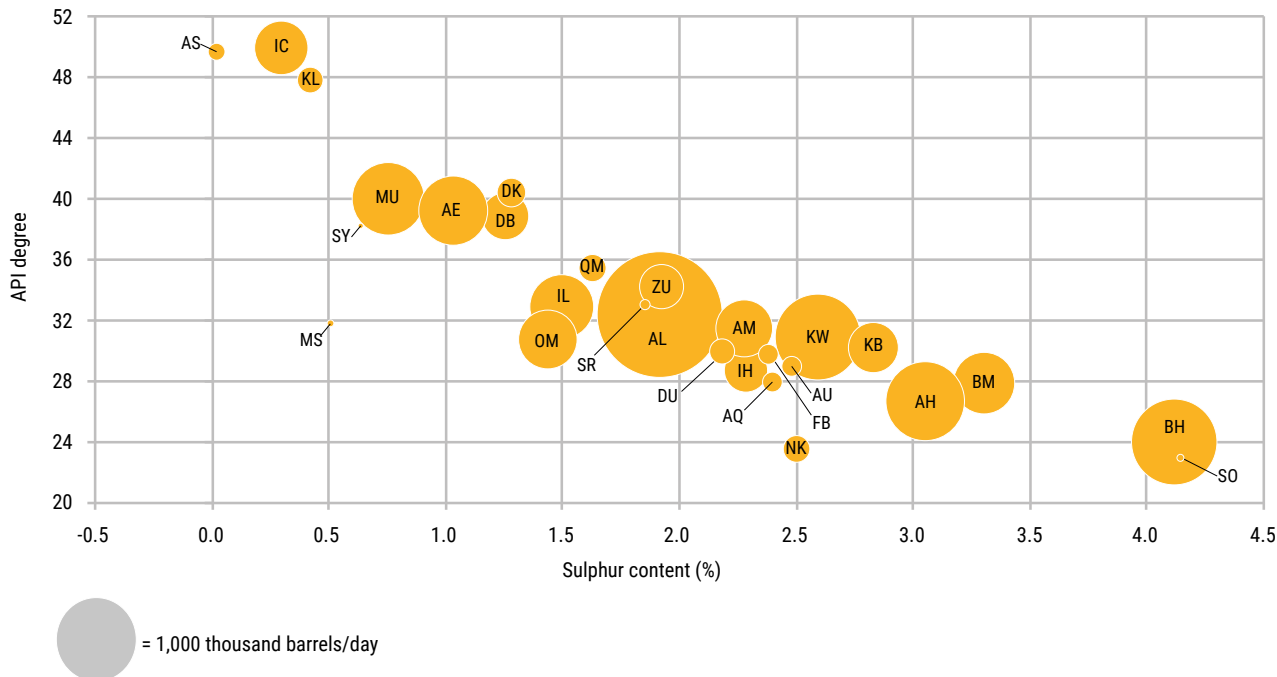
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Middle East	21,831	25,329	26,812	25,404	23,063	23,321	26,161	25,392		
Ultra Light	559	705	701	636	671	689	686	691	2.6%	2.7%
Light & Sweet	451	575	730	689	704	782	863	838	2.1%	3.3%
Light & Medium Sour	1,357	1,569	1,581	1,641	1,433	1,395	1,655	1,625	6.2%	6.4%
Light & Sour	2,120	2,545	2,804	2,919	2,817	2,840	3,011	2,755	9.7%	10.9%
Medium & Sweet										
Medium & Medium Sour	171	24	63	63	54	47	38	18	0.8%	0.1%
Medium & Sour	16,705	18,526	18,226	16,648	14,859	15,192	17,317	16,698	76.5%	65.8%
Heavy & Sweet										
Heavy & Medium Sour										
Heavy & Sour	453	1,385	2,640	2,669	2,382	2,278	2,493	2,629	2.1%	10.4%
Unassigned production (B)	16	1	66	139	143	100	98	138	0.1%	0.5%
% Unassigned production (B/A)	0.1	0.0	0.2	0.5	0.6	0.4	0.4	0.5		

^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Middle East

Quality and Production Volume of Main Crudes 2023^(*)

(thousand barrels/day)



- AU Abu Safah (Bahrain)
- AE Arab Extra Light (Saudi Arabia)
- AH Arab Heavy (Saudi Arabia)
- AL Arab Light (Saudi Arabia)
- AM Arab Medium (Saudi Arabia)
- AQ Al Shaheen (Qatar)
- AS Arab Super Light (Saudi Arabia)
- BM Basrah Medium (Iraq)
- BH Basrah Heavy (Iraq)
- DU Dubai (U.A.E.)

- DB Bs Blend (U.A.E.)
- DK Dukham (Qatar)
- FB Foroozan Blend (Iran)
- IC Iran C,te (Iran)
- IH Iran Heavy (Iran)
- IL Iran Light (Iran)
- KB Kirkuk Blend (Iraq)
- KW Kuwait (Kuwait)
- KL Kuwait Super Light (Kuwait)
- MS Masila (Yemen)

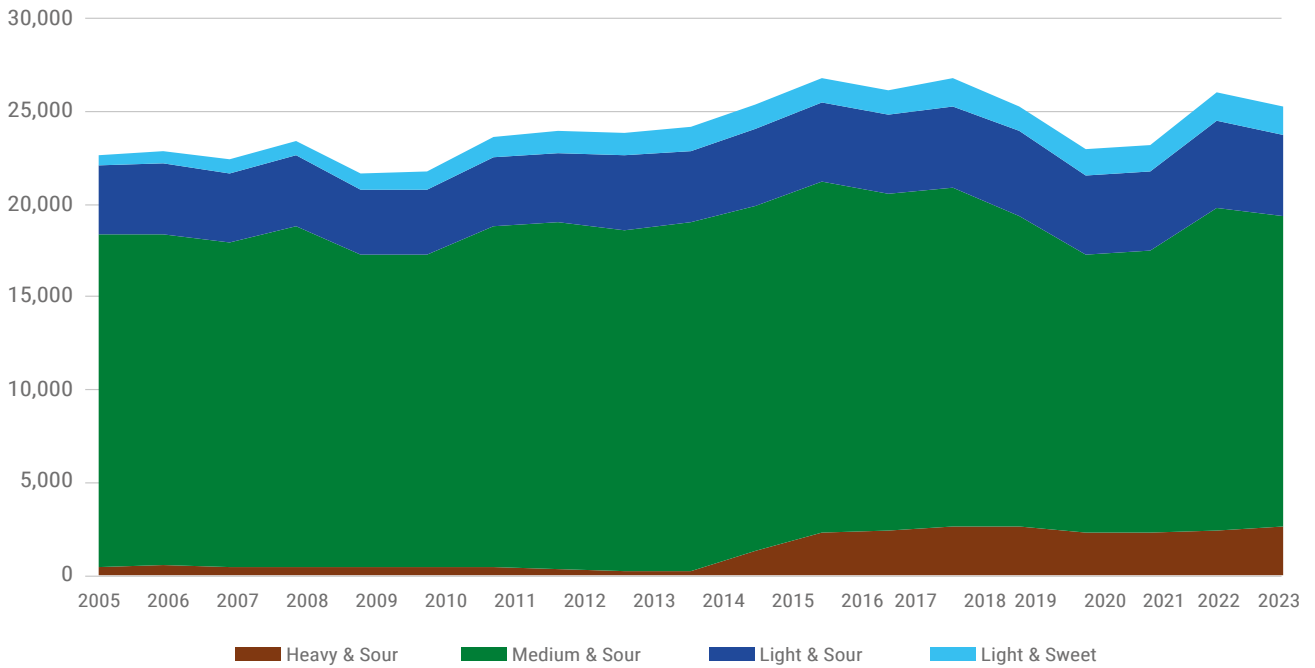
- MU Murban (U.A.E.)
- NK New West Karun (Iran)
- OM Oman (Oman)
- QM Qatar Marine (Qatar)
- SY Syrian Light (Syria)
- SO Souedieh (Syria)
- SR Sirri (Iran)
- ZU Upper Zakum (U.A.E.)

^(*)Data source: Eni.

Middle East

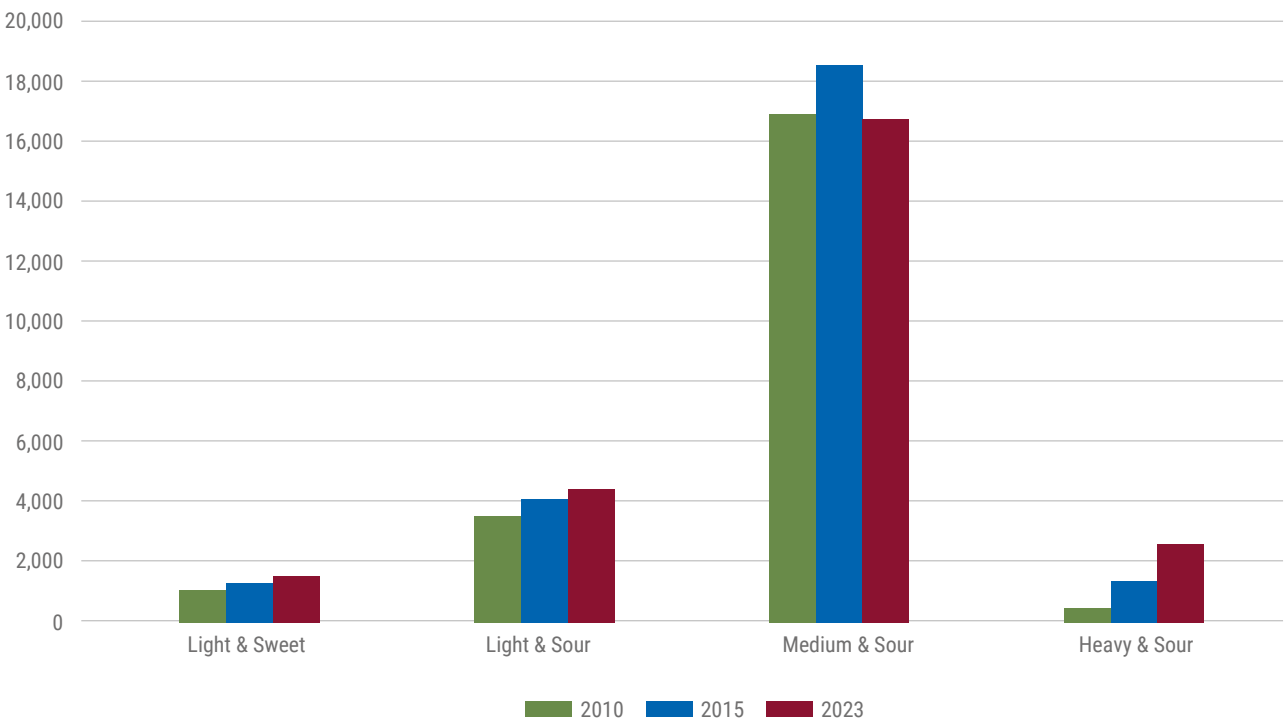
Crude Production by Quality^(*)

(thousand barrels/day)



Crude Production by Quality^(*)

(selected years, thousand barrels/day)



^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Middle East

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Bahrain	182	202	197	197	171	175	188	180		
Medium & Sour	182	202	197	197	171	175	188	180	100.0%	100.0%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Iran	3,689	2,846	3,528	2,317	1,966	2,375	2,490	2,929		
Light & Sweet	301	471	573	493	501	550	548	611	8.2%	20.9%
Light & Sour			36	21	16	20	20	23		0.8%
Medium & Sour	3,315	2,332	2,643	1,628	1,306	1,621	1,719	2,045	89.9%	69.8%
Heavy & Sour	73	43	276	175	143	184	203	249	2.0%	8.5%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Iraq	2,364	4,002	4,568	4,712	4,049	4,032	4,446	4,271		
Medium & Sour	2,364	2,736	2,210	2,230	1,902	2,044	2,258	2,012	100.0%	47.1%
Heavy & Sour		1,266	2,358	2,482	2,148	1,988	2,188	2,259		49.2%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Kuwait	2,298	2,787	2,745	2,682	2,414	2,415	2,696	2,618		
Light & Sweet			53	93	125	164	224	164		6.3%
Medium & Sour	2,190	2,751	2,692	2,588	2,254	2,209	2,433	2,417	95.3%	92.3%
Heavy & Sour	107	35			35	42	40	37	4.7%	1.4%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Oman	865	982	978	971	949	971	1,064	1,049		
Medium & Sour	865	982	978	971	949	971	1,064	1,049	100.0%	100.0%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Qatar	1,297	1,356	1,308	1,231	1,274	1,289	1,285	1,299		
Ultra Light	559	705	701	636	671	689	686	691	43.1%	53.2%
Light & Sour	627	553	516	506	512	510	507	482	48.3%	37.1%
Medium & Sour	111	98	92	90	91	90	91	126	8.6%	9.7%

^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Africa

Crude Production by Quality^(*)

(thousand barrels/day)

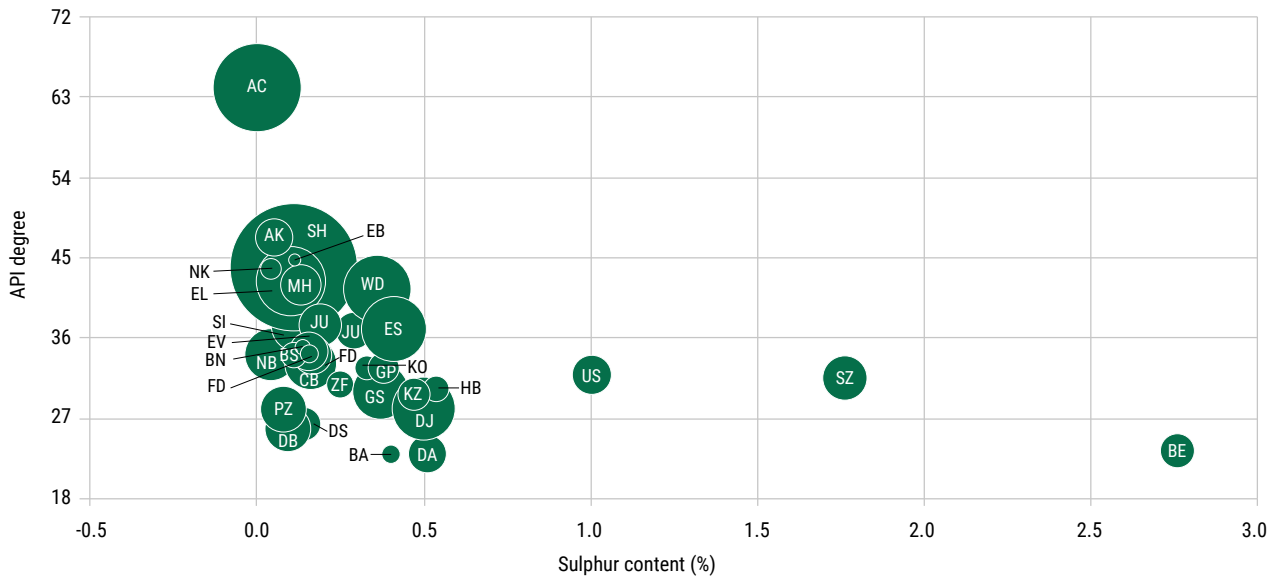
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Africa (A)	9,923	8,102	8,054	8,195	6,845	7,153	6,886	7,042		
Ultra Light	569	559	527	520	496	484	487	486	5.7%	6.9%
Light & Sweet	5,051	3,669	4,272	4,128	3,075	3,673	3,537	3,665	50.9%	52.0%
Light & Medium Sour	17	13	4	5	1	13	13	13	0.2%	0.2%
Light & Sour	33	24	18	16	14	18	17	16	0.3%	0.2%
Medium & Sweet	2,583	2,354	1,884	2,041	1,850	1,679	1,576	1,644	26.0%	23.3%
Medium & Medium Sour	177	318	512	669	649	563	517	481	1.8%	6.8%
Medium & Sour	525	556	394	406	399	393	403	409	5.3%	5.8%
Heavy & Sweet	422	316	182	192	178	168	174	171	4.2%	2.4%
Heavy & Medium Sour	52	179	173	133	99	81	89	82	0.5%	1.2%
Heavy & Sour	131	92	69	69	69	67	61	59	1.3%	0.8%
Unassigned production (B)	365	23	18	16	15	13	13	16	3.7%	0.2%
% unassigned production (B/A)	4	0	0	0	0	0	0	0		


^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Africa

Quality and Production Volume of Main Crudes 2023^(*)

(thousand barrels/day)



 = 100 thousand barrels/day

AC Algerian Condensate (Algeria)

AK Agbami-Ekoli (Nigeria)

BA Baobab (Ivory Coast)

BE Belayim Blend (Egypt)

BN Bonny Light (Nigeria)

BS Nigerian Brass River (Nigeria)

CB Cabinda (Angola)

DA Dalia Camelia (Angola)

DB Doba Blend (Chad)

DJ Djeno (Congo)

DS Dar Blend (Sudan)

EB El Borma (Tunisia)

EL El Sharara (Libya)

ES Es Sider (Libya)

EV Escravos (Nigeria)

FD Forcados (Nigeria)

GP Greater Plutonio (Angola)

GS Girassol (Angola)

HB Hungo Blend (Angola)

JU Jubilee (Ghana)

KO Kole Blend (Cameroon)

KZ Kissanje Blend (Angola)

MH Mellitah (Libya)

NE Nemba (Nigeria)

NB Nile Blend (Sudan)

NK N'Kossa (Congo)

PZ Pazflor (Angola)

QI Qua Iboe (Nigeria)

RE Rabi Light (Gabon)

SH Saharan Blend (Algeria)

SI Sarir (Libya)

ST Saturno (Angola)

SZ Suez Blend (Egypt)

US Usan (Nigeria)

WD Western Desert (Egypt)

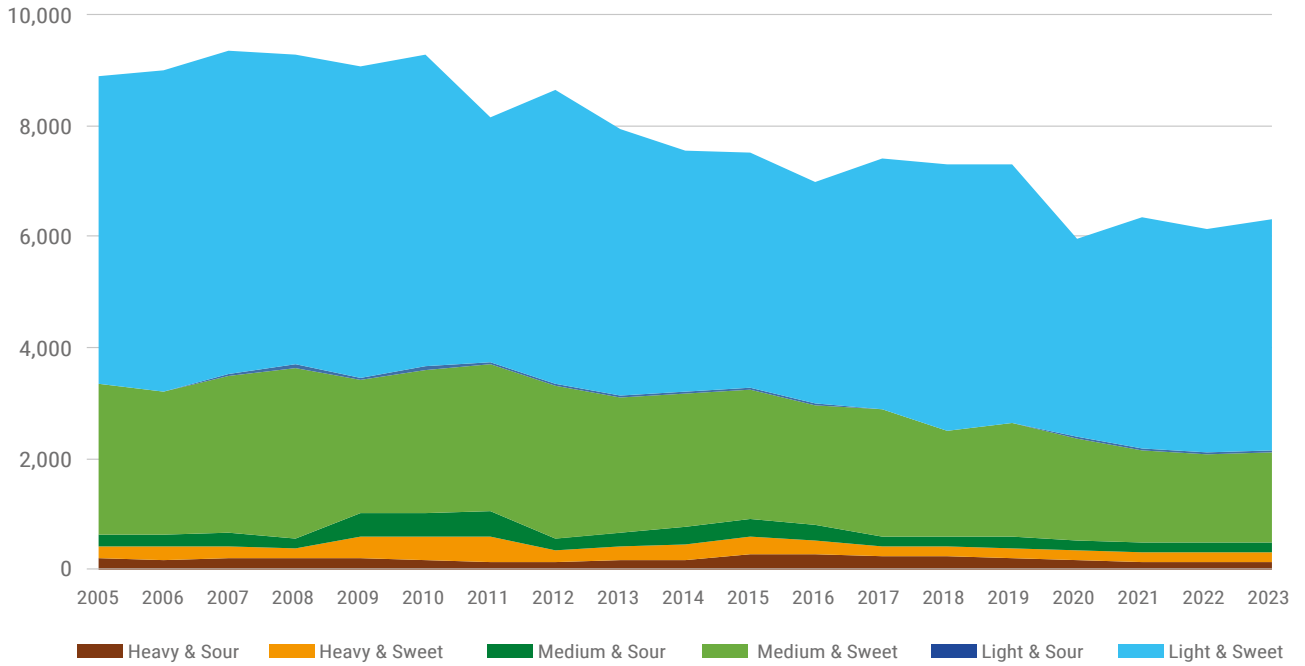
ZF New Zafiro (Equatorial Guinea)

^(*) Data source: Eni.

Africa

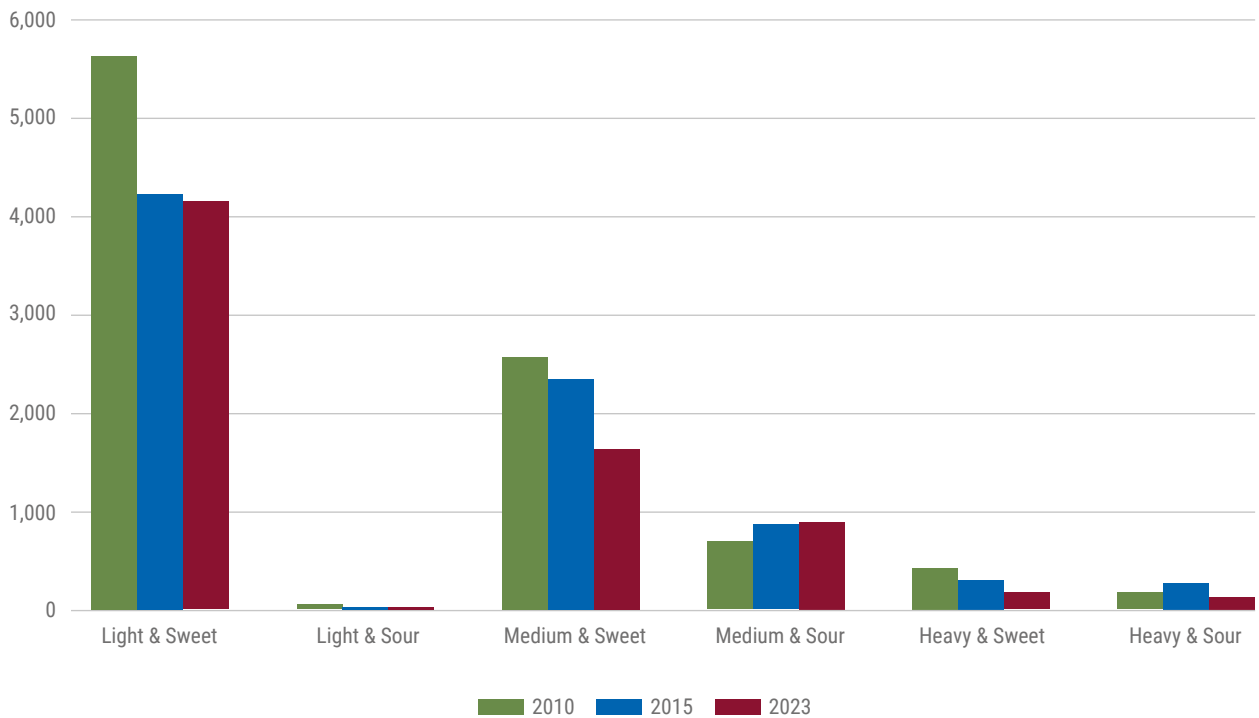
Crude Production by Quality^(*)

(thousand barrels/day)



Crude Production by Quality^(*)

(selected years, thousand barrels/day)



^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Africa

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Algeria	1,720	1,590	1,512	1,490	1,346	1,362	1,470	1,432		
Ultra Light	515	481	470	466	448	451	459	460	29.9%	32.1%
Light & Sweet	1,205	1,109	1,042	1,023	898	911	1,011	972	70.1%	67.9%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
Angola	1,454	1,776	1,522	1,418	1,303	1,156	1,170	1,130		
Light & Sweet	356	227	162	136	121	116	121	122	24.5%	10.8%
Medium & Sweet	881	1,055	962	819	746	669	704	683	60.6%	60.4%
Medium & Medium Sour	165	315	225	329	338	290	255	243	11.3%	21.5%
Heavy & Sweet										
Heavy & Medium Sour	52	179	173	133	99	81	89	82	3.6%	7.3%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
Cameroon	64	93	69	71	73	69	64	60		
Medium & Sweet	36	61	38	40	46	40	34	31	57.0%	52.1%
Heavy & Sweet	28	31	31	32	27	29	30	29	43.0%	47.9%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
Chad	120	139	128	132	131	119	124	124		
Heavy & Sweet	120	139	128	132	131	119	124	124	100.0%	100.0%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
Congo	306	227	324	332	297	268	262	271		
Light & Sweet	89	51	87	43	39	34	31	36	29.1%	13.5%
Medium & Sweet	217	176							70.9%	
Medium & Medium Sour			237	290	257	234	231	234		86.5%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
Côte d'Ivoire	39	26	33	36	28	28	27	29		
Medium & Sweet	16	14	10	8	8	8	7	10	41.0%	35.5%
Heavy & Sweet	23	12	23	28	20	20	19	19	59.0%	64.5%

^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Africa

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Dem. Rep. Congo	22	21	23	23	22	21	20	19		
Medium & Sweet	22	21	23	23	22	21	20	19	100.0%	100.0%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
Egypt	664	660	617	601	587	561	568	564		
Light & Sweet	202	234	318	305	289	250	256	265	30.4%	46.9%
Medium & Sour	331	335	230	227	228	243	250	241	49.9%	42.6%
Heavy & Sour	131	92	69	69	69	67	61	59	19.7%	10.4%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
Equatoria Guinea	285	276	201	186	175	144	121	92		
Ultra Light	54	78	57	54	48	33	28	26	18.9%	28.3%
Light & Sweet										
Medium & Sweet	231	199	98	85	77	76	65	66	81.1%	71.7%
Medium & Medium Sour			46	47	50	35	28			
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
Gabon	249	230	190	212	198	182	188	213		
Light & Sweet	54								21.8%	
Medium & Sweet	64	86	88	100	94	86	89	95	25.8%	44.4%
Medium & Sour	130	143	102	113	104	96	99	119	52.4%	55.6%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
Ghana	7	106	177	206	194	164	159	149		
Light & Sweet	7	106	112	145	145	131	134	129	100.0%	86.7%
Medium & Sweet			65	61	49	33	25	20		13.3%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
Libya	1,550	402	971	1,087	354	1,146	995	1,156		
Light & Sweet	1,469	317	908	1,019	289	1,084	933	1,098	94.8%	95.0%
Light & Medium Sour	17	13	4	5	1	13	13	13	1.1%	1.2%
Medium & Sour	64	73	59	62	63	50	49	45	4.1%	3.9%

^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Africa

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Nigeria	2,535	2,231	2,015	2,108	1,864	1,666	1,470	1,551		
Light & Sweet	1,635	1,608	1,629	1,444	1,282	1,134	1,039	1,033	64.5%	66.6%
Medium & Sweet	900	623	386	664	582	532	431	517	35.5%	33.4%
Heavy & Sweet										
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Sudan	465	253	216	241	226	214	201	203		
Medium & Sweet	214	119	216	241	226	214	201	203	46.0%	100.0%
Heavy & Sweet	251	134							54.0%	
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Tunisia	79	49	38	36	33	40	36	34		
Light & Sweet	34	17	13	12	11	13	10	9	43.2%	27.4%
Light & Sour	33	24	18	16	14	18	17	16	41.5%	48.0%
Medium & Medium Sour	12	3	4	3	4	4	4	4	15.3%	10.9%
Medium & Sour		4	4	4	4	4	5	5		13.8%

^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Asia - Pacific

Crude Production by Quality^(*)

(thousand barrels/day)

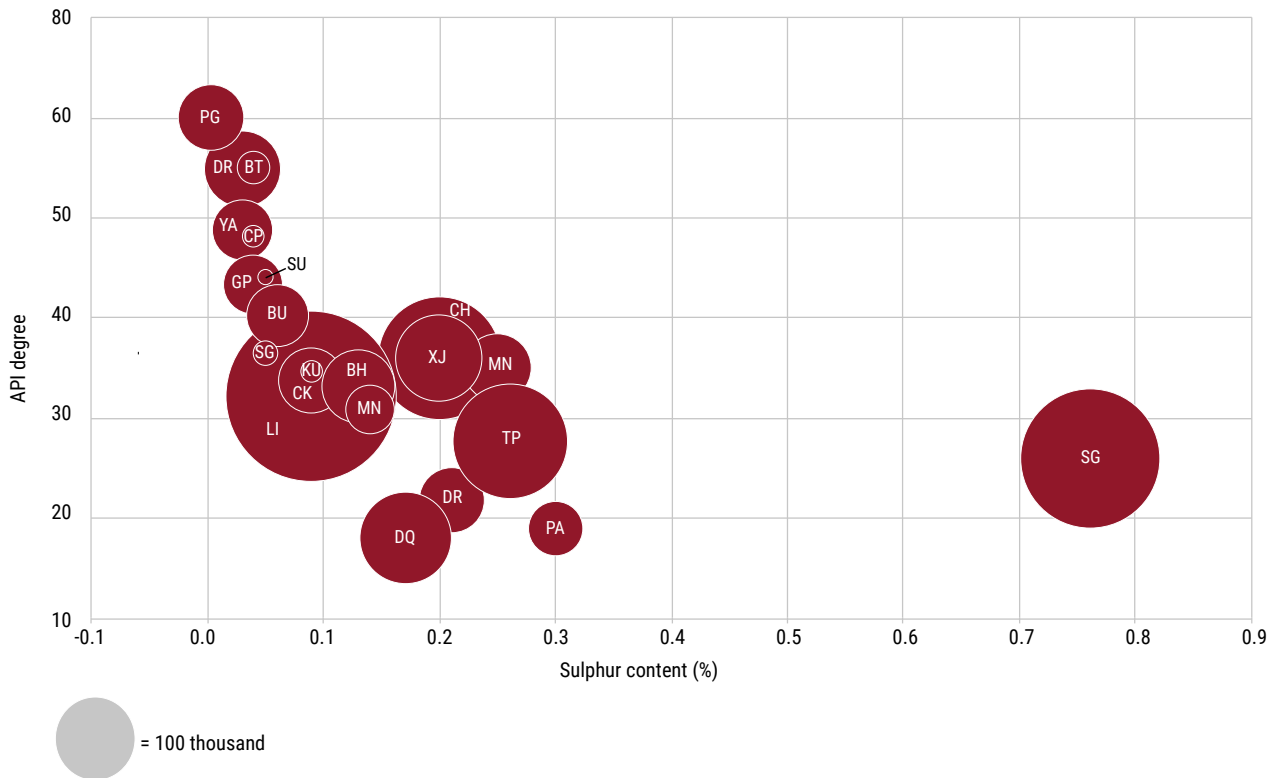
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Asia - Pacific (A)	7,836	7,729	6,923	6,929	6,766	6,700	6,650	6,672		
Ultra Light	722	535	554	608	539	529	510	515	9.2%	7.7%
Light & Sweet	2,306	2,313	2,620	2,560	2,386	2,096	1,957	1,779	29.4%	26.7%
Light & Medium Sour			23	31	30	31	31	32		0.5%
Light & Sour	35	32							0.4%	
Medium & Sweet	3,490	3,686	2,605	2,621	2,699	2,934	3,048	3,243	44.5%	48.6%
Medium & Medium Sour	554	547	471	453	453	450	447	446	7.1%	6.7%
Medium & Sour	56	62	58	56	56	57	58	58	0.7%	0.9%
Heavy & Sweet	623	499	547	558	562	565	563	565	8.0%	8.5%
Heavy & Medium Sour										
Heavy & Sour										
Unassigned production (B)	49	54	45	42	41	39	37	35	0.6%	0.5%
% Unassigned production (B/A)	1	1	1	1	1	1	1	1		

^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Asia - Pacific

Quality and Production Volume of Main Crudes 2023^(*)

(thousand barrels/day)



BH Bach Ho (Vietnam)

BT Bintulu Condensate (Malaysia)

BU Brunei Light (Brunei)

CE Cepu (Indonesia)

CH Changqing (China)

CK Cossack (Australia)

DQ Daqing (China)

DR Duri (Indonesia)

GP Gippsland (Australia)

KU Kutubu Blend (Papua N. G.)

LB Labuan (Malaysia)

LI Liaohe (China)

MI Miri (Malaysia)

MN Minas (Indonesia)

PA Panyu (China)

PG Peng Lai (China)

SC NW Shelf C.te (Australia)

SG Shengli (China)

SU Su Tu Den (Vietnam)

TP Tapis (Malaysia)

XJ Xinjang (China)

YA Yanchang (China)

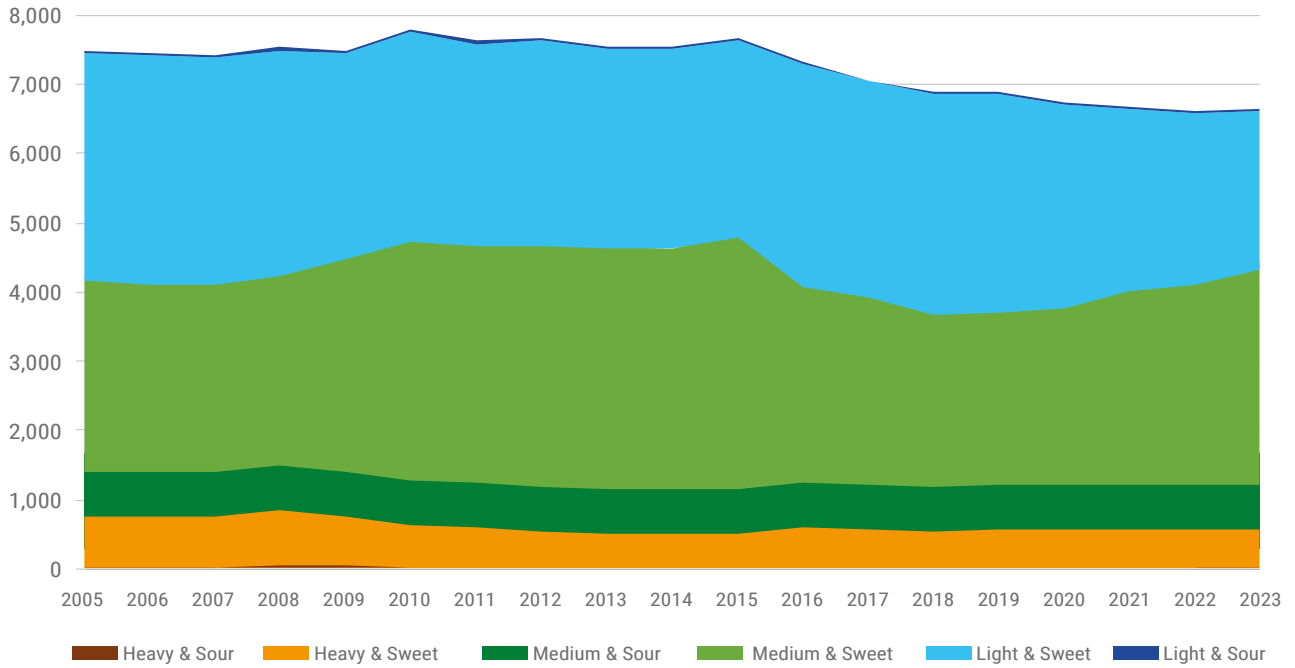
UE UEPL (Pakistan)

^(*) Data source: Eni.

Asia - Pacific

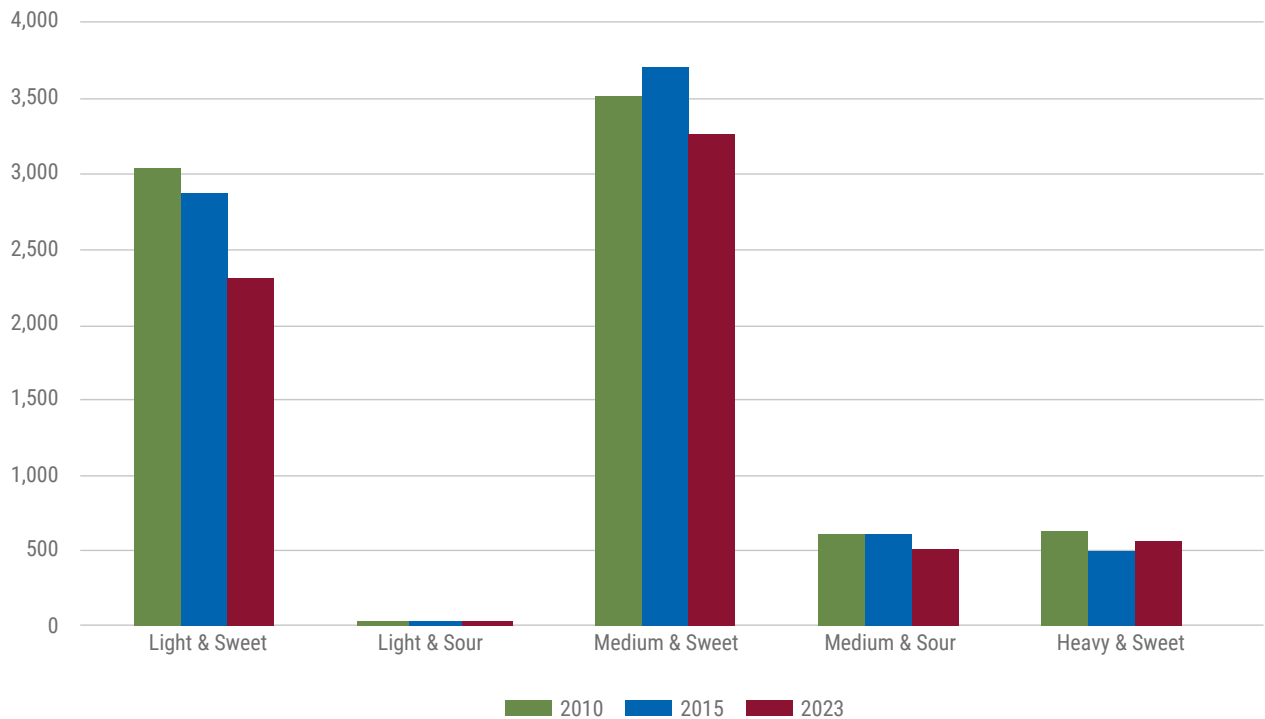
Crude Production by Quality^(*)

(thousand barrels/day)



Crude Production by Quality^(*)

(selected years, thousand barrels/day)



^(*)Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Asia - Pacific

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Australia	479	322	284	361	351	335	311	280		
Ultra Light	221	155	199	257	240	238	225	217	46.1%	77.3%
Light & Sweet	121	78	51	60	55	38	29	17	25.3%	5.9%
Heavy & Sweet	137	89	34	44	56	58	57	47	28.6%	16.8%
Heavy & Medium Sour										
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Brunei	169	127	111	121	110	108	93	93		
Ultra Light	16	11	12	11	10	8	8	8	9.5%	8.4%
Light & Sweet	153	115	100	110	100	100	85	85	90.5%	91.6%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
China	4,020	4,222	3,716	3,768	3,832	3,931	4,037	4,124		
Light & Sweet	318	273	790	811	759	603	599	499	7.9%	12.1%
Light & Medium Sour			23	31	30	31	31	32		0.8%
Light & Sour	35	32							0.9%	
Medium & Sweet	2,758	3,039	1,964	1,997	2,110	2,364	2,480	2,664	68.6%	64.6%
Medium & Medium Sour	554	547	471	453	453	450	447	446	13.8%	10.8%
Medium & Sour	56	62	58	56	56	57	58	58	1.4%	1.4%
Heavy & Sweet	299	269	410	421	424	426	422	425	7.4%	10.3%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
East Timor	88	45	15	23	14	12	10	5		
Ultra light	88	45	15	23	14	12	10	5	100.0%	100.0%
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
India	755	764	712	670	630	615	603	594		
Light & Sweet	657	676	623	585	549	534	519	506	87.1%	85.1%
Medium & Sweet	95	87	89	84	80	81	83	88	12.6%	14.8%
Heavy & Sweet	3	1	1	1	1	1	1	1	0.3%	0.2%

^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Asia - Pacific

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Indonesia	945	776	770	745	708	659	609	607		
Ultra Light	190	118	89	82	75	71	69	65	20.1%	10.7%
Light & Sweet	303	262	222	218	213	185	170	161	32.1%	26.6%
Medium & Sweet	266	257	356	353	338	323	287	288	28.2%	47.5%
Heavy & Sweet	186	139	102	92	81	80	83	92	19.6%	15.2%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Malaysia	638	654	653	604	541	506	502	499		
Ultra Light	98	70	112	103	83	88	105	126	15.4%	25.3%
Light & Sweet	388	509	510	472	429	385	328	298	60.8%	59.7%
Medium & Sweet	152	75	31	30	29	32	69	75	23.8%	15.0%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
New Zealand	55	41	24	24	21	18	16	18		
Light & Sweet	38	29	18	17	16	13	12	13	70.1%	74.0%
Medium & Sweet	16	12	6	7	5	5	4	5	29.9%	26.0%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Pakistan	65	86	88	86	84	82	80	77		
Light & Sweet	65	86	88	86	84	82	80	77	100.0%	100.0%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Papua New Guinea	32	58	36	35	39	37	34	32		
Ultra Light	21	40	28	29	32	31	29	27	65.2%	84.7%
Light & Sweet	11	17	8	6	7	6	5	5	34.8%	15.3%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Thailand	242	248	228	228	202	177	143	136		
Ultra Light	89	96	99	102	85	80	65	67	36.6%	48.9%
Light & Sweet	135	140	118	115	107	88	69	60	56.0%	44.3%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Vietnam	299	332	241	221	193	181	176	171		
Light & Sweet	115	129	95	81	66	62	60	57	38.5%	33.3%
Medium & Sweet	184	204	146	141	126	119	116	114	61.5%	66.7%

^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Americas

Crude Production by Quality^(*)

(thousand barrels/day)

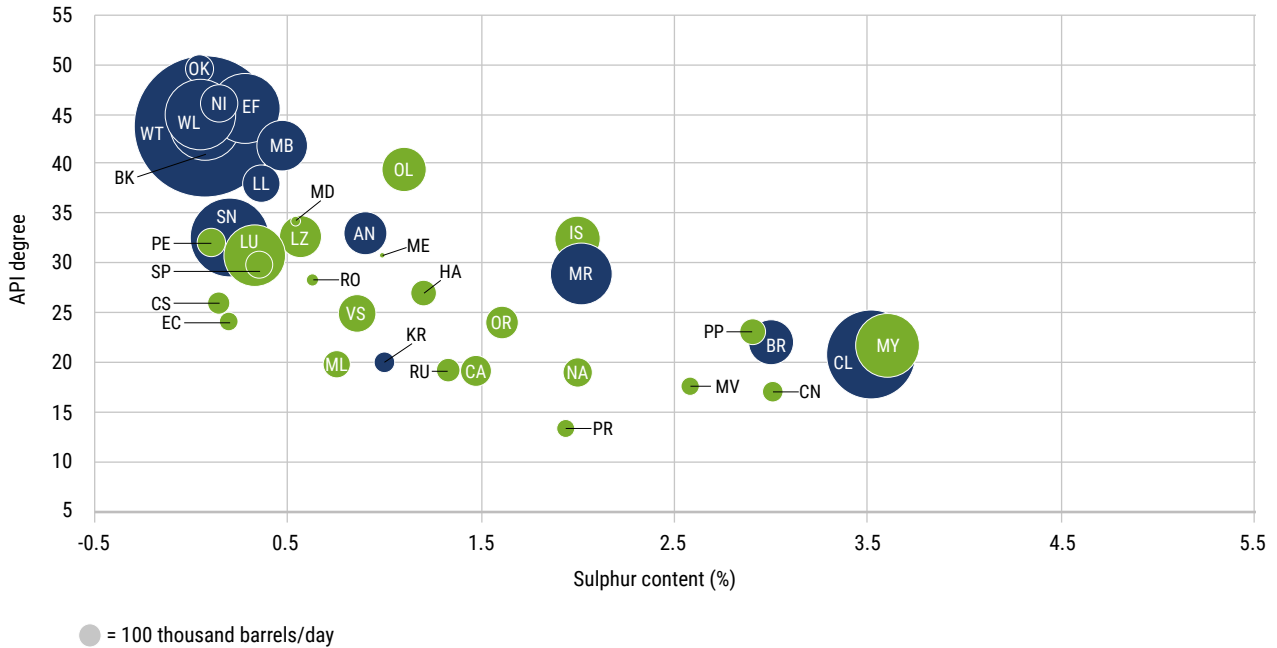
	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Americas (A)	17,643	22,790	23,379	24,468	22,913	23,207	24,455	26,240		
Ultra Light	122	120	86	77	48	40	39	46	0.7%	0.2%
Light & Sweet	2,760	6,763	8,507	9,711	9,039	9,101	9,748	10,540	15.6%	40.2%
Light & Medium Sour	356	303	228	176	215	240	373	19	2.0%	0.1%
Light & Sour								458		1.7%
Medium & Sweet	1,693	2,313	3,010	3,503	3,676	3,763	3,790	3,979	9.6%	15.2%
Medium & Medium Sour	1,362	1,115	1,185	1,171	1,137	1,076	1,153	1,458	7.7%	5.6%
Medium & Sour	3,521	3,755	2,626	2,711	2,462	2,522	2,491	2,548	20.0%	9.7%
Heavy & Sweet	273	228	209	214	216	215	229	240	1.5%	0.9%
Heavy & Medium Sour	1,865	1,918	1,559	1,417	1,333	1,376	1,561	1,912	10.6%	7.3%
Heavy & Sour	5,398	6,009	5,746	5,274	4,596	4,685	4,887	4,871	30.6%	18.6%
Unassigned production (B)	293	267	224	214	191	188	185	169	1.7%	0.6%
% Unassigned production (B/A)	2	1	1	1	1	1	1	1		0.0%

^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Americas

Quality and Production Volume of Main Crudes 2023^(*)

(thousand barrels/day)



- AN Alaskan North Slope (U.S.A.)
- BK Bakken Blend (U.S.A.)
- BR Bow River (Canada)
- CA Castilla (Colombia)
- CL Cold Lake (Canada)
- CN Cerro Negro (Venezuela)
- CS Canadon Seco (Argentina)
- EC Escalante (Argentina)
- EF Eagle Ford (U.S.A.)
- HA Hamaca (Venezuela)
- IS Isthmus (Mexico)
- KR Kern River (U.S.A.)
- LL Louisiana Light Sweet (U.S.A.)

- LU Lula (Brazil)
- MB Mixed Blend Sweet (Canada)
- MD Medanito (Argentina)
- ME Mesa (Venezuela)
- ML Marlim (Brazil)
- MR Mars (U.S.A.)
- MV Merey (Venezuela)
- MY Maya (Mexico)
- NA Napo (Ecuador)
- NI Niobrara (U.S.A.)
- OK Oklahoma sweet (U.S.A.)
- OL Olmecca (Mexico)
- OR Oriente (Ecuador)

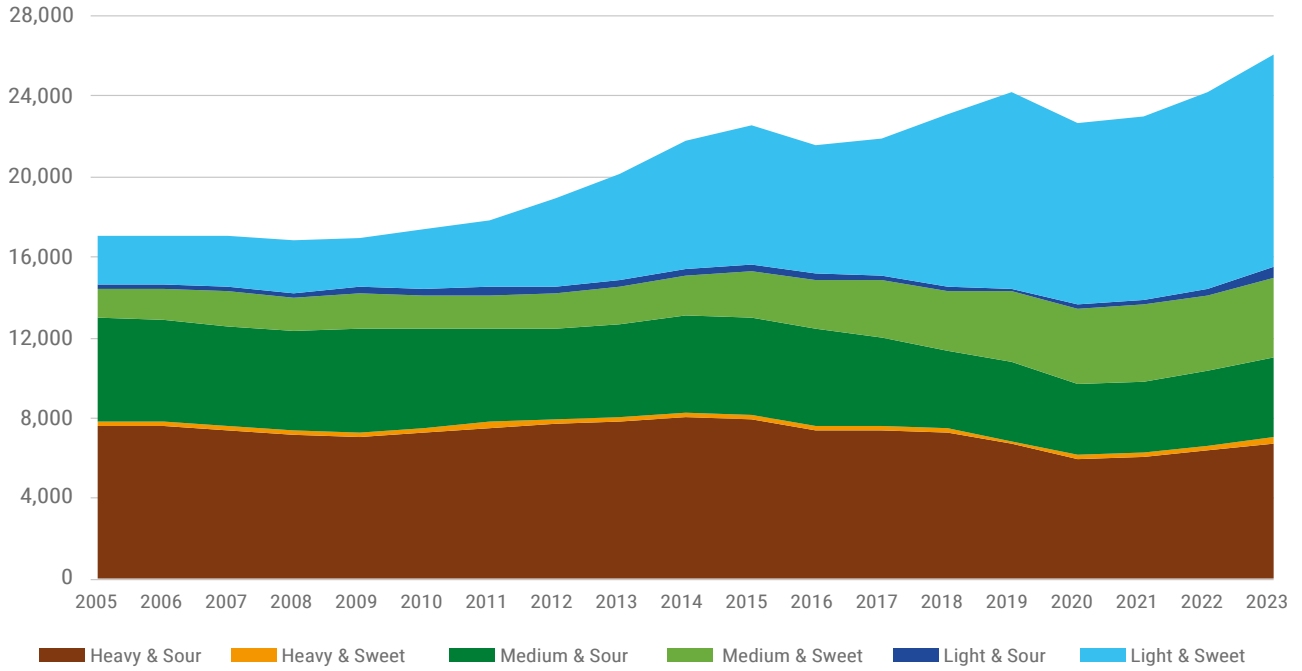
- PE Petrocedeno (Venezuela)
- PR Peregrino (Brazil)
- PP Petrozuata (Venezuela)
- RO Roncador (Brazil)
- RU Rubiales (Colombia)
- SN Syncrude (Canada)
- SP Sapinhoa (Brazil)
- VS Vasconia (Colombia)
- WL West Texas Light (USA)
- WT West Texas Int. (U.S.A.)
- LZ Liza (Guyana)

^(*) Data source: Eni.

Americas

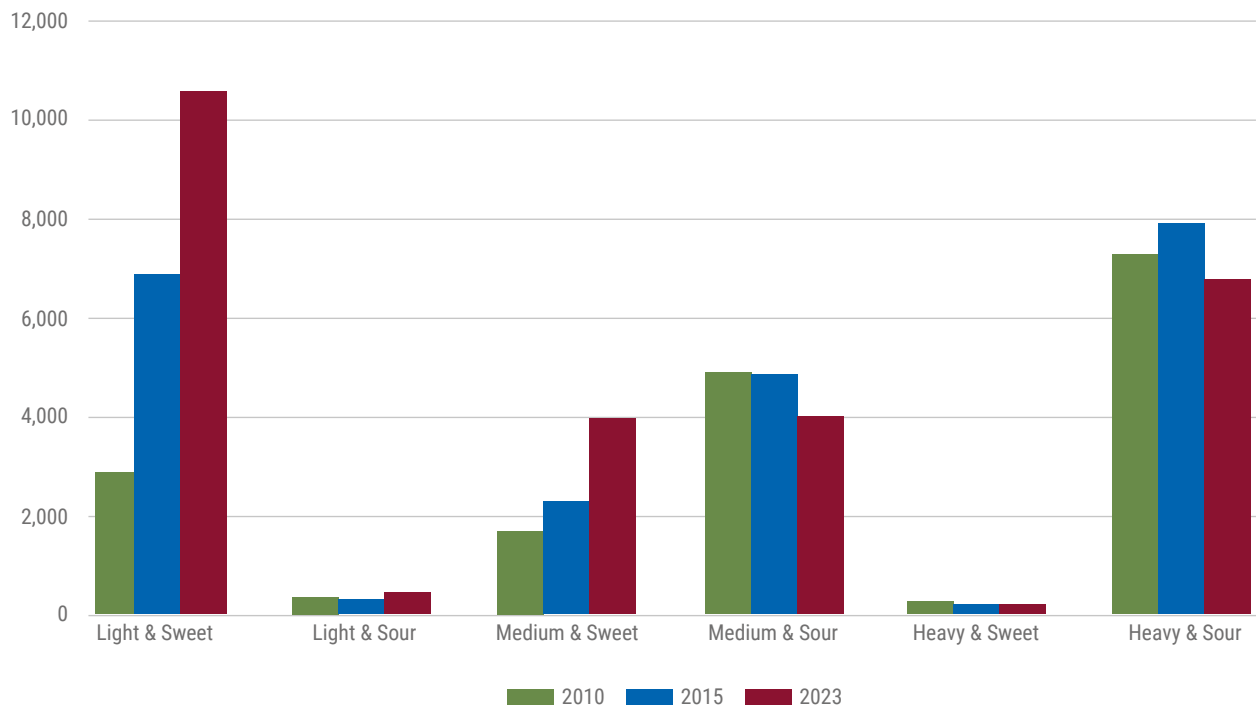
Crude Production by Quality^(*)

(thousand barrels/day)



Crude Production by Quality^(*)

(selected years, thousand barrels/day)



^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Americas

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Argentina	589	532	489	509	480	513	582	635		
Ultra light	22	21	23	26	26	28	26	24	3.7%	3.7%
Light & Sweet	85	77	70	72	68	73	83	91	14.5%	14.4%
Medium & Sweet		21	55	92	114	160	237	294		46.2%
Medium & Medium Sour	284	235	178	149	113	82	41	15	48.2%	2.4%
Heavy & Sweet	199	179	163	169	159	170	195	211	33.7%	33.3%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Brazil	2,063	2,451	2,599	2,788	2,937	2,905	3,021	3,402		
Light & Sweet	4	6	3	2	4	0			0.2%	
Light & Medium Sour	36	26	20	19	16	15	13	10	1.8%	0.3%
Medium & Sweet	145	617	1,212	1,543	1,791	1,761	1,688	1,709	7.0%	50.2%
Medium & Medium Sour	259	175	123	183	174	148	135	120	12.6%	3.5%
Heavy & Sweet	74	49	45	45	56	45	34	29	3.6%	0.8%
Heavy & Medium Sour	1,525	1,497	1,124	927	865	921	1,105	1,446	73.9%	42.5%
Heavy & Sour	20	82	71	69	31	15	46	88	1.0%	2.6%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Canada	2,850	3,828	4,504	4,649	4,400	4,616	4,720	4,774		
Light & Sweet	678	669	640	639	551	537	571	584	23.8%	12.2%
Medium & Sweet	1,047	1,197	1,399	1,525	1,507	1,523	1,512	1,554	36.7%	32.6%
Medium & Medium Sour		127	144	133	118	99	75	69		1.5%
Heavy & Medium Sour			62	112	141	139	138	118		2.5%
Heavy & Sour	1,125	1,836	2,259	2,240	2,083	2,318	2,425	2,449	39.5%	51.3%
<i>Memo: Syncrude production is included in Medium & Sweet</i>	926	1,151	1,374	1,508	1,482	1,503	1,494	1,541	32.5%	32.3%
<i>Memo: bitumen production is included in Heavy & Sour</i>	697	1,406	1,856	1,837	1,718	1,921	1,995	2,006	24.4%	42.0%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Colombia	786	1,006	865	886	781	737	754	784		
Light & Sweet	68	61	55	48	39	33	28	24	8.7%	3.0%
Medium & Sweet	101	83							12.9%	
Medium & Medium Sour			67	69	62	61	69	67		8.6%
Heavy & Medium Sour	340	421	373	379	327	316	318	348	43.3%	44.4%
Heavy & Sour	276	441	370	390	353	326	340	345	35.2%	44.0%

^(*)Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.

Americas

Countries^(*)

(thousand barrels/day)

	2010	2015	2018	2019	2020	2021	2022	2023	Share of total	
									2010	2023
Guyana	0	0	0	1	75	117	276	390		
Medium & Medium Sour				1	75	117	276	390		100.0%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Ecuador	466	541	517	531	479	472	461	448		
Heavy & Sour	466	541	517	531	479	472	461	448	100.0%	100.0%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Mexico	2,577	2,267	1,831	1,705	1,721	1,780	1,843	1,936		
Light & Medium Sour	320	277	208	157	199	226	360		12.4%	
Light & Sour								458		23.7%
Medium & Sour	793	838	552	484	473	539	519	476	30.8%	24.6%
Heavy & Sour	1,465	1,152	1,072	1,064	1,049	1,016	965	1,001	56.8%	51.7%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
United States	5,484	9,439	10,951	12,312	11,318	11,268	11,911	12,930		
Ultra light	5	6						4	0.1%	0.0%
Light & Sweet	1,924	5,951	7,738	8,948	8,377	8,457	9,066	9,841	35.1%	76.1%
Medium & Sweet	265	283	208	219	186	200	230	259	4.8%	2.0%
Medium & Medium Sour	819	579	638	622	585	561	546	789	14.9%	6.1%
Medium & Sour	1,853	1,990	1,898	2,053	1,815	1,805	1,814	1,908	33.8%	14.8%
Heavy & Sour	619	631	470	470	355	244	256	121	11.3%	0.9%
									Share of total	
	2010	2015	2018	2019	2020	2021	2022	2023	2010	2023
Venezuela	2,535	2,460	1,398	874	529	611	702	773		
Ultra light	96	94	63	51	22	12	13	19	3.8%	2.5%
Medium & Sweet	135	112	136	124	78	118	124	163	5.3%	21.1%
Medium & Medium Sour			34	14	10	8	11	7		1.0%
Medium & Sour	876	927	177	174	173	178	158	164	34.6%	21.2%
Heavy & Sour	1,428	1,327	988	511	246	295	396	420	56.3%	54.3%

^(*) Data source: Eni's elaborations on IEA (2024) *Monthly Oil Data Service* data. All rights reserved.



Oil - Refining Industry

REFINING CAPACITY

Areas and Aggregates

Refining Capacity

Areas and Aggregates^(*)

2010	Refineries (no.)	Primary Capacity (mmtons)	Primary Capacity (kbb/d)	Conversion Capacity (FCC eqv.) (mmtons)	Complexity Ratio	
					FCC eqv. (%)	NCI
Europe ^(**)	128	840	16,812	309	37%	8.9
Russia and Central Asia	66	378	7,612	66	18%	6.9
Middle East	59	396	8,053	79	20%	5.9
Africa	46	159	3,189	28	17%	5.7
Asia - Pacific	298	1,485	29,792	785	53%	8.2
Americas	242	1,353	27,087	881	65%	10.6
- North America	167	1,034	20,688	729	70%	11.6
- Central South America	75	319	6,399	152	47%	7.4
World	839	4,612	92,545	2,148	47%	8.7

2015	Refineries (no.)	Primary Capacity (mmtons)	Primary Capacity (kbb/d)	Conversion Capacity (FCC eqv.) (mmtons)	Complexity Ratio	
					FCC eqv. (%)	NCI
Europe ^(**)	113	772	15,443	313	41%	9.2
Russia and Central Asia	70	414	8,350	79	19%	7.0
Middle East	58	439	8,915	118	27%	6.8
Africa	48	159	3,195	32	20%	6.1
Asia - Pacific	324	1,717	34,449	1,022	60%	8.9
Americas	239	1,366	27,350	922	67%	10.9
- North America	164	1,070	21,417	777	73%	11.8
- Central South America	75	296	5,933	145	49%	7.7
World	852	4,866	97,702	2,485	51%	9.1

2020	Refineries (no.)	Primary Capacity (mmtons)	Primary Capacity (kbb/d)	Conversion Capacity (FCC eqv.) (mmtons)	Complexity Ratio	
					FCC eqv. (%)	NCI
Europe ^(**)	109	765	15,307	336	44%	9.3
Russia and Central Asia	72	431	8,681	113	26%	7.7
Middle East	63	500	10,226	144	29%	7.4
Africa	52	151	3,035	36	24%	6.4
Asia - Pacific	319	1,876	37,697	1,192	64%	9.9
Americas	233	1,385	27,757	939	68%	10.8
- North America	161	1,078	21,593	772	72%	11.7
- Central South America	72	308	6,164	167	54%	8.0
World	848	5,108	102,703	2,760	55%	9.6

^(*) Data source: Eni's calculations on Icis Consulting data.

^(**) Belarus and Ukraine aren't included in Europe but in Russia and Central Asia.

Refining Capacity

Areas and Aggregates^(*)

2022	Refineries (no.)	Primary Capacity (mmtons)	Primary Capacity (kbb/d)	Conversion Capacity (FCC eqv.) (mmtons)	Complexity Ratio	
					FCC eqv. (%)	NCI
Europe ^(**)	105	745	14,902	334	45%	11.2
Russia and Central Asia	72	435	8,760	140	32%	8.2
Middle East	66	527	10,760	160	30%	7.7
Africa	52	145	2,917	34	24%	6.3
Asia - Pacific	302	1,875	37,680	1,221	65%	10.2
Americas	233	1,351	27,079	903	67%	10.8
- North America	155	1,047	20,972	743	71%	11.7
- Central South America	72	305	6,107	161	53%	7.8
World	830	5,077	102,098	2,793	56%	9.7

2023	Refineries (no.)	Primary Capacity (mmtons)	Primary Capacity (kbb/d)	Conversion Capacity (FCC eqv.) (mmtons)	Complexity Ratio	
					FCC eqv. (%)	NCI
Europe ^(**)	104	742	14,852	337	45%	9.4
Russia and Central Asia	72	435	8,760	142	33%	8.2
Middle East	69	563	11,497	165	29%	7.7
Africa	52	148	2,975	39	26%	6.5
Asia - Pacific	298	1,906	38,313	1,290	68%	10.4
Americas	228	1,370	27,454	913	67%	10.7
- North America	156	1,064	21,328	752	71%	11.6
- Central South America	72	306	6,126	161	52%	7.9
World	823	5,165	103,851	2,886	56%	9.7

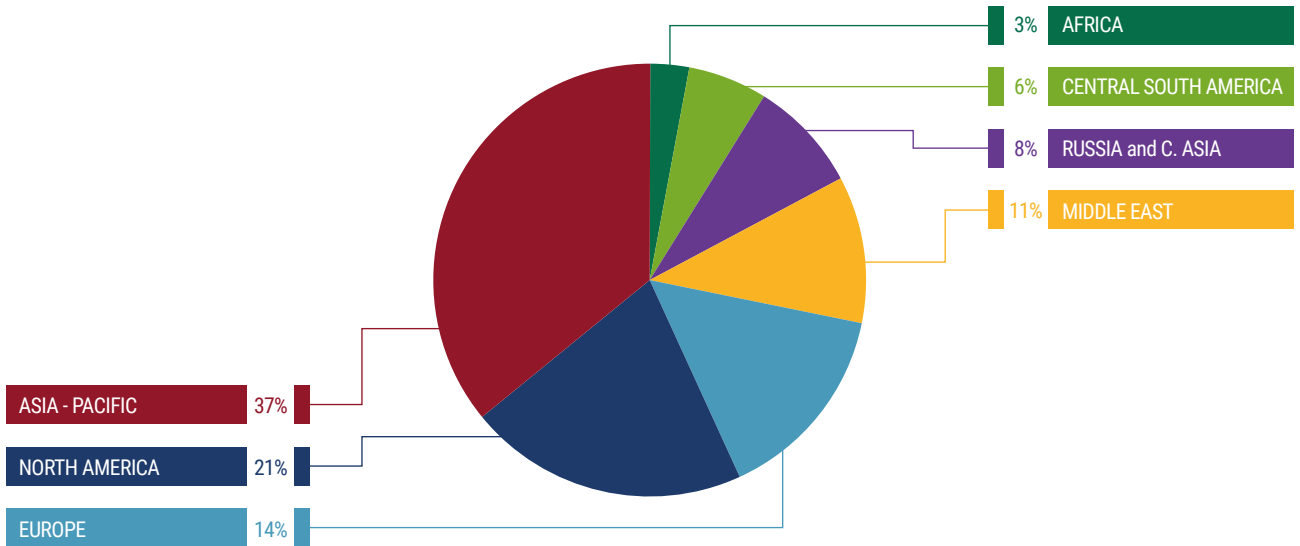
^(*) Data source: Eni's calculations on Icis Consulting data.

^(**) Belarus and Ukraine aren't included in Europe but in Russia and Central Asia.

Refining Capacity

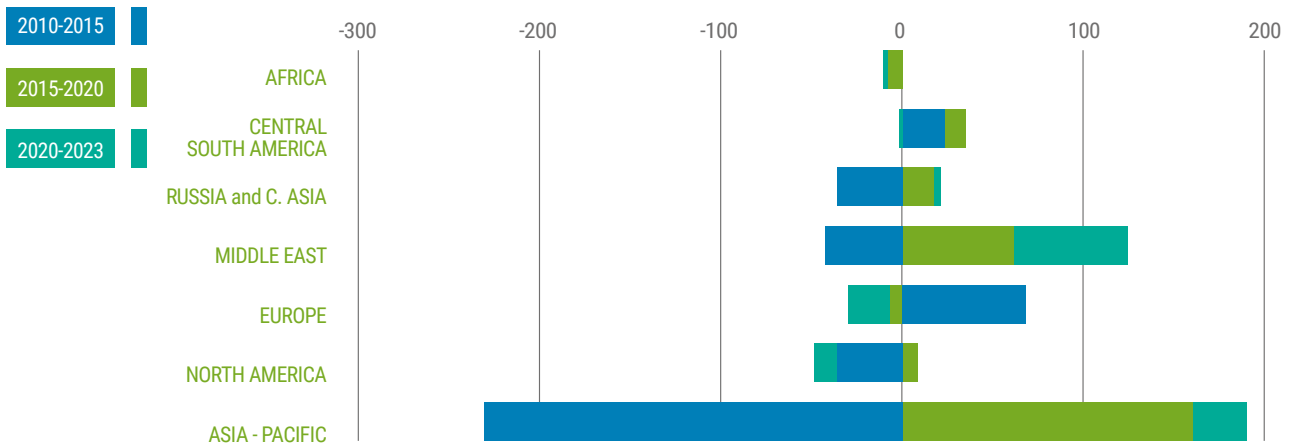
World Primary Capacity (2023)

5,165 million tons



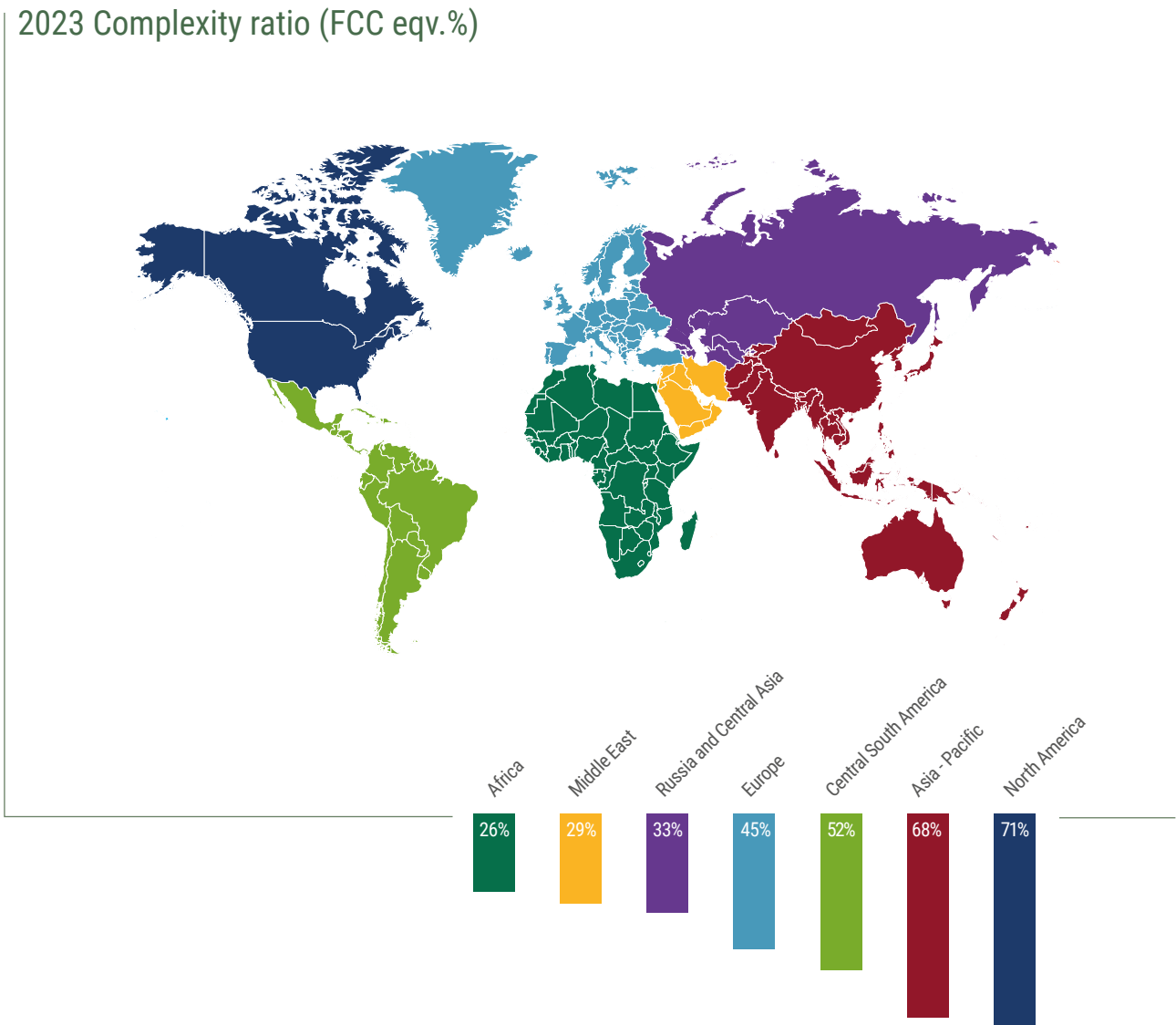
World Primary Capacity Growth (2010-2023)

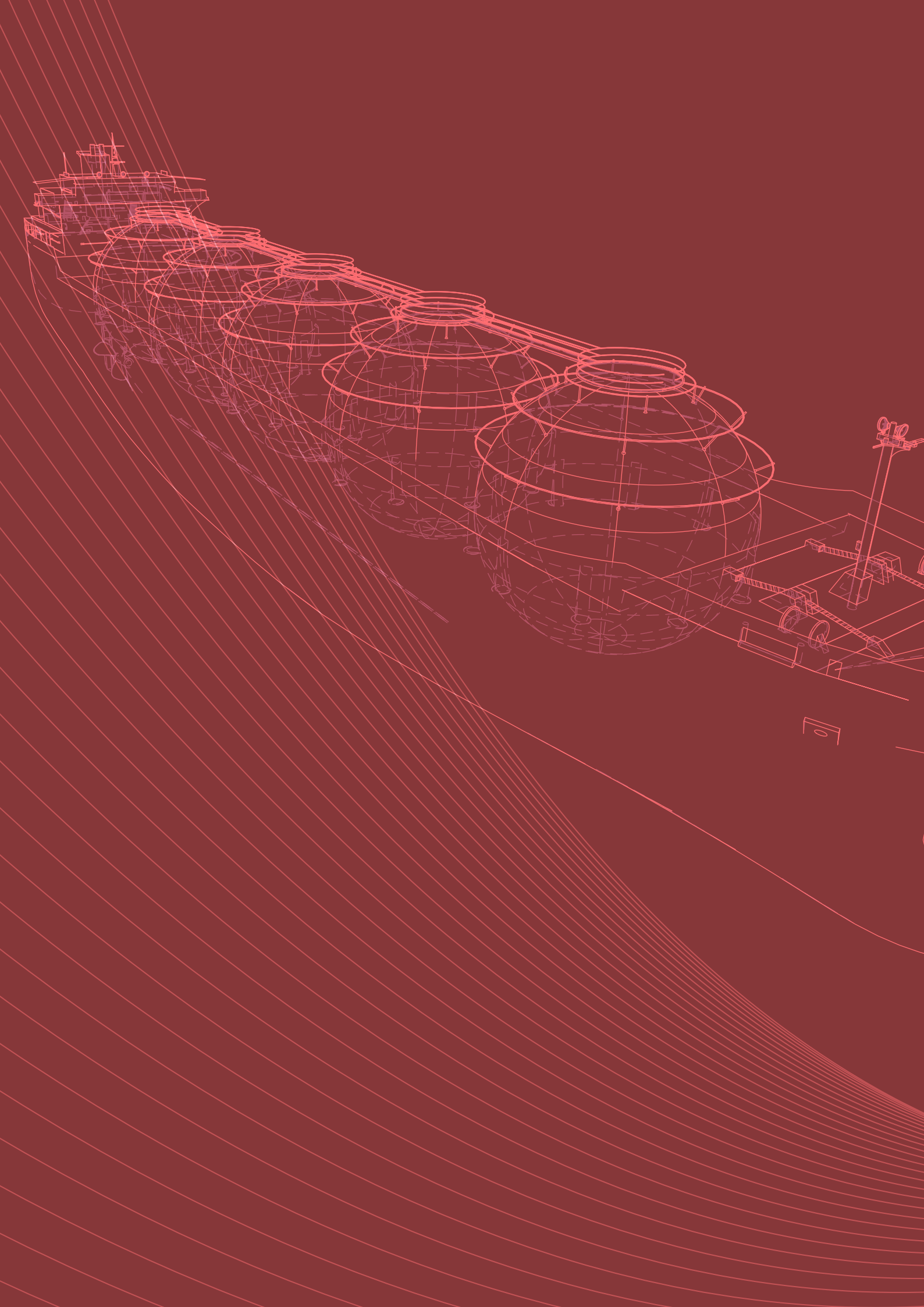
553 million tons



Refining Capacity

2023 Complexity ratio (FCC eqv.%)





Natural Gas

After the supply shock due to Russia's invasion of Ukraine in February 2022 - with record prices, strong volatility, and radical reshaping of global LNG flows and countries' roles - global gas markets moved towards a gradual rebalancing over the 2022-23 heating season and for 2023 summer months.

In 2023, **prices** have declined with an average drop of approx. 60% from 2022 levels, in particular:

- In Europe, the Title Transfer Facility (TTF) averaged 12.8 \$/Mbtu (vs. 37.1 \$/Mbtu in 2022), ranging from 7.3-23.4 \$/Mbtu.
- In Asia, the LNG spot price (avg. 15.3 \$/Mbtu in 2023 vs. 34.0 \$/Mbtu in 2022) coming back to a premium vs. the European market since June, except for a few days right after the start of the Israel-Hamas war.
- In the United States, the 2023 gas market softened, with Henry Hub prices returning to values more aligned with the historical average (avg. 2.5 \$/Mbtu in 2023 vs. 6.4 \$/Mbtu in 2022).

Global gas demand remained stable in 2023 (+0.1% vs. 2022), reaching about 4,000 Bcm with divergent dynamics worldwide: favourable weather conditions and economic environment, in particular, mitigated demand both in Europe and Asia, making supply able to meet demand and storage. The significant increase in China (+7%) was partly offset by the slowdown recorded in the EU (-7%), which weighed the reduction in the civil and power sector.

World gas production increased slightly in 2023 (+0.3% vs. 2022) to about 4,000 Bcm. This increase was primarily driven by the United States, which recorded +3% growth (+34 Bcm), and China, which saw a +6% increase (+12 Bcm). Russia, on the other hand, bucked the trend with a drop in production of about -5% (-34 Bcm), influenced by lower exports to Europe.

Regarding **LNG**, global liquefaction and regasification capacities increased in 2023 compared to 2022, reaching 645 Bcm (+2%) and 1,465 Bcm (+6%), respectively. In particular, the United States led the growth in liquefaction (+5.7 Bcm), followed by Mozambique (+3.8 Bcm). In comparison, the increase in regasification capacity occurred in Europe (+36 Bcm, especially Germany and the Netherlands) and Asia (+35 Bcm, especially China, India, and the new import market, the Philippines).

Gas imports decreased by approx. 4% compared to 2022, particularly in the European market (approx. -11%), influenced by the drop in demand; this reduction in Europe was only partially offset by the increase in imports to China of +10% (flows via pipe approx. +20%, via LNG +5%). In terms of gas exports, while outflows from Russia fell sharply (-18%), among the world's major exporters, the United States recorded the most significant increase (+14%) thanks to LNG exports, which have become the largest producer globally.



Natural Gas - Supply and Demand

RESERVES

Areas and Aggregates
The World Top 10 Reserves Holders
Countries

PRODUCTION

Areas and Aggregates
The World Top 10 Producers
Countries

RESERVES/PRODUCTION RATIO

Areas and Aggregates
The World Top 10 Producers Ranked by Reserves/Production Ratio
Countries

CONSUMPTION

Areas and Aggregates
The World Top 10 Consumers
Countries

PER CAPITA CONSUMPTION

Areas and Aggregates
The World Top 10 Consumers Ranked by Per Capita Consumption Ratio
Countries

PRODUCTION/CONSUMPTION RATIO

Areas and Aggregates
The World Top 10 Producers Ranked by Production/Consumption
Countries

Reserves

Areas and Aggregates^(*)

(billion cubic metres as at 31st December)

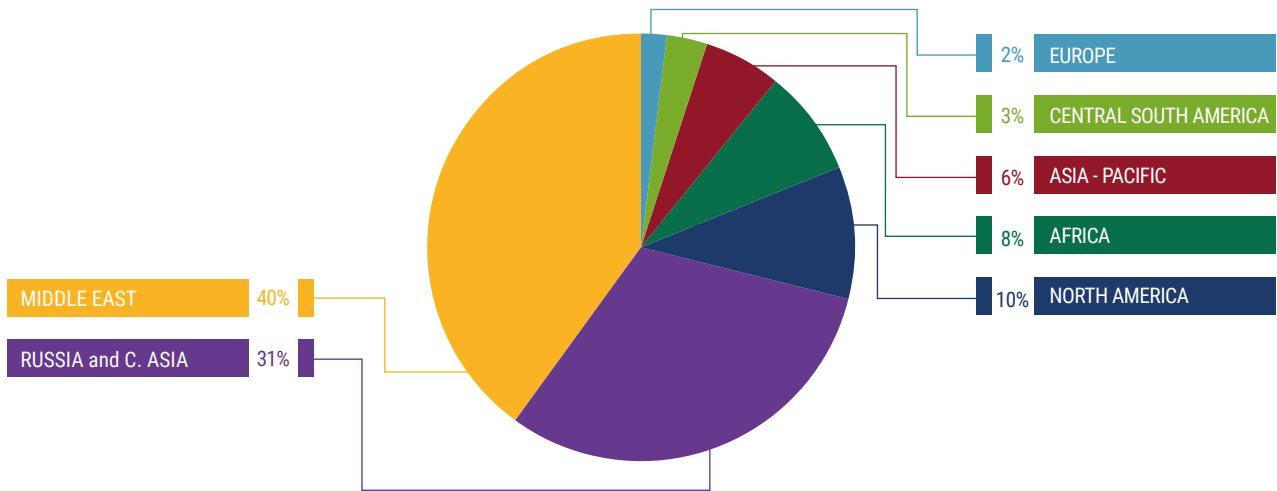
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	6,038	5,009	4,045	3,907	3,744	3,700	3,537	3,467	-2.0%	-4.2%
Russia and Central Asia	62,753	67,519	67,655	67,650	66,324	66,325	65,718	65,718	0.0%	0.4%
Middle East	78,963	79,263	79,549	81,378	81,319	81,963	83,047	83,104	0.1%	0.4%
Africa	14,450	14,587	15,413	15,893	15,844	15,933	15,819	15,884	0.4%	0.7%
Asia - Pacific	15,451	15,150	13,074	12,527	12,307	12,130	11,640	11,645	0.0%	-2.2%
Americas	18,523	18,886	23,439	23,548	22,799	26,962	28,709	28,738	0.1%	3.4%
- North America	10,674	10,997	15,907	16,021	15,429	19,593	21,390	21,390	0.0%	5.5%
- Central South America	7,849	7,889	7,533	7,527	7,371	7,370	7,318	7,348	0.4%	-0.5%
World	196,179	200,414	203,176	204,904	202,338	207,013	208,469	208,557	0.0%	0.5%
European Union 27	1,771	1,249	578	517	463	450	425	424	-0.3%	-10.4%
MENA	87,240	87,424	87,844	89,661	89,602	90,246	91,330	91,387	0.1%	0.4%
OECD	20,173	18,815	22,967	22,633	21,885	26,125	27,812	27,737	-0.3%	2.5%
NON OECD	176,006	181,599	180,210	182,271	180,453	180,888	180,657	180,820	0.1%	0.2%
OPEC	63,760	65,086	66,184	68,041	68,063	68,701	69,611	69,687	0.1%	0.7%
NON OPEC	132,419	135,328	136,992	136,863	134,275	138,312	138,858	138,870	0.0%	0.4%

^(*)Data source: Eni's estimates on Enerdata *Global Energy Market and CO₂ Data* and other official sources data.

Reserves

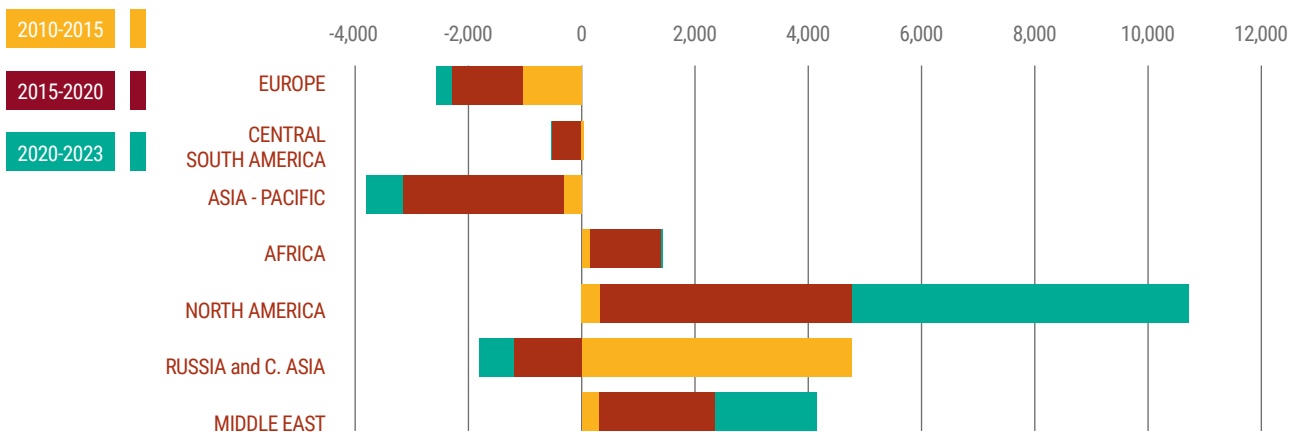
World Natural Gas Reserves (2023)

208,557 billion cubic metres



World Natural Gas Reserves Growth (2010-2023)

12,378 billion cubic metres



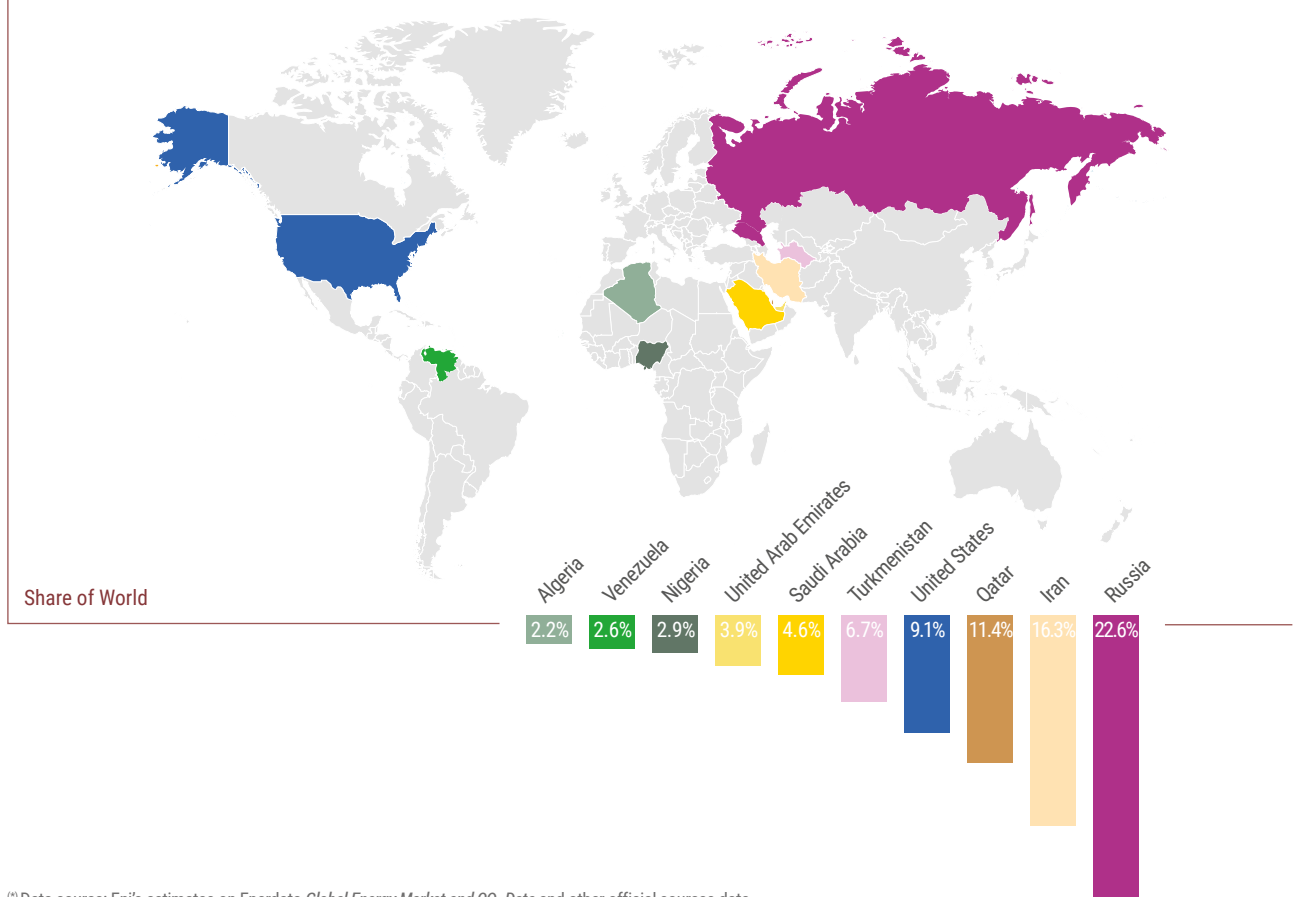
Reserves

The World Top 10 Reserves Holders^(*)

(billion cubic metres as at 31st December)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia	46,000	50,205	49,571	49,084	47,759	47,759	47,152	47,152	0.0%	0.2%
Iran	33,090	33,500	33,899	33,988	33,988	33,988	33,988	33,988	0.0%	0.2%
Qatar	25,201	24,299	23,846	23,831	23,831	23,831	23,831	23,831	0.0%	-0.4%
United States	8,697	8,879	13,813	13,550	12,958	17,122	18,919	18,919	0.0%	6.2%
Turkmenistan	13,950	13,950	13,950	13,950	13,950	13,950	13,950	13,950	0.0%	0.0%
Saudi Arabia	8,016	8,588	8,260	8,366	8,437	8,507	9,514	9,514	0.0%	1.3%
United Arab Emirates	6,090	6,090	6,090	7,726	7,730	8,200	8,210	8,220	0.1%	2.3%
Nigeria	5,110	5,284	5,675	5,761	5,750	5,848	5,913	5,979	1.1%	1.2%
Venezuela	5,521	5,698	5,674	5,674	5,590	5,541	5,511	5,511	0.0%	0.0%
Algeria	4,504	4,504	4,504	4,504	4,504	4,504	4,504	4,504	0.0%	0.0%
The World Top 10	156,179	160,997	165,282	166,434	164,497	169,250	171,492	171,568	0.0%	0.7%
Rest of the World	40,000	39,417	37,894	38,469	37,841	37,763	36,976	36,989	0.0%	-0.6%
World	196,179	200,414	203,176	204,904	202,338	207,013	208,469	208,557	0.0%	0.5%

The World Top 10 (2023)



^(*) Data source: Eni's estimates on Enerdata *Global Energy Market and CO₂ Data* and other official sources data.

Reserves

Countries^(*)

(billion cubic metres as at 31st December)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	6,038	5,009	4,045	3,907	3,744	3,700	3,537	3,467	-2.0%	-4.2%
Albania	0	0	1	1	1	1	1	1	0.0%	19.4%
Austria	15	9	7	6	5	5	5	5	-16.1%	-8.7%
Belarus	1	1	1	1	1	1	1	1	0.0%	-5.2%
Bulgaria	5	4	4	4	4	4	4	4	-2.4%	-1.5%
Croatia	25	11	6	6	5	5	5	5	0.0%	-12.1%
Czech Republic	3	3	3	3	3	3	3	3	0.0%	0.7%
Denmark	101	80	69	77	74	73	71	66	-7.2%	-3.2%
France	5	9	9	9	9	9	9	9	-1.2%	4.3%
Germany	87	46	30	25	22	20	20	20	0.0%	-10.7%
Greece	1	1	1	1	1	1	1	1	0.0%	0.0%
Hungary	12	8,5	7	4	5	5	5	6	8.2%	-5.4%
Ireland	25	30	29	28	27	26	25	25	0.0%	0.1%
Italy ^(**)	66	49	48	46	45	40	37	42	12.3%	-3.5%
Moldova	1	1	1	1	1	1	1	1	0.0%	-5.2%
Netherlands	1,236	825	196	133	92	93	72	72	0.0%	-19.6%
Norway	2,762	2,461	2,226	2,165	2,095	2,072	1,959	1,890	-3.5%	-2.9%
Poland	71	61	73	85	85	84	89	89	0.0%	1.7%
Romania	110	103	87	81	77	74	70	70	0.0%	-3.4%
Serbia and Montenegro	8	6	5	5	5	5	4	4	0.0%	-4.7%
Slovakia	5	5	4	4	4	4	4	4	0.0%	-1.8%
Slovenia	1	1	1	1	1	1	1	1	0.0%	0.0%
Spain	3	3	3	3	3	3	3	3	0.0%	0.8%
Turkey	6	6	6	6	6	6	6	6	-1.8%	-0.2%
Ukraine	969	952	952	952	952	952	952	952	0.0%	-0.1%
United Kingdom	520	333	276	260	221	213	189	189	0.0%	-7.5%

^(*) Data source: Eni's estimates on Enerdata *Global Energy Market and CO₂ Data* and other official sources data.

^(**) Data source: Italian Ministry of Environment and Energy Security.

Reserves

Countries^(*)

(billion cubic metres as at 31st December)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia and Central Asia	62,753	67,519	67,655	67,650	66,324	66,325	65,718	65,718	0.0%	0.4%
Russia	46,000	50,205	49,571	49,084	47,759	47,759	47,152	47,152	0.0%	0.2%
Azerbaijan	515	665	1,435	1,917	1,917	1,917	1,917	1,917	0.0%	10.6%
Georgia	1	1	1	1	1	1	1	1	0.0%	-5.2%
Kazakhstan	1,389	1,830	1,830	1,830	1,830	1,830	1,830	1,830	0.0%	2.1%
Kyrgyzstan	1	1	1	1	1	1	1	1	0.0%	-5.2%
Tajikistan	1	1	1	1	1	1	1	1	0.0%	-5.2%
Turkmenistan	13,950	13,950	13,950	13,950	13,950	13,950	13,950	13,950	0.0%	0.0%
Uzbekistan	896	867	867	867	867	867	867	867	0.0%	-0.3%
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Middle East	78,963	79,263	79,549	81,378	81,319	81,963	83,047	83,104	0.1%	0.4%
Bahrain	110	163	210	193	68	68	68	68	0.0%	-3.6%
Iran	33,090	33,500	33,899	33,988	33,988	33,988	33,988	33,988	0.0%	0.2%
Iraq	3,158	3,158	3,729	3,714	3,714	3,714	3,714	3,714	0.0%	1.3%
Israel	215	206	497	547	538	642	709	709	0.0%	9.6%
Jordan	6	6	6	6	6	6	6	6	0.0%	0.0%
Kuwait	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	0.0%	0.0%
Oman	520	705	677	674	673	673	673	720	7.0%	2.5%
Qatar	25,201	24,299	23,846	23,831	23,831	23,831	23,831	23,831	0.0%	-0.4%
Saudi Arabia	8,016	8,588	8,260	8,366	8,437	8,507	9,514	9,514	0.0%	1.3%
Syria	285	285	285	285	285	285	285	285	0.0%	0.0%
United Arab Emirates	6,090	6,090	6,090	7,726	7,730	8,200	8,210	8,220	0.1%	2.3%
Yemen	488	479	266	265	265	265	265	265	0.0%	-4.6%

^(*) Data source: Eni's estimates on Enerdata *Global Energy Market and CO₂ Data* and other official sources data.

Reserves

Countries^(*)

(billion cubic metres as at 31st December)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Africa	14,450	14,587	15,413	15,893	15,844	15,933	15,819	15,884	0.4%	0.7%
Algeria	4,504	4,504	4,504	4,504	4,504	4,504	4,504	4,504	0.0%	0.0%
Angola	275	308	384	343	301	301	129	129	0.0%	-5.7%
Benin	1	0	0	0	1	1	1	1	0.0%	0.0%
Cameroon	155	154	171	170	179	176	173	173	0.0%	0.8%
Chad	1	1	1	1	1	1	1	1	0.0%	0.0%
Congo	127	285	285	284	284	284	284	284	0.0%	6.4%
Côte d'Ivoire	27	22	18	18	18	18	18	18	0.0%	-3.1%
Dem. Rep. Congo	1	1	1	1	1	1	1	1	0.0%	0.0%
Egypt	2,210	2,086	2,221	2,209	2,209	2,209	2,209	2,209	0.0%	0.0%
Equatorial Guinea	82	54	42	39	39	39	39	39	0.0%	-5.6%
Ethiopia	28	25	35	25	25	25	25	25	0.0%	-0.9%
Gabon	28	25	26	26	26	26	26	26	0.0%	-0.6%
Ghana	27	27	56	55	53	51	48	48	0.0%	4.5%
Libya	1,495	1,505	1,505	1,505	1,505	1,505	1,505	1,505	0.0%	0.1%
Madagascar	2	2	2	2	2	2	2	2	0.0%	0.0%
Mauritania	28	28	50	50	50	50	50	50	0.0%	4.6%
Morocco	3	1	1	1	1	1	1	1	0.0%	-8.1%
Mozambique	75	75	186	650	650	650	650	650	0.0%	18.1%
Namibia	62	62	62	62	62	62	62	62	0.0%	0.0%
Nigeria	5,110	5,284	5,675	5,761	5,750	5,848	5,913	5,979	1.1%	1.2%
Senegal	10	2	52	52	52	52	52	52	0.0%	13.5%
Somalia	0	6	6	6	6	6	6	6	0.0%	
South Africa	12	3	2	2	1	1	1	1	0.0%	-17.7%
Sudan	85	25	25	25	25	25	25	25	0.0%	-9.0%
Tanzania	37	37	40	39	35	31	30	30	0.0%	-1.7%
Tunisia	65	65	64	64	64	64	64	64	0.0%	-0.1%

^(*) Data source: Eni's estimates on Enerdata *Global Energy Market and CO₂ Data* and other official sources data.

Reserves

Countries^(*)

(billion cubic metres as at 31st December)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Asia - Pacific	15,451	15,150	13,074	12,527	12,307	12,130	11,640	11,645	0.0%	-2.2%
Afghanistan	100	99	99	98	98	98	98	97	-0.6%	-0.2%
Australia	3,759	3,205	3,193	2,846	2,844	2,844	2,844	2,844	0.0%	-2.1%
Bangladesh	354	385	325	300	284	263	243	182	-25.1%	-5.0%
Brunei	301	258	246	240	233	228	222	222	0.0%	-2.3%
China	2,244	2,791	2,779	2,834	2,922	2,892	2,887	2,985	3.4%	2.2%
India	1,098	1,252	1,340	1,381	1,372	1,372	1,139	1,139	0.0%	0.3%
Indonesia	3,068	2,865	1,408	1,233	1,118	1,028	902	902	0.0%	-9.0%
Japan	37	31	27	26	24	23	23	23	0.0%	-3.5%
Malaysia	2,507	2,842	2,251	2,240	2,130	2,095	2,056	2,056	0.0%	-1.5%
Myanmar	522	282	256	248	240	232	224	224	0.0%	-6.3%
New Zealand	52	56	53	53	55	50	42	38	-8.6%	-2.3%
Pakistan	544	395	472	454	461	487	458	430	-6.0%	-1.8%
Papua New Guinea	263	216	217	205	192	204	194	194	0.0%	-2.3%
Philippines	68	53	38	35	32	30	28	28	0.0%	-6.5%
South Korea	3	3	3	3	3	3	3	3	-3.2%	-0.7%
Taiwan	4	3	3	3	2	2	2	2	0.0%	-5.7%
Thailand	300	207	171	138	112	97	97	97	0.0%	-8.3%
Vietnam	228	207	195	190	186	182	178	178	0.0%	-1.9%
Americas	18,523	18,886	23,439	23,548	22,799	26,962	28,709	28,738	0.1%	3.4%
Argentina	359	350	372	400	376	392	392	423	8.0%	1.3%
Barbados	2	2	1	1	1	1	1	1	0.0%	-5.2%
Bolivia	281	305	201	200	192	183	175	175	0.0%	-3.6%
Brazil	417	429	368	365	338	379	406	406	0.0%	-0.2%
Canada	1,977	2,118	2,094	2,471	2,471	2,471	2,471	2,471	0.0%	1.7%
Chile	8	6	4	8	8	10	10	10	0.0%	1.4%
Colombia	153	123	107	90	83	90	80	80	0.0%	-4.9%
Cuba	14	9	8	8	8	8	8	7	-6.0%	-5.1%
Ecuador	7	11	11	11	10	9	9	9	0.0%	2.0%
Mexico	353	257	188	183	201	211	211	210	-0.6%	-3.9%
Peru	353	399	300	287	274	262	237	237	0.0%	-3.0%
Trinidad and Tobago	381	300	298	302	289	284	279	279	0.0%	-2.4%
United States	8,697	8,879	13,813	13,550	12,958	17,122	18,919	18,919	0.0%	6.2%
Venezuela	5,521	5,698	5,674	5,674	5,590	5,541	5,511	5,511	0.0%	0.0%

^(*) Data source: Eni's estimates on Enerdata *Global Energy Market and CO₂ Data* and other official sources data.

Production

Areas and Aggregates^(*)

(billion cubic metres)

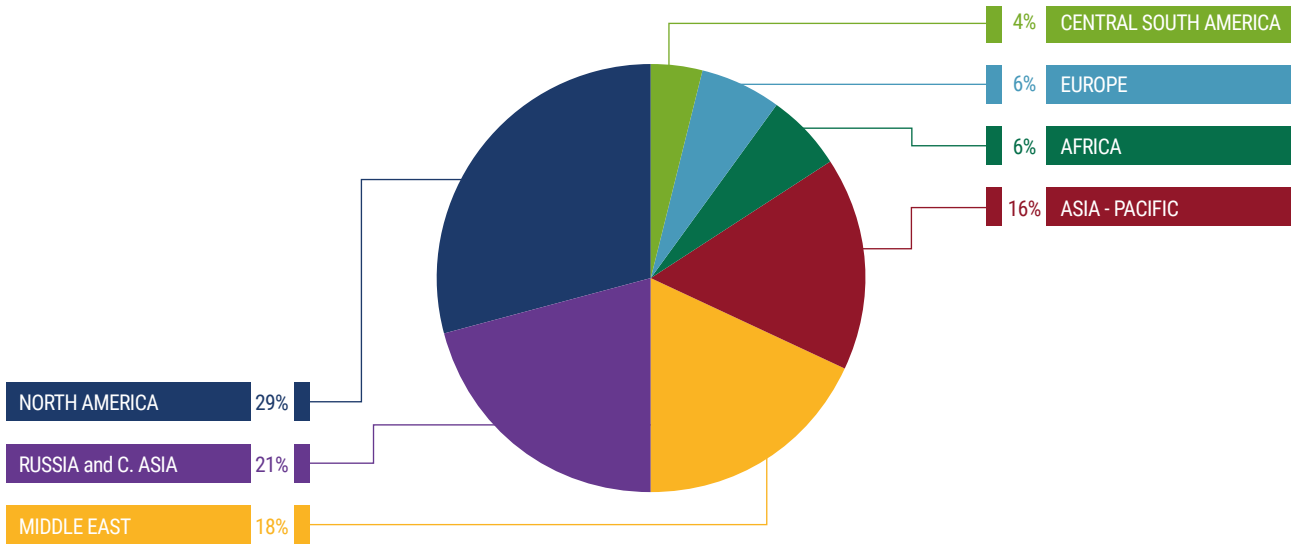
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	314.63	262.87	253.78	237.26	220.86	212.81	222.79	205.47	-7.8%	-3.2%
Russia and Central Asia	772.12	781.46	887.95	883.85	836.32	931.99	857.10	826.15	-3.6%	0.5%
Middle East	458.21	575.08	610.62	647.12	665.04	680.34	696.53	712.01	2.2%	3.4%
Africa	202.74	200.75	245.87	242.52	227.32	252.44	246.58	241.23	-2.2%	1.3%
Asia - Pacific	471.83	524.50	600.17	629.30	631.30	644.69	661.19	671.83	1.6%	2.8%
Americas	935.87	1,115.68	1,210.61	1,316.76	1,287.80	1,319.05	1,389.20	1,427.99	2.8%	3.3%
- North America	729.36	901.34	1,011.11	1,114.96	1,096.46	1,130.59	1,194.07	1,232.02	3.2%	4.1%
- Central South America	206.50	214.35	199.50	201.80	191.34	188.46	195.13	195.97	0.4%	-0.4%
World	3,155.39	3,460.35	3,809.00	3,956.81	3,868.64	4,041.33	4,073.38	4,084.67	0.3%	2.0%
European Union 27	127.35	84.18	68.90	60.64	47.86	44.19	40.49	34.08	-15.8%	-9.6%
MENA	615.48	715.49	786.34	817.94	819.70	864.09	873.78	885.23	1.3%	2.8%
OECD	1,138.75	1,269.44	1,413.10	1,520.58	1,507.93	1,532.25	1,619.41	1,649.30	1.8%	2.9%
NON OECD	2,016.64	2,190.91	2,395.90	2,436.24	2,360.71	2,509.08	2,453.97	2,435.37	-0.8%	1.5%
OPEC	435.74	517.94	564.32	587.64	589.33	615.68	621.76	631.79	1.6%	2.9%
NON OPEC	2,719.65	2,942.41	3,244.68	3,369.17	3,279.31	3,425.66	3,451.62	3,452.88	0.0%	1.9%

^(*) Data source: Eni's calculations. The original data are from IEA (2024) *Extended Balances* and, for Italy, from Italian Ministry of Environment and Energy Security. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

Production

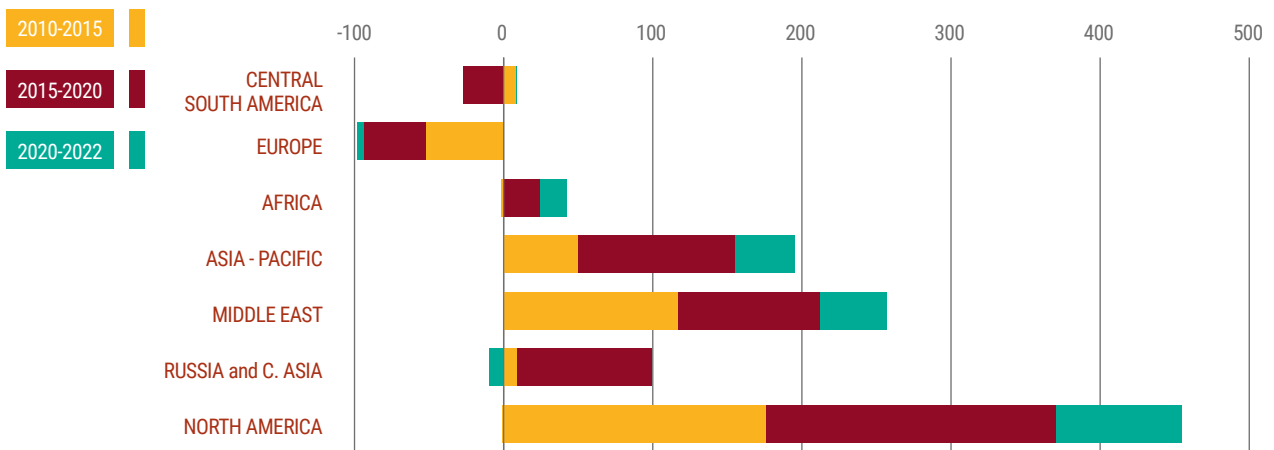
World Natural Gas Production (2023)

4,084.67 billion cubic metres



World Natural Gas Production Growth (2010-2023)

929.28 billion cubic metres



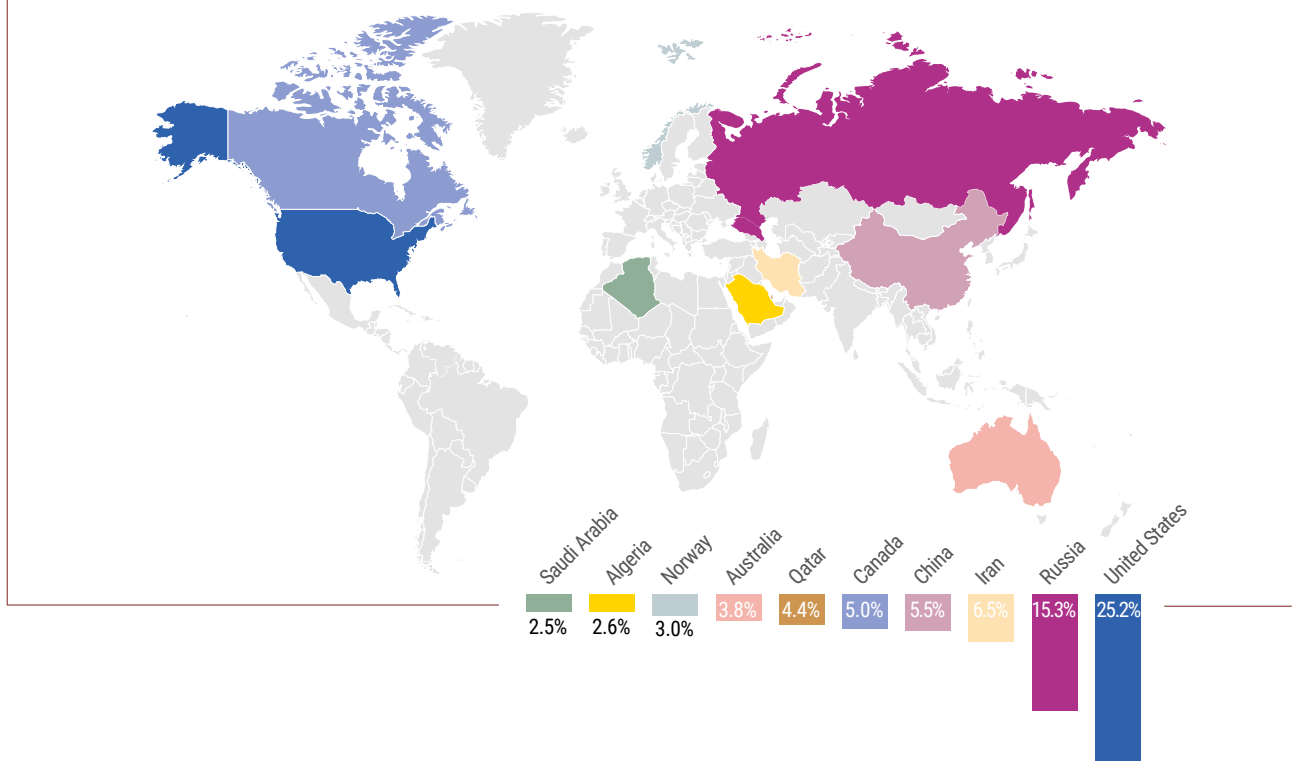
Production

The World Top 10 Producers^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
United States	575.44	740.45	819.16	930.32	916.23	944.57	994.04	1,027.95	3.4%	4.6%
Russia	628.20	609.79	697.65	692.66	654.47	743.27	658.54	624.30	-5.2%	0.0%
Iran	141.56	181.12	210.23	234.98	252.87	256.78	261.91	266.04	1.6%	5.0%
China	93.23	131.01	155.88	171.47	187.35	202.04	214.23	226.15	5.6%	7.1%
Canada	153.92	160.89	191.95	184.64	180.22	186.02	200.03	204.07	2.0%	2.2%
Qatar	124.79	170.76	171.40	173.48	172.58	174.13	175.54	177.94	1.4%	2.8%
Australia	51.73	67.66	117.69	137.22	148.03	142.78	151.47	154.59	2.1%	8.8%
Norway	110.24	119.68	124.17	117.32	114.02	117.24	126.99	120.64	-5.0%	0.7%
Algeria	83.70	83.06	96.10	88.98	83.89	103.72	100.32	104.31	4.0%	1.7%
Saudi Arabia	69.66	82.89	92.00	93.27	93.85	95.86	100.60	101.09	0.5%	2.9%
The World Top 10	2,032.48	2,347.31	2,676.23	2,824.33	2,803.52	2,966.41	2,983.66	3,007.08	0.8%	3.1%
Rest of the World	1,122.91	1,113.03	1,132.77	1,132.49	1,065.12	1,074.92	1,089.72	1,077.59	-1.1%	-0.3%
World	3,155.39	3,460.35	3,809.00	3,956.81	3,868.64	4,041.33	4,073.38	4,084.67	0.3%	2.0%

The World Top 10 (2023)



^(*) Data source: the original data are from IEA (2024) *Extended Balances*. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

Production

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	314.6	262.9	253.8	237.3	220.9	212.8	222.8	205.5	-7.8%	-3.2%
Albania	0.01	0.03	0.04	0.07	0.05	0.05	0.04	0.04	-1.6%	9.5%
Austria	1.62	1.21	1.00	0.90	0.74	0.66	0.62	0.54	-13.1%	-8.1%
Belarus	0.16	0.17	0.15	0.15	0.15	0.15	0.15	0.15	0.0%	-0.4%
Bulgaria	0.07	0.10	0.03	0.04	0.06	0.03	0.02	0.01	-45.2%	-14.2%
Croatia	2.58	1.71	1.18	0.99	0.82	0.73	0.73	0.71	-2.6%	-9.4%
Czech Republic	0.23	0.24	0.21	0.20	0.19	0.19	0.21	0.15	-27.7%	-3.1%
Denmark	8.54	4.82	4.31	3.22	1.39	1.47	1.45	1.40	-3.6%	-13.0%
France	0.75	0.02	0.01	0.02	0.02	0.02	0.02	0.02	-11.0%	-24.8%
Germany	12.92	7.37	5.48	5.09	4.69	4.50	4.20	3.59	-14.6%	-9.4%
Greece	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00		-9.6%
Hungary	2.60	1.59	1.71	1.54	1.54	1.37	1.37	1.44	4.8%	-4.4%
Ireland	0.27	0.13	3.20	2.49	1.92	1.47	1.35	1.08	-19.7%	11.2%
Italy	8.01	6.45	5.18	4.62	3.82	3.18	2.96	2.60	-12.2%	-8.3%
Netherlands	75.27	45.88	32.49	27.75	20.09	18.02	14.98	9.85	-34.2%	-14.5%
Norway	110.24	119.68	124.17	117.32	114.02	117.24	126.99	120.64	-5.0%	0.7%
Poland	4.29	4.28	4.03	3.99	3.95	3.88	3.80	3.67	-3.5%	-1.2%
Romania	10.02	10.22	9.86	9.53	8.51	8.55	8.66	8.91	2.9%	-0.9%
Serbia	0.36	0.53	0.42	0.41	0.38	0.34	0.30	0.29	-4.6%	-1.6%
Slovakia	0.10	0.09	0.09	0.12	0.06	0.06	0.05	0.05	-9.8%	-5.6%
Slovenia	0.01	0.00	0.02	0.01	0.01	0.01	0.00	0.00	3.5%	-3.4%
Spain	0.05	0.06	0.09	0.14	0.05	0.04	0.03	0.03	-20.4%	-4.8%
Türkiye	0.65	0.36	0.41	0.45	0.42	0.38	0.36	0.78	113.4%	1.3%
Ukraine	17.95	17.26	19.17	18.98	18.44	17.70	16.36	15.05	-8.0%	-1.3%
United Kingdom	57.90	40.66	40.52	39.26	39.55	32.76	38.09	34.45	-9.6%	-3.9%

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Production

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia and Central Asia	772.12	781.46	887.95	883.85	836.32	931.99	857.10	826.15	-3.6%	0.5%
Russia	628.20	609.79	697.65	692.66	654.47	743.27	658.54	624.30	-5.2%	0.0%
Azerbaijan	16.27	18.78	18.76	23.94	25.86	31.81	34.13	35.56	4.2%	6.2%
Georgia	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02	9.3%	7.4%
Kazakhstan	28.62	27.14	39.18	33.50	30.61	26.70	26.96	28.53	5.8%	0.0%
Kyrgyzstan	0.02	0.03	0.02	0.02	0.02	0.02	0.03	0.02	-8.1%	0.8%
Tajikistan	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.2%	-23.3%
Turkmenistan	42.91	79.28	79.98	82.12	78.34	79.35	88.00	93.05	5.7%	6.1%
Uzbekistan	56.07	46.41	52.35	51.61	47.01	50.82	49.43	44.67	-9.6%	-1.7%
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Middle East	458.21	575.08	610.62	647.12	665.04	680.34	696.53	712.01	2.2%	3.4%
Bahrain	12.29	14.15	14.18	15.66	15.76	16.04	16.21	17.15	5.8%	2.6%
Iran	141.56	181.12	210.23	234.98	252.87	256.78	261.91	266.04	1.6%	5.0%
Iraq	4.87	6.60	10.57	10.96	7.00	9.11	9.37	10.01	6.9%	5.7%
Israel	3.11	6.90	8.39	8.41	14.67	18.33	20.85	23.43	12.4%	16.8%
Jordan	0.16	0.12	0.09	0.10	0.15	0.18	0.16	0.16	0.0%	-0.1%
Kuwait	11.14	16.06	17.01	16.48	15.58	15.01	15.89	17.79	12.0%	3.7%
Oman	27.64	32.89	38.09	38.53	37.78	40.49	42.37	43.70	3.1%	3.6%
Qatar	124.79	170.76	171.40	173.48	172.58	174.13	175.54	177.94	1.4%	2.8%
Saudi Arabia	69.66	82.89	92.00	93.27	93.85	95.86	100.60	101.09	0.5%	2.9%
Syria	8.43	4.05	3.47	3.33	2.92	3.11	2.54	2.60	2.1%	-8.7%
United Arab Emirates	48.31	56.69	45.19	51.90	51.87	51.29	51.07	52.08	2.0%	0.6%
Yemen	6.26	2.86	0.02	0.02	0.02	0.02	0.02	0.02	0.0%	-35.7%

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Production

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Africa	202.72	200.75	245.87	242.52	227.32	252.44	246.58	241.23	-2.2%	1.3%
Algeria	83.70	83.06	96.10	88.98	83.89	103.72	100.32	104.31	4.0%	1.7%
Angola	0.70	0.73	6.17	6.46	7.08	5.65	5.26	5.71	8.5%	17.5%
Cameroon	0.30	0.48	1.52	2.24	2.26	2.21	2.28	2.49	9.3%	17.6%
Congo	0.10	0.50	0.68	0.96	1.00	1.03	1.31	1.39	6.3%	22.7%
Côte d'Ivoire	1.54	1.96	2.03	2.16	2.22	2.35	2.53	2.34	-7.4%	3.3%
Egypt	53.97	36.39	59.58	64.73	59.91	67.54	64.28	56.90	-11.5%	0.4%
Equatorial Guinea	6.21	7.07	7.36	6.40	5.72	6.69	7.70	6.75	-12.4%	0.6%
Gabon	0.31	0.52	0.50	0.44	0.47	0.43	0.44	0.44	0.0%	2.6%
Ghana	0.00	0.70	1.09	1.55	2.51	2.84	3.11	3.03	-2.6%	
Libya	15.97	17.95	17.58	14.81	8.51	9.80	10.13	9.74	-3.8%	-3.7%
Morocco	0.05	0.08	0.08	0.09	0.09	0.10	0.07	0.05	-33.1%	-1.0%
Mozambique	3.12	4.74	4.80	4.76	4.63	4.69	6.73	7.33	8.9%	6.8%
Nigeria	30.91	41.50	43.42	43.87	44.14	41.01	37.81	36.18	-4.3%	1.2%
Senegal	0.02	0.02	0.01	0.02	0.02	0.01	0.00	0.00	0.0%	-11.6%
South Africa	1.47	1.12	0.98	1.12	1.07	0.02	0.01	0.01	-10.2%	-31.6%
Tanzania	0.75	1.00	1.60	1.72	1.54	1.75	2.13	2.33	9.3%	9.1%
Tunisia	3.58	2.93	2.38	2.20	2.25	2.58	2.46	2.21	-9.9%	-3.6%
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Asia - Pacific	471.83	524.50	600.17	629.30	631.30	644.69	661.19	671.83	1.6%	2.8%
Australia	51.73	67.66	117.69	137.22	148.03	142.78	151.47	154.59	2.1%	8.8%
Bangladesh	19.28	24.88	27.12	26.94	24.73	25.02	23.68	22.19	-6.3%	1.1%
Brunei	11.94	10.95	12.39	10.67	10.36	9.46	8.69	8.18	-5.8%	-2.9%
China	93.23	131.01	155.88	171.47	187.35	202.04	214.23	226.15	5.6%	7.1%
India	49.97	30.35	31.25	29.50	27.09	32.30	32.82	34.81	6.1%	-2.7%
Indonesia	87.00	76.16	72.80	67.58	59.54	59.29	57.72	59.01	2.2%	-2.9%
Japan	3.73	2.76	2.62	2.43	2.26	2.23	2.08	2.04	-2.1%	-4.6%
Malaysia	59.32	67.27	68.80	71.46	64.51	70.40	74.96	73.82	-1.5%	1.7%
Myanmar	11.83	17.18	17.08	17.49	16.93	17.35	15.19	13.66	-10.1%	1.1%
New Zealand	4.48	4.70	4.31	4.64	4.53	3.96	3.62	3.66	1.3%	-1.5%
Pakistan	31.38	28.21	28.37	26.01	27.62	24.06	23.74	23.16	-2.4%	-2.3%
Philippines	3.55	3.34	4.22	4.25	3.85	3.30	3.06	2.40	-21.8%	-3.0%
South Korea	0.56	0.20	0.32	0.27	0.19	0.06	0.00	0.00		-100.0%
Taiwan	0.31	0.39	0.20	0.17	0.11	0.11	0.10	0.09	-4.2%	-8.6%
Thailand	28.76	32.93	30.95	31.67	27.64	27.03	23.67	22.56	-4.7%	-1.8%
Vietnam	9.45	9.19	9.61	9.93	8.61	7.34	8.87	8.21	-7.5%	-1.1%
Others Asia Pacific	5.29	17.32	16.55	17.58	17.95	17.96	17.29	17.29	0.0%	9.5%

^(*) Data source: the original data are from IEA (2024) *Extended Balances*. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

Production

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Americas	935.87	1,115.68	1,210.61	1,316.76	1,287.80	1,319.05	1,389.20	1,427.99	2.8%	3.3%
Argentina	40.25	38.86	41.58	43.33	39.74	39.54	43.07	42.72	-0.8%	0.5%
Bolivia	14.30	21.02	18.11	15.79	15.22	15.67	14.23	12.37	-13.1%	-1.1%
Brazil	15.34	24.42	25.79	27.00	25.12	25.27	23.57	23.80	1.0%	3.4%
Canada	153.92	160.89	191.95	184.64	180.22	186.02	200.03	204.07	2.0%	2.2%
Chile	1.80	0.98	1.22	1.49	1.14	1.17	1.27	1.27	-0.4%	-2.7%
Colombia	10.96	12.07	11.90	12.16	11.83	11.02	10.89	10.57	-3.0%	-0.3%
Cuba	0.99	1.15	0.90	0.88	0.83	0.80	0.78	0.78	0.0%	-1.8%
Ecuador	0.49	0.65	0.55	0.48	0.41	0.43	0.38	0.38	0.0%	-1.9%
Mexico	49.52	39.97	32.62	31.89	36.35	36.85	38.64	41.42	7.2%	-1.4%
Peru	8.87	14.76	14.29	15.08	13.54	12.79	15.41	16.48	7.0%	4.9%
Trinidad and Tobago	41.67	37.20	35.00	35.55	29.80	25.64	26.92	25.90	-3.8%	-3.6%
United States	575.44	740.45	819.16	930.32	916.23	944.57	994.04	1,027.95	3.4%	4.6%
Venezuela	22.28	23.24	17.52	18.12	17.34	19.28	19.94	20.26	1.6%	-0.7%
Others Americas	0.02	0.02	0.03	0.02	0.01	0.01	0.01	0.01	0.0%	-5.4%

^(*) Data source: the original data are from IEA (2024) *Extended Balances*. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

Reserves/Production Ratio

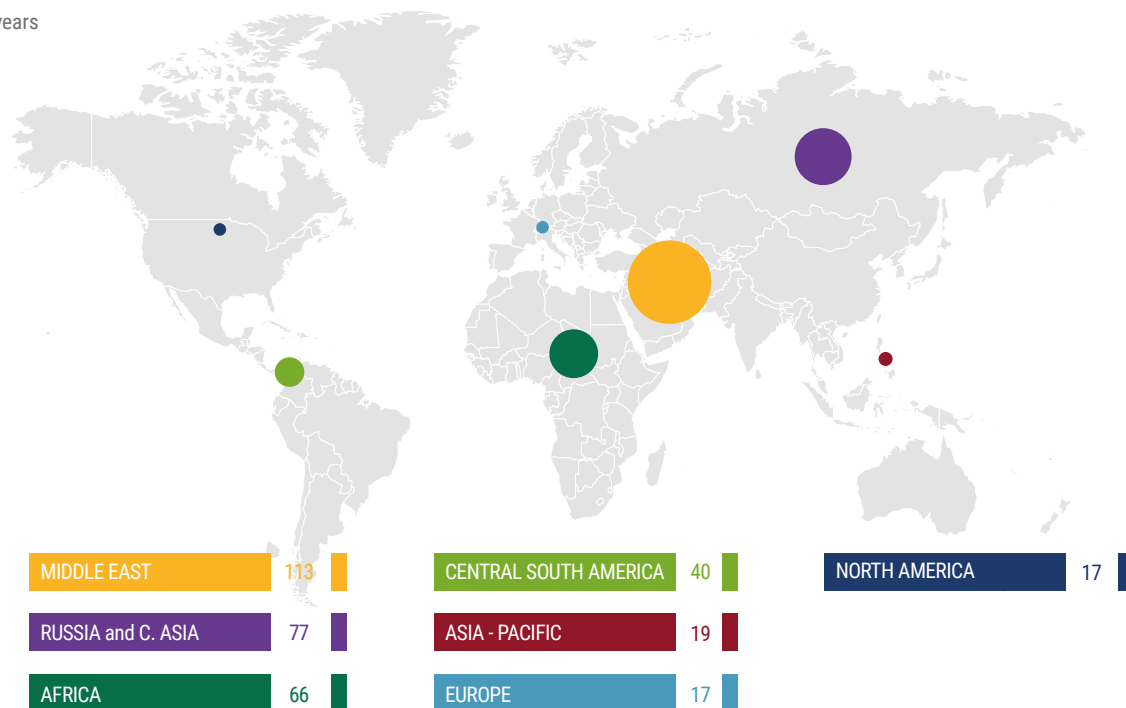
Areas and Aggregates^(*)

(years)

	2010	2015	2018	2019	2020	2021	2022	2023
Europe	19	19	16	16	17	17	16	17
Russia and Central Asia	81	86	76	77	79	71	77	80
Middle East	172	138	130	126	122	120	119	117
Africa	71	73	63	66	70	63	64	66
Asia - Pacific	33	29	22	20	19	19	18	17
Americas	20	17	19	18	18	20	21	20
- North America	15	12	16	14	14	17	18	17
- Central South America	38	37	38	37	39	39	38	37
World	62	58	53	52	52	51	51	51
European Union 27	14	15	8	9	10	10	10	12
MENA	142	122	112	110	109	104	105	103
OECD	18	15	16	15	15	17	17	17
NON OECD	87	83	75	75	76	72	74	74
OPEC	146	126	117	116	115	112	112	110
NON OPEC	49	46	42	41	41	40	40	40

Reserves/Production Ratio (2023)

World: 51 years



^(*) Data source: Eni's calculations on Enerdata *Global Energy & CO₂ Data*, IEA (2024) *Extended Balances* and other official data sources. All rights reserved.

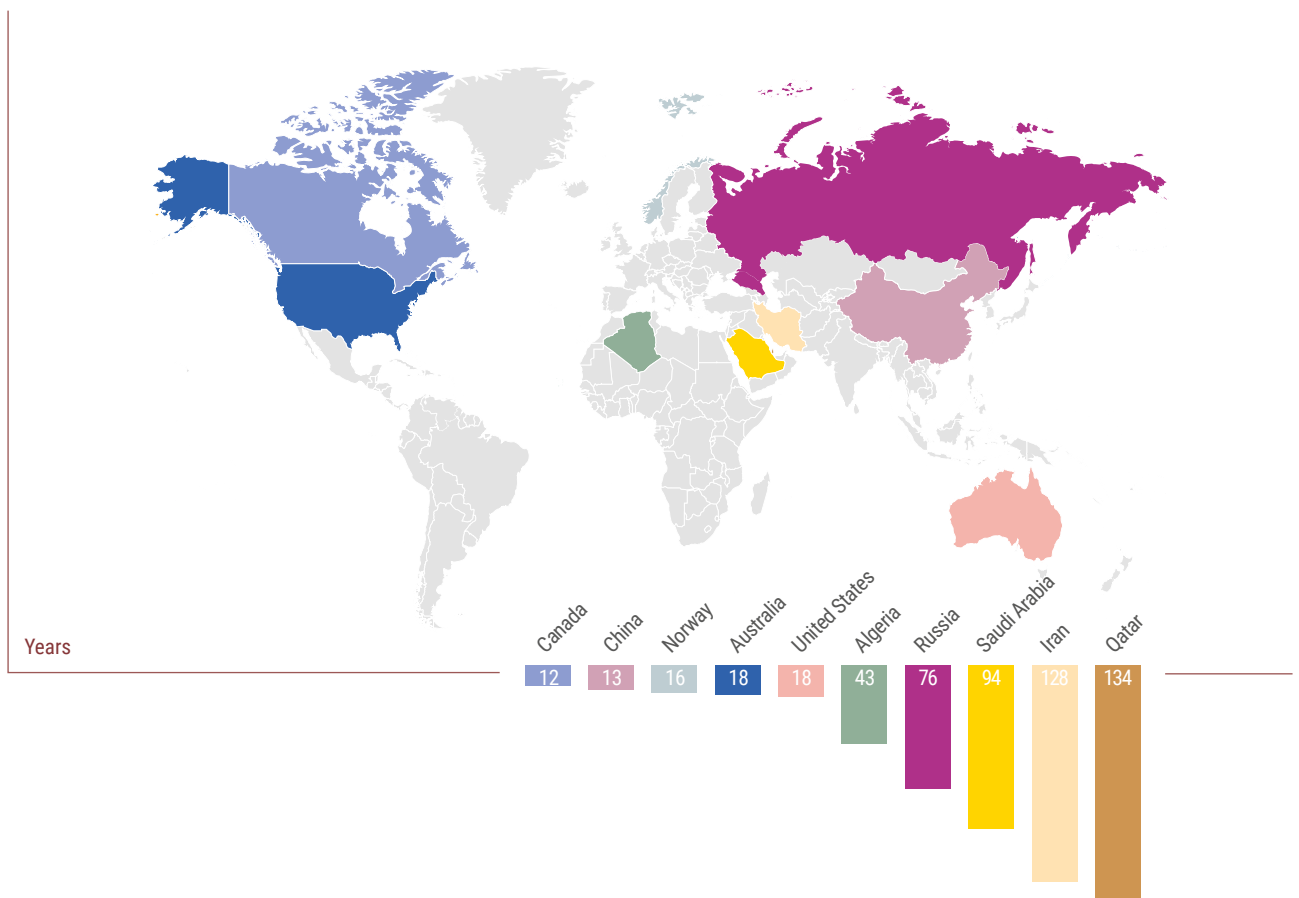
Reserves/Production Ratio

The World Top 10 Producers Ranked by Reserves/Production Ratio^(*)

(years)

	2010	2015	2018	2019	2020	2021	2022	2023
Qatar	202	142	139	137	138	137	136	134
Iran	234	185	161	145	134	132	130	128
Saudi Arabia	115	104	90	90	90	89	95	94
Russia	73	82	71	71	73	64	72	76
Algeria	54	54	47	51	54	43	45	43
United States	15	12	17	15	14	18	19	18
Australia	73	47	27	21	19	20	19	18
Norway	25	21	18	18	18	18	15	16
China	24	21	18	17	16	14	13	13
Canada	13	13	11	13	14	13	12	12

The World Top 10 (2023)



^(*) Data source: Eni's calculations on Enerdata *Global Energy & CO₂ Data*, IEA (2024) Extended Balances and other official data sources. All rights reserved.

Reserves/Production Ratio

Countries^(*)

(years)

	2010	2015	2018	2019	2020	2021	2022	2023
Europe	19	19	16	16	17	17	16	17
Albania	7	3	27	15	21	19	23	23
Austria	9	7	7	7	7	8	9	8
Belarus	6	3	3	3	3	3	3	3
Bulgaria	73	45	127	112	76	137	246	438
Croatia	10	7	5	6	6	7	6	7
Czech Republic	13	14	16	17	17	17	15	21
Denmark	12	17	16	24	53	50	49	47
France	7	391	965	521	480	374	420	466
Germany	7	6	5	5	5	4	5	6
Greece	113	183	68	90	129	212		419
Hungary	5	5	4	3	3	4	4	4
Ireland	92	229	9	11	14	18	19	23
Italy ^(**)	8	8	9	10	12	13	13	16
Netherlands	16	18	6	5	5	5	5	7
Norway	25	21	18	18	18	18	15	16
Poland	17	14	18	21	21	22	23	24
Romania	11	10	9	8	9	9	8	8
Serbia	23	12	12	12	13	14	15	15
Slovakia	51	51	49	36	66	72	76	84
Slovenia	143	333	63	146	188	198	233	225
Spain	56	55	38	24	66	81	93	117
Türkiye	9	17	15	13	14	16	16	8
Ukraine	54	55	50	50	52	54	58	63
United Kingdom	9	8	7	7	6	7	5	5

^(*) Data source: Eni's calculations on Enerdata *Global Energy & CO₂ Data*, IEA (2024) *Extended Balances* and other official data sources. All rights reserved.

^(**) The original data are from Italian Ministry of Environment and Energy Security

Reserves/Production Ratio

Countries^(*)

(years)

	2010	2015	2018	2019	2020	2021	2022	2023
Russia and Central Asia	81	86	76	77	79	71	77	80
Russia	73	82	71	71	73	64	72	76
Azerbaijan	32	35	77	80	74	60	56	54
Georgia	159	46	50	52	56	31	34	31
Kazakhstan	49	67	47	55	60	69	68	64
Kyrgyzstan	45	17	20	23	25	25	19	20
Tajikistan	46	128	826	826	823	722	722	723
Turkmenistan	325	176	174	170	178	176	159	150
Uzbekistan	16	19	17	17	18	17	18	19
	2010	2015	2018	2019	2020	2021	2022	2023
Middle East	172	138	130	126	122	120	119	117
Bahrain	9	12	15	12	4	4	4	4
Iran	234	185	161	145	134	132	130	128
Iraq	648	478	353	339	530	408	396	371
Israel	69	30	59	65	37	35	34	30
Jordan	38	51	66	62	41	34	38	38
Kuwait	160	111	105	108	115	119	112	100
Oman	19	21	18	17	18	17	16	16
Qatar	202	142	139	137	138	137	136	134
Saudi Arabia	115	104	90	90	90	89	95	94
Syria	34	70	82	86	98	92	112	110
United Arab Emirates	126	107	135	149	149	160	161	158
Yemen	78	168	13,270	13,221	13,221	13,221	13,221	13,224

^(*) Data source: Eni's calculations on Enerdata *Global Energy & CO₂ Data*, IEA (2024) *Extended Balances* and other official data sources. All rights reserved.

Reserves/Production Ratio

Countries^(*)

(years)

	2010	2015	2018	2019	2020	2021	2022	2023
Africa	71	73	63	66	70	63	64	66
Algeria	54	54	47	51	54	43	45	43
Angola	391	421	62	53	43	53	25	23
Cameroon	514	321	113	76	79	80	76	69
Congo	1,295	571	417	296	284	275	216	204
Côte d'Ivoire	18	11	9	8	8	8	7	8
Egypt	41	57	37	34	37	33	34	39
Equatorial Guinea	13	8	6	6	7	6	5	6
Gabon	90	48	52	59	55	61	60	60
Ghana		39	51	35	21	18	15	16
Libya	94	84	86	102	177	154	149	155
Morocco	57	13	13	11	12	10	15	22
Mozambique	24	16	39	137	140	139	97	89
Nigeria	165	127	131	131	130	143	156	165
Senegal	402	85	4,199	2,958	3,203	7,360	10,441	10,445
South Africa	8	2	2	2	1	58	83	92
Tanzania	49	37	25	23	23	18	14	13
Tunisia	18	22	27	29	28	25	26	29
	2010	2015	2018	2019	2020	2021	2022	2023
Asia - Pacific	33	29	22	20	19	19	18	17
Australia	73	47	27	21	19	20	19	18
Bangladesh	18	15	12	11	11	11	10	8
Brunei	25	24	20	23	23	24	26	27
China	24	21	18	17	16	14	13	13
India	22	41	43	47	51	42	35	33
Indonesia	35	38	19	18	19	17	16	15
Japan	10	11	10	11	11	10	11	11
Malaysia	42	42	33	31	33	30	27	28
Myanmar	44	16	15	14	14	13	15	16
New Zealand	12	12	12	11	12	13	12	10
Pakistan	17	14	17	17	17	20	19	19
Philippines	19	16	9	8	8	9	9	12
South Korea	5	15	9	11	15	49		
Taiwan	12	7	13	15	15	15	17	18
Thailand	10	6	6	4	4	4	4	4
Vietnam	24	23	20	19	22	25	20	22

^(*) Data source: Eni's calculations on Enerdata *Global Energy & CO₂ Data*, IEA (2024) *Extended Balances* and other official data sources. All rights reserved.

Reserves/Production Ratio

Countries^(*)

(years)

	2010	2015	2018	2019	2020	2021	2022	2023
Americas	20	17	19	18	18	20	21	20
Argentina	9	9	9	9	9	10	9	10
Bolivia	20	15	11	13	13	12	12	14
Brazil	27	18	14	14	13	15	17	17
Canada	13	13	11	13	14	13	12	12
Chile	5	6	4	5	7	9	8	8
Colombia	14	10	9	7	7	8	7	8
Cuba	14	8	9	9	9	9	10	9
Ecuador	14	17	20	22	25	21	24	24
Mexico	7	6	6	6	6	6	5	5
Peru	40	27	21	19	20	20	15	14
Trinidad and Tobago	9	8	9	8	10	11	10	11
United States	15	12	17	15	14	18	19	18
Venezuela	248	245	324	313	322	287	276	272

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Consumption

Areas and Aggregates^(*)

(billion cubic metres)

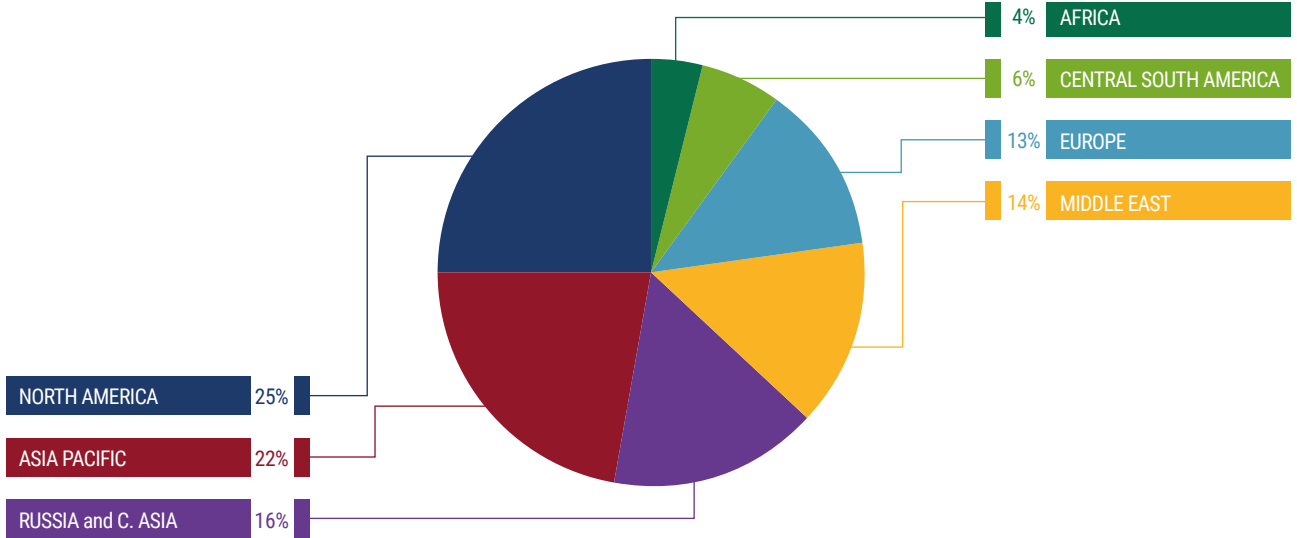
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	658.52	526.22	569.42	572.13	556.20	586.41	513.84	476.33	-7.3%	-2.5%
Russia and Central Asia	549.35	507.41	587.53	547.92	550.55	640.95	621.93	625.31	0.5%	1.0%
Middle East	361.50	454.99	484.64	516.03	538.08	548.74	558.81	578.84	3.6%	3.7%
Africa	102.93	131.74	159.95	158.49	148.21	162.67	164.96	165.61	0.4%	3.7%
Asia - Pacific	564.71	685.95	797.80	820.33	835.12	880.27	868.58	896.26	3.2%	3.6%
Americas	945.52	1,096.33	1,184.67	1,240.54	1,197.16	1,220.81	1,272.87	1,261.49	-0.9%	2.2%
- North America	738.16	850.30	942.88	1,000.04	966.91	975.61	1,039.78	1,024.08	-1.5%	2.6%
- Central South America	207.37	246.02	241.79	240.50	230.25	245.20	233.09	237.41	1.9%	1.0%
World	3,182.53	3,402.63	3,784.00	3,855.44	3,825.32	4,039.86	4,001.00	4,003.83	0.1%	1.8%
European Union 27	421.92	344.29	378.08	391.83	377.68	391.31	346.89	316.39	-8.8%	-2.2%
MENA	443.55	556.14	610.80	639.41	650.43	674.55	685.68	706.49	3.0%	3.6%
OECD	1,551.51	1,611.88	1,761.02	1,818.68	1,777.25	1,814.90	1,810.68	1,760.84	-2.8%	1.0%
NON OECD	1,631.02	1,790.75	2,022.98	2,036.75	2,048.07	2,224.96	2,190.32	2,242.99	2.4%	2.5%
OPEC	359.09	454.44	481.10	509.69	523.15	539.60	554.03	568.74	2.7%	3.6%
NON OPEC	2,823.44	2,948.19	3,302.90	3,345.75	3,302.17	3,500.26	3,446.97	3,435.10	-0.3%	1.5%

^(*) Data source: Eni's calculations. The original data are from IEA (2024) *Extended Balances* and, for Italy, from Italian Ministry of Environment and Energy Security. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

Consumption

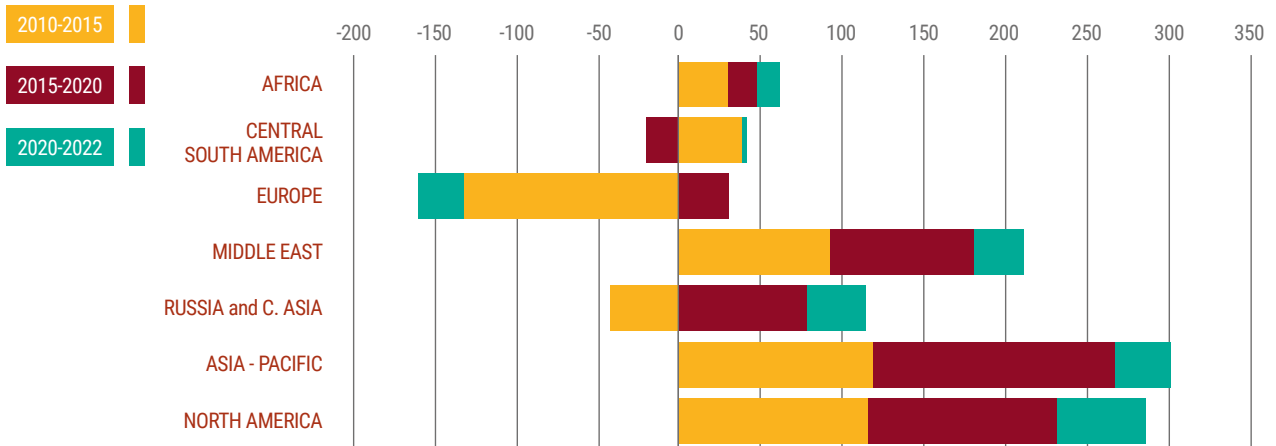
World Natural Gas Consumption (2023)

4,003.83 billion cubic metres



World Natural Gas Consumption Growth (2010-2023)

821.30 billion cubic metres



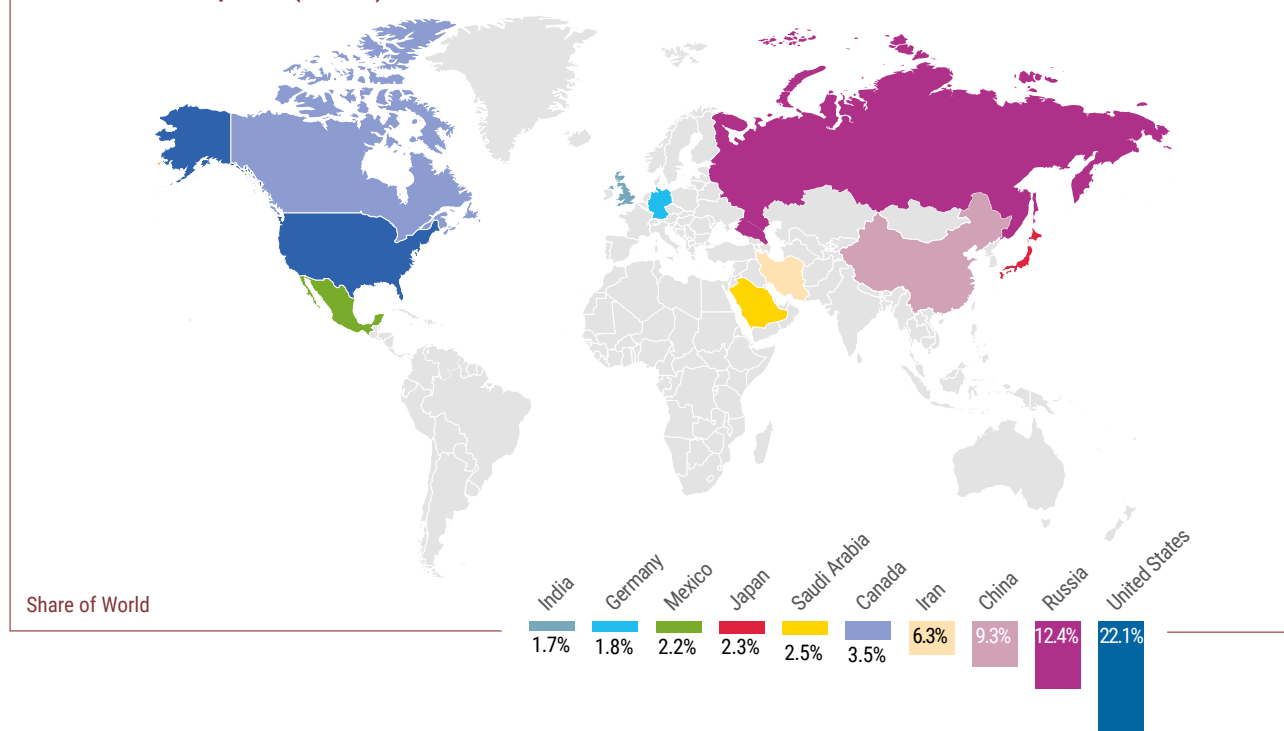
Consumption

The World Top 10 Consumers^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
United States	646.72	751.89	807.08	863.29	836.24	840.96	897.00	883.02	-1.6%	2.4%
Russia	446.06	423.63	490.01	444.41	443.71	516.52	492.31	498.16	1.2%	0.9%
China	103.95	184.44	265.92	288.63	308.37	347.82	345.83	370.71	7.2%	10.3%
Iran	142.06	180.63	198.63	218.18	236.48	240.30	244.26	252.38	3.3%	4.5%
Canada	91.44	98.41	135.80	136.75	130.67	134.65	142.78	141.06	-1.2%	3.4%
Saudi Arabia	69.66	82.89	92.00	93.27	93.85	95.86	100.60	101.09	0.5%	2.9%
Japan	100.02	116.83	111.40	106.99	107.18	100.86	96.31	92.36	-4.1%	-0.6%
Mexico	63.08	75.20	84.12	79.84	81.80	84.28	81.19	87.43	7.7%	2.5%
Germany	88.28	75.77	85.54	87.95	86.76	89.76	77.65	73.92	-4.8%	-1.4%
India	63.27	52.48	60.95	62.98	61.45	64.42	60.05	67.71	12.8%	0.5%
The World Top 10	1,814.53	2,042.18	2,331.44	2,382.30	2,386.51	2,515.43	2,537.96	2,567.86	1.2%	2.7%
Rest of the World	1,368.00	1,360.45	1,452.56	1,473.14	1,438.80	1,524.43	1,463.04	1,435.97	-1.8%	0.4%
World	3,182.53	3,402.63	3,784.00	3,855.44	3,825.32	4,039.86	4,001.00	4,003.83	0.1%	1.8%

The World Top 10 (2023)



^(*) Data source: the original data are from IEA (2024) *Extended Balances*. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

Consumption

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	658.52	526.22	569.42	572.13	556.20	586.41	513.84	476.33	-7.3%	-2.5%
Albania	0.01	0.03	0.04	0.07	0.05	0.05	0.04	0.04	-1.6%	9.5%
Austria	9.45	8.03	8.56	8.93	8.51	8.99	8.01	6.84	-14.6%	-2.5%
Belarus	21.06	18.41	19.87	18.99	17.54	17.93	17.24	15.68	-9.0%	-2.2%
Belgium	19.48	16.22	17.45	17.67	17.59	17.66	15.02	14.15	-5.8%	-2.4%
Bosnia Herzegovina	0.23	0.21	0.23	0.22	0.20	0.24	0.23	0.23	-0.2%	0.1%
Bulgaria	2.68	3.02	3.04	2.84	2.93	3.30	2.70	2.53	-6.6%	-0.4%
Croatia	3.06	2.42	2.67	2.80	2.94	2.83	2.48	2.67	7.5%	-1.1%
Czech Republic	9.38	7.54	7.93	8.32	8.46	9.07	7.38	6.69	-9.2%	-2.6%
Denmark	5.14	3.32	3.11	2.94	2.46	2.25	1.67	1.55	-7.2%	-8.8%
Estonia	0.65	0.45	0.48	0.44	0.40	0.46	0.34	0.31	-8.2%	-5.5%
Finland	4.46	2.60	2.53	2.47	2.46	2.47	1.27	1.65	29.2%	-7.4%
France	49.56	40.75	42.84	43.66	40.58	43.04	38.64	34.06	-11.9%	-2.8%
Germany	88.28	75.77	85.54	87.95	86.76	89.76	77.65	73.92	-4.8%	-1.4%
Greece	3.76	3.11	4.79	5.22	5.73	6.34	5.12	4.62	-9.8%	1.6%
Hungary	11.42	8.71	9.62	9.84	10.19	10.81	9.19	8.21	-10.6%	-2.5%
Ireland	5.47	4.37	5.22	5.30	5.30	5.09	5.19	4.81	-7.2%	-1.0%
Italy	79.15	64.32	69.70	73.22	65.74	69.73	70.16	58.55	-16.6%	-2.3%
Latvia	1.70	1.28	1.36	1.28	1.06	1.12	0.80	0.80	-0.8%	-5.7%
Lithuania	2.90	2.40	2.07	2.17	2.29	2.18	1.49	1.45	-2.6%	-5.2%
Luxembourg	1.39	0.89	0.80	0.80	0.72	0.78	0.61	0.57	-6.3%	-6.6%
Malta	0.00	0.00	0.34	0.36	0.37	0.37	0.38	0.39	4.5%	
Moldova	2.69	2.48	2.49	2.55	2.54	2.76	2.09	2.12	1.6%	-1.8%
Netherlands	46.60	33.30	35.75	37.28	36.57	35.07	27.17	25.51	-6.1%	-4.5%
North Macedonia	0.11	0.13	0.24	0.28	0.33	0.41	0.28	0.34	21.5%	9.0%
Norway	7.42	7.21	6.41	5.79	5.28	5.83	4.64	5.09	9.5%	-2.9%
Poland	14.89	16.02	18.75	18.87	19.90	21.20	17.50	18.32	4.7%	1.6%
Portugal	5.22	4.71	5.84	6.14	6.03	5.76	5.58	4.42	-20.8%	-1.3%
Romania	12.55	10.37	11.45	10.67	11.15	11.45	9.61	9.20	-4.3%	-2.4%
Serbia	2.16	2.04	2.48	2.32	2.31	2.78	2.69	2.69	-0.1%	1.7%
Slovakia	5.82	4.51	4.74	4.75	4.75	5.29	4.41	4.20	-4.8%	-2.5%
Slovenia	1.00	0.77	0.84	0.86	0.86	0.90	0.79	0.77	-3.5%	-2.0%
Spain	36.20	28.54	31.50	35.93	32.48	34.21	32.96	29.34	-11.0%	-1.6%
Sweden	1.70	0.84	1.16	1.10	1.46	1.17	0.75	0.86	14.1%	-5.2%
Switzerland	3.50	3.32	3.32	3.41	3.31	3.60	2.96	2.73	-8.0%	-1.9%
Türkiye	36.51	45.80	47.70	43.08	46.19	57.12	48.88	48.16	-1.5%	2.2%
Ukraine	64.26	30.33	29.93	27.19	27.73	27.80	17.90	19.16	7.0%	-8.9%
United Kingdom	98.64	71.97	78.63	76.40	73.02	76.56	69.98	63.70	-9.0%	-3.3%

^(*) Data source: Eni's calculations. The original data are from IEA (2024) *Extended Balances* and, for Italy, from Italian Ministry for Environment and Energy Security. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

Consumption

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia and Central Asia	549.35	507.41	587.53	547.92	550.55	640.95	621.93	625.31	0.5%	1.0%
Russia	446.06	423.63	490.01	444.41	443.71	516.52	492.31	498.16	1.2%	0.9%
Armenia	1.50	2.25	2.38	2.48	2.49	2.72	2.82	2.62	-7.3%	4.4%
Azerbaijan	9.13	11.15	10.82	12.26	12.37	12.82	13.62	14.53	6.7%	3.6%
Georgia	1.18	2.41	2.38	2.70	2.70	2.80	3.36	3.03	-9.8%	7.5%
Kazakhstan	25.95	12.34	21.66	23.40	23.46	19.73	21.01	21.00	-0.1%	-1.6%
Kyrgyzstan	0.29	0.27	0.33	0.31	0.33	0.39	0.43	0.43	-0.6%	3.1%
Tajikistan	0.19	0.00	0.06	0.23	0.23	0.24	0.19	0.19	0.6%	0.3%
Turkmenistan	20.17	20.07	20.07	20.91	21.76	36.73	41.71	42.62	2.2%	5.9%
Uzbekistan	44.88	35.30	39.84	41.22	43.50	49.01	46.48	42.72	-8.1%	-0.4%
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Middle East	361.50	454.99	484.64	516.03	538.08	548.74	558.81	578.84	3.6%	3.7%
Bahrain	12.29	14.15	14.18	15.66	15.76	16.04	16.21	17.15	5.8%	2.6%
Iran	142.06	180.63	198.63	218.18	236.48	240.30	244.26	252.38	3.3%	4.5%
Iraq	4.87	6.60	14.62	16.77	17.84	18.36	18.33	19.62	7.1%	11.3%
Israel	5.12	7.01	8.98	8.95	11.27	11.73	12.14	12.47	2.7%	7.1%
Jordan	2.66	2.26	4.00	3.92	3.74	3.63	4.08	3.95	-3.3%	3.1%
Kuwait	13.79	19.86	21.74	21.42	21.42	22.32	24.04	26.38	9.7%	5.1%
Lebanon	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00		-100.0%
Oman	17.33	24.52	26.48	26.60	26.08	28.13	28.44	29.87	5.0%	4.3%
Qatar	26.03	42.54	44.29	44.43	44.12	45.93	45.01	48.64	8.1%	4.9%
Saudi Arabia	69.66	82.89	92.00	93.27	93.85	95.86	100.60	101.09	0.5%	2.9%
Syria	9.08	4.05	3.47	3.33	2.92	3.11	2.54	2.60	2.1%	-9.2%
United Arab Emirates	57.39	69.53	56.24	63.47	64.57	63.31	63.14	64.67	2.4%	0.9%
Yemen	0.95	0.96	0.02	0.02	0.02	0.02	0.02	0.02	0.0%	-25.7%

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Consumption

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Africa	102.93	131.74	159.95	158.49	148.21	162.67	164.96	165.61	0.4%	3.7%
Algeria	27.12	40.14	45.18	46.64	45.04	49.25	51.52	52.63	2.1%	5.2%
Angola	0.70	0.73	1.10	1.24	1.17	1.13	1.27	1.01	-20.8%	2.8%
Cameroon	0.30	0.48	0.74	0.67	0.86	0.70	0.62	0.49	-20.8%	3.8%
Congo	0.10	0.50	0.68	0.96	1.00	1.03	1.31	1.39	6.3%	22.7%
Côte d'Ivoire	1.54	1.96	2.03	2.16	2.22	2.35	2.53	2.34	-7.4%	3.3%
Dem. Rep. Congo	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00		-100.0%
Egypt	41.65	42.77	60.20	59.91	56.14	62.46	61.04	60.62	-0.7%	2.9%
Equatorial Guinea	1.50	1.78	2.13	1.96	1.78	2.24	2.25	2.41	6.9%	3.7%
Gabon	0.31	0.52	0.50	0.44	0.47	0.43	0.44	0.44	0.0%	2.6%
Ghana	0.41	1.24	1.76	2.22	3.15	3.34	3.63	3.65	0.4%	18.3%
Libya	6.71	11.19	13.31	9.39	4.24	6.73	7.66	7.35	-4.1%	0.7%
Morocco	0.66	1.18	1.07	1.02	0.79	0.79	0.22	0.89	298.8%	2.3%
Mozambique	0.08	0.86	0.82	0.88	0.84	0.92	1.09	1.19	8.8%	23.2%
Nigeria	10.63	16.49	17.45	17.84	17.94	19.36	19.28	19.11	-0.9%	4.6%
Senegal	0.02	0.02	0.01	0.02	0.02	0.01	0.00	0.00	0.0%	-11.5%
South Africa	4.51	4.99	4.95	5.00	4.86	3.61	3.52	3.60	2.3%	-1.7%
Tanzania	0.75	1.00	1.60	1.72	1.54	1.75	2.13	2.33	9.3%	9.1%
Tunisia	5.91	5.88	6.39	6.43	6.14	6.57	6.42	6.17	-3.9%	0.3%

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Consumption

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Asia - Pacific	564.71	685.95	797.80	820.33	835.12	880.27	868.58	896.26	3.2%	3.6%
Australia	32.69	38.62	37.87	39.52	43.25	42.49	40.05	42.28	5.6%	2.0%
Bangladesh	19.28	24.88	27.12	30.19	30.41	31.07	30.44	29.95	-1.6%	3.4%
Brunei	3.11	2.49	3.45	3.03	2.71	2.71	2.92	3.04	4.3%	-0.2%
China	103.95	184.44	265.92	288.63	308.37	347.82	345.83	370.71	7.2%	10.3%
Hong Kong	3.64	3.09	3.06	3.16	4.79	4.79	4.71	5.07	7.6%	2.6%
India	63.27	52.48	60.95	62.98	61.45	64.42	60.05	67.71	12.8%	0.5%
Indonesia	45.15	44.04	45.28	45.60	39.66	39.28	38.50	40.05	4.0%	-0.9%
Japan	100.02	116.83	111.40	106.99	107.18	100.86	96.31	92.36	-4.1%	-0.6%
Malaysia	36.28	43.66	45.11	45.62	42.56	49.60	54.48	51.13	-6.1%	2.7%
Myanmar	1.49	3.52	3.76	3.08	3.54	3.99	3.97	4.23	6.6%	8.3%
New Zealand	4.34	4.76	4.48	4.65	4.51	3.86	3.60	3.69	2.3%	-1.2%
Pakistan	31.40	30.89	36.87	34.57	37.15	33.39	32.23	31.46	-2.4%	0.0%
Philippines	3.55	3.34	4.22	4.25	3.85	3.30	3.06	2.87	-6.4%	-1.6%
Singapore	7.55	9.94	10.46	10.62	10.73	10.95	11.03	10.28	-6.9%	2.4%
South Korea	43.63	46.01	57.66	56.39	56.43	62.38	61.93	60.11	-2.9%	2.5%
Taiwan	17.13	22.36	25.94	25.55	27.59	30.02	31.11	31.01	-0.3%	4.7%
Thailand	38.34	44.80	43.98	44.78	41.19	41.33	38.85	41.46	6.7%	0.6%
Vietnam	9.45	9.19	9.61	9.93	8.61	7.34	8.87	8.21	-7.5%	-1.1%
Others Asia Pacific	0.44	0.63	0.68	0.77	1.13	0.66	0.64	0.64	-0.1%	2.9%

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Consumption

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Americas	945.52	1,096.33	1,184.67	1,240.54	1,197.16	1,220.81	1,272.87	1,261.49	-0.9%	2.2%
Argentina	43.26	49.89	50.62	49.71	46.57	46.68	46.51	45.12	-3.0%	0.3%
Bolivia	2.89	3.88	4.42	4.13	3.36	3.82	4.11	4.64	12.9%	3.7%
Brazil	28.28	43.25	36.63	37.04	34.96	42.72	32.56	30.42	-6.6%	0.6%
Canada	91.44	98.41	135.80	136.75	130.67	134.65	142.78	141.06	-1.2%	3.4%
Chile	5.20	4.63	5.07	6.12	5.61	6.14	6.54	6.27	-4.0%	1.5%
Colombia	9.57	11.74	11.92	12.31	12.17	11.06	10.95	10.87	-0.7%	1.0%
Cuba	0.99	1.15	0.90	0.88	0.83	0.80	0.78	0.78	0.0%	-1.8%
Dominican Republic	0.79	1.09	1.18	1.42	1.50	1.84	1.42	1.92	35.2%	7.1%
Ecuador	0.49	0.65	0.55	0.48	0.41	0.43	0.38	0.38	0.0%	-1.9%
Jamaica	0.00	0.00	0.23	0.27	0.67	0.69	0.65	0.65	-0.3%	
Mexico	63.08	75.20	84.12	79.84	81.80	84.28	81.19	87.43	7.7%	2.5%
Panama	0.00	0.00	0.26	0.80	0.43	0.52	0.24	0.77	214.2%	
Peru	6.39	9.17	8.44	8.85	7.44	8.83	10.07	10.81	7.4%	4.1%
Trinidad and Tobago	21.35	20.16	18.18	18.51	15.75	16.62	16.25	15.58	-4.1%	-2.4%
United States	646.72	751.89	807.08	863.29	836.24	840.96	897.00	883.02	-1.6%	2.4%
Uruguay	0.07	0.05	0.06	0.09	0.07	0.08	0.08	0.08	-0.1%	0.8%
Venezuela	24.23	23.60	17.52	18.12	17.34	19.28	19.94	20.26	1.6%	-1.4%
Others Americas	0.77	1.55	1.69	1.92	1.35	1.42	1.42	1.42	0.0%	4.8%

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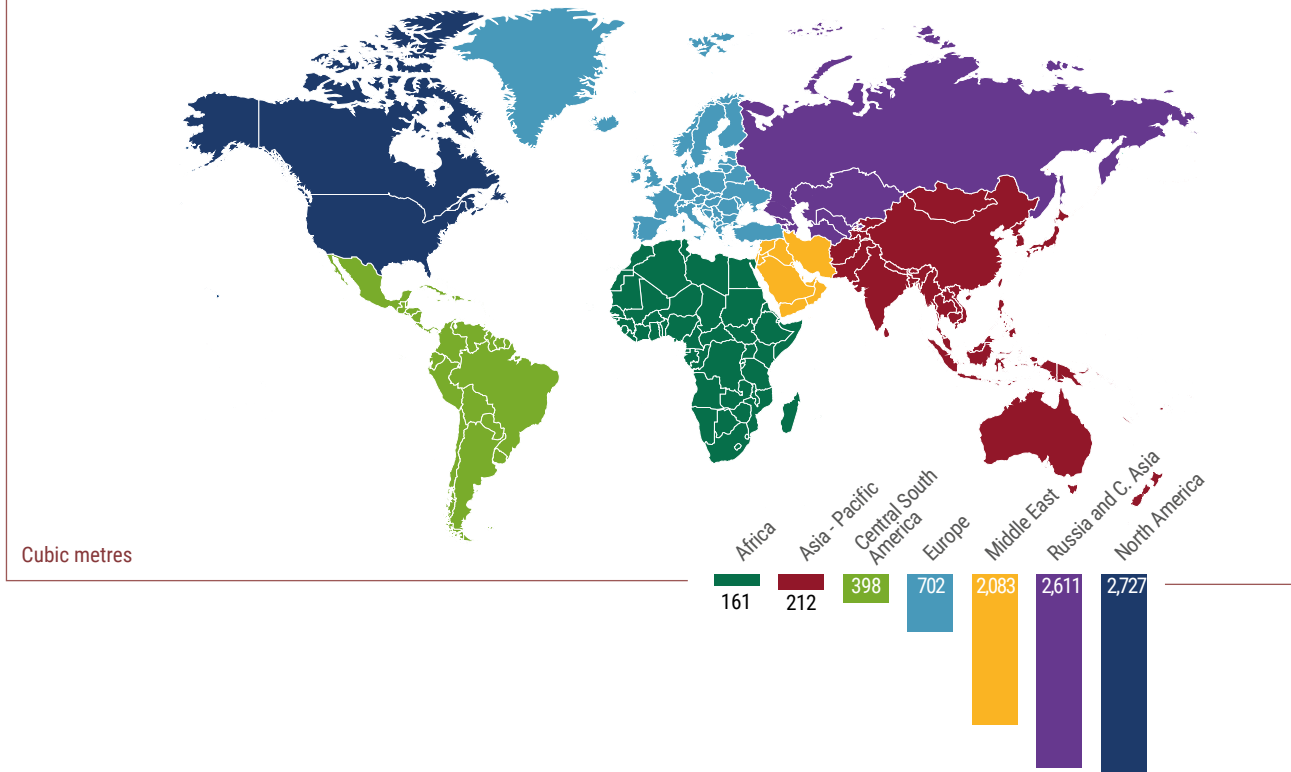
Per Capita Consumption

Areas and Aggregates^(*)

(cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023
Europe	990	778	836	838	814	858	755	702
Russia and Central Asia	2,465	2,204	2,502	2,321	2,321	2,695	2,606	2,611
Middle East	1,646	1,859	1,875	1,960	2,018	2,035	2,043	2,083
Africa	136	155	175	169	155	166	164	161
Asia - Pacific	149	172	195	199	201	211	207	212
Americas	1,078	1,193	1,257	1,307	1,253	1,272	1,319	1,298
- North America	2,145	2,377	2,578	2,717	2,614	2,632	2,790	2,727
- Central South America	408	452	428	421	399	420	395	398
World	488	493	531	536	527	553	543	540
European Union 27	840	679	742	767	739	765	678	619
MENA	1,130	1,280	1,332	1,371	1,375	1,408	1,411	1,432
OECD	1,208	1,216	1,306	1,342	1,306	1,331	1,324	1,283
NON OECD	311	321	350	349	347	374	365	371
OPEC	876	984	978	1,018	1,027	1,042	1,051	1,058
NON OPEC	462	458	498	500	489	515	504	499

Per Capita Consumption (2023)



^(*)Data source: Eni's calculations on IEA (2024) *Extended Balances*, Italian Ministry of Environment and Energy Security and S&P Global data. All rights reserved.

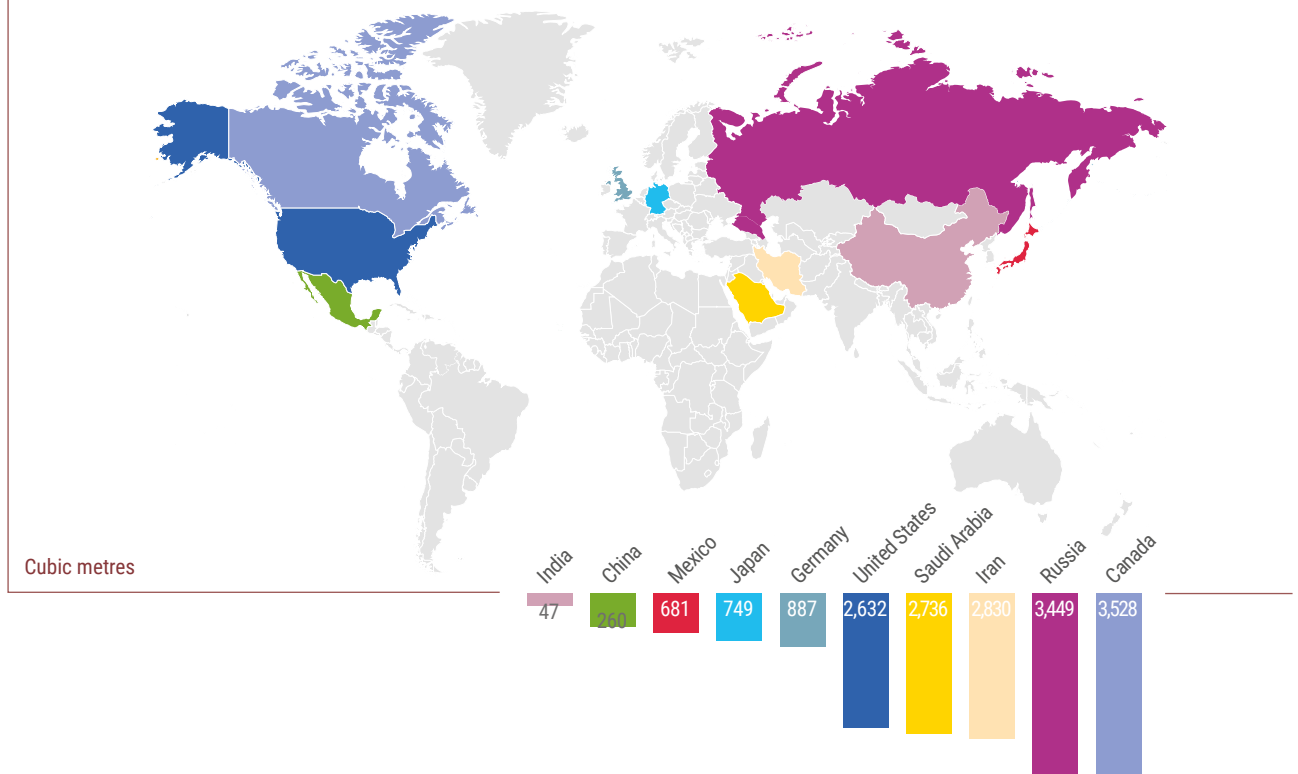
Per Capita Consumption

The World Top 10 Consumers Ranked by Per Capita Consumption^(*)

(cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023
Canada	2,693	2,758	3,670	3,643	3,441	3,524	3,676	3,528
Russia	3,114	2,928	3,364	3,049	3,047	3,560	3,402	3,449
Iran	1,885	2,208	2,320	2,520	2,709	2,733	2,758	2,830
Saudi Arabia	2,369	2,531	2,627	2,603	2,607	2,666	2,763	2,736
United States	2,085	2,335	2,455	2,612	2,520	2,529	2,687	2,632
Germany	1,085	923	1,032	1,058	1,041	1,076	931	887
Japan	781	918	882	851	856	809	777	749
Mexico	561	626	678	638	649	665	637	681
China	77	132	188	203	216	244	243	260
India	51	40	45	46	44	46	42	47

The World Top 10 (2023)



^(*)Data source: Eni's calculations on IEA (2024) *Extended Balances* and S&P Global data. All rights reserved.

Per Capita Consumption

Countries^(*)

(cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023
Europe	990	778	836	838	814	858	755	702
Albania	5	11	13	23	17	18	16	15
Austria	1,130	930	969	1,005	956	1,008	896	764
Belarus	2,164	1,898	2,049	1,963	1,821	1,872	1,809	1,651
Belgium	1,790	1,442	1,524	1,535	1,521	1,521	1,289	1,211
Bosnia Herzegovina	61	59	68	65	60	73	72	73
Bulgaria	360	419	431	406	421	479	395	372
Croatia	701	569	641	678	717	696	615	665
Czech Republic	891	711	744	779	790	845	687	623
Denmark	926	585	539	508	422	384	285	263
Estonia	491	345	364	334	305	346	258	238
Finland	832	475	458	448	444	446	230	297
France	794	639	666	678	629	667	598	526
Germany	1,085	923	1,032	1,058	1,041	1,076	931	887
Greece	341	288	450	494	545	607	493	447
Hungary	1,150	891	991	1,016	1,055	1,122	957	858
Ireland	1,209	937	1,080	1,083	1,071	1,021	1,032	952
Italy	1,323	1,068	1,164	1,226	1,105	1,177	1,188	995
Latvia	809	641	702	670	558	598	435	436
Lithuania	923	811	718	761	813	783	542	534
Luxembourg	2,744	1,571	1,308	1,283	1,146	1,218	945	875
Malta	0	0	693	707	718	705	704	733
Moldova	937	871	911	949	962	1,064	818	820
Netherlands	2,804	1,954	2,068	2,147	2,098	2,004	1,547	1,448
North Macedonia	53	62	115	134	154	196	133	162
Norway	1,518	1,389	1,206	1,083	982	1,079	855	929
Poland	389	421	495	498	526	561	464	486
Portugal	493	455	568	597	585	560	544	432
Romania	613	520	587	551	580	599	505	485
Serbia	296	287	355	334	335	407	396	398
Slovakia	1,077	830	870	871	871	969	808	769
Slovenia	488	371	400	405	404	425	375	362
Spain	777	615	673	762	686	720	693	617
Sweden	182	85	115	107	141	112	71	81
Switzerland	447	401	390	397	384	415	339	310
Türkiye	499	575	576	516	549	674	573	561
Ukraine	1,407	674	673	615	632	639	451	521
United Kingdom	1,572	1,103	1,184	1,144	1,089	1,138	1,037	940

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Per Capita Consumption

Countries^(*)

(cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023
Russia and Central Asia	2,465	2,204	2,502	2,321	2,321	2,695	2,606	2,611
Russia	3,114	2,928	3,364	3,049	3,047	3,560	3,402	3,449
Armenia	510	782	838	881	888	975	1,015	942
Azerbaijan	988	1,130	1,065	1,198	1,202	1,243	1,315	1,396
Georgia	308	640	631	715	718	746	896	812
Kazakhstan	1,561	692	1,168	1,248	1,236	1,028	1,083	1,071
Kyrgyzstan	52	45	52	50	51	60	65	64
Tajikistan	25	0	6	24	24	24	19	19
Turkmenistan	3,828	3,480	3,309	3,395	3,481	5,791	6,486	6,541
Uzbekistan	1,568	1,140	1,228	1,250	1,298	1,438	1,342	1,215

	2010	2015	2018	2019	2020	2021	2022	2023
Middle East	1,646	1,859	1,875	1,960	2,018	2,035	2,043	2,083
Bahrain	10,128	10,385	9,531	10,483	10,664	10,962	11,010	11,548
Iran	1,885	2,208	2,320	2,520	2,709	2,733	2,758	2,830
Iraq	156	175	360	403	419	422	412	431
Israel	699	875	1,062	1,040	1,287	1,318	1,343	1,359
Jordan	384	238	382	367	342	325	362	348
Kuwait	4,686	5,080	5,035	4,824	4,913	5,251	5,633	6,120
Lebanon	49	0	0	0	0	0	0	0
Oman	6,015	5,850	5,756	5,779	5,741	6,223	6,215	6,431
Qatar	15,190	17,617	16,007	15,828	15,984	17,087	16,701	17,905
Saudi Arabia	2,369	2,531	2,627	2,603	2,607	2,666	2,763	2,736
Syria	406	211	179	166	141	146	115	112
United Arab Emirates	6,767	7,797	6,153	6,890	6,952	6,760	6,687	6,796
Yemen	38	34	1	1	1	1	1	1

^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* and S&P Global data. All rights reserved.

Per Capita Consumption

Countries^(*)

(cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023
Africa	136	155	175	169	155	166	164	161
Algeria	756	1,015	1,078	1,092	1,037	1,115	1,147	1,154
Angola	30	26	35	38	35	33	36	27
Cameroon	15	21	30	26	33	26	22	17
Congo	22	99	126	172	175	177	220	228
Côte d'Ivoire	73	83	80	83	83	86	90	81
Dem. Rep. Congo	0	0	0	0	0	0	0	0
Egypt	477	438	580	567	522	572	550	538
Equatorial Guinea	1,371	1,319	1,418	1,261	1,118	1,368	1,343	1,403
Gabon	183	256	228	195	206	183	183	179
Ghana	16	43	57	70	98	102	109	107
Libya	1,033	1,808	2,054	1,430	637	1,000	1,124	1,066
Morocco	20	34	30	28	22	21	6	23
Mozambique	3	32	28	29	27	29	33	35
Nigeria	66	90	88	88	86	91	88	85
Senegal	2	2	1	1	1	0	0	0
South Africa	87	89	86	86	83	61	59	60
Tanzania	17	19	27	29	25	28	33	35
Tunisia	543	509	536	533	505	536	520	495
Others Africa	0	0	0	0	0	0	0	0

^(*)Data source: Eni's calculations on IEA (2024) *Extended Balances* and S&P Global data. All rights reserved.

Per Capita Consumption

Countries^(*)

(cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023
Asia - Pacific	149	172	195	199	201	211	207	212
Australia	1,484	1,621	1,516	1,559	1,685	1,639	1,530	1,599
Bangladesh	130	158	166	182	182	183	178	173
Brunei	7,862	5,898	7,936	6,928	6,132	6,085	6,495	6,722
China	77	132	188	203	216	244	243	260
Hong Kong	511	417	409	421	639	639	629	677
India	51	40	45	46	44	46	42	47
Indonesia	185	170	170	169	146	143	140	144
Japan	781	918	882	851	856	809	777	749
Malaysia	1,263	1,405	1,392	1,391	1,282	1,477	1,605	1,490
Myanmar	30	68	71	58	66	74	73	77
New Zealand	998	1,036	925	939	892	752	695	705
Pakistan	161	146	168	155	164	144	137	131
Philippines	37	32	39	38	34	29	26	24
Singapore	1,462	1,759	1,799	1,810	1,816	1,844	1,847	1,708
South Korea	894	902	1,116	1,089	1,088	1,203	1,195	1,161
Taiwan	742	951	1,093	1,075	1,158	1,258	1,302	1,296
Thailand	562	637	618	628	576	577	542	577
Vietnam	108	100	101	104	89	75	90	83
Others Asia Pacific	11	13	13	14	21	12	11	11

^(*)Data source: Eni's calculations on IEA (2024) *Extended Balances* and S&P Global data. All rights reserved.

Per Capita Consumption

Countries^(*)

(cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023
Americas	1,078	1,193	1,257	1,307	1,253	1,272	1,319	1,298
Argentina	1,053	1,153	1,140	1,111	1,034	1,031	1,022	986
Bolivia	282	350	381	350	281	316	336	374
Brazil	144	211	174	175	164	199	151	141
Canada	2,693	2,758	3,670	3,643	3,441	3,524	3,676	3,528
Chile	306	259	271	322	291	315	334	320
Colombia	214	249	242	245	239	215	211	209
Cuba	88	101	79	78	73	71	70	70
Dominican Republic	80	105	109	130	136	165	126	169
Ecuador	33	40	32	28	23	24	21	21
Jamaica	0	0	83	96	237	244	231	230
Mexico	561	626	678	638	649	665	637	681
Panama	0	0	62	190	101	119	55	172
Peru	219	299	262	270	223	262	296	315
Trinidad and Tobago	15,137	13,805	12,083	12,176	10,378	10,895	10,611	10,150
United States	2,085	2,335	2,455	2,612	2,520	2,529	2,687	2,632
Uruguay	22	16	19	27	20	23	24	24
Venezuela	844	773	587	625	609	684	705	703
Others Americas	127	285	319	363	255	269	268	267

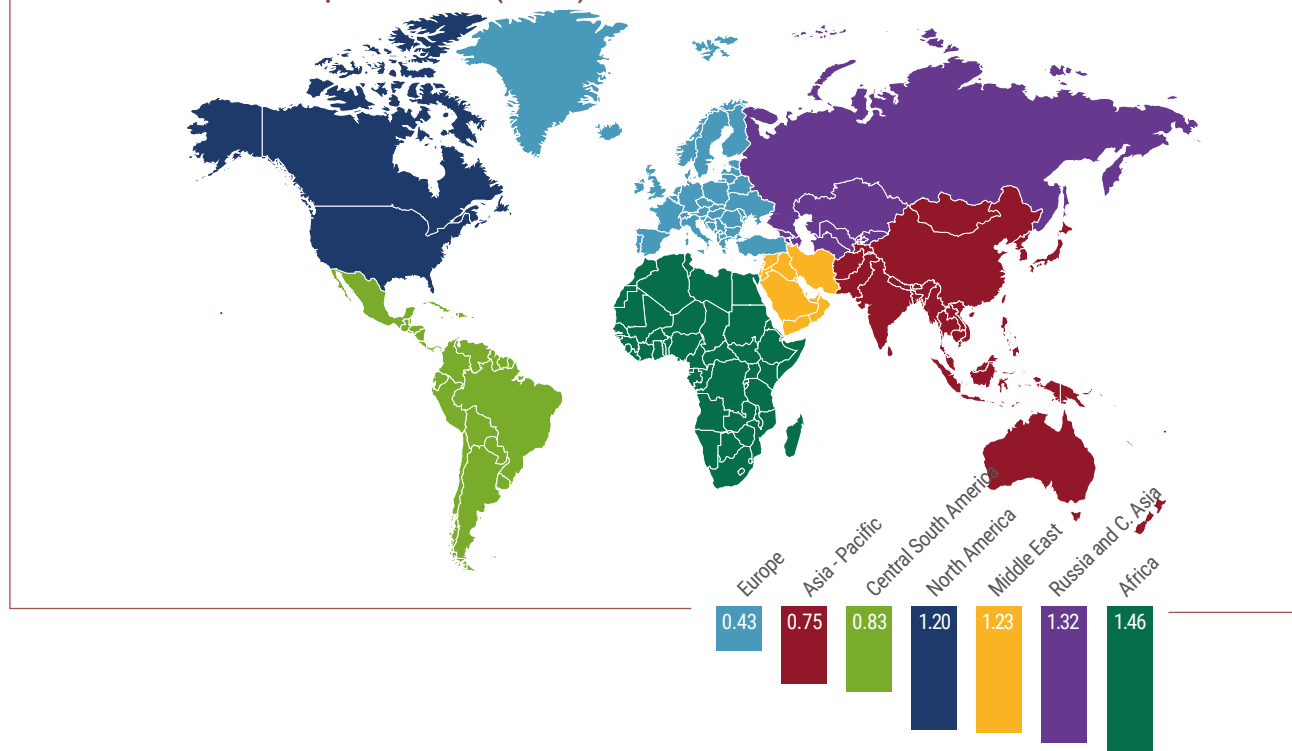
^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* and S&P Global data. All rights reserved.

Production/Consumption Ratio

Areas and Aggregates^(*)

	2010	2015	2018	2019	2020	2021	2022	2023
Europe	0.48	0.50	0.45	0.41	0.40	0.36	0.43	0.43
Russia and Central Asia	1.41	1.54	1.51	1.61	1.52	1.45	1.38	1.32
Middle East	1.27	1.26	1.26	1.25	1.24	1.24	1.25	1.23
Africa	1.97	1.52	1.54	1.53	1.53	1.55	1.49	1.46
Asia - Pacific	0.84	0.76	0.75	0.77	0.76	0.73	0.76	0.75
Americas	0.99	1.02	1.02	1.06	1.08	1.08	1.09	1.13
- North America	0.99	1.06	1.07	1.11	1.13	1.16	1.15	1.20
- Central South America	1.00	0.87	0.83	0.84	0.83	0.77	0.84	0.83
World	0.99	1.02	1.01	1.03	1.01	1.00	1.02	1.02
European Union 27	0.30	0.24	0.18	0.15	0.13	0.11	0.12	0.11
MENA	1.39	1.29	1.29	1.28	1.26	1.28	1.27	1.25
OECD	0.73	0.79	0.80	0.84	0.85	0.84	0.89	0.94
NON OECD	1.24	1.22	1.18	1.20	1.15	1.13	1.12	1.09
OPEC	1.21	1.14	1.17	1.15	1.13	1.14	1.12	1.11
NON OPEC	0.96	1.00	0.98	1.01	0.99	0.98	1.00	1.01

Production/Consumption Ratio (2023)



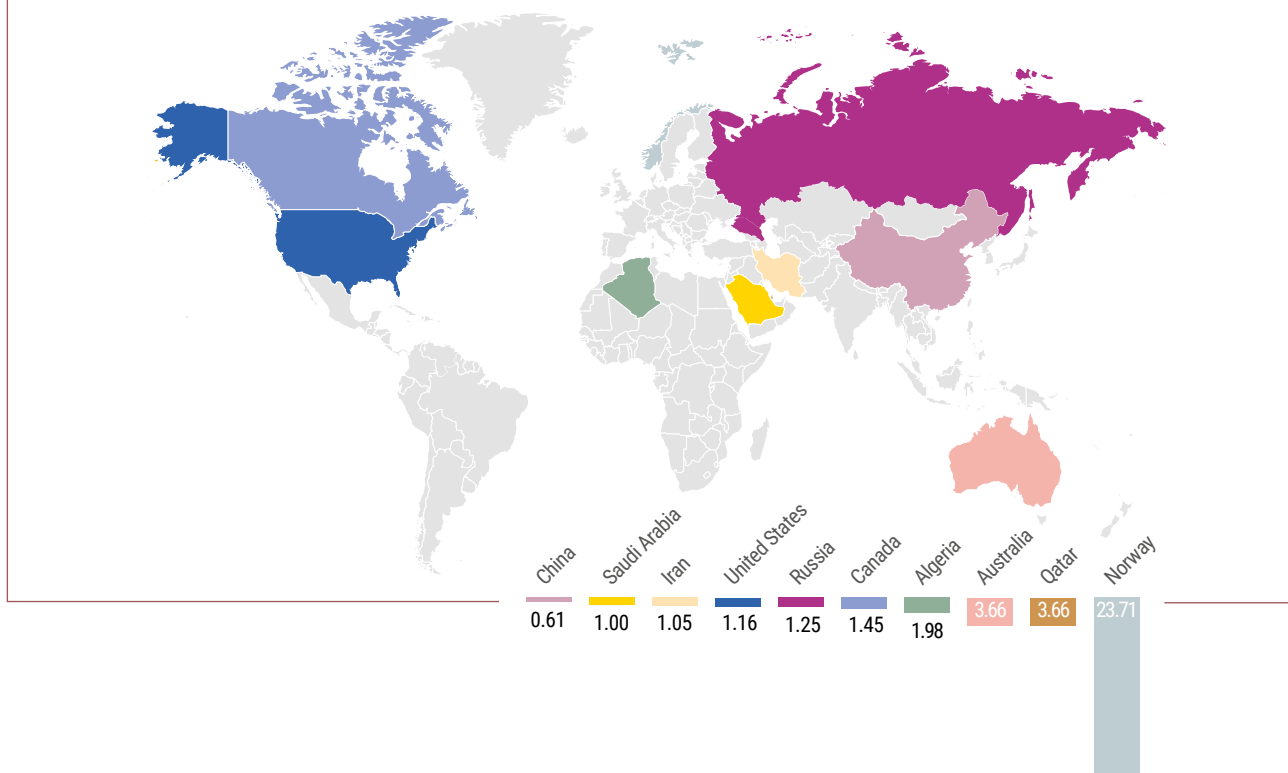
^(*) Data source: Eni's calculations on IEA (2024) Extended Balances and, for Italy, on Ministry for Environment and Energy Security data. All rights reserved.

Production/Consumption Ratio

The World Top 10 Producers Ranked by Production/Consumption Ratio^(*)

	2010	2015	2018	2019	2020	2021	2022	2023
Norway	14.85	16.60	19.38	20.25	21.58	20.10	27.35	23.71
Qatar	4.79	4.01	3.87	3.90	3.91	3.79	3.90	3.66
Australia	1.58	1.75	3.11	3.47	3.42	3.36	3.78	3.66
Algeria	3.09	2.07	2.13	1.91	1.86	2.11	1.95	1.98
Russia	1.41	1.44	1.42	1.56	1.47	1.44	1.34	1.25
Canada	1.68	1.63	1.41	1.35	1.38	1.38	1.40	1.45
United States	0.89	0.98	1.01	1.08	1.10	1.12	1.11	1.16
Iran	1.00	1.00	1.06	1.08	1.07	1.07	1.07	1.05
Saudi Arabia	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
China	0.90	0.71	0.59	0.59	0.61	0.58	0.62	0.61

The World Top 10 (2023)



^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

Production/Consumption Ratio

Countries^(*)

	2010	2015	2018	2019	2020	2021	2022	2023
Europe	0.48	0.50	0.45	0.41	0.40	0.36	0.43	0.43
Albania	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Austria	0.17	0.15	0.12	0.10	0.09	0.07	0.08	0.08
Belarus	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Bulgaria	0.03	0.03	0.01	0.01	0.02	0.01	0.01	0.00
Croatia	0.84	0.71	0.44	0.35	0.28	0.26	0.29	0.27
Czech Republic	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.02
Denmark	1.66	1.45	1.38	1.09	0.56	0.65	0.86	0.90
France	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Germany	0.15	0.10	0.06	0.06	0.05	0.05	0.05	0.05
Greece	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hungary	0.23	0.18	0.18	0.16	0.15	0.13	0.15	0.18
Ireland	0.05	0.03	0.61	0.47	0.36	0.29	0.26	0.23
Italy	0.10	0.10	0.07	0.06	0.06	0.05	0.04	0.04
Netherlands	1.62	1.38	0.91	0.74	0.55	0.51	0.55	0.39
Norway	14.85	16.60	19.38	20.25	21.58	20.10	27.35	23.71
Poland	0.29	0.27	0.22	0.21	0.20	0.18	0.22	0.20
Romania	0.80	0.99	0.86	0.89	0.76	0.75	0.90	0.97
Serbia	0.17	0.26	0.17	0.18	0.16	0.12	0.11	0.11
Slovakia	0.02	0.02	0.02	0.03	0.01	0.01	0.01	0.01
Slovenia	0.01	0.00	0.02	0.01	0.01	0.01	0.01	0.01
Spain	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Türkiye	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02
Ukraine	0.28	0.57	0.64	0.70	0.66	0.64	0.91	0.79
United Kingdom	0.59	0.56	0.52	0.51	0.54	0.43	0.54	0.54

^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* and, for Italy, on Italian Ministry of Environment and Energy Security. All rights reserved.

Production/Consumption Ratio

Countries^(*)

	2010	2015	2018	2019	2020	2021	2022	2023
Russia and Central Asia	1.41	1.54	1.51	1.61	1.52	1.45	1.38	1.32
Russia	1.41	1.44	1.42	1.56	1.47	1.44	1.34	1.25
Azerbaijan	1.78	1.69	1.73	1.95	2.09	2.48	2.51	2.45
Georgia	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Kazakhstan	1.10	2.20	1.81	1.43	1.30	1.35	1.28	1.36
Kyrgyzstan	0.08	0.11	0.08	0.07	0.06	0.05	0.06	0.06
Tajikistan	0.12	1.00	0.01	0.00	0.00	0.00	0.00	0.00
Turkmenistan	2.13	3.95	3.99	3.93	3.60	2.16	2.11	2.18
Uzbekistan	1.25	1.31	1.31	1.25	1.08	1.04	1.06	1.05

	2010	2015	2018	2019	2020	2021	2022	2023
Middle East	1.27	1.26	1.26	1.25	1.24	1.24	1.25	1.23
Bahrain	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Iran	1.00	1.00	1.06	1.08	1.07	1.07	1.07	1.05
Iraq	1.00	1.00	0.72	0.65	0.39	0.50	0.51	0.51
Israel	0.61	0.98	0.93	0.94	1.30	1.56	1.72	1.88
Jordan	0.06	0.05	0.02	0.02	0.04	0.05	0.04	0.04
Kuwait	0.81	0.81	0.78	0.77	0.73	0.67	0.66	0.67
Oman	1.59	1.34	1.44	1.45	1.45	1.44	1.49	1.46
Qatar	4.79	4.01	3.87	3.90	3.91	3.79	3.90	3.66
Saudi Arabia	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Syria	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00
United Arab Emirates	0.84	0.82	0.80	0.82	0.80	0.81	0.81	0.81
Yemen	6.57	2.97	1.00	1.00	1.00	1.00	1.00	1.00

^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

Production/Consumption Ratio

Countries^(*)

	2010	2015	2018	2019	2020	2021	2022	2023
Africa	1.97	1.52	1.54	1.53	1.53	1.55	1.49	1.46
Algeria	3.09	2.07	2.13	1.91	1.86	2.11	1.95	1.98
Angola	1.00	1.00	5.59	5.23	6.06	5.00	4.13	5.67
Cameroon	1.00	1.00	2.05	3.32	2.62	3.15	3.69	5.10
Congo	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Côte d'Ivoire	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Egypt	1.30	0.85	0.99	1.08	1.07	1.08	1.05	0.94
Equatorial Guinea	4.14	3.98	3.46	3.27	3.21	2.99	3.42	2.80
Gabon	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ghana	0.00	0.56	0.62	0.70	0.80	0.85	0.86	0.83
Libya	2.38	1.60	1.32	1.58	2.01	1.46	1.32	1.33
Morocco	0.08	0.07	0.07	0.09	0.11	0.12	0.31	0.05
Mozambique	39.54	5.48	5.84	5.41	5.49	5.12	6.18	6.18
Nigeria	2.91	2.52	2.49	2.46	2.46	2.12	1.96	1.89
Senegal	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00
South Africa	0.33	0.22	0.20	0.22	0.22	0.00	0.00	0.00
Tanzania	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Tunisia	0.61	0.50	0.37	0.34	0.37	0.39	0.38	0.36

^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

Production/Consumption Ratio

Countries^(*)

	2010	2015	2018	2019	2020	2021	2022	2023
Asia - Pacific	0.84	0.76	0.75	0.77	0.76	0.73	0.76	0.75
Australia	1.58	1.75	3.11	3.47	3.42	3.36	3.78	3.66
Bangladesh	1.00	1.00	1.00	0.89	0.81	0.81	0.78	0.74
Brunei	3.84	4.40	3.60	3.51	3.83	3.49	2.98	2.69
China	0.90	0.71	0.59	0.59	0.61	0.58	0.62	0.61
India	0.79	0.58	0.51	0.47	0.44	0.50	0.55	0.51
Indonesia	1.93	1.73	1.61	1.48	1.50	1.51	1.50	1.47
Japan	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Malaysia	1.64	1.54	1.53	1.57	1.52	1.42	1.38	1.44
Myanmar	7.92	4.87	4.54	5.68	4.78	4.35	3.83	3.23
New Zealand	1.03	0.99	0.96	1.00	1.00	1.03	1.00	0.99
Pakistan	1.00	0.91	0.77	0.75	0.74	0.72	0.74	0.74
Philippines	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84
South Korea	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Taiwan	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00
Thailand	0.75	0.74	0.70	0.71	0.67	0.65	0.61	0.54
Vietnam	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Others Asia Pacific	12.04	27.66	24.42	22.93	15.88	27.09	27.09	27.11

^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

Production/Consumption Ratio

Countries^(*)

	2010	2015	2018	2019	2020	2021	2022	2023
Americas	0.99	1.02	1.02	1.06	1.08	1.08	1.09	1.13
Argentina	0.93	0.78	0.82	0.87	0.85	0.85	0.93	0.95
Bolivia	4.96	5.41	4.09	3.83	4.53	4.10	3.47	2.67
Brazil	0.54	0.56	0.70	0.73	0.72	0.59	0.72	0.78
Canada	1.68	1.63	1.41	1.35	1.38	1.38	1.40	1.45
Chile	0.35	0.21	0.24	0.24	0.20	0.19	0.19	0.20
Colombia	1.15	1.03	1.00	0.99	0.97	1.00	1.00	0.97
Cuba	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ecuador	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Mexico	0.79	0.53	0.39	0.40	0.44	0.44	0.48	0.47
Peru	1.39	1.61	1.69	1.70	1.82	1.45	1.53	1.52
Trinidad and Tobago	1.95	1.85	1.93	1.92	1.89	1.54	1.66	1.66
United States	0.89	0.98	1.01	1.08	1.10	1.12	1.11	1.16
Venezuela	0.92	0.98	1.00	1.00	1.00	1.00	1.00	1.00
Others Americas	0.03	0.01	0.02	0.01	0.01	0.01	0.01	0.01

^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.



Natural Gas - Trade and Prices

EXPORTS

The World Top 10 Exporters
Countries

IMPORTS

The World Top 10 Importers
Countries
Imports by Country of Origin - Pipeline and LNG 2023
Imports by Country of Origin - Pipeline 2023
Imports by Country of Origin - LNG 2023

TRADED GAS

LNG - LIQUEFACTION AND REGASIFICATION CAPACITY

Liquefaction Capacity - Countries
Regasification Capacity - Countries

NATURAL GAS BALANCE - ITALY

NATURAL GAS PRICES

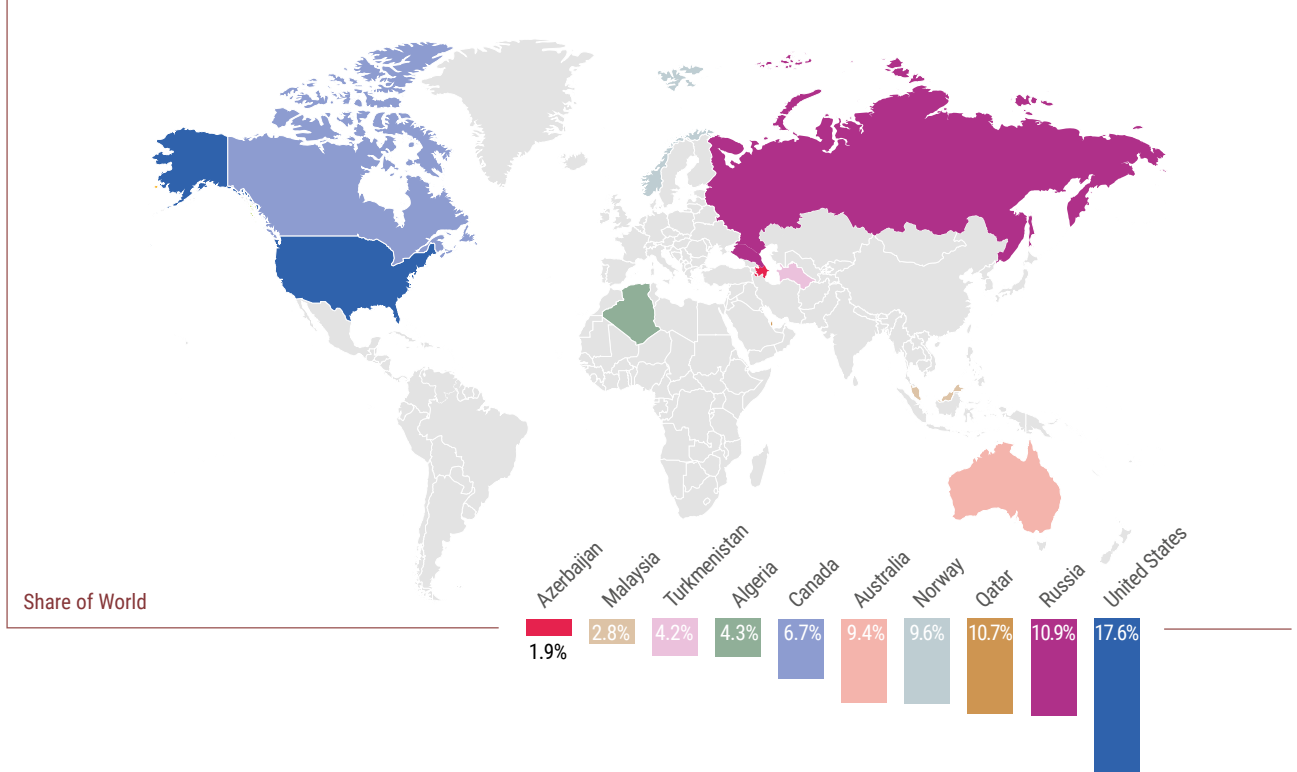
Exports

The World Top 10 Exporters^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
United States	30.42	47.33	98.58	127.49	144.53	185.48	186.66	212.19	13.7%	16.1%
Russia	179.31	191.86	234.27	248.35	228.22	231.71	160.57	131.63	-18.0%	-2.3%
Qatar	98.76	128.23	127.11	129.04	128.45	128.20	130.52	129.30	-0.9%	2.1%
Norway	102.90	112.52	117.77	111.55	108.71	111.36	122.37	115.61	-5.5%	0.9%
Australia	24.33	34.15	84.50	102.39	108.46	106.02	115.92	113.53	-2.1%	12.6%
Canada	92.05	76.37	78.21	74.79	69.65	78.28	83.91	80.90	-3.6%	-1.0%
Algeria	56.58	43.03	50.86	42.31	39.03	54.41	48.60	51.68	6.3%	-0.7%
Turkmenistan	22.74	59.22	59.92	61.22	56.58	42.63	46.29	50.43	8.9%	6.3%
Malaysia	31.20	32.70	31.78	34.31	31.79	30.15	34.47	33.72	-2.2%	0.6%
Azerbaijan	6.04	7.95	9.68	11.55	13.51	18.63	22.10	23.29	5.4%	10.9%
The World Top 10	644.33	733.37	892.67	943.01	928.94	986.86	951.42	942.30	-1.0%	3.0%
Rest of the World	304.40	320.03	269.36	275.45	252.57	234.87	274.16	263.16	-4.0%	-1.1%
World	948.73	1,053.40	1,162.03	1,218.46	1,181.50	1,221.73	1,225.58	1,205.46	-1.6%	1.9%

The World Top 10 (2023)



^(*) Data source: the original data are from IEA (2024) *Extended Balances*. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

Exports

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe										
Belgium	3.20	1.66	1.33	4.35	3.37	2.81	8.36	7.96	-4.8%	7.3%
Bulgaria	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00		
Croatia	0.46	0.35	0.11	0.07	0.05	0.12	1.04	1.12	7.6%	7.1%
Czech Republic	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00		-100.0%
Denmark	3.67	2.29	1.60	1.37	1.66	1.79	2.21	8.42	281.1%	6.6%
France	2.97	3.46	3.75	9.48	8.45	5.58	15.42	14.03	-9.0%	12.7%
Germany	19.95	31.68	0.00	0.00	0.00	0.00	0.00	0.00		-100.0%
Greece	0.00	0.00	0.00	0.02	0.03	0.02	0.48	0.26	-45.4%	
Hungary	0.22	0.53	0.00	0.00	0.00	0.00	0.00	0.00		-100.0%
Italy	0.13	0.21	0.38	0.31	0.30	1.47	4.39	2.50	-43.2%	25.2%
Lithuania	0.00	0.09	0.18	0.50	0.50	0.13	1.93	1.84	-5.1%	
Netherlands	49.61	46.12	20.71	20.15	13.89	14.01	14.88	16.64	11.8%	-8.1%
Norway	102.90	112.52	117.77	111.55	108.71	111.36	122.37	115.61	-5.5%	0.9%
Poland	0.04	0.05	0.66	1.28	1.35	0.11	0.59	0.69	18.2%	23.7%
Romania	0.00	0.00	0.03	0.01	0.13	0.69	0.90	2.13	136.8%	
Slovakia	0.00	0.00	0.00	0.00	0.00	1.31	0.00	0.00		
Slovenia	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00		
Spain	1.17	5.12	3.29	1.14	1.19	3.06	6.13	6.64	8.4%	14.3%
Sweden	0.00	0.00	0.02	0.03	0.03	0.06	0.01	0.01	-12.5%	
Türkiye	0.62	0.60	0.64	0.73	0.55	0.37	0.56	0.86	54.1%	2.5%
Ukraine	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00		-100.0%
United Kingdom	15.14	13.80	7.53	8.26	9.54	6.85	23.39	15.80	-32.4%	0.3%

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Exports

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia and Central Asia										
Russia	179.31	191.86	234.27	248.35	228.22	231.71	160.57	131.63	-18.0%	-2.3%
Azerbaijan	6.04	7.95	9.68	11.55	13.51	18.63	22.10	23.29	5.4%	10.9%
Georgia	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00		
Kazakhstan	6.08	20.11	26.79	26.25	20.33	9.84	6.70	7.91	18.1%	2.0%
Turkmenistan	22.74	59.22	59.92	61.22	56.58	42.63	46.29	50.43	8.9%	6.3%
Uzbekistan	11.05	10.19	14.05	11.55	2.88	5.15	3.99	3.99	0.0%	-7.5%
Middle East										
Iran	8.35	8.92	13.68	17.19	16.69	16.99	18.17	14.16	-22.0%	4.1%
Israel	0.00	0.00	0.10	0.18	4.04	6.78	8.75	10.97	25.3%	
Jordan	0.00	0.00	0.29	0.29	0.29	0.29	0.00	0.00		
Oman	12.27	10.42	13.68	14.00	13.35	13.91	15.42	15.82	2.6%	2.0%
Qatar	98.76	128.23	127.11	129.04	128.45	128.20	130.52	129.30	-0.9%	2.1%
United Arab Emirates	7.45	7.05	7.00	7.17	6.32	7.03	6.51	6.36	-2.2%	-1.2%
Yemen	5.30	1.89	0.00	0.00	0.00	0.00	0.00	0.00		-100.0%
Africa										
Algeria	56.58	43.03	50.86	42.31	39.03	54.41	48.60	51.68	6.3%	-0.7%
Angola	0.00	0.00	5.06	5.22	5.91	4.52	3.99	4.70	17.9%	
Cameroon	0.00	0.00	0.78	1.57	1.40	1.51	1.66	2.00	20.5%	
Egypt	12.33	0.24	2.28	4.83	7.01	8.99	9.41	5.00	-46.9%	-6.7%
Equatorial Guinea	4.71	5.29	5.23	4.45	3.94	4.46	5.45	4.34	-20.3%	-0.6%
Libya	9.26	6.75	4.27	5.41	4.27	3.07	2.47	2.39	-3.1%	-9.9%
Mozambique	3.04	3.87	3.98	3.88	3.79	3.77	5.64	6.15	9.0%	5.6%
Nigeria	20.28	25.01	25.96	26.03	26.20	21.65	18.53	17.07	-7.9%	-1.3%

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Exports

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Asia - Pacific										
Australia	24.33	34.15	84.50	102.39	108.46	106.02	115.92	113.53	-2.1%	12.6%
Brunei	8.83	8.36	8.91	7.62	7.65	6.75	5.77	5.14	-10.9%	-4.1%
China	3.92	3.16	3.27	3.50	5.02	5.37	5.59	6.17	10.3%	3.5%
Indonesia	41.85	32.13	27.52	21.98	19.88	19.94	19.14	18.96	-1.0%	-5.9%
Malaysia	31.20	32.70	31.78	34.31	31.79	30.15	34.47	33.72	-2.2%	0.6%
Myanmar	10.34	13.66	13.32	14.41	13.39	13.36	11.22	9.43	-16.0%	-0.7%
Others Asia - Pacific	5.00	16.69	15.96	16.94	16.89	17.38	16.73	16.73	0.0%	9.7%
Americas										
Argentina	0.46	0.09	0.06	0.27	0.18	0.85	2.54	2.54	0.0%	14.1%
Bolivia	11.41	17.14	15.74	11.66	11.86	11.85	10.13	7.73	-23.6%	-2.9%
Canada	92.05	76.37	82.63	74.79	69.65	78.28	83.91	80.90	-3.6%	-1.0%
Chile	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00		
Colombia	1.39	0.33	0.00	0.00	0.00	0.00	0.00	0.00		-100.0%
Dominican Republic	0.00	0.00	0.00	0.04	0.06	0.06	0.04	0.04	11.6%	
Mexico	0.92	0.03	0.03	0.01	0.01	0.01	0.01	0.01	22.2%	-29.9%
Peru	2.48	5.58	6.69	6.23	6.10	3.96	5.34	5.67	6.2%	6.6%
Trinidad and Tobago	20.33	17.05	14.48	17.04	14.05	9.02	10.67	10.32	-3.3%	-5.1%
United States	30.42	47.33	61.26	127.49	144.53	185.48	186.66	212.19	13.7%	16.1%

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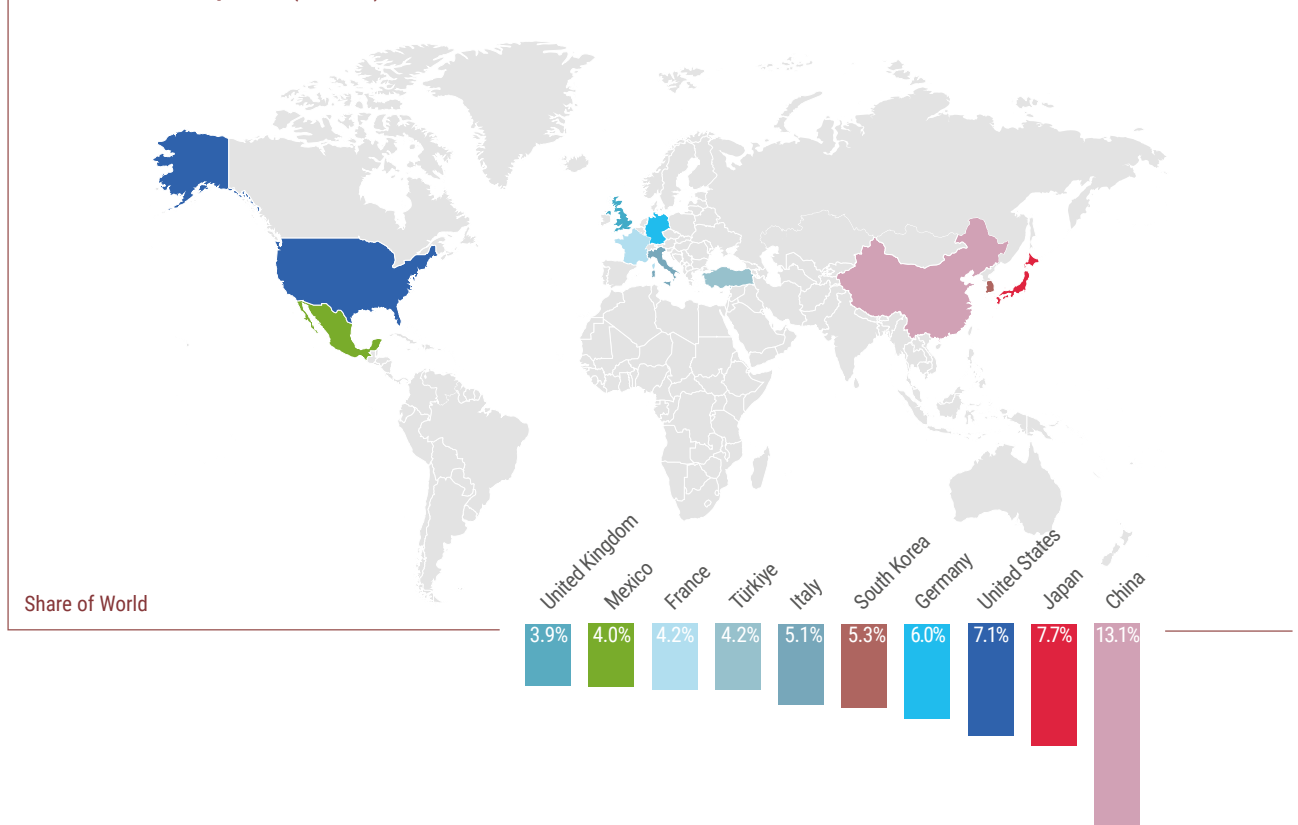
Imports

The World Top 10 Importers^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
China	14.64	56.58	113.31	120.66	126.04	151.15	137.20	150.73	9.9%	19.6%
Japan	96.12	113.79	110.16	104.64	104.47	97.77	96.49	88.75	-8.0%	-0.6%
United States	101.09	73.15	77.63	73.74	68.63	78.29	81.76	81.67	-0.1%	-1.6%
Germany	91.65	99.92	82.03	88.01	77.31	81.40	82.22	69.34	-15.7%	-2.1%
South Korea	44.36	45.54	60.17	55.70	54.66	62.79	63.52	61.09	-3.8%	2.5%
Italy	71.77	58.36	64.65	67.69	63.24	69.53	69.14	58.88	-14.8%	-1.5%
Türkiye	36.42	46.38	48.15	43.29	46.08	56.21	52.34	48.34	-7.6%	2.2%
France	48.98	43.61	48.60	55.10	46.89	46.96	57.55	47.92	-16.7%	-0.2%
Mexico	14.70	35.09	51.17	47.71	45.26	47.07	42.46	46.02	8.4%	9.2%
United Kingdom	54.56	44.59	46.24	45.33	43.04	50.48	55.65	44.45	-20.1%	-1.6%
The World Top 10	574.30	617.00	702.12	701.86	675.61	741.65	738.34	697.19	-5.6%	1.5%
Rest of the World	381.01	399.81	418.52	456.59	447.85	453.14	456.83	450.51	-1.4%	1.3%
World	955.31	1,016.81	1,120.63	1,158.45	1,123.46	1,194.78	1,195.16	1,147.70	-4.0%	1.4%

The World Top 10 (2023)



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Imports

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe										
Austria	7.11	5.83	7.55	10.97	6.25	4.59	11.95	6.96	-41.7%	-0.2%
Belarus	20.83	18.14	19.63	18.84	17.42	17.78	17.10	15.54	-9.1%	-2.2%
Belgium	22.73	17.77	18.89	22.35	20.81	20.45	23.51	22.23	-5.4%	-0.2%
Bosnia Herzegovina	0.23	0.21	0.23	0.22	0.20	0.24	0.23	0.23	-0.2%	0.1%
Bulgaria	2.48	2.93	3.01	2.86	2.83	3.18	2.87	2.52	-12.2%	0.1%
Croatia	1.01	1.01	1.53	1.93	2.07	2.23	2.96	2.95	-0.3%	8.6%
Czech Republic	8.11	7.17	7.68	9.14	7.28	8.35	8.36	6.70	-19.9%	-1.5%
Denmark	0.16	0.69	0.40	1.16	2.58	2.41	2.68	8.59	220.8%	36.0%
Estonia	0.65	0.45	0.50	0.47	0.43	0.49	0.40	1.04	156.7%	3.6%
Finland	4.46	2.60	2.53	2.49	2.46	2.46	1.31	1.70	29.4%	-7.1%
France	48.98	43.61	48.60	55.10	46.89	46.96	57.55	47.92	-16.7%	-0.2%
Germany	91.65	99.92	82.03	88.01	77.31	81.40	82.22	69.34	-15.7%	-2.1%
Greece	3.76	3.11	4.82	5.18	5.80	6.31	5.68	4.77	-16.0%	1.9%
Hungary	9.20	6.60	7.50	11.34	7.71	7.27	9.11	8.10	-11.1%	-1.0%
Ireland	5.21	4.21	2.02	2.81	3.38	3.62	3.83	3.73	-2.7%	-2.5%
Italy	71.77	58.36	64.65	67.84	63.24	69.53	69.14	58.88	-14.8%	-1.5%
Latvia	1.05	1.26	1.34	1.28	1.06	1.12	0.80	0.80	-0.5%	-2.1%
Lithuania	2.89	2.49	2.22	2.67	2.77	2.33	3.44	3.23	-6.2%	0.9%
Luxembourg	1.39	0.89	0.80	0.80	0.72	0.78	0.61	0.57	-6.3%	-6.6%
Malta	0.00	0.00	0.37	0.37	0.36	0.38	0.38	0.37	-2.1%	
Moldova	2.69	2.48	2.49	2.55	2.54	2.76	2.16	2.05	-4.7%	-2.0%
Netherlands	21.46	33.91	26.05	29.95	30.41	25.88	32.51	33.41	2.8%	3.5%
North Macedonia	0.11	0.13	0.24	0.28	0.32	0.41	0.28	0.34	21.5%	8.9%
Norway	0.01	0.00	0.01	0.03	0.03	0.16	0.07	0.10	51.3%	24.4%
Poland	10.36	11.62	15.21	16.82	16.83	17.83	14.80	15.59	5.3%	3.2%
Portugal	5.24	4.73	5.90	6.14	5.99	5.77	5.81	4.31	-25.7%	-1.5%
Romania	2.11	0.19	1.41	2.48	1.99	3.30	2.64	2.58	-2.3%	1.6%
Serbia	1.82	1.61	2.04	2.10	1.84	2.19	2.75	2.45	-10.9%	2.3%
Slovakia	5.82	4.29	4.25	6.49	4.19	4.97	6.05	4.44	-26.7%	-2.1%
Slovenia	1.00	0.77	0.84	0.85	0.85	0.90	0.79	0.76	-3.6%	-2.0%
Spain	37.16	32.78	35.23	37.65	32.87	37.41	40.16	35.68	-11.2%	-0.3%
Sweden	1.70	0.84	1.21	1.14	1.51	1.25	0.76	0.91	19.2%	-4.7%
Switzerland	3.50	3.32	3.32	3.41	3.31	3.60	2.96	2.73	-8.0%	-1.9%
Türkiye	36.42	46.38	48.15	43.29	46.08	56.21	52.34	48.34	-7.6%	2.2%
Ukraine	34.38	15.46	9.84	11.06	8.59	7.42	3.04	4.11	35.4%	-15.1%
United Kingdom	54.56	44.59	46.24	45.33	43.04	50.48	55.65	44.45	-20.1%	-1.6%

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Imports

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia and Central Asia										
Russia	4.07	8.41	8.97	8.71	8.59	7.80	7.45	5.50	-26.2%	2.3%
Armenia	1.59	2.28	2.36	2.47	2.50	2.71	2.85	2.62	-8.2%	3.9%
Azerbaijan	0.00	0.00	1.76	0.00	0.00	0.00	1.52	2.28	50.1%	
Georgia	1.17	2.50	2.37	2.69	2.70	2.79	3.34	3.01	-9.9%	7.5%
Kazakhstan	3.43	5.45	9.70	16.18	12.77	2.33	1.19	0.41	-65.4%	-15.1%
Kyrgyzstan	0.27	0.24	0.30	0.29	0.31	0.37	0.41	0.40	-0.1%	3.3%
Tajikistan	0.17	0.00	0.05	0.23	0.23	0.24	0.19	0.19	0.0%	1.2%
Uzbekistan	0.02	0.07	0.00	0.00	0.00	2.14	2.04	2.04	0.0%	42.0%
Middle East										
Iran	8.85	8.43	2.08	0.39	0.31	0.51	0.51	0.51	0.0%	-19.7%
Iraq	0.00	0.00	4.05	5.80	10.84	9.25	8.96	9.61	7.3%	
Israel	2.01	0.11	0.70	0.72	0.64	0.19	0.05	0.00	-100.0%	-100.0%
Jordan	2.50	2.14	4.20	4.12	3.88	3.74	3.93	3.79	-3.4%	3.2%
Kuwait	2.65	3.79	4.73	4.94	5.84	7.31	8.15	8.59	5.3%	9.5%
Lebanon	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00		-100.0%
Oman	1.97	2.06	2.07	2.07	1.66	1.55	1.55	1.99	28.0%	0.1%
Syria	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00		-100.0%
United Arab Emirates	16.54	19.88	18.05	18.73	19.02	19.04	18.57	18.96	2.1%	1.1%
Africa										
Egypt	0.00	6.62	2.91	0.00	3.23	3.90	6.18	8.71	41.0%	
Ghana	0.41	0.54	0.67	0.67	0.64	0.49	0.53	0.62	18.1%	3.2%
Morocco	0.61	1.10	1.00	0.93	0.70	0.69	0.15	0.84	444.9%	2.5%
South Africa	3.04	3.87	3.98	3.88	3.79	3.59	3.51	3.59	2.4%	1.3%
Tunisia	2.34	2.95	4.01	4.22	3.89	3.99	3.97	3.96	-0.3%	4.1%

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Imports

Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Asia - Pacific										
Australia	5.29	5.19	4.66	5.05	4.49	5.19	3.80	1.20	-68.4%	-10.8%
Bangladesh	0.00	0.00	0.00	3.25	5.69	6.05	6.76	7.76	14.8%	
China	14.64	56.58	113.31	120.66	126.04	151.15	137.20	150.73	9.9%	19.6%
Hong Kong	3.64	3.09	3.06	3.16	4.79	4.79	4.71	5.07	7.6%	2.6%
India	13.30	22.14	29.70	33.48	34.36	32.11	27.22	32.90	20.8%	7.2%
Japan	96.12	113.79	110.16	104.64	104.47	97.77	96.49	88.75	-8.0%	-0.6%
Malaysia	8.16	9.09	8.09	8.47	9.84	9.36	13.99	11.04	-21.1%	2.4%
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Pakistan	0.00	2.66	9.85	9.19	10.96	10.50	8.49	8.30	-2.3%	
Singapore	7.55	9.89	10.42	10.62	10.69	11.12	11.03	10.28	-6.9%	2.4%
South Korea	44.36	45.54	60.17	55.70	54.66	62.79	63.52	61.09	-3.8%	2.5%
Taiwan	16.89	22.04	26.09	25.67	27.54	30.21	31.09	30.91	-0.6%	4.8%
Thailand	9.58	11.87	13.03	13.11	13.55	14.30	15.29	18.90	23.6%	5.4%
Others Asia - Pacific	0.15	0.00	0.09	0.13	0.07	0.08	0.08	0.08	-0.5%	-4.9%
Americas										
Argentina	3.47	11.12	9.49	6.63	7.03	7.98	5.97	4.94	-17.3%	2.8%
Brazil	12.94	18.84	10.84	10.03	9.84	17.25	8.98	6.62	-26.3%	-5.0%
Canada	21.78	19.25	22.76	25.45	23.26	24.15	25.02	24.76	-1.0%	1.0%
Chile	3.50	3.64	4.02	4.69	4.42	4.95	5.38	5.01	-6.9%	2.8%
Colombia	0.00	0.00	0.01	0.15	0.34	0.04	0.05	0.30	463.4%	
Dominican Republic	0.79	1.11	1.19	1.46	1.56	1.89	1.46	1.96	34.4%	7.2%
Jamaica	0.00	0.00	0.23	0.24	0.67	0.69	0.65	0.65	-0.1%	
Mexico	14.70	35.09	51.17	47.71	45.26	47.07	42.46	46.02	8.4%	9.2%
Panama	0.00	0.00	0.26	0.80	0.43	0.52	0.31	0.77	149.3%	
United States	101.09	73.15	77.63	73.74	68.63	78.29	81.76	81.67	-0.1%	-1.6%
Uruguay	0.07	0.05	0.06	0.09	0.07	0.08	0.08	0.08	-0.1%	0.8%
Venezuela	1.95	0.36	0.00	0.00	0.00	0.00	0.00	0.00		-100.0%
Others Americas	0.75	1.53	1.66	1.90	1.34	1.41	1.41	1.41	0.0%	5.0%

^(*)Data source: the original data are from IEA (2024) *Extended Balances*. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

Natural Gas - Imports by Country of Origin - Pipeline and LNG 2023

(billion cubic metres)

EUROPE

Importers ▶

Exporters ▼

	Austria	Belarus	Belgium	Bulgaria	Croatia	Czech Republic	Denmark	France	Germany	Greece	Hungary	Ireland	Italy	Lithuania	Moldova	Netherlands	Poland	Portugal	Romania	Serbia	Slovakia	Spain	Switzerland	Türkiye	Ukraine	United Kingdom
Europe																										
Belgium					0.0	0.0		0.2	15.9				0.1			2.7	0.0								0.1	0.0
Bulgaria																			2.7							
France			1.5			0.1			0.7				0.1			0.8						1.2	1.5	0.7		
Germany							0.5	0.4									1.2						1.2			
Netherlands			1.9			0.0		2.7	18.8				2.6													0.0
Norway			5.2			5.0	8.2	15.0	31.5	0.1			4.0	1.5		9.3							0.5	0.3		26.1
Spain						0.1		1.4		0.0			0.8													0.0
United Kingdom			2.9			0.0						3.7				2.4							0.0			
Russia and C. Asia																										
Russia		16.7	4.1			0.5		5.8		2.1	6.8		2.9			1.4		0.4		2.6	2.9	6.5		21.3		
Azerbaijan				0.9						0.7			10.0											10.3		
Kazakhstan																										
Turkmenistan																										
Middle East																										
Iran																									5.4	
Israel																										
Oman					0.3																		0.3	0.1		
Qatar			4.3					2.4				6.8				0.8							1.3			2.8
United Arab Emirates																										
Africa																										
Algeria			0.1					5.4		0.3		25.7				0.2		0.1				10.3	6.0		0.5	
Angola			0.3													1.2						0.3			0.8	
Equatorial Guinea			0.1													0.4						0.2				
Egypt			0.0					0.0		0.3		0.3				0.2						0.4	1.3		0.3	
Libya												2.5														
Mozambique						0.2						0.2												0.1		
Nigeria					0.1		0.5		0.1		0.3	0.1			0.5		1.9					4.8	0.5		0.5	
Asia - Pacific																										
Australia																							0.0			
Brunei																										
China																										
Indonesia						0.1																				
Malaysia																										
Myanmar																										
Papua New Guinea													0.0													
Americas																										
Bolivia																										
Canada																										
Peru																0.1							0.4			1.8
Trinidad and Tobago					0.5								0.1			1.2		0.2					0.5	0.2		0.4
United States			2.3	0.0	1.5			11.0		1.0		5.3	1.5		18.0		1.8					7.4	4.0		11.9	
Non-specified/Others	7.1		0.1	1.6	0.3	1.0	0.0	1.4	7.2	0.2	1.4	0.3	0.1	2.4	0.9	14.7		0.0			1.6	1.3	0.2	0.2	4.3	
TOTAL BY COUNTRY	7.1	16.7	22.8	2.5	3.0	6.8	8.6	46.2	73.9	4.8	8.2	3.7	61.8	3.3	2.4	40.1	15.9	4.3	2.8	2.6	4.5	35.3	2.9	50.5	4.3	45.2

(¹) Data source: IEA (2024) *Natural Gas Information*. All rights reserved.

RUSSIA AND CENTRAL ASIA					MIDDLE EAST				AFRICA			ASIA - PACIFIC										AMERICAS											
Russia	Armenia	Azerbaijan	Georgia	Uzbekistan	Iraq	Jordan	Kuwait	United Arab Emirates	Egypt	South Africa	Tunisia	Bangladesh	China	Hong Kong	India	Japan	Malaysia	Pakistan	Singapore	South Korea	Taiwan	Thailand	Argentina	Brazil	Canada	Chile	Dominican Republic	Mexico	United States	Non-specified/Other	TOTAL BY COUNTRY		
																															0.2	19.2	
																																2.7	
																															0.1	6.6	
																															0.1	3.2	
																															0.1	26.2	
																															0.5	107.3	
													0.1								0.2				0.1					0.5	3.2		
																														0.1	9.2		
	2.4	0.8		0.2			0.1						32.3	0.7	8.3				0.1	2.3	0.7			0.1					1.4	123.3			
0.3																														0.0	22.1		
0.7													4.7																		5.3		
4.8		1.5		1.9									29.3																	0.5	38.1		
0.3	0.0				10.1																										15.9		
						2.9			8.7																						11.6		
							0.5					1.3	1.4	1.2	3.1		0.1			6.8	0.5	0.8							0.1	16.6			
							5.2	20.0				5.0	22.1	14.5	3.7		7.5	1.8	11.3	7.4	3.7		0.2						1.9	122.6			
							0.1						0.9	6.5	1.3					0.5	0.2								0.0	9.4			
							0.1			3.9		0.2	0.5	0.5	0.1					0.2	0.1		0.1	0.1					0.2	54.4			
														1.0																	3.5		
												0.1	0.2	0.4	0.1				0.3	0.4		0.4		0.1					2.6				
							2.0					0.2	0.4	0.2	0.1		0.1		0.4	0.1			0.1						6.3				
																															2.5		
																															6.9		
							1.2		3.8			0.3	1.5	1.0	0.4		0.4			0.8	0.4	0.4	0.1					0.7	16.2				
							0.1					30.5	0.5	35.4	3.4		2.4	13.8	9.9	2.5									0.0	98.5			
												1.1		3.0	0.3				0.6	0.3	0.4									5.7			
													5.2								0.4									5.5			
												0.1	5.4		3.5	0.4	0.3	4.3	3.6	0.6	0.6								18.9				
							0.2					0.1	9.1		13.6			1.2	8.2	0.9	2.4							0.1	35.8				
												4.3									6.5									10.8			
												3.4			4.9						0.8	1.9								11.0			
																								2.3	5.2						7.5		
												0.3																		82.5	82.8		
												0.2		0.4						1.1	0.2									4.2			
							0.2					0.1	0.5	0.4		0.1	0.1				0.3		0.1	0.0	0.2		0.2	0.3	2.3	7.8			
							1.0					0.7	4.9	4.1	7.7		0.1	0.7	6.9	2.9	1.7		2.2	1.1	25.0		2.1	48.0	2.5	177.2			
				3.0			0.4		0.5			1.3	0.5	0.6	7.2					0.1	3.5					5.1		0.1	6.4	75.2			
5.8	2.7	2.3	3.0	2.2	10.1	4.9	9.0	20.0	9.2	3.8	3.9	8.0	155.2	5.2	31.8	86.2	11.3	8.5	10.8	58.6	29.5	20.8	5.1	6.5	25.2	5.1	2.3	48.0	82.9	17.6	1,175.8		

Natural Gas - Imports by Country of Origin - Pipeline 2023

(billion cubic metres)

EUROPE

Importers ▶

Exporters ▼

	Austria	Belarus	Belgium	Bulgaria	Croatia	Czech Republic	Denmark	France	Germany	Greece	Hungary	Ireland	Italy	Lithuania	Moldova	Netherlands	Poland	Romania	Serbia	Slovakia	Spain	Switzerland	Türkiye	Ukraine	United Kingdom	
Europe																										
Belgium								0.2	15.9							2.7	0.0									0.0
Bulgaria																		2.7								
France			1.5						0.7							0.8					1.1	1.5				
Germany							0.5	0.4									1.2					1.2				
Netherlands			1.9			0.0		2.7	18.8				2.6													0.0
Norway			5.1			5.0	8.2	13.8	31.5				3.9			7.9					0.2					25.7
Spain								1.4																		
United Kingdom			2.9			0.0						3.7				2.4										
Russia and C. Asia																										
Russia		16.7	0.1			0.5		0.0		1.3	6.8		2.8			0.2			2.6	2.9						20.6
Azerbaijan				0.9						0.7			10.0													10.3
Kazakhstan																										
Turkmenistan																										
Middle East																										
Iran																										5.4
Israel																										
Qatar																										
Africa																										
Algeria													23.2					0.1			8.4					
Egypt																										
Libya													2.5													
Mozambique																										
Nigeria																										
Asia-Pacific																										
China																										
Indonesia																										
Malaysia																										
Myanmar																										
Americas																										
Bolivia																										
Canada																										
United States																										
Non-specified/Others	7.1		0.1	1.4	0.3	0.3		0.5	1.9	0.2	1.4		0.1	0.1	2.4	0.7	8.0	0.0		1.6	0.9	0.2			4.3	
TOTAL BY COUNTRY	7.1	16.7	11.6	2.3	0.3	5.8	8.6	19.0	68.7	2.2	8.2	3.7	45.3	0.1	2.4	14.7	9.2	2.8	2.6	4.5	10.6	2.9	36.2	4.3	25.8	

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RUSSIA AND CENTRAL ASIA					MIDDLE EAST			AFRICA			ASIA - PACIFIC					AMERICAS					Non-specified/Other	TOTAL BY COUNTRY			
Russia	Armenia	Azerbaijan	Georgia	Uzbekistan	Iraq	Jordan	United Arab Emirates	Egypt	South Africa	Tunisia	China	Hong Kong	Malaysia	Singapore	Thailand	Argentina	Brazil	Canada	Chile	Mexico			United States		
																							0.1	19.0	
																								0.1	2.7
																									5.7
																									3.2
																									26.0
																								0.2	101.5
																									1.4
																								0.1	9.2
	2.4	0.8		0.2								21.3												1.0	80.3
0.3																								0.0	22.1
0.7												4.7													5.3
4.8		1.5		1.9								29.3												0.5	38.1
	0.3	0.0				10.1																			15.9
							2.9			8.7															11.6
							18.9																	1.9	20.8
										3.9														0.0	35.7
							1.8																		1.8
																									2.5
									3.8		0.9													0.7	4.7
																									0.7
												5.2													5.2
													0.4	4.1											4.5
														1.1											1.1
											4.3				6.5										10.8
																	2.3	5.2							7.5
																							82.5		82.5
																		25.0		48.0					73.0
				3.0							1.2									2.4		0.0		6.3	44.6
5.8	2.7	2.3	3.0	2.2	10.1	4.6	18.9	8.7	3.8	3.9	61.7	5.2	0.4	5.2	6.5	2.3	5.2	25.0	2.4	48.0	82.5		11.0	637.1	

Natural Gas - Imports by Country of Origin - LNG 2023

(billion cubic metres)

	EUROPE															MIDDLE EAST			
Importers ▶	Belgium	Bulgaria	Croatia	Czech Republic	Denmark	France	Germany	Greece	Italy	Lithuania	Netherlands	Poland	Portugal	Spain	Türkiye	United Kingdom	Jordan	Kuwait	United Arab Emirates
Exporters ▼	Belgium	Bulgaria	Croatia	Czech Republic	Denmark	France	Germany	Greece	Italy	Lithuania	Netherlands	Poland	Portugal	Spain	Türkiye	United Kingdom	Jordan	Kuwait	United Arab Emirates
Europe																			
Belgium			0.0	0.0					0.1			0.0			0.1				
France				0.1					0.1					0.1	0.7				
Netherlands				0.0															
Norway	0.1					1.2		0.1	0.1	1.5	1.4			0.3	0.3	0.4			
Spain				0.1				0.0	0.8							0.0			
United Kingdom														0.0					
Russia and C. Asia																			
Russia	4.0					5.7		0.8	0.1		1.2		0.4	6.5	0.8			0.1	
Middle East																			
Oman			0.3											0.3	0.1			0.5	
Qatar	4.3					2.4			6.8		0.8			1.3		2.8		5.2	1.1
United Arab Emirates																		0.1	
Africa																			
Algeria	0.1					5.4		0.3	2.4		0.2			1.9	6.0	0.5		0.1	
Angola	0.3										1.2			0.3		0.8			
Equatorial Guinea	0.1										0.4			0.2					
Egypt	0.0					0.0		0.3	0.3		0.2			0.4	1.3	0.3	0.2		
Mozambique			0.2						0.2						0.1				
Nigeria			0.1			0.5		0.1	0.3	0.1	0.5		1.9	4.8	0.5	0.5		1.2	
Asia-Pacific																			
Australia														0.0				0.1	
Brunei																			
China																			
Indonesia			0.1																
Malaysia																		0.2	
Papua New Guinea										0.0									
Americas																			
Canada																			
Peru											0.1			0.4		1.8			
Trinidad and Tobago			0.5							0.1	1.2		0.2	0.5	0.2	0.4		0.2	
United States	2.3	0.0	1.5			11.0		1.0	5.3	1.5	18.0		1.8	7.4	4.0	11.9		1.0	
Non-specified/Others		0.2		0.8	0.0	1.0	5.2		0.2		0.2	6.7		0.4	0.2			0.4	
TOTAL BY COUNTRY	11.2	0.2	2.7	1.0	0.0	27.2	5.2	2.6	16.5	3.2	25.3	6.7	4.3	24.6	14.3	19.4	0.2	9.0	1.1

(*) Data source: IEA (2023) *Natural Gas Information*. All rights reserved.

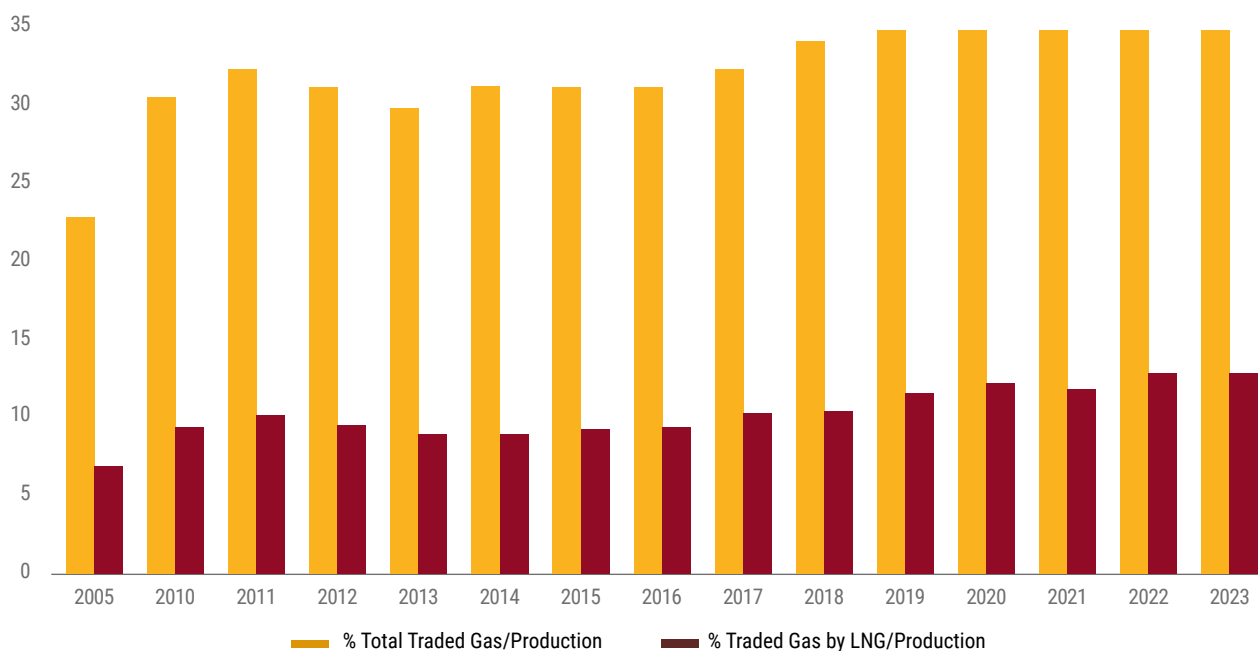
AFRICA	ASIA - PACIFIC											AMERICAS							
Egypt	Bangladesh	China	India	Japan	Malaysia	Pakistan	Singapore	South Korea	Taiwan	Thailand	Argentina	Brazil	Canada	Chile	Dominican Republic	United States	Non-specified/Other	TOTAL BY COUNTRY	
																	0.0	0.3	
																	0.0	0.9	
																	0.1	0.1	
																	0.3	5.7	
		0.1						0.2				0.1					0.5	1.8	
																		0.0	
			10.9	0.7	8.3		0.1	2.3	0.7			0.1					0.3	43.0	
		1.3	1.4	1.2	3.1		0.1	6.8	0.5	0.8							0.1	16.6	
		5.0	22.1	14.5	3.7		7.5	1.8	11.3	7.4	3.7	0.2						101.8	
			0.9	6.5	1.3				0.5	0.2							0.0	9.4	
		0.2	0.5	0.5	0.1			0.2		0.1	0.1	0.1					0.1	18.6	
				1.0														3.5	
		0.1	0.2	0.4	0.1		0.3	0.4		0.4	0.1							2.6	
		0.2	0.4	0.2	0.1		0.1	0.4	0.1		0.1							4.6	
				0.5				0.4		0.9								2.2	
		0.3	1.5	1.0	0.4		0.4	0.8	0.4	0.4	0.1							15.6	
			30.5	0.5	35.4	3.4	2.4	13.8	9.9	2.5							0.0	98.5	
			1.1		3.0	0.3		0.6	0.3	0.4								5.7	
								0.4										0.4	
		0.1	5.4		3.5		0.3	0.2	3.6	0.6	0.6							14.4	
		0.1	9.1		13.6		0.1	8.2	0.9	2.4							0.1	34.7	
			3.4		4.9			0.8	1.9									11.0	
			0.3													0.1	0.1	0.3	
			0.2		0.4			1.1	0.2									4.2	
		0.1	0.5	0.4		0.1	0.1			0.3	0.1	0.0	0.2	0.2	0.3		2.3	7.8	
		0.7	4.9	4.1	7.7	0.1	0.7	6.9	2.9	1.7	2.2	1.1	0.0	2.1			2.5	104.2	
	0.5		0.1	0.5	0.6	7.2		0.1	3.5					2.7	0.0		0.1	30.6	
0.5	8.0	93.5	31.8	86.2	10.8	8.5	5.6	58.6	29.5	14.2	2.8	1.3	0.2	2.7	2.3	0.4	6.7	538.7	

Traded Gas

Total Traded Gas on Production

(percentage)

	Traded Gas by LNG/ Total Traded Gas (%)	Traded Gas by Pipeline/ Total Traded Gas (%)	Total Traded Gas/ Production (%)	Traded Gas by LNG/ Production (%)	Traded Gas by Pipeline/ Production (%)
2005	23	77	31	7	24
2010	31	69	31	10	22
2011	32	68	32	10	22
2012	31	69	31	10	22
2013	30	70	31	9	22
2014	32	68	29	9	20
2015	31	69	30	9	21
2016	31	69	31	10	21
2017	32	68	32	11	22
2018	34	66	31	11	20
2019	38	62	31	12	19
2020	40	60	31	12	18
2021	39	61	31	12	19
2022	44	56	30	13	17
2023	46	54	29	13	16



LNG - Liquefaction and Regasification Capacity

Liquefaction Capacity - Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023
Europe	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Norway	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Russia and Central Asia	13.0	15.0	26.3	38.2	38.3	39.1	40.2	41.6
Russia	13.0	15.0	26.3	38.2	38.3	39.1	40.2	41.6
Middle East	113.2	136.5	136.5	136.5	136.5	137.0	137.7	137.8
Oman	14.2	14.2	14.2	14.2	14.2	14.7	15.3	15.5
Qatar	83.4	105.6	105.6	105.6	105.6	105.7	105.6	105.6
United Arab Emirates	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
Yemen	8.0	9.1	9.1	9.1	9.1	9.1	9.1	9.1
Africa	82.3	85.5	87.5	88.8	84.7	90.9	92.2	96.1
Algeria	27.9	33.0	33.0	33.0	28.9	28.9	28.9	28.9
Angola		7.1	7.1	7.1	7.1	7.1	7.1	7.1
Cameroon			2.0	3.3	3.3	3.2	3.3	3.3
Egypt	16.6	9.8	9.8	9.8	9.8	16.0	16.6	16.6
Equatorial Guinea	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Libya	2.2							
Mozambique							0.8	4.6
Nigeria	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1
Asia - Pacific	114.1	126.8	195.4	210.1	212.1	213.8	214.1	215.5
Australia	28.2	45.1	104.5	121.9	123.9	123.9	123.9	123.9
Brunei	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
Indonesia	42.6	27.0	28.9	25.2	25.2	25.2	25.2	26.6
Malaysia	33.7	34.9	41.4	41.4	41.4	43.1	43.4	43.4
Papua New Guinea		10.1	10.9	11.9	11.9	11.9	11.9	11.9
Americas	26.0	28.7	62.1	86.2	123.3	128.8	143.0	148.6
Argentina				0.4	0.5			
Peru	3.3	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Trinidad and Tobago	20.6	20.6	20.7	20.7	20.7	16.3	16.3	16.3
United States	2.0	2.0	35.4	59.1	96.1	106.5	120.6	126.3
World	354.2	398.1	513.3	565.3	600.6	615.1	632.8	645.2

^(*) Nominal Capacity. Data source: Wood Mackenzie LNG Tool.

LNG - Liquefaction and Regasification Capacity

Regasification Capacity - Countries^(*)

(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023
Europe	172.4	198.1	229.7	239.3	241.2	247.5	256.4	292.1
Belgium	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
Croatia						2.6	2.8	2.9
Finland				0.3	0.5	0.5	0.5	5.0
France	22.2	19.5	32.6	32.6	32.7	34.1	33.8	34.0
Germany							0.0	13.5
Greece	5.4	5.4	5.4	6.7	6.7	6.7	6.9	7.1
Italy	11.5	15.3	15.3	15.3	15.3	15.3	16.3	19.0
Lithuania		3.7	3.7	3.7	3.7	3.7	3.7	3.7
Malta			0.6	0.6	0.6	0.6	0.6	0.6
Netherlands		12.0	12.0	12.0	12.0	12.0	14.1	20.8
Poland		0.3	5.0	5.0	5.0	5.0	6.2	6.2
Portugal	5.6	8.3	8.3	8.3	8.3	8.3	8.3	7.4
Spain	62.4	63.6	63.6	63.6	63.6	63.6	63.6	66.5
Türkiye	12.3	12.3	24.6	32.6	34.1	35.2	38.8	44.6
United Kingdom	43.9	48.6	49.6	49.6	49.6	50.8	51.7	51.7
Russia and Central Asia				3.6	3.7	3.7	3.7	3.7
Russia				3.6	3.7	3.7	3.7	3.7
Middle East	5.5	18.5	30.7	30.7	30.7	38.0	55.7	58.6
Bahrain						0.1	8.3	8.3
Israel		2.7	2.7	2.7	2.7	2.7	1.6	
Jordan		4.5	7.4	7.4	7.4	7.4	7.4	7.4
Kuwait	5.2	6.6	6.6	6.6	6.6	13.9	24.5	28.9
United Arab Emirates	0.3	4.7	14.0	14.0	14.0	14.0	14.0	14.0
Africa		6.0	9.3	5.2	5.2	5.2	6.8	8.0
Egypt		6.0	9.3	5.2	5.2	5.2	5.2	5.2
Mozambique							1.3	2.6
Senegal						0.1	0.3	0.3
Asia - Pacific	435.0	571.9	663.9	695.2	713.9	753.0	784.0	819.5
Bangladesh		0.0	3.9	8.7	10.3	10.3	10.3	10.3
China	17.6	62.7	90.1	106.1	113.3	135.0	149.4	168.6
India	18.4	34.1	41.8	48.2	57.2	64.3	65.6	72.8
Indonesia		11.3	12.5	12.5	12.5	15.0	15.8	15.8
Japan	265.5	289.8	301.1	301.3	301.4	305.7	307.2	307.5
Malaysia		5.2	10.0	10.0	10.0	10.0	10.0	10.0
Myanmar					0.7	1.4	1.4	1.4
Pakistan		4.6	12.3	12.3	12.3	12.3	12.3	12.3
Philippines								7.6
Singapore		8.2	15.1	15.1	15.1	15.1	15.1	15.1
South Korea	115.1	128.8	139.2	139.5	139.5	142.2	145.1	145.6
Taiwan	18.5	20.4	24.3	25.9	25.9	25.9	25.9	25.9
Thailand		6.8	13.7	15.7	15.7	15.7	26.0	26.0
Vietnam								0.7
Americas	188.9	243.7	252.1	260.3	269.7	277.8	280.0	283.1
Argentina	4.1	11.3	11.3	13.4	13.4	13.4	13.4	13.4
Brazil	7.7	14.9	14.9	16.8	25.1	32.8	33.1	34.6
Canada	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
Chile	5.3	7.3	7.5	7.5	7.5	7.5	7.5	7.5
Colombia		0.0	4.1	4.1	4.1	4.1	4.1	4.5
Dominican Republic	2.6	3.9	3.9	3.9	3.9	3.9	3.9	3.9
El Salvador							1.7	2.9
Jamaica			3.4	5.8	5.8	5.8	5.8	5.8
Mexico	15.5	20.7	20.7	20.7	20.7	20.9	21.2	21.2
Panama			0.8	2.4	2.4	2.4	2.4	2.4
United States ^(**)	143.4	175.3	175.3	175.4	176.5	176.7	176.7	176.7
World	801.8	1,038.1	1,185.6	1,234.3	1,264.4	1,325.1	1,386.6	1,465.0

^(*) Data source: Wood Mackenzie LNG Tool.

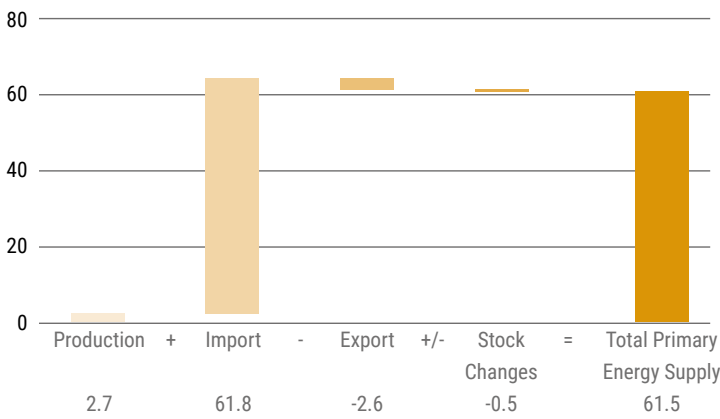
^(**) The United States includes Puerto Rico.

Natural Gas Balance - Italy^(*)

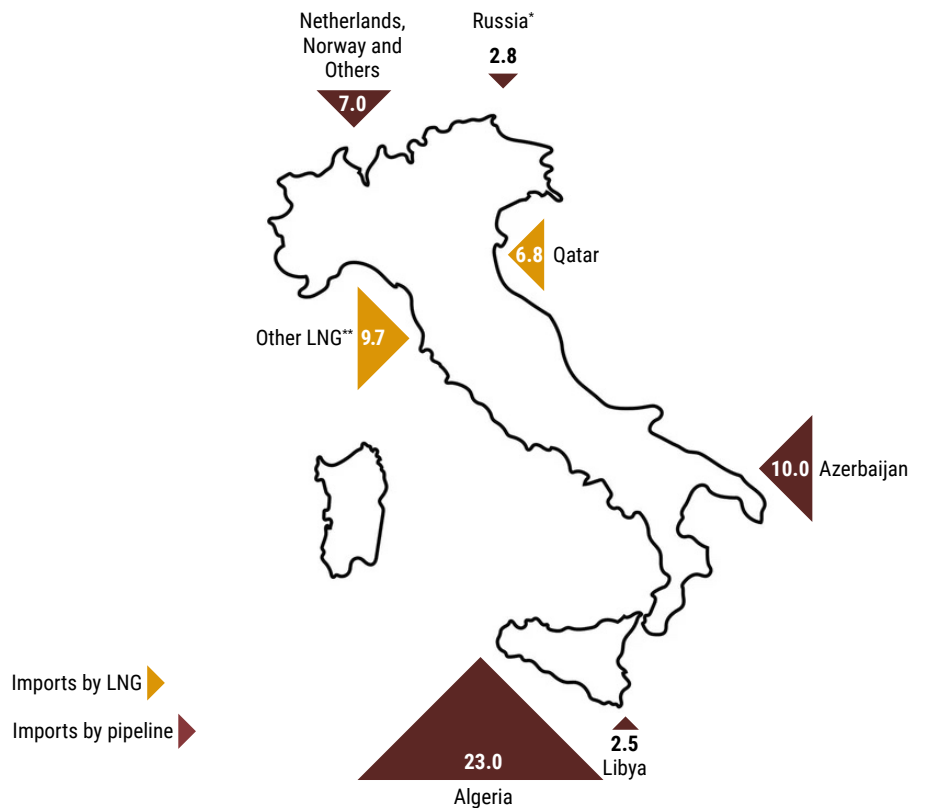
(billion cubic metres)

	2010	2015	2018	2019	2020	2021	2022	2023
Production	8.4	6.8	5.4	4.9	4.0	3.3	3.1	2.7
Imports	75.4	61.3	67.9	71.2	66.4	73.0	72.6	61.8
Exports	-0.1	-0.2	-0.4	-0.3	-0.3	-1.5	-4.6	-2.6
Stock Changes	-0.5	-0.3	-0.3	-1.1	1.1	1.6	-2.6	-0.5
Total Primary Energy Supply	83.1	67.5	73.2	76.9	69.0	73.2	73.7	61.5

2023



Imports 2023^(**)



^(*) Data source: Italian Ministry of Environment and Energy Security. Gas volumes are quoted in Italian calorific value of 38.1 MJ/cm.

^(**) Data source: Eni's elaborations on Italian Ministry of Environment and Energy Security data.

Natural Gas Prices

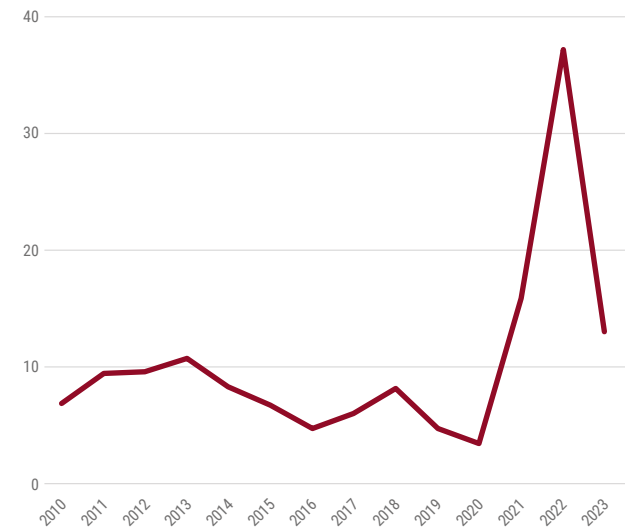
Natural Gas Prices

(\$/Mbtu)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
TTF	6.7	6.4	7.9	4.5	3.2	15.7	37.1	12.8	-65.4%	5.1%
Henry Hub	4.4	2.6	3.2	2.6	2.0	3.9	6.4	2.5	-60.6%	-4.1%
Japan ^(*)	7.4	7.5	9.8	5.9	3.8	15.7	34.0	15.3	-55.0%	5.7%

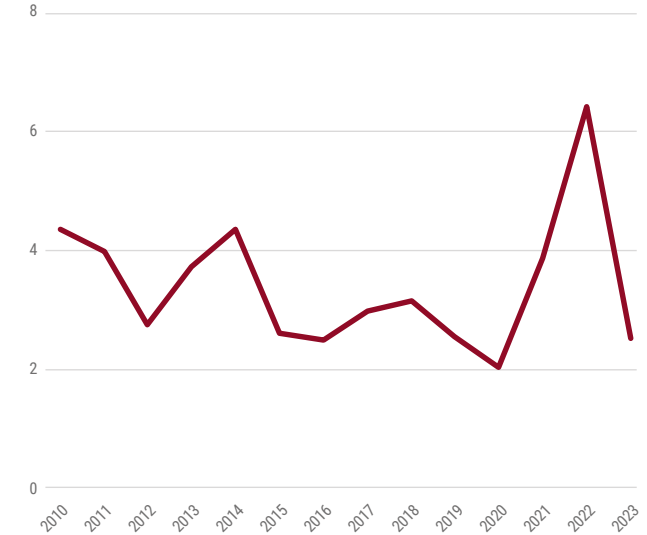
TTF

(\$/Mbtu)



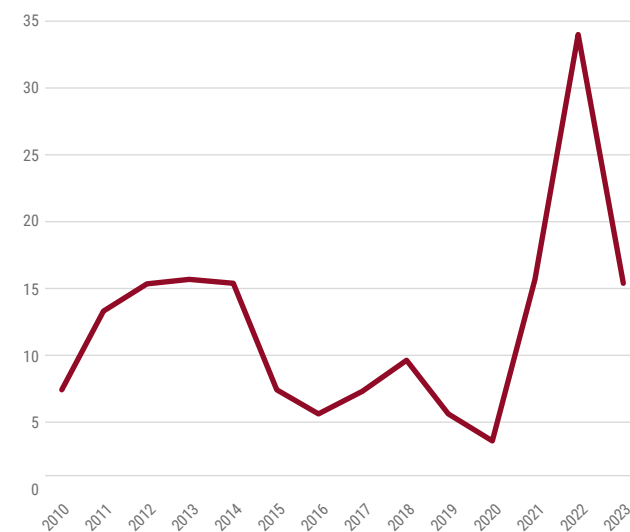
Henry Hub

(\$/Mbtu)

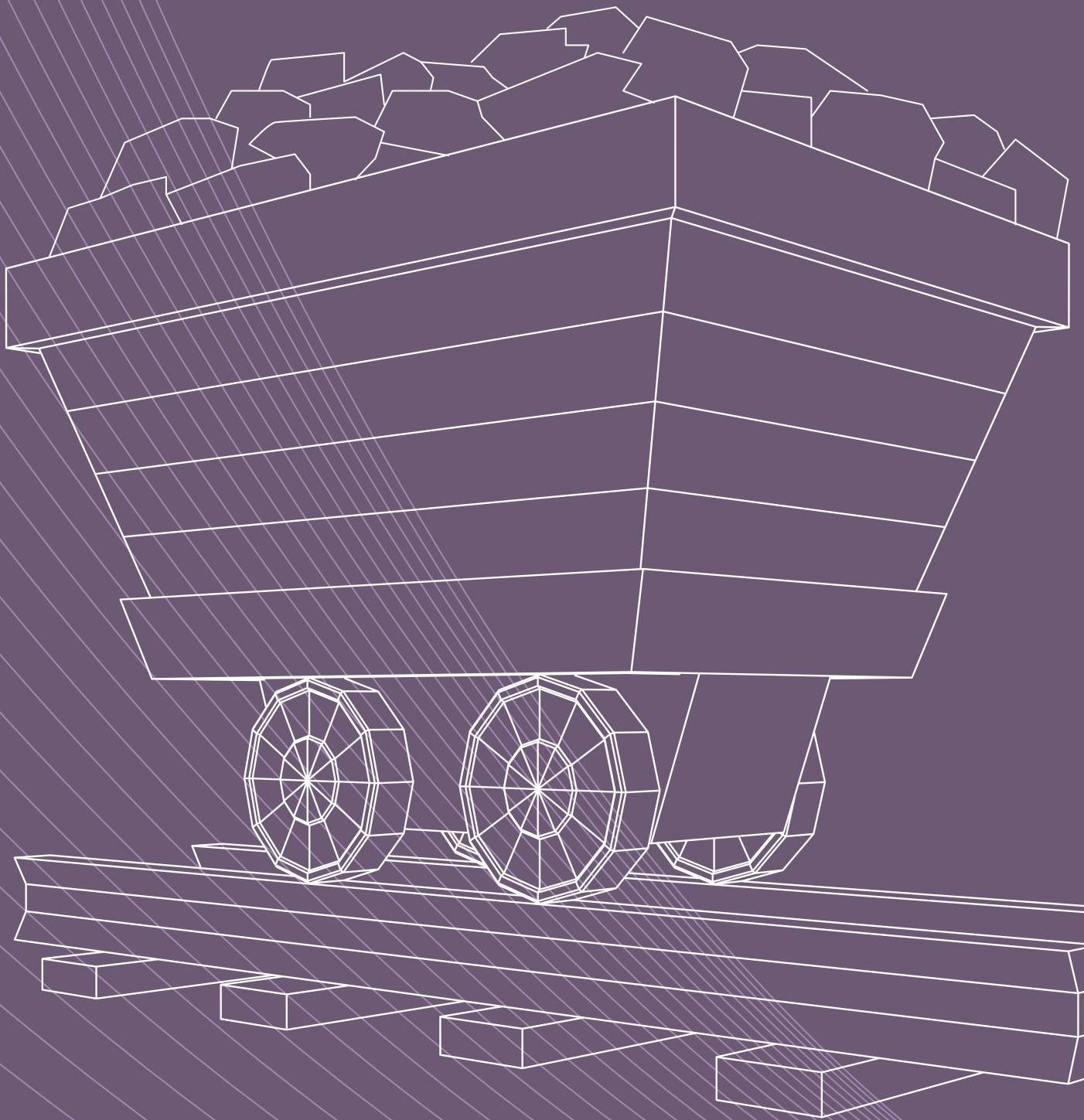


Japan^(*)

(\$/Mbtu)



^(*) Data source: Wood Mackenzie and EIA DOE.





Coal

In 2023, the **world's coal demand** reached a total of about 8,350 Mton, marking a 2.2% increase from 2022. This growth was driven by higher consumption in Asia (particularly in China and India, which saw a +6% and +10%, respectively). These gains were partially offset by reductions in Europe (-17%) and North America (-10%).

Coal production also saw a 2.6% increase compared to 2022, reaching about 8,700 Mton. China, a dominant force in the global coal market, confirmed its position as the world's leading country in terms of coal consumption and production. In 2023, China accounted for 56% of the global demand and 51% of the worldwide output. The country's CAGR 2010-23 shows a steady growth trend of 2.5% for coal consumption and 2.4% for coal production.





Coal



PRODUCTION

Areas and Aggregates

The World Top 10 Production



CONSUMPTION

Areas and Aggregates

The World Top 10 Consumption

Production

Areas and Aggregates^(*)

(Mton)

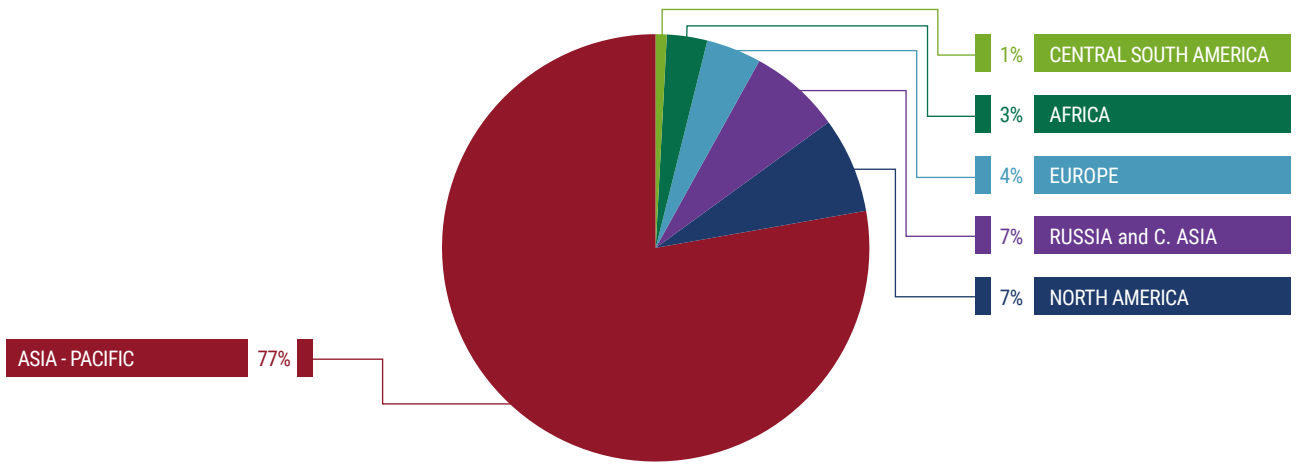
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	658	582	533	479	409	432	451	370	-17.9%	-4.3%
Russia and Central Asia	469	514	613	631	575	627	620	616	-0.6%	2.1%
Middle East	1	1	2	2	2	2	2	2	0.0%	4.0%
Africa	289	301	313	306	293	283	286	289	1.0%	0.0%
Asia - Pacific	4,704	5,269	5,473	5,687	5,663	5,926	6,381	6,718	5.3%	2.8%
Americas	1,292	1,096	948	896	671	722	740	701	-5.3%	-4.6%
- North America	1,165	957	814	763	582	626	642	622	-3.1%	-4.7%
- Central South America	127	139	134	133	89	96	98	79	-19.7%	-3.6%
World	7,413	7,764	7,881	8,000	7,613	7,992	8,479	8,696	2.6%	1.2%
European Union	459	431	384	328	270	299	310	247	-20.2%	-4.6%
MENA	1	1	2	2	2	2	2	2	0.0%	4.0%
OECD	2,269	2,110	1,915	1,819	1,523	1,567	1,596	1,471	-7.8%	-3.3%
NON OECD	5,144	5,654	5,967	6,181	6,091	6,425	6,883	7,225	5.0%	2.6%
OPEC	6	3	3	3	4	4	4	4	-1.3%	-2.6%
NON OPEC	7,407	7,761	7,878	7,997	7,609	7,988	8,475	8,692	2.6%	1.2%

^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

Production

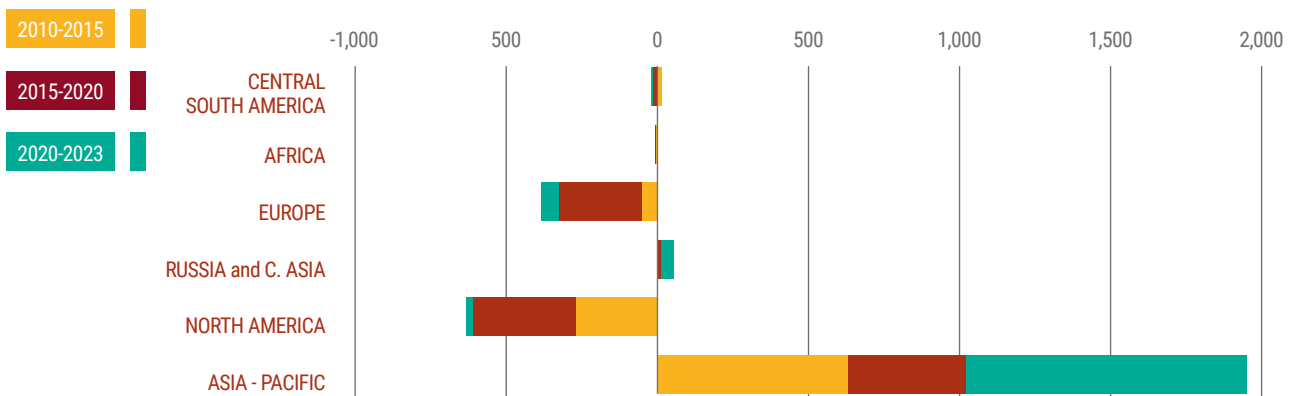
Coal Production (2023)

8,696 Mton



Coal Production Growth (2010-2023)

1,283 Mton



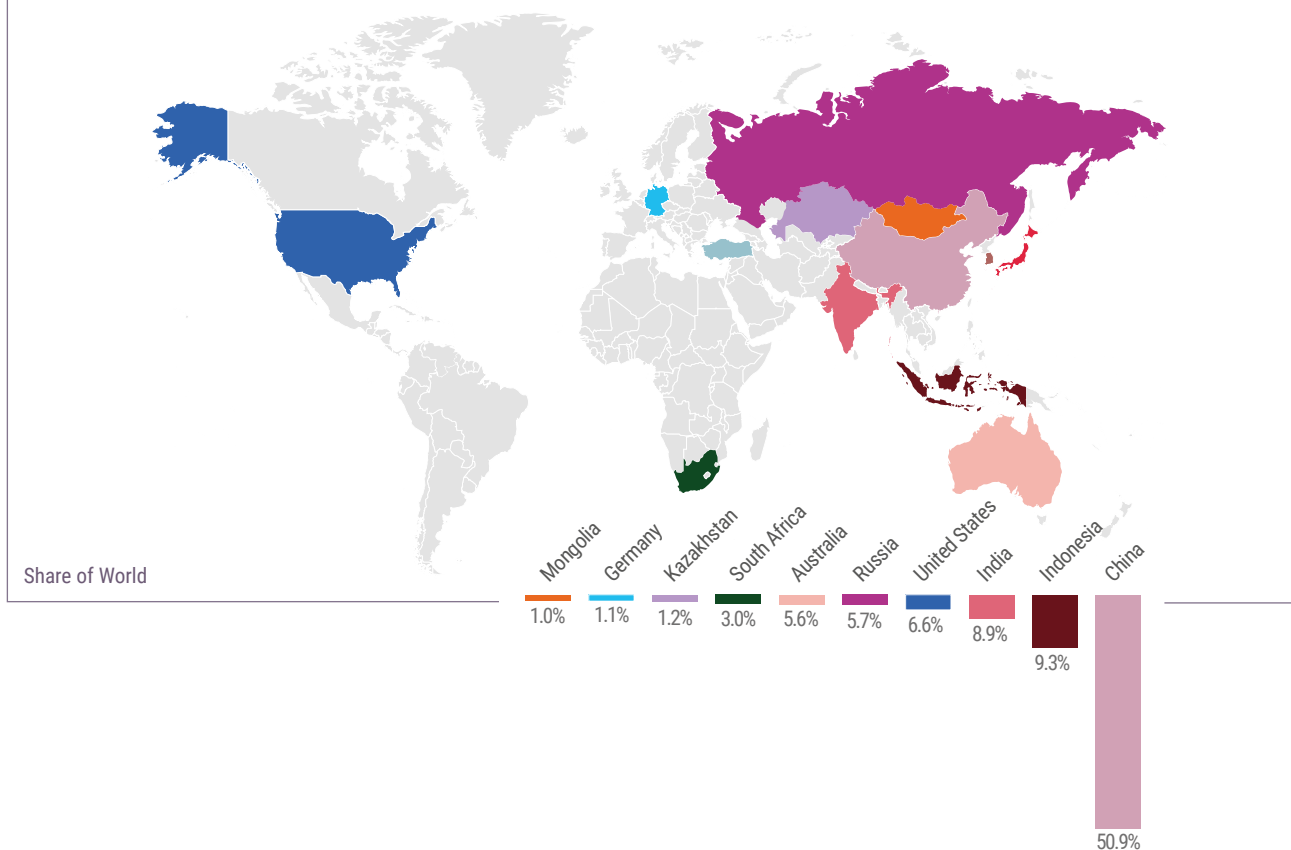
Production

The World Top 10 Production^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
China	3,269	3,537	3,578	3,719	3,777	4,024	4,277	4,424	3.4%	2.4%
Indonesia	375	495	589	643	607	611	719	810	12.6%	6.1%
India	430	531	582	576	556	611	696	776	11.4%	4.6%
United States	1,097	896	757	709	535	577	593	573	-3.4%	-4.9%
Russia	364	423	503	527	472	518	503	498	-1.1%	2.4%
Australia	476	567	551	561	550	512	510	488	-4.2%	0.2%
South Africa	283	284	285	284	274	259	255	257	0.7%	-0.7%
Kazakhstan	99	82	98	93	92	95	101	101	0.0%	0.2%
Germany	166	165	151	117	96	113	117	91	-21.8%	-4.5%
Mongolia	31	26	48	50	44	37	42	87	107.4%	8.2%
The World Top 10	6,590	7,007	7,141	7,280	7,002	7,359	7,815	8,106	3.7%	1.6%
Rest of the World	823	757	740	720	612	633	664	589	-11.3%	-2.5%
World	7,413	7,764	7,881	8,000	7,613	7,992	8,479	8,696	2.6%	1.2%

The World Top 10 (2023)



^(*) Data source: IEA (2024) *Extended Balances*. All rights reserved.

Consumption

Areas and Aggregates^(*)

(Mton)

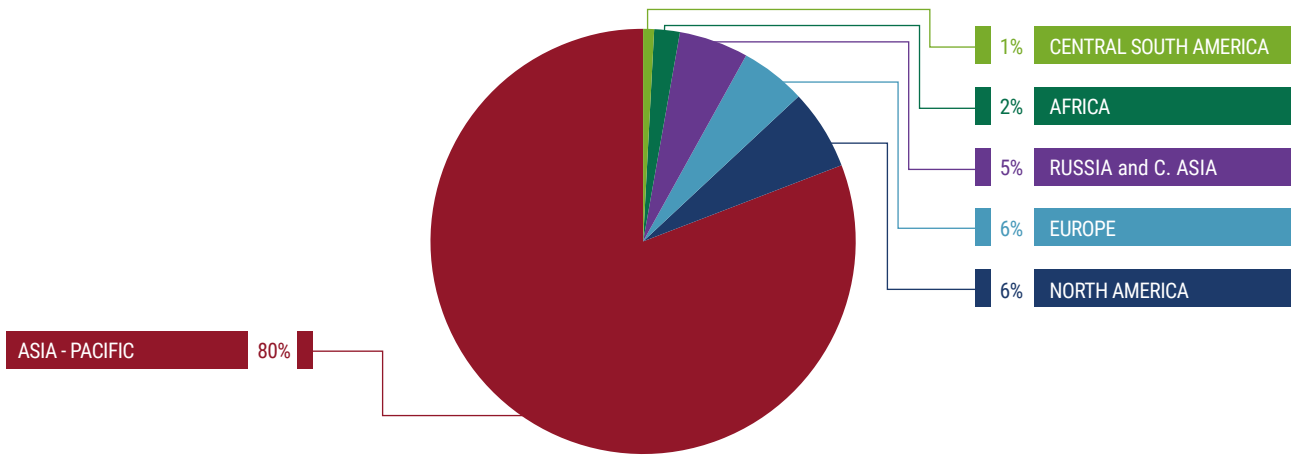
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	915	866	793	687	589	647	642	531	-17.3%	-4.1%
Russia and Central Asia	328	331	350	358	340	367	376	380	0.9%	1.1%
Middle East	19	18	15	16	16	16	13	12	-8.2%	-3.3%
Africa	211	206	213	226	206	208	205	207	0.7%	-0.2%
Asia - Pacific	4,730	5,360	5,597	5,727	5,748	6,139	6,341	6,681	5.4%	2.7%
Americas	1,177	925	796	697	570	642	598	542	-9.3%	-5.8%
- North America	1,104	838	713	611	497	565	526	473	-10.2%	-6.3%
- Central South America	73	87	83	86	73	77	71	69	-2.6%	-0.4%
World	7,378	7,706	7,764	7,711	7,468	8,019	8,175	8,352	2.2%	1.0%
European Union	642	617	558	458	373	432	437	339	-22.5%	-4.8%
MENA	26	28	32	33	31	34	31	29	-7.3%	0.9%
OECD	2,379	2,084	1,894	1,682	1,429	1,569	1,522	1,349	-11.4%	-4.3%
NON OECD	4,999	5,622	5,870	6,029	6,039	6,450	6,653	7,003	5.3%	2.6%
OPEC	5	6	7	7	8	10	7	8	2.4%	2.9%
NON OPEC	7,373	7,700	7,758	7,704	7,461	8,009	8,168	8,345	2.2%	1.0%

^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

Consumption

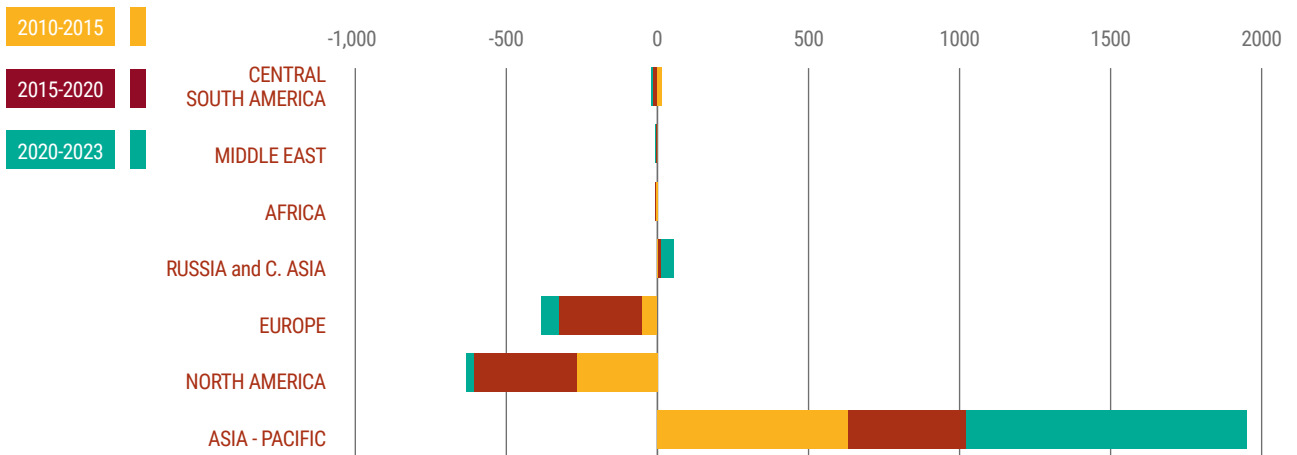
Coal Consumption (2023)

8,352 Mton



Coal Consumption Growth (2010-2023)

974 Mton



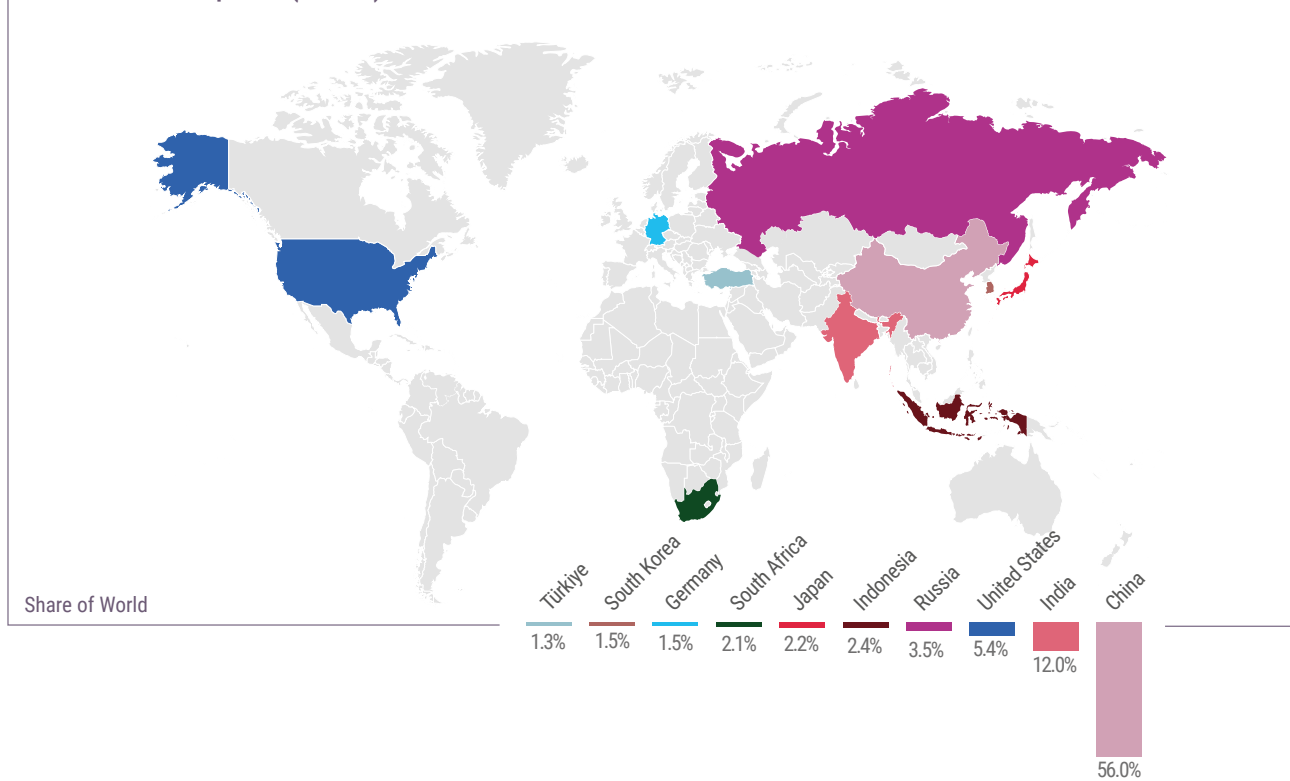
Consumption

The World Top 10 Consumption(*)

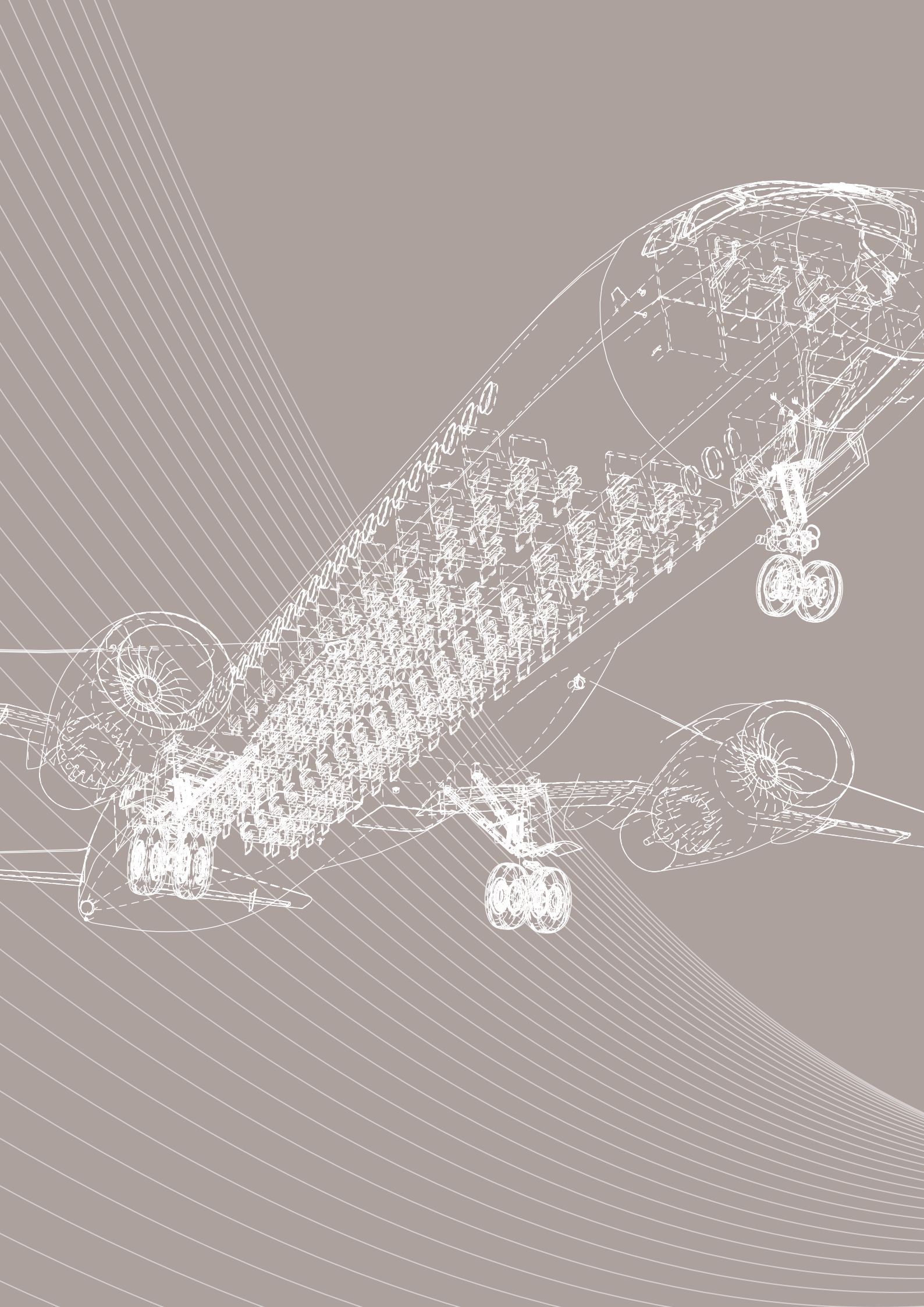
(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
China	3,386	3,768	3,814	3,920	4,024	4,308	4,409	4,679	6.1%	2.5%
India	543	747	818	802	755	851	916	1,006	9.8%	4.9%
United States	1,051	795	678	581	474	538	507	454	-10.5%	-6.2%
Russia	252	264	266	278	258	283	286	290	1.4%	1.1%
Indonesia	66	81	113	139	137	142	190	201	5.7%	9.0%
Japan	211	220	211	206	188	205	202	183	-9.5%	-1.1%
South Africa	197	186	183	196	178	176	172	174	1.2%	-1.0%
Germany	228	233	209	168	135	161	167	129	-22.5%	-4.3%
South Korea	128	141	154	144	128	130	128	123	-3.4%	-0.3%
Türkiye	91	91	111	114	105	113	116	110	-5.4%	1.5%
The World Top 10	6,153	6,526	6,557	6,549	6,384	6,908	7,094	7,349	3.6%	1.4%
Rest of the World	1,225	1,179	1,207	1,162	1,085	1,112	1,082	1,003	-7.3%	-1.5%
World	7,378	7,706	7,764	7,711	7,468	8,019	8,175	8,352	2.2%	1.0%

The World Top 10 (2023)



(*) Data source: IEA (2024) *Extended Balances*. All rights reserved.



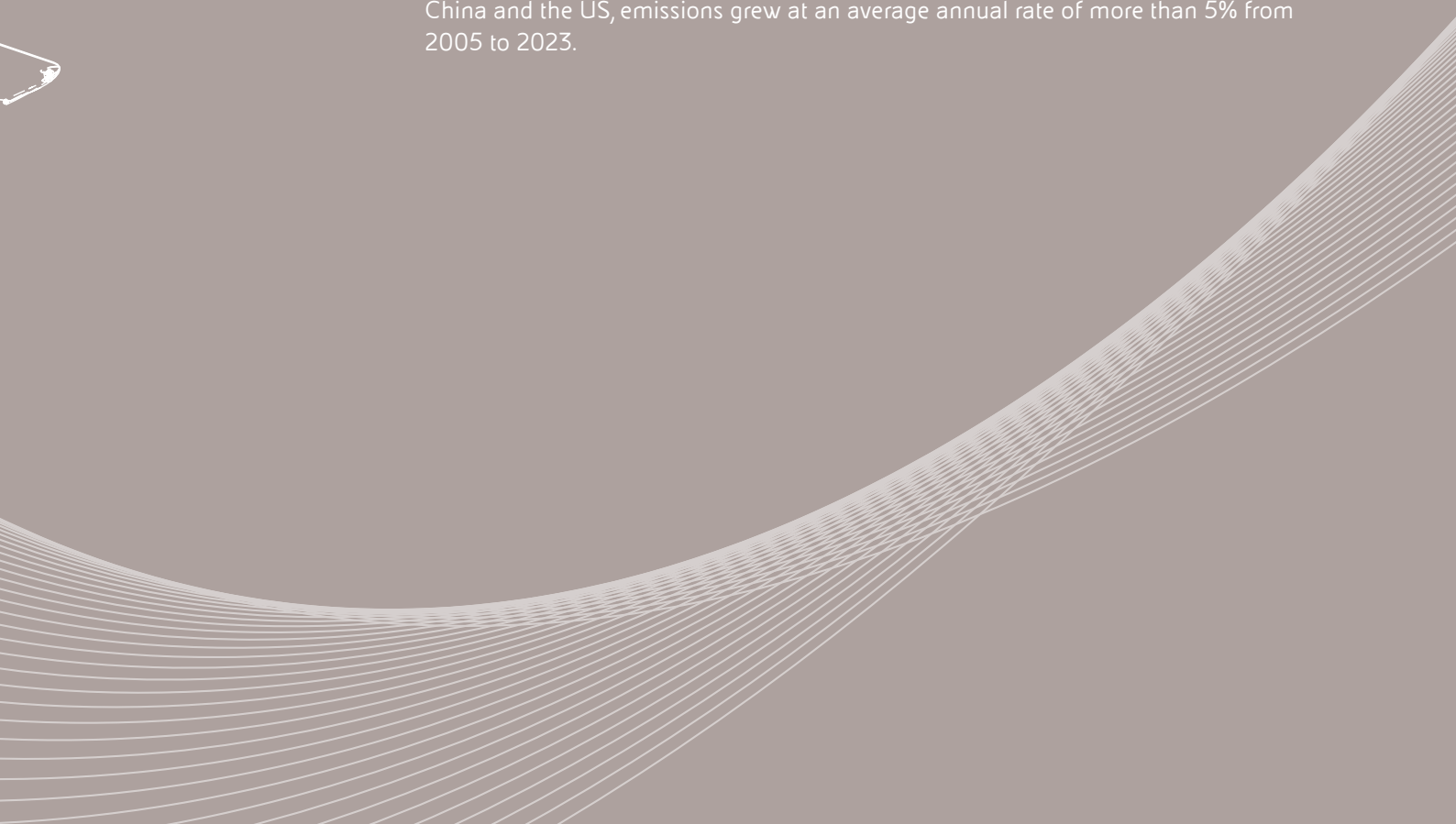


CO₂ emissions

In 2023, the global energy-related CO₂ emissions increased by 1.1%, reaching a new record of 37.2 Gton. The increase was driven by China, which alone accounted for one-third of the global CO₂ emissions, and India, which for the first time surpassed the EU by contributing over 7%. By contrast, emissions from advanced economies dropped to levels last seen 50 years ago, primarily due to the shift from coal to gas and the increased use of clean energy in power generation.

In terms of geographic areas, the distribution of CO₂ emissions remains uneven. Over the 2005-2022 period, OECD countries gradually reduced their emissions by more than 15%, mainly due to increased energy efficiency, coal-to-gas switching, and the growth of renewables. In addition, a weak macroeconomic environment contributed to the decline in industrial production in many countries.

However, this decline in advanced economies was "offset" by a 65% increase in emissions in non-OECD countries. China was confirmed as the world's largest emitter, a position it has held since 2006, almost doubling its emissions by 2023. The United States, the second-largest emitter worldwide (first country until 2005), has undertaken a downward trend since 2006, with emissions in 2023 being 20% below 2005 levels. The main driver of this decline was the closure of coal-fired power plants and the switch to gas. Finally, in India, the third largest country after China and the US, emissions grew at an average annual rate of more than 5% from 2005 to 2023.



CO₂ emissions

Areas and Aggregates^(*)

(Gton)

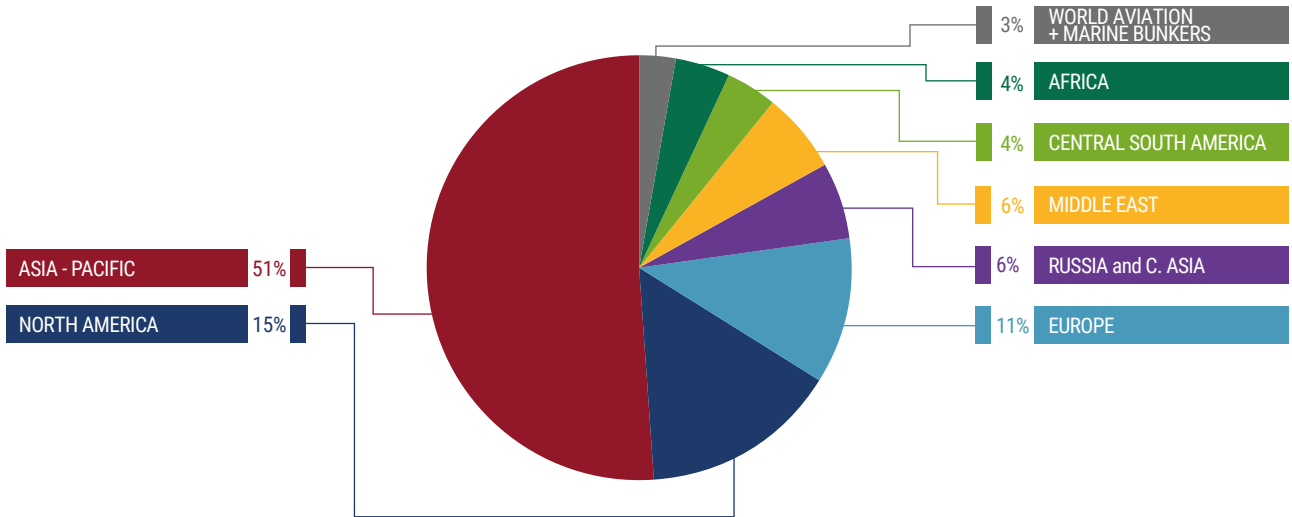
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2022-2021)	CAGR (2022-2010)
Europe	4.4	4.0	3.9	3.8	3.4	3.7	3.5		-3.7%	-1.8%
Russia and Central Asia	2.0	1.9	2.0	2.0	2.0	2.2	2.1		-1.3%	0.7%
Middle East	1.5	1.8	1.8	1.9	1.8	1.9	2.0		3.4%	2.1%
Africa	1.0	1.2	1.2	1.2	1.2	1.3	1.3		0.0%	1.8%
Asia - Pacific	13.2	15.2	16.4	16.6	16.3	17.2	17.5		1.8%	2.4%
Americas	7.4	7.1	7.0	6.8	6.1	6.5	6.6		1.3%	-0.9%
- North America	5.9	5.5	5.5	5.3	4.8	5.1	5.1	5.1	-1.4%	-1.7%
- Central South America	1.5	1.7	1.5	1.5	1.3	1.5	1.5		1.0%	-0.2%
World Marine bunkers	0.7	0.7	0.7	0.7	0.6	0.7	0.7		0.3%	0.0%
World Aviation bunkers	0.5	0.5	0.6	0.6	0.3	0.3	0.5		44.4%	0.0%
World	30.6	32.4	33.7	33.6	31.8	33.7	34.1	34.5	1.0%	0.9%
World (included process emissions)	32.6	34.7	36.3	36.3	34.4	36.3	36.8	37.2	1.1%	1.0%
European Union 27	3.1	2.8	2.8	2.7	2.4	2.6	2.5	2.3	-9.5%	-2.4%
MENA	1.9	2.2	2.3	2.3	2.3	2.4	2.5		3.0%	2.1%
OECD	12.5	11.8	11.7	11.3	10.3	10.9	10.8		-0.6%	-1.2%
NON OECD	18.1	20.6	22.0	22.3	21.5	22.8	23.3		2.2%	2.1%
OPEC	1.6	1.9	1.9	1.9	1.9	2.0	2.1	2.1	1.8%	2.0%
NON OPEC	29.0	30.5	31.8	31.7	29.9	31.7	32.1		1.1%	0.8%

^(*) Data source: IEA

CO₂ emissions

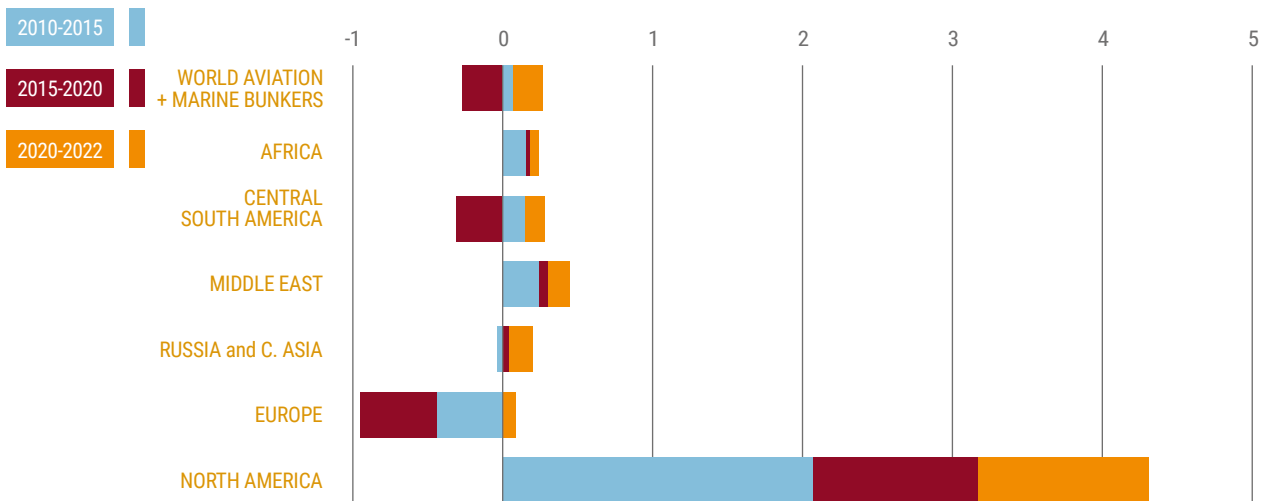
CO₂ (2022)

34.1 Gton



CO₂ Growth (2010-2022)

3.5 Gton



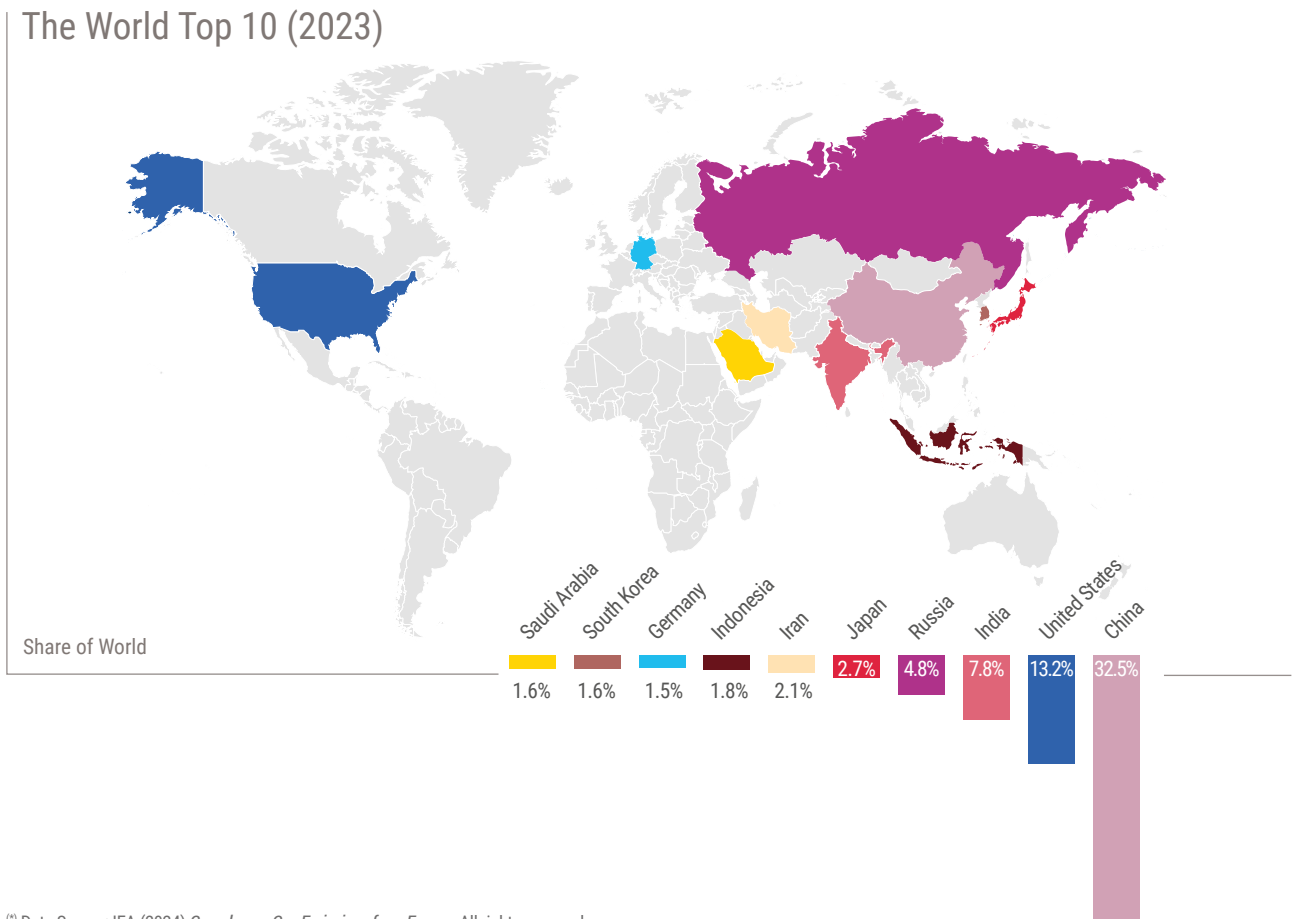
CO₂ emissions

The World Top 10^(*)

(Gton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
China	7.8	9.2	9.8	10.0	10.0	10.6	10.6	11.2	5.3%	2.8%
United States	5.4	4.9	4.9	4.7	4.3	4.5	4.6	4.5	-1.5%	-1.3%
India	1.6	2.1	2.3	2.3	2.1	2.3	2.5	2.7	7.2%	4.3%
Russia	1.5	1.5	1.6	1.6	1.5	1.7	1.6	1.6	0.9%	0.5%
Japan	1.1	1.1	1.1	1.0	1.0	1.0	1.0	0.9	-5.8%	-1.6%
Iran	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	3.7%	2.9%
Indonesia	0.4	0.5	0.5	0.6	0.5	0.6	0.7	0.6	-3.6%	3.7%
Germany	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.5	-12.8%	-2.7%
South Korea	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	-1.7%	-0.4%
Saudi Arabia	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.9%	2.0%
The World Top 10	20.0	21.7	22.6	22.6	21.7	23.1	23.4	24.0	2.3%	1.4%
Rest of the World	10.5	10.7	11.1	11.1	10.1	10.6	10.7	10.5	-1.9%	0.0%
World	30.6	32.4	33.7	33.6	31.8	33.7	34.1	34.5	1.0%	0.9%
World (included process emissions)	32.6	34.7	36.3	36.3	34.4	36.3	36.8	37.2	1.1%	1.0%

The World Top 10 (2023)



^(*) Data Source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

CO₂ emissions

Countries^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Europe	4,390.5	3,950.3	3,930.9	3,759.2	3,444.8	3,670.3	3,533.5		-3.7%	-1.8%
Albania	3.9	3.8	4.4	4.1	3.4	3.9	3.6	3.4	-5.2%	-1.1%
Austria	68.3	61.6	61.3	62.8	57.4	60.3	56.8	53.7	-5.5%	-1.8%
Belarus	59.5	52.6	57.1	55.4	52.5	53.1	50.5		-4.9%	-1.3%
Belgium	103.3	91.4	89.3	88.5	81.4	85.1	78.8	75.1	-4.7%	-2.4%
Bosnia and Herzegovina	20.5	19.3	22.2	20.8	20.5	20.7	20.6	14.0	-32.1%	-2.9%
Bulgaria	43.9	43.5	39.7	38.1	33.1	38.7	42.8	32.1	-25.1%	-2.4%
Croatia	18.2	15.4	15.2	15.3	14.4	15.1	15.7	15.9	1.3%	-1.1%
Cyprus	7.3	6.0	6.4	6.4	5.9	6.0	6.1	6.1	0.5%	-1.4%
Czech Republic	112.7	99.6	100.9	95.8	87.3	92.1	90.7	79.5	-12.3%	-2.6%
Denmark	47.3	32.5	31.8	28.4	26.0	27.7	26.8	23.4	-12.5%	-5.3%
Estonia	18.1	14.2	15.4	9.8	7.0	8.3	9.9	8.1	-18.7%	-6.0%
Finland	62.0	42.3	43.8	40.7	36.0	36.0	34.0	31.4	-7.7%	-5.1%
France	340.1	304.0	300.4	293.8	260.4	290.6	283.0	262.9	-7.1%	-2.0%
Germany	758.8	729.7	694.5	645.4	593.1	618.1	612.0	533.8	-12.8%	-2.7%
Gibraltar	0.5	0.6	0.7	0.7	0.6	0.6	0.6		-0.9%	2.5%
Greece	83.4	64.5	61.6	56.6	48.0	49.7	50.8	46.6	-8.4%	-4.4%
Hungary	47.1	42.7	45.5	45.5	43.7	45.0	42.5	37.5	-11.8%	-1.7%
Iceland	1.9	2.0	1.7	1.6	1.4	1.6	1.6	1.6	-0.8%	-1.6%
Ireland	39.2	35.4	35.6	33.9	31.9	33.7	33.0	30.2	-8.3%	-2.0%
Italy	392.0	329.7	317.1	309.3	274.2	306.8	310.3	284.2	-8.4%	-2.4%
Kosovo	8.7	8.6	8.3	8.6	8.5	8.7	8.5	7.5	-10.8%	-1.1%
Latvia	8.1	6.8	7.2	7.0	6.4	6.6	6.0	6.1	1.8%	-2.2%
Lithuania	12.3	10.5	11.1	11.2	11.1	11.5	11.0	10.4	-5.9%	-1.3%
Luxembourg	10.7	8.8	9.0	9.1	7.5	7.9	6.8	6.5	-4.4%	-3.8%
Malta	2.6	1.7	1.6	1.7	1.6	1.6	1.8	1.8	-1.5%	-2.9%
Moldova	7.9	7.6	8.0	8.3	8.0	8.8	7.5	7.2	-4.6%	-0.8%
Montenegro	2.6	2.4	2.5	2.6	2.5	2.6	2.6	2.8	6.5%	0.7%
Netherlands	171.7	157.3	151.3	146.1	130.2	134.1	121.5	110.5	-9.1%	-3.3%
North Macedonia	8.3	7.1	7.0	8.0	6.8	6.8	7.6	7.5	-1.7%	-0.8%
Norway	39.6	39.8	38.5	37.4	36.0	36.2	35.6	32.7	-8.1%	-1.5%
Poland	307.5	282.7	304.0	287.2	272.5	299.4	285.0	257.5	-9.7%	-1.4%
Portugal	47.6	46.9	47.2	42.3	36.5	35.0	35.7	31.9	-10.6%	-3.0%
Romania	74.8	69.9	71.7	70.1	64.7	69.8	66.5	60.5	-9.0%	-1.6%
Serbia	46.1	44.7	45.3	45.3	45.4	44.2	45.0	44.2	-1.8%	-0.3%
Slovakia	34.6	29.4	31.7	29.6	27.6	30.6	28.1	28.5	1.3%	-1.5%
Slovenia	15.4	12.8	13.6	13.2	12.0	12.3	12.0	11.0	-7.8%	-2.6%
Spain	262.9	248.0	248.7	232.8	194.5	211.5	217.1	199.8	-8.0%	-2.1%
Sweden	46.7	37.6	34.4	33.9	32.7	35.2	32.5	33.0	1.6%	-2.6%
Switzerland	43.3	37.4	35.8	35.7	33.3	34.9	31.8	31.4	-1.3%	-2.4%
Türkiye	267.8	319.0	374.7	366.4	366.2	400.8	390.0	391.0	0.3%	3.0%
Ukraine	266.0	187.4	181.7	170.4	161.4	159.6	101.3		-36.5%	-7.7%
United Kingdom	477.1	392.8	353.2	339.6	301.0	319.2	309.4	290.9	-6.0%	-3.7%

^(*) Data Source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

CO₂ emissions

Countries^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Russia and Central Asia	1,960.6	1,923.5	2,028.7	2,022.5	1,964.5	2,155.8	2,128.7		-1.3%	0.7%
Armenia	4.0	5.1	5.4	5.9	6.3	6.9	7.0		2.7%	4.7%
Azerbaijan	23.4	30.5	31.4	33.2	32.0	34.0	36.4	38.6	6.2%	3.9%
Georgia	5.0	8.7	9.0	9.5	9.3	9.9	11.0	10.5	-4.9%	5.9%
Kazakhstan	213.4	177.1	207.9	198.1	204.0	220.6	225.9	224.0	-0.9%	0.4%
Kyrgyzstan	6.0	9.6	10.4	9.1	8.3	9.2	9.1	6.0	-34.3%	-0.1%
Russia	1,529.2	1,533.1	1,592.2	1,591.6	1,517.6	1,659.1	1,623.2	1,637.8	0.9%	0.5%
Tajikistan	2.3	4.2	6.2	6.9	7.3	7.4	7.6		2.7%	10.5%
Turkmenistan	56.9	61.0	68.3	66.8	69.3	89.4	95.0		6.3%	4.4%
Uzbekistan	120.2	94.2	97.9	101.5	110.5	119.5	113.4	112.6	-0.7%	-0.5%
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Middle East	1,547.1	1,784.0	1,786.9	1,869.6	1,845.8	1,927.4	1,993.3		3.4%	2.1%
Bahrain	25.5	30.1	30.1	32.6	32.1	32.8	34.4		4.9%	2.5%
Iran	498.6	555.8	569.3	625.8	645.6	687.2	696.4	722.2	3.7%	2.9%
Iraq	89.2	99.9	132.9	143.7	135.2	149.4	170.2	178.1	4.6%	5.5%
Israel	68.4	64.0	59.7	61.7	57.7	57.0	59.6	58.3	-2.1%	-1.2%
Jordan	18.8	23.7	22.9	21.6	19.4	20.0	21.4		6.7%	1.1%
Kuwait	77.5	87.1	90.9	89.2	85.2	91.8	94.1	93.3	-0.9%	1.4%
Lebanon	18.3	24.6	25.4	25.5	20.9	15.8	9.4		-40.5%	-5.4%
Oman	42.5	63.7	67.7	67.9	64.2	69.3	74.9		8.0%	4.8%
Qatar	55.8	80.5	83.2	86.6	83.9	85.6	90.7	99.2	9.5%	4.5%
Saudi Arabia	418.2	531.4	498.0	497.9	489.4	503.2	532.9	537.8	0.9%	2.0%
Syria	57.3	26.3	31.6	30.3	28.5	28.3	27.5		-2.7%	-5.9%
United Arab Emirates	154.7	185.5	165.4	177.1	175.4	178.8	173.6	178.8	3.0%	1.1%
Yemen	22.4	11.5	9.7	9.6	8.4	8.1	8.2		1.7%	-8.0%

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CO₂ emissions

Countries^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Africa	1,021.9	1,172.7	1,233.1	1,246.3	1,198.8	1,261.7	1,262.3		0.0%	1.8%
Algeria	95.6	130.1	137.0	142.1	134.3	144.0	151.0	159.0	5.3%	4.0%
Angola	14.3	22.2	18.6	20.6	15.1	20.3	21.6		6.5%	3.5%
Benin	4.6	5.3	7.2	7.1	7.6	5.5	5.8		5.7%	2.0%
Cameroon	5.1	6.0	6.8	6.7	6.9	6.7	6.7		0.2%	2.4%
Chad	1.2	1.9	1.6	1.8	1.9	2.1	2.1		1.4%	4.6%
Republic of the Congo	1.8	3.2	3.0	3.6	3.6	3.8	4.4		16.0%	7.6%
Côte d'Ivoire	6.2	9.7	10.1	10.7	10.9	14.8	16.0		8.3%	8.2%
Dem. Rep. Congo	1.9	2.8	3.2	3.3	3.5	3.4	4.8		43.3%	8.2%
Egypt	176.9	199.5	212.8	194.5	205.0	218.9	217.8	213.9	-1.8%	1.5%
Equatorial Guinea	2.9	3.3	3.1	3.1	2.8	3.0	3.2		7.0%	0.6%
Ethiopia	5.9	10.1	13.0	14.4	13.5	14.9	14.6		-1.4%	7.9%
Gabon	2.7	3.2	2.5	2.5	2.4	2.5	2.6		3.4%	-0.3%
Ghana	10.2	13.8	16.4	17.4	19.3	20.3	19.9		-2.2%	5.7%
Kenya	11.5	14.2	16.3	16.6	15.7	17.4	17.8		1.9%	3.7%
Libya	50.5	45.8	44.6	44.5	38.6	43.7	44.7		2.2%	-1.0%
Madagascar	1.8	3.2	3.2	3.9	3.0	4.0	4.3		7.0%	7.4%
Mauritania	2.4	3.5	3.7	3.9	4.2	4.3	4.4		2.8%	5.4%
Morocco	46.4	55.2	59.4	66.0	62.2	67.4	67.2	65.6	-2.4%	2.7%
Mozambique	2.3	4.9	5.9	6.5	5.8	7.0	7.8		11.4%	10.5%
Namibia	2.6	3.2	3.3	3.4	3.2	3.3	3.2		-2.9%	1.8%
Niger	1.4	2.0	1.9	2.1	2.1	2.5	2.9		14.9%	6.6%
Nigeria	59.4	91.7	93.7	97.8	90.4	100.0	100.4	152.1	51.5%	7.5%
Rwanda	0.7	1.0	1.3	1.3	1.2	1.4	1.8		27.4%	8.6%
Senegal	5.5	7.5	8.5	8.3	8.0	10.1	11.3		11.6%	6.3%
South Africa	420.3	421.4	433.0	438.9	418.3	410.9	394.1	387.7	-1.6%	-0.6%
Sudan	15.1	16.9	19.2	19.7	18.3	20.1	18.0		-10.3%	1.5%
Tanzania	6.3	11.9	12.8	14.2	13.7	16.1	17.5		8.8%	8.9%
Tunisia	23.3	25.6	26.2	26.3	25.2	26.9	26.4	24.9	-5.6%	0.5%
Uganda	3.2	4.6	5.6	5.6	5.5	6.1	6.0		-1.4%	5.5%
Zambia	2.5	4.7	7.5	7.5	7.9	7.9	9.0		14.4%	11.3%
Zimbabwe	9.2	11.6	10.9	10.0	8.1	9.0	10.1		12.0%	0.8%
Other Africa	28.4	32.6	40.8	42.0	40.6	43.3	44.8		3.5%	3.9%

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CO₂ emissions

Countries^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Asia - Pacific	13,153.6	15,225.1	16,374.7	16,579.3	16,323.8	17,159.9	17,465.3		1.8%	2.4%
Australia	391.8	378.2	386.4	384.0	369.0	360.9	354.8	372.0	4.8%	-0.4%
Bangladesh	50.0	71.7	88.6	92.2	87.3	99.8	103.9		4.2%	6.3%
Brunei	6.9	6.0	7.1	6.7	9.4	9.3	9.1		-2.3%	2.4%
China	7,844.6	9,152.3	9,788.6	9,958.2	10,038.0	10,608.7	10,644.3	11,203.5	5.3%	2.8%
India	1,558.1	2,053.7	2,300.3	2,287.7	2,109.7	2,323.9	2,517.0	2,697.0	7.2%	4.3%
Indonesia	391.7	458.7	530.1	569.4	531.7	554.4	651.7	628.1	-3.6%	3.7%
Japan	1,129.2	1,149.6	1,080.7	1,043.8	986.8	1,003.0	973.7	917.1	-5.8%	-1.6%
Malaysia	190.9	220.4	228.1	231.6	225.6	225.3	241.1	243.7	1.0%	1.9%
Mongolia	14.1	17.1	21.1	22.7	20.7	22.6	23.6		4.5%	4.4%
Myanmar	7.9	18.7	30.3	31.1	30.6	27.7	25.9		-6.3%	10.4%
Nepal	4.1	5.7	11.4	9.7	13.3	13.9	12.8		-8.3%	9.9%
New Zealand	30.4	31.4	31.5	33.0	30.7	31.0	28.7	27.9	-2.7%	-0.7%
North Korea	65.1	29.3	63.1	70.4	66.2	54.3	56.6		4.2%	-1.2%
Pakistan	129.2	150.7	170.8	168.0	189.7	194.6	201.3		3.4%	3.8%
Philippines	75.2	100.7	127.4	134.3	124.2	132.2	137.5		4.0%	5.2%
Singapore	42.4	45.4	45.1	45.1	43.7	45.6	46.6	43.2	-7.2%	0.1%
South Korea	567.4	588.6	627.6	601.8	558.4	574.3	549.3	539.8	-1.7%	-0.4%
Sri Lanka	12.4	18.4	20.6	22.5	20.8	21.0	18.4		-12.8%	3.3%
Taiwan	264.2	272.8	279.3	270.4	269.5	278.7	269.5	263.7	-2.2%	0.0%
Thailand	221.9	247.9	241.7	251.8	241.3	234.1	250.0	249.9	-0.1%	0.9%
Vietnam	126.7	165.2	236.1	284.1	294.3	281.1	286.6	334.1	16.5%	7.7%
Other Asia-Pacific	29.5	42.7	58.6	61.0	62.8	63.3	62.8			

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CO₂ emissions

Countries^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Americas	7,378.0	7,121.4	7,008.7	6,830.8	6,103.5	6,515.2	6,603.0		1.3%	-0.9%
Argentina	162.4	179.8	171.2	162.2	147.0	162.0	174.3	166.7	-4.4%	0.2%
Bolivia	13.6	18.5	20.3	20.2	17.0	20.2	21.6		6.9%	3.9%
Brazil	374.4	456.2	410.6	407.8	386.0	439.1	413.9	414.4	0.1%	0.8%
Canada	521.3	537.7	557.6	552.9	502.2	508.7	523.3	520.3	-0.6%	0.0%
Chile	68.6	81.1	85.8	91.0	83.9	85.0	86.6	75.6	-12.7%	0.8%
Colombia	57.9	75.2	73.8	72.9	71.3	77.5	73.3	73.3	0.0%	1.8%
Costa Rica	6.6	6.9	7.7	7.5	6.6	7.5	7.6		1.7%	1.2%
Cuba	27.1	28.3	25.9	21.5	17.8	21.1	19.2		-9.1%	-2.8%
Curaçao	4.2	5.7	3.2	2.5	2.1	2.2	2.3		3.3%	-5.1%
Dominican Republic	19.1	21.6	23.3	26.0	24.5	26.8	29.2		8.8%	3.6%
Ecuador	32.4	38.2	37.2	36.9	31.4	35.4	38.4		8.4%	1.4%
El Salvador	6.0	6.6	6.4	7.4	6.0	6.9	7.8		13.4%	2.2%
Guatemala	10.4	15.0	16.9	17.9	15.6	18.3	17.0		-6.8%	4.2%
Guyana	1.8	2.0	2.4	2.6	2.6	2.8	3.1		8.6%	4.8%
Haiti	2.3	3.2	3.2	3.2	3.1	3.1	3.0		-1.7%	2.2%
Honduras	7.3	10.1	8.2	9.4	8.6	9.7	9.9		1.9%	2.5%
Jamaica	7.2	6.7	8.3	8.1	5.5	6.0	7.1		17.5%	-0.1%
Mexico	440.5	442.4	418.2	431.5	367.6	375.4	379.7	378.9	-0.2%	-1.2%
Nicaragua	4.3	5.0	4.8	4.9	4.3	4.8	4.9		2.2%	1.1%
Panama	8.6	9.8	9.3	12.6	9.4	10.4	11.1		6.1%	2.1%
Paraguay	4.8	6.0	8.1	7.8	7.2	8.1	7.4		-9.2%	3.7%
Peru	41.5	49.5	50.1	52.2	42.4	52.7	56.8		7.8%	2.6%
Suriname	1.7	2.7	2.1	2.6	2.6	2.7	2.8		5.2%	4.2%
Trinidad and Tobago	21.0	20.6	17.2	16.6	14.9	13.1	13.7		4.8%	-3.5%
United States	5,352.1	4,928.6	4,910.4	4,744.8	4,257.6	4,549.3	4,607.6	4,536.9	-1.5%	-1.3%
Uruguay	6.0	6.3	6.2	6.5	6.2	7.5	7.2		-4.9%	1.6%
Venezuela	155.6	140.6	109.9	90.4	50.2	48.8	63.6	74.7	17.3%	-5.5%
Others Americas	19.3	17.0	10.6	10.9	9.7	10.1	10.6		4.8%	-4.9%

^(*) Data Source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

CO₂ by sector and fuel

World CO₂ emissions by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Coal	13,823	14,598	14,970	14,751	14,223	15,085	15,187		0.7%	0.8%
Oil	10,548	11,143	11,428	11,444	10,194	10,813	11,252		4.1%	0.5%
Gas	6,048	6,440	7,060	7,198	7,158	7,535	7,440		-1.3%	1.7%
Other	164	192	231	232	238	242	238		-1.3%	3.1%
Total	30,583	32,374	33,689	33,626	31,813	33,674	34,117	34,458	1.0%	0.9%

World CO₂ emissions by sector^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Electricity and heat production	12,519	13,424	14,214	14,101	13,688	14,769	14,946		1.2%	1.5%
Total final consumption	18,064	18,950	19,475	19,524	18,124	18,905	19,171		1.4%	0.5%
<i>Transport</i>	7,021	7,732	8,267	8,284	7,094	7,649	7,941		3.8%	1.0%
<i>Industry</i>	6,067	6,273	6,165	6,206	6,161	6,307	6,261		-0.7%	0.3%
<i>Residential and commercial</i>	2,710	2,689	2,819	2,781	2,734	2,776	2,718		-2.1%	0.0%
<i>Other final consumption</i>	2,266	2,257	2,224	2,254	2,136	2,173	2,251		3.6%	-0.1%
Total	30,583	32,374	33,689	33,626	31,813	33,674	34,117	34,458	1.0%	0.9%

World CO₂ emissions in power sector by fuel^(*)

(Mton)

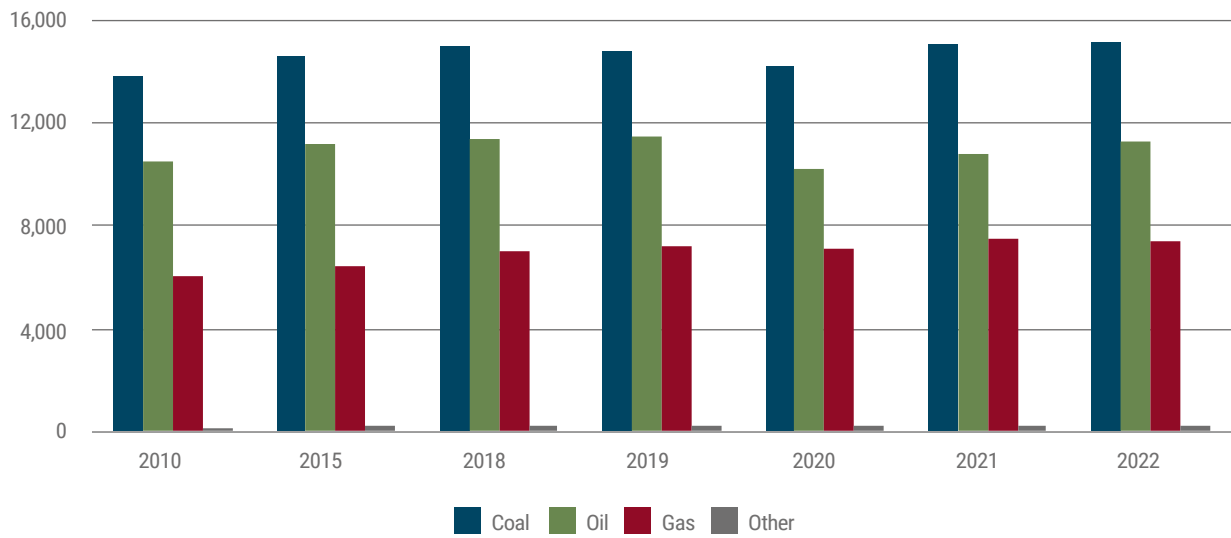
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Coal	8,952	9,626	10,352	10,232	9,849	10,728	10,943		2.0%	1.7%
Oil	828	830	646	628	592	654	679		3.9%	-1.6%
Gas	2,625	2,837	3,062	3,092	3,098	3,237	3,178		-1.8%	1.6%
Other	115	131	154	149	150	151	146		-3.3%	2.0%
Total	12,519	13,424	14,214	14,101	13,688	14,769	14,946		1.2%	1.5%

^(*) Data source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

CO₂ by sector and fuel

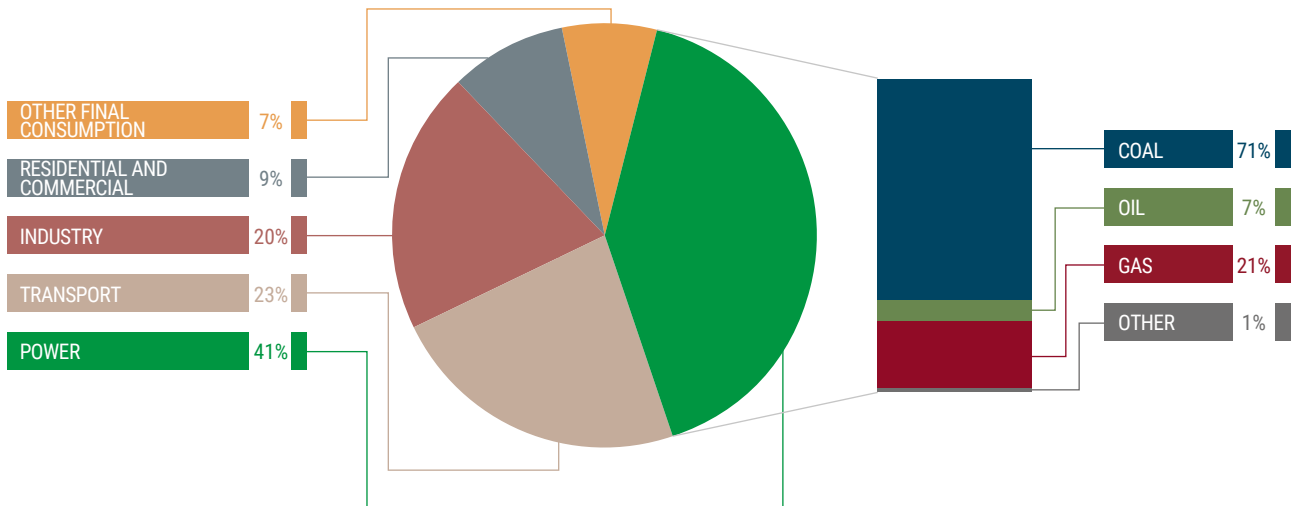
World CO₂ emissions by fuel
(Mton)



CO₂ by sector and fuel

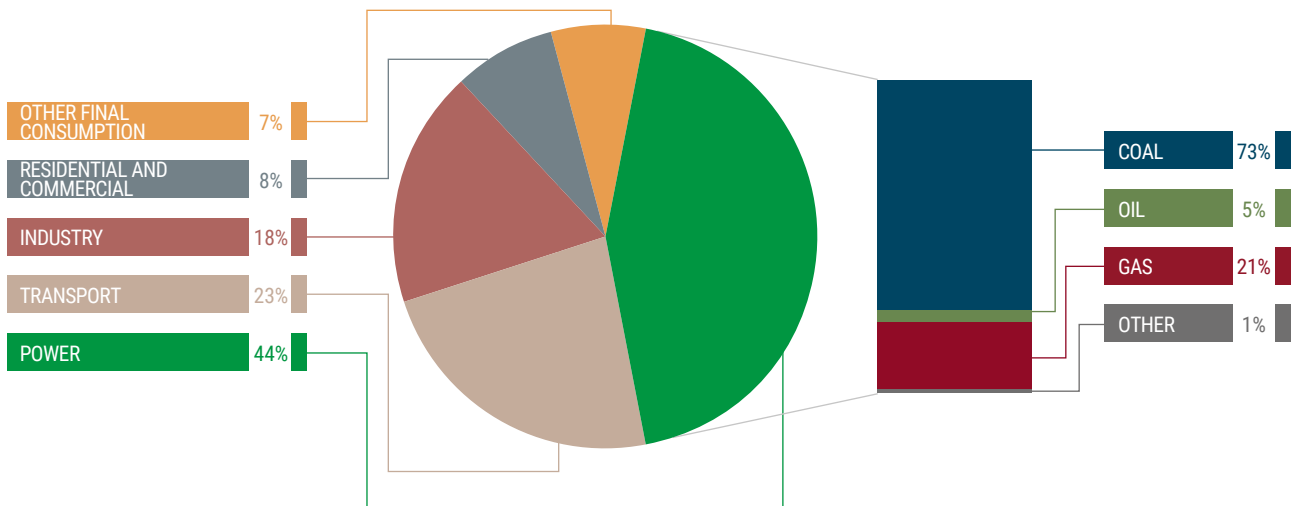
World CO₂ emissions by sector and fuel in power sector (2010)

30,583 Mton



World CO₂ emissions by sector and fuel in power sector (2022)

34,117 Mton



CO₂ by sector and fuel

The World Top 10 CO₂ emissions by fuel^(*)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Coal	11,213	12,066	12,338	12,172	11,754	12,583	12,778	1.6%	1.1%
Oil	5,365	5,765	5,906	5,931	5,498	5,787	5,913	2.2%	0.8%
Gas	3,350	3,714	4,187	4,303	4,318	4,551	4,559	0.2%	2.6%
<i>Other</i>	120	137	161	160	158	160	159	-1.7%	2.3%
Total	20,048	21,681	22,592	22,566	21,728	23,081	23,408	1.4%	1.3%

The World Top 10 CO₂ emissions by sector^(*)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Electricity and heat production	9,088	9,919	10,707	10,620	10,384	11,326	11,583	2.3%	2.0%
Total final consumption	10,960	11,763	11,885	11,946	11,344	11,755	11,825	0.6%	0.6%
<i>Transport</i>	3,467	3,920	4,170	4,176	3,726	4,028	4,042	0.3%	1.3%
<i>Industry</i>	4,579	4,856	4,694	4,733	4,703	4,783	4,771	-0.2%	0.3%
<i>Residential and commercial</i>	1,665	1,727	1,813	1,799	1,753	1,767	1,769	0.1%	0.5%
<i>Other final consumption</i>	1,250	1,261	1,209	1,239	1,162	1,178	1,242	5.5%	-0.1%
Total	20,048	21,681	22,592	22,566	21,728	23,081	23,408	1.4%	1.3%

The World Top 10 CO₂ emissions in power sector by fuel^(*)

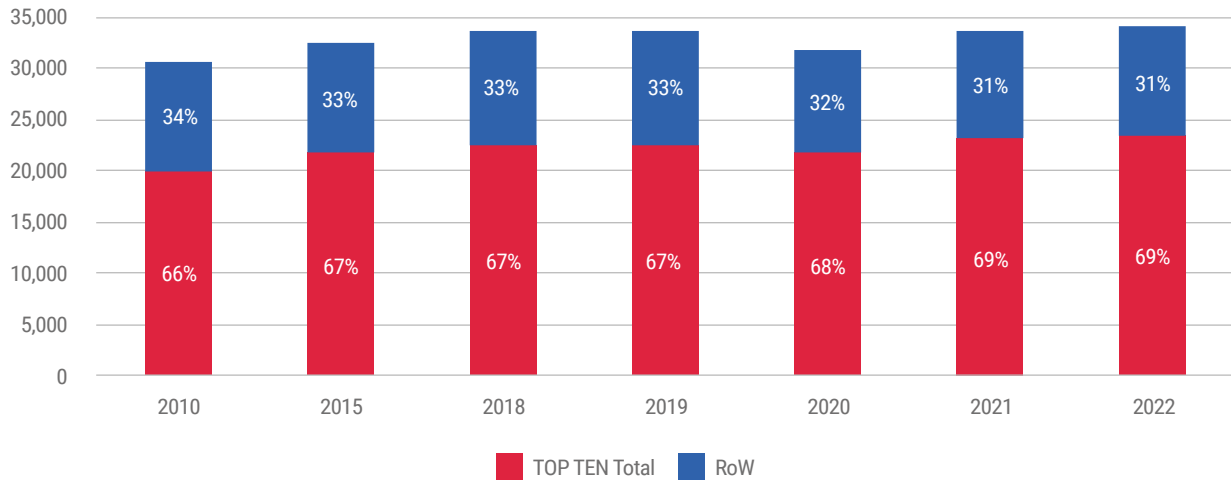
	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Coal	7,143	7,794	8,512	8,423	8,155	9,010	9,255	2.7%	2.2%
Oil	385	383	299	291	294	309	319	3.4%	-1.5%
Gas	1,473	1,644	1,781	1,797	1,830	1,903	1,905	0.1%	2.2%
<i>Other</i>	87	97	115	109	106	105	103	-1.4%	1.5%
Total	9,088	9,919	10,707	10,620	10,384	11,326	11,583	2.3%	2.0%

^(*) Data source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.

CO₂ by sector and fuel

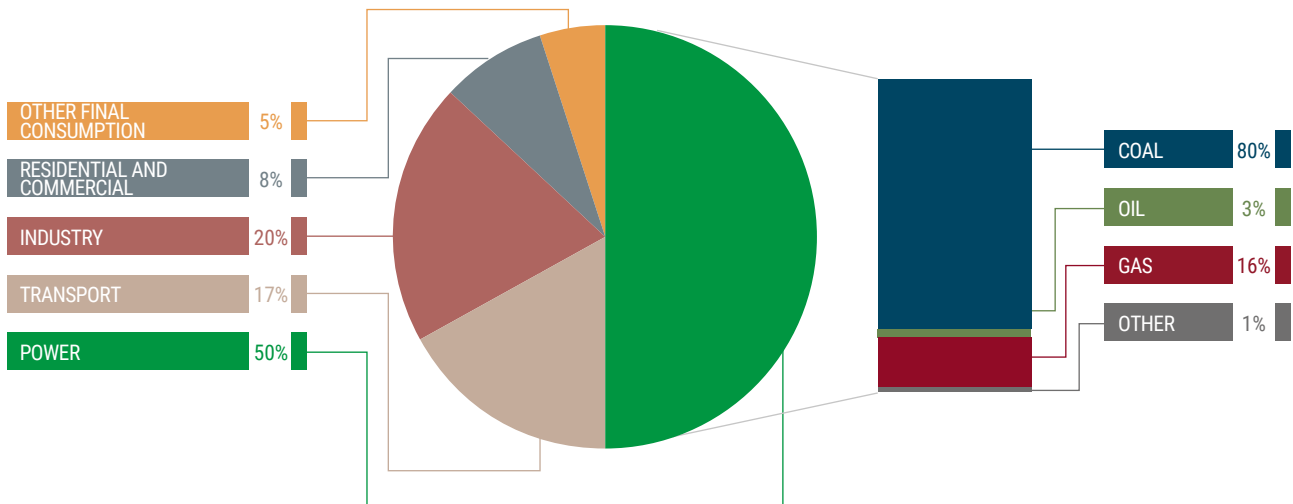
The World Top 10 CO₂ emissions

Mton



The World Top 10 CO₂ emissions by sector and fuel in power sector (2022)

11,583 Mton



CO₂ by sector and fuel

China CO₂ emissions by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Coal	6,571	7,488	7,763	7,839	7,868	8,314	8,362	0.6%	2.0%
Oil	1,018	1,280	1,463	1,513	1,521	1,563	1,550	-0.8%	3.6%
Gas	233	356	531	580	625	711	711	0.0%	9.8%
Other	23	29	32	26	24	27	27	3.2%	-0.5%
Total	7,845	9,152	9,789	9,958	10,038	10,609	10,644	0.3%	2.6%

China CO₂ emissions by sector^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Electricity and heat production	3,509	4,298	5,102	5,268	5,399	5,967	6,095	2.2%	4.7%
Total final consumption	4,336	4,854	4,686	4,690	4,639	4,642	4,549	-2.0%	0.4%
<i>Transport</i>	575	836	959	953	911	977	891	-8.8%	3.7%
<i>Industry</i>	2,819	2,972	2,750	2,764	2,805	2,759	2,711	-1.8%	-0.3%
<i>Residential and commercial</i>	418	516	496	462	457	446	432	-3.2%	0.3%
<i>Other final consumption</i>	524	530	482	512	467	459	515	12.2%	-0.1%
Total	7,845	9,152	9,789	9,958	10,038	10,609	10,644	0.3%	2.6%

China CO₂ emissions in power sector by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Coal	3,405	4,166	4,935	5,103	5,213	5,768	5,896	2.2%	4.7%
Oil	31	24	24	25	31	32	31	-3.3%	-0.2%
Gas	50	80	111	115	130	146	148	0.9%	9.5%
Other	23	29	32	26	24	27	27	3.2%	-0.5%
Total	3,509	4,298	5,102	5,268	5,399	5,967	6,095	2.2%	4.7%

^(*) Data source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.

CO₂ by sector and fuel

United States CO₂ emissions by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Coal	1,982	1,465	1,264	1,073	866	995	925		-7.0%	-6.2%
Oil	2,060	1,984	2,027	1,992	1,724	1,888	1,931		2.3%	-0.5%
Gas	1,287	1,459	1,601	1,660	1,648	1,648	1,734		5.2%	2.5%
Other	23	20	19	20	19	18	18		-4.8%	-2.3%
Total	5,352	4,929	4,910	4,745	4,258	4,549	4,608	4,537	-1.5%	-1.3%

United States CO₂ emissions by sector^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Electricity and heat production	2,346	1,985	1,846	1,700	1,525	1,627	1,610	1,489	-7.5%	-3.4%
Total final consumption	3,006	2,944	3,064	3,045	2,733	2,922	2,998	3,047	1.7%	0.1%
<i>Transport</i>	1,680	1,700	1,762	1,757	1,508	1,664	1,699		2.1%	0.1%
<i>Industry</i>	466	434	454	439	437	446	455		2.2%	-0.2%
<i>Residential and commercial</i>	545	513	551	551	511	524	552		5.3%	0.1%
<i>Other final consumption</i>	315	297	297	298	276	289	291		0.9%	-0.7%
Total	5,352	4,929	4,910	4,745	4,258	4,549	4,608	4,537	-1.5%	-1.3%

United States CO₂ emissions in power sector by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Coal	1,858	1,371	1,179	995	801	926	860	702	-7.2%	-6.2%
Oil	37	29	31	25	28	28	32	23	12.4%	-1.2%
Gas	435	568	620	663	679	657	704	750	7.1%	4.1%
Other	17	17	16	17	16	15	14	14	-6.8%	-1.3%
Total	2,346	1,985	1,846	1,700	1,525	1,627	1,610	1,489	-7.5%	-3.4%

^(*) Data source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

CO₂ by sector and fuel

India CO₂ emissions by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Coal	1,073	1,456	1,624	1,600	1,487	1,653	1,816	9.9%	4.5%
Oil	408	525	589	593	534	570	608	6.7%	3.4%
Gas	76	71	86	93	87	99	90	-9.0%	1.4%
Other	7	7	7	7	2	3	3	12.1%	13.6%
Total	1,558	2,054	2,300	2,288	2,110	2,324	2,517	8.3%	4.1%

India CO₂ emissions by sector^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Electricity and heat production	785	1,069	1,187	1,179	1,083	1,186	1,327	11.9%	4.5%
Total final consumption	774	985	1,114	1,109	1,026	1,138	1,190	4.5%	3.7%
<i>Transport</i>	193	258	306	309	269	295	324	9.7%	4.4%
<i>Industry</i>	394	516	570	555	517	593	607	2.5%	3.7%
<i>Residential and commercial</i>	93	108	119	123	125	129	134	3.4%	3.1%
<i>Other final consumption</i>	94	102	119	122	116	121	125	3.4%	2.4%
Total	1,558	2,054	2,300	2,288	2,110	2,324	2,517	8.3%	4.1%

India CO₂ emissions in power sector by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Coal	703	1,018	1,142	1,137	1,043	1,147	1,291	12.6%	5.2%
Oil	23	17	10	5	6	5	6	6.0%	-10.7%
Gas	58	33	34	35	33	31	27	-11.9%	-6.1%
Other	7	7	7	7	2	3	3	12.0%	13.6%
Total	785	1,069	1,187	1,179	1,083	1,186	1,327	11.9%	4.5%

^(*) Data source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.

CO₂ by sector and fuel

Russia CO₂ emissions by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Coal	405	411	426	431	414	434	430	-0.9%	0.5%
Oil	298	328	302	312	294	316	334	5.5%	1.0%
Gas	803	765	829	805	766	861	813	-5.6%	0.1%
<i>Other</i>	24	28	35	43	44	47	46	-2.7%	5.6%
Total	1,529	1,533	1,592	1,592	1,518	1,659	1,623	-2.2%	0.5%

Russia CO₂ emissions by sector^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Electricity and heat production	892	811	810	788	755	838	806	-3.8%	-0.8%
Total final consumption	637	723	782	804	762	821	817	-0.5%	2.1%
<i>Transport</i>	244	241	258	262	240	262	267	2.0%	0.8%
<i>Industry</i>	178	250	250	275	268	285	280	-1.6%	3.8%
<i>Residential and commercial</i>	137	149	216	211	202	217	212	-2.6%	3.7%
<i>Other final consumption</i>	78	83	58	55	52	57	58	2.1%	-2.4%
Total	1,529	1,533	1,592	1,592	1,518	1,659	1,623	-2.2%	0.5%

Russia CO₂ emissions in power sector by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Coal	313	272	288	279	263	276	278	0.6%	-1.0%
Oil	36	32	27	23	20	22	22	0.9%	-4.0%
Gas	523	486	472	461	447	513	480	-6.4%	-0.7%
<i>Other</i>	21	21	23	25	25	27	26	-4.8%	1.8%
Total	892	811	810	788	755	838	806	-3.8%	-0.8%

^(*) Data source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.

CO₂ by sector and fuel

Japan CO₂ emissions by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Coal	423	448	425	417	386	409	387		-5.4%	-0.7%
Oil	480	439	389	374	350	352	353		0.5%	-2.5%
Gas	207	240	229	219	218	207	198		-4.5%	-0.4%
Other	19	23	37	34	33	35	35		1.6%	5.2%
Total	1,129	1,150	1,081	1,044	987	1,003	974	917	-5.8%	-1.6%

Japan CO₂ emissions by sector^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Electricity and heat production	499	564	518	494	480	491	469	424	-9.7%	-1.3%
Total final consumption	630	586	562	549	507	512	504	493	-2.2%	-1.9%
<i>Transport</i>	229	211	205	201	180	183	186		1.8%	-1.7%
<i>Industry</i>	209	199	193	185	170	178	171		-4.2%	-1.7%
<i>Residential and commercial</i>	126	114	109	108	107	100	97		-3.3%	-2.2%
<i>Other final consumption</i>	66	61	56	55	49	51	51		-0.4%	-2.2%
Total	1,129	1,150	1,081	1,044	987	1,003	974	917	-5.8%	-1.6%

Japan CO₂ emissions in power sector by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Coal	291	322	302	296	279	298	283	256	-9.7%	-1.0%
Oil	60	60	31	26	25	31	32	24	-24.1%	-6.9%
Gas	136	170	159	149	153	140	132	122	-7.5%	-0.9%
Other	11	13	26	23	22	22	23	22	-2.8%	5.2%
Total	499	564	518	494	480	491	469	424	-9.7%	-1.3%

^(*) Data source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

CO₂ by sector and fuel

Iran CO₂ emissions by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Coal	3	5	5	6	5	7	7	-3.8%	7.7%
Oil	222	209	191	213	199	215	214	-0.3%	-0.3%
Gas	274	343	373	408	441	466	476	2.2%	4.7%
Other	0	0	0	0	0	0	0		
Total	499	556	569	626	646	687	696	1.3%	2.8%

Iran CO₂ emissions by sector^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Electricity and heat production	133	155	162	166	181	194	197	1.5%	3.4%
Total final consumption	366	401	407	460	465	493	499	1.3%	2.6%
Transport	117	139	138	143	129	141	142	0.6%	1.7%
Industry	84	88	94	110	119	132	133	1.1%	3.9%
Residential and commercial	120	124	121	144	150	150	153	2.1%	2.0%
Other final consumption	45	50	54	62	67	70	71	1.3%	4.0%
Total	499	556	569	626	646	687	696	1.3%	2.8%

Iran CO₂ emissions in power sector by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Coal	1	2	2	2	2	2	2	-6.4%	2.9%
Oil	42	37	26	44	45	47	45	-4.0%	0.6%
Gas	89	116	134	120	134	146	150	3.3%	4.5%
Other	0	0	0	0	0	0	0		
Total	133	155	162	166	181	194	197	1.5%	3.4%

^(*) Data source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.

CO₂ by sector and fuel

Indonesia CO₂ emissions by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Coal	142	160	223	276	270	286	375	31.1%	8.4%
Oil	178	221	229	216	190	199	215	7.8%	1.6%
Gas	71	78	78	78	72	69	62	-10.4%	-1.1%
<i>Other</i>	0	0	0	0	0	0	0		
Total	392	459	530	569	532	554	652	17.5%	4.3%

Indonesia CO₂ emissions by sector^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Electricity and heat production	120	171	218	225	225	240	296	23.5%	7.9%
Total final consumption	272	287	312	345	307	314	355	13.0%	2.2%
<i>Transport</i>	89	132	147	148	126	134	147	9.5%	4.2%
<i>Industry</i>	126	101	112	147	131	131	161	23.0%	2.0%
<i>Residential and commercial</i>	20	23	25	25	26	27	27	-2.2%	2.6%
<i>Other final consumption</i>	37	31	28	25	24	22	21	-5.4%	-4.6%
Total	392	459	530	569	532	554	652	17.5%	4.3%

Indonesia CO₂ emissions in power sector by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Coal	73	126	164	178	189	202	260	28.5%	11.2%
Oil	27	15	22	14	10	11	10	-9.1%	-8.1%
Gas	20	30	31	33	26	27	27	-1.7%	2.3%
<i>Other</i>	0	0	0	0	0	0	0		
Total	120	171	218	225	225	240	296	23.5%	7.9%

^(*) Data source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.

CO₂ by sector and fuel

Germany CO₂ emissions by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Coal	314	316	273	218	180	206	217		4.9%	-3.1%
Oil	249	242	232	239	223	209	215		2.7%	-1.2%
Gas	177	152	171	170	172	184	163		-11.4%	-0.7%
Other	18	19	19	19	18	19	18		-5.0%	-0.2%
Total	759	730	695	645	593	618	612	534	-12.8%	-2.7%

Germany CO₂ emissions by sector^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Electricity and heat production	338	323	287	239	204	234	238	197	-17.1%	-4.1%
Total final consumption	421	407	407	406	389	385	374	336	-10.0%	-1.7%
<i>Transport</i>	148	158	158	160	142	140	141		0.8%	-0.4%
<i>Industry</i>	98	95	98	93	93	94	88		-5.6%	-0.9%
<i>Residential and commercial</i>	149	130	121	123	124	122	114		-6.6%	-2.2%
<i>Other final consumption</i>	25	25	31	30	29	29	31		5.6%	1.7%
Total	759	730	695	645	593	618	612	534	-12.8%	-2.7%

Germany CO₂ emissions in power sector by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Coal	272	272	231	180	143	172	182	140	-23.1%	-5.0%
Oil	6	4	4	3	3	3	4	3	-14.8%	-3.9%
Gas	48	33	41	43	45	46	41	42	4.4%	-0.9%
Other	13	14	12	12	12	12	11	12	1.7%	-0.8%
Total	338	323	287	239	204	234	238	197	-17.1%	-4.1%

^(*) Data source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

CO₂ by sector and fuel

South Korea CO₂ emissions by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Coal	300	318	335	313	277	278	260		-6.7%	-1.2%
Oil	163	162	158	159	151	154	149		-3.3%	-0.8%
Gas	92	93	117	113	113	124	123		-1.0%	2.5%
Other	12	15	18	17	17	18	18		-0.8%	3.0%
Total	567	589	628	602	558	574	549	534	-2.8%	-0.5%

South Korea CO₂ emissions by sector^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Electricity and heat production	288	310	344	324	291	300	284	272	-4.0%	-0.4%
Total final consumption	279	279	283	278	267	275	265	261	-1.5%	-0.5%
<i>Transport</i>	87	98	101	106	99	103	106		2.8%	1.7%
<i>Industry</i>	93	80	78	71	70	74	66		-10.9%	-2.8%
<i>Residential and commercial</i>	52	46	50	46	47	46	45		-2.0%	-1.3%
<i>Other final consumption</i>	47	55	54	54	52	51	48		-5.9%	0.2%
Total	567	589	628	602	558	574	549	534	-2.8%	-0.5%

South Korea CO₂ emissions in power sector by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Coal	228	247	268	253	220	218	204	197	-3.4%	-1.1%
Oil	16	14	11	8	6	7	9	8	-10.6%	-5.4%
Gas	43	47	61	58	60	69	67	63	-5.5%	3.0%
Other	1	2	5	4	4	5	5	5	2.0%	9.8%
Total	288	310	344	324	291	300	284	272	-4.0%	-0.4%

(*) Data source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.

(**) When 2023 data is missing, the figure refers to the latest available years.

CO₂ by sector and fuel

Saudi Arabia CO₂ emissions by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Coal	0	0	0	0	0	0	0		
Oil	288	375	325	321	312	321	344	7.0%	1.5%
Gas	130	156	173	176	177	182	189	4.0%	3.2%
Other	0	0	0	0	0	0	0		
Total	418	531	498	498	489	503	533	5.9%	2.0%

Saudi Arabia CO₂ emissions by sector^(*)

(Mton)

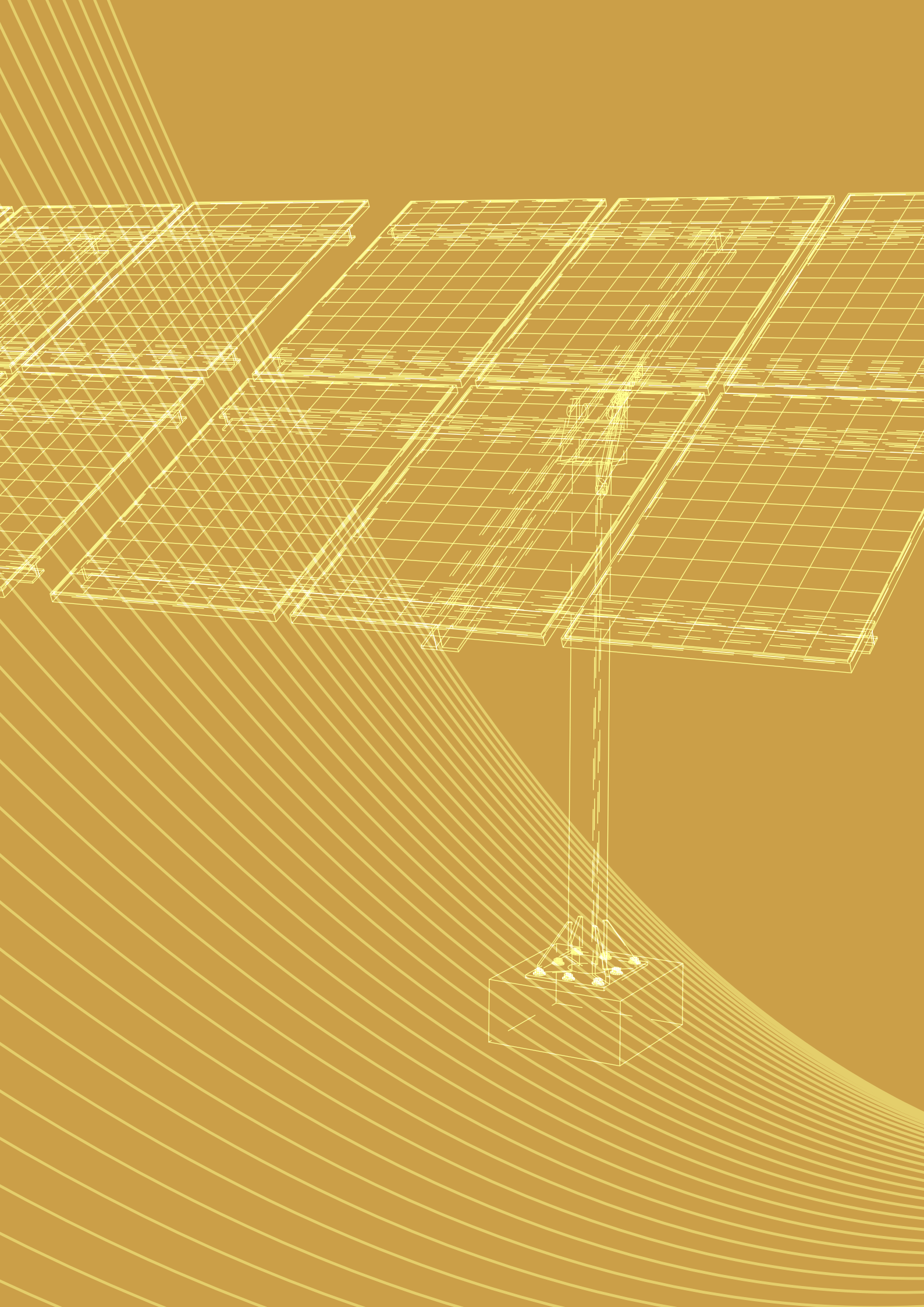
	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Electricity and heat production	178	234	232	238	241	250	260	4.0%	3.2%
Total final consumption	240	297	266	260	248	253	273	7.7%	1.1%
<i>Transport</i>	105	147	136	136	122	128	138	7.4%	2.3%
<i>Industry</i>	111	119	95	94	93	92	99	8.2%	-0.9%
<i>Residential and commercial</i>	4	5	5	5	5	5	5	1.3%	1.2%
<i>Other final consumption</i>	19	27	30	25	28	28	31	8.7%	4.0%
Total	418	531	498	498	489	503	533	5.9%	2.0%

Saudi Arabia CO₂ emissions in power sector by fuel^(*)

(Mton)

	2010	2015	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Coal	0	0	0	0	0	0	0		
Oil	107	151	114	118	119	123	130	6.0%	1.6%
Gas	71	83	118	119	122	127	130	2.1%	5.2%
Other	0	0	0	0	0	0	0		
Total	178	234	232	238	241	250	260	4.0%	3.2%

^(*) Data source: IEA (2024) *Greenhouse Gas Emissions from Energy*. All rights reserved.





Renewables

Renewable capacity (solar and wind) has been growing exponentially in recent years, reaching a global all-time high of about 2,400 GW in 2023; the share of solar and wind in the power generation mix has risen over 13%, compared with over 60% generated by fossil fuels. Only a decade ago this share was close to 3%.

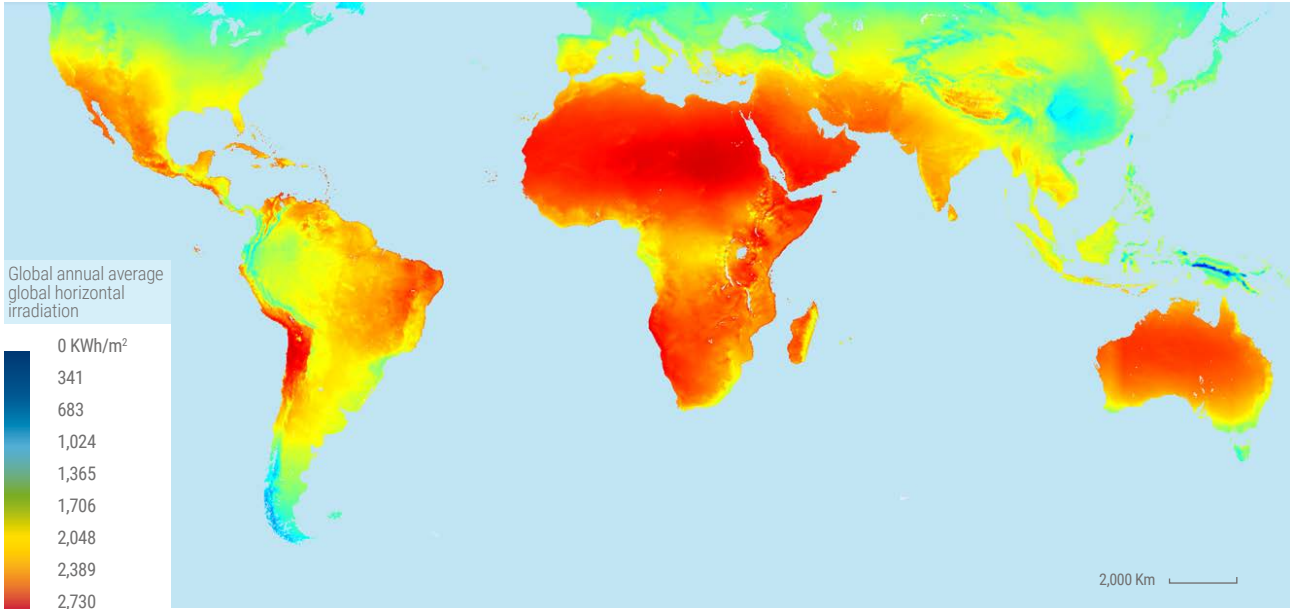
In 2023, the **solar photovoltaic** sector is confirmed to be the driving force behind the renewable industry, thanks to a capacity growth of +347 GW (+33%) compared to 2022. Strong impetus for this increase comes mainly from China (+217 GW, or +55% vs. the last year) and, to a lesser extent, the United States (+25 GW, +22% vs. the previous year). Cumulative capacity at the end of 2023 amounted to about 1,411 GW, with China and the United States accounting for 43% and 10% of the world's capacity, respectively.

Less significant than photovoltaics, albeit important within renewables, is the growth of the **wind** power sector whose capacity increased in 2023 by 115 GW compared to 2022 (+13%) to a level of 1,017 GW at the end of the year. China and the U.S. are also confirmed as the world's major players in this sector with a global share of 43% and 15%, respectively; in addition, China contributed primarily to the growth with an increase of 76 GW y-on-y.

As for **biofuels**, global production increased by 8% vs. 2022 with the sharpest increase in biodiesel production. Specifically, among advanced economies, there is strong growth in renewable diesel (HVO Hydrotreated Vegetable Oil) in the US, supported by legislation to reduce transportation emissions, while in emerging economies such as Indonesia and Brazil, the increase in biodiesel is incentivized by energy security objectives and ample feedstock availability.

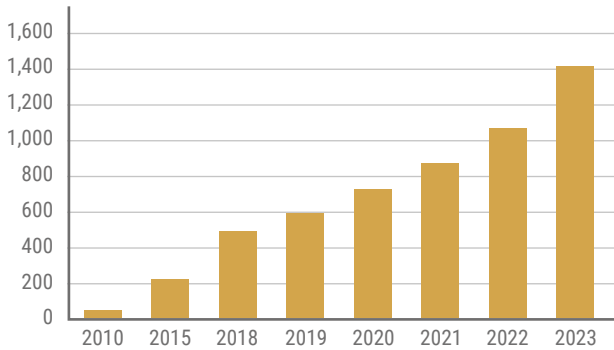
Solar Resources Map (Global Horizontal Irradiance)^(*)

(W/m²/day)



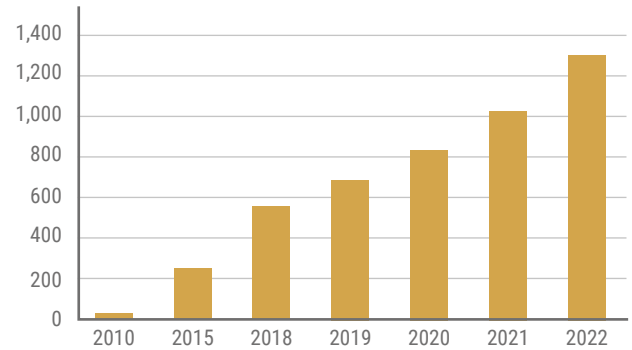
Solar Power Capacity

(GW)



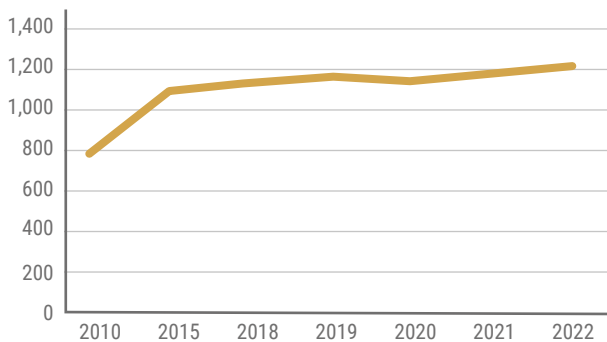
Solar Power Generation

(TWh)

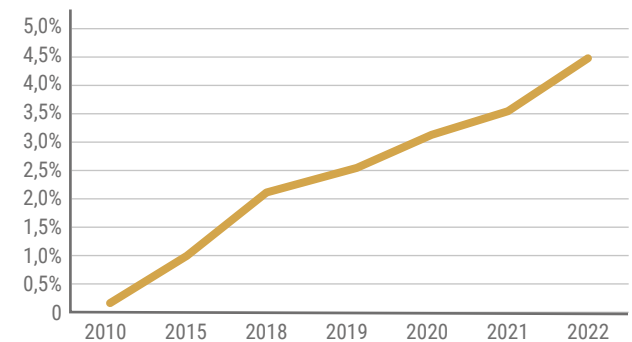


Capacity Factor

(hours per year - world average)



Share of Solar PV on Total Generation



^(*) IRENA: Global Atlas, Map data: VAISALA, 2022.

Solar Photovoltaic Power Capacity

Areas and Aggregates^(*)

(MW)

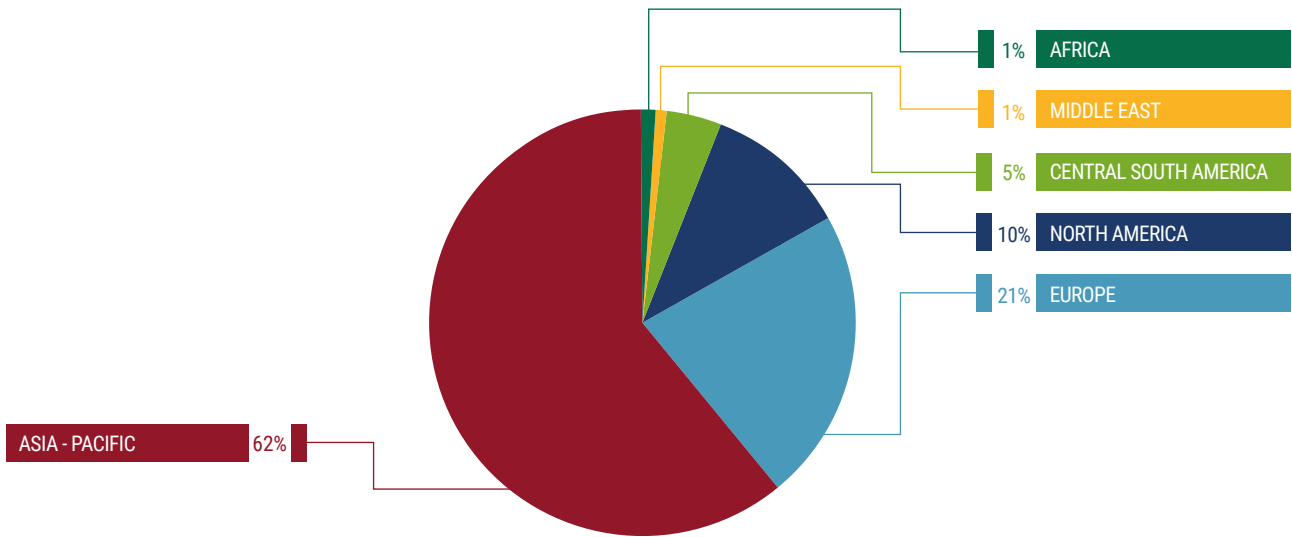
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	30,125	97,541	124,322	146,013	167,142	196,423	241,010	297,615	23.5%	19.3%
Russia and Central Asia	0	124	801	1,879	2,433	3,014	3,524	4,470	26.8%	108.9%
Middle East	85	1,046	3,377	5,627	7,663	9,817	13,348	17,882	34.0%	50.9%
Africa	166	1,800	6,959	8,208	9,574	10,497	11,561	12,353	6.9%	39.3%
Asia - Pacific	6,630	95,168	286,411	345,738	430,544	511,741	628,637	870,267	38.4%	45.5%
Americas	3,266	27,550	64,304	81,184	102,457	132,775	166,194	208,553	25.5%	37.7%
- North America	3,125	25,356	53,948	63,836	79,072	99,172	118,319	143,609	21.4%	34.2%
- Central South America	141	2,194	10,356	17,348	23,384	33,603	47,875	64,944	35.7%	60.2%
World	40,272	223,230	486,176	588,649	719,813	864,266	1,064,274	1,411,139	32.6%	31.5%
European Union 27	29,884	85,389	101,729	117,865	136,100	162,341	203,257	254,359	25.1%	17.9%
MENA	119	1,138	4,685	7,792	9,844	12,038	15,804	20,860	32.0%	48.8%
OECD	38,672	163,782	254,844	301,344	355,053	421,717	501,325	595,837	18.9%	23.4%
NON OECD	1,600	59,448	231,332	287,305	364,760	442,549	562,949	815,302	44.8%	61.5%
OPEC	19	160	1,265	2,698	3,496	4,245	5,142	9,392	82.6%	60.9%
NON OPEC	40,253	223,070	484,911	585,951	716,317	860,021	1,059,132	1,401,747	32.3%	31.4%

^(*) Data source: Eni's calculations on IRENA (2024), *Renewable Energy Statistics 2024*, International Renewable Energy Agency, Abu Dhabi, data.

Solar Photovoltaic Power Capacity

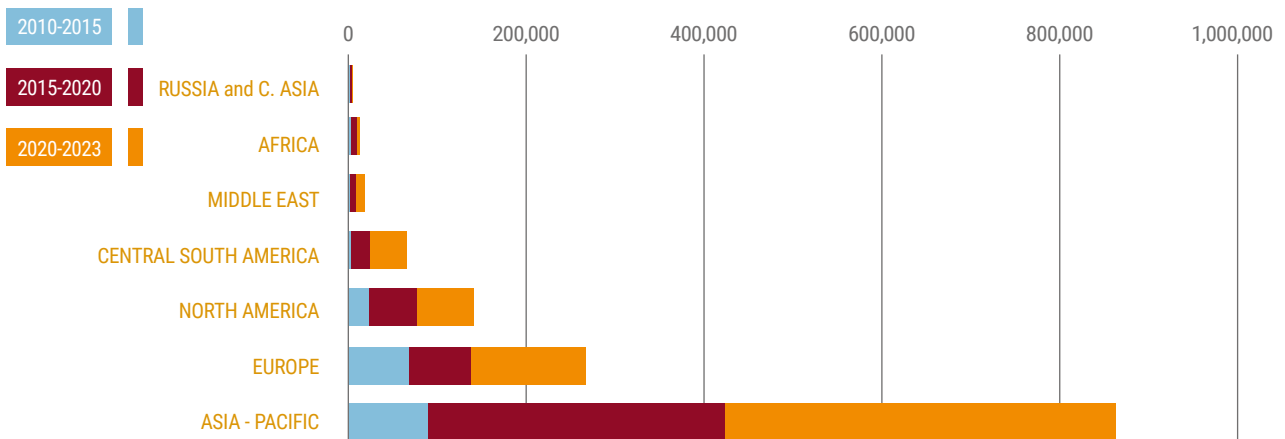
World Solar Photovoltaic Power Capacity (2023)

1,411,139 MW



World Solar Photovoltaic Power Capacity Growth (2010-2023)

1,370,867 MW



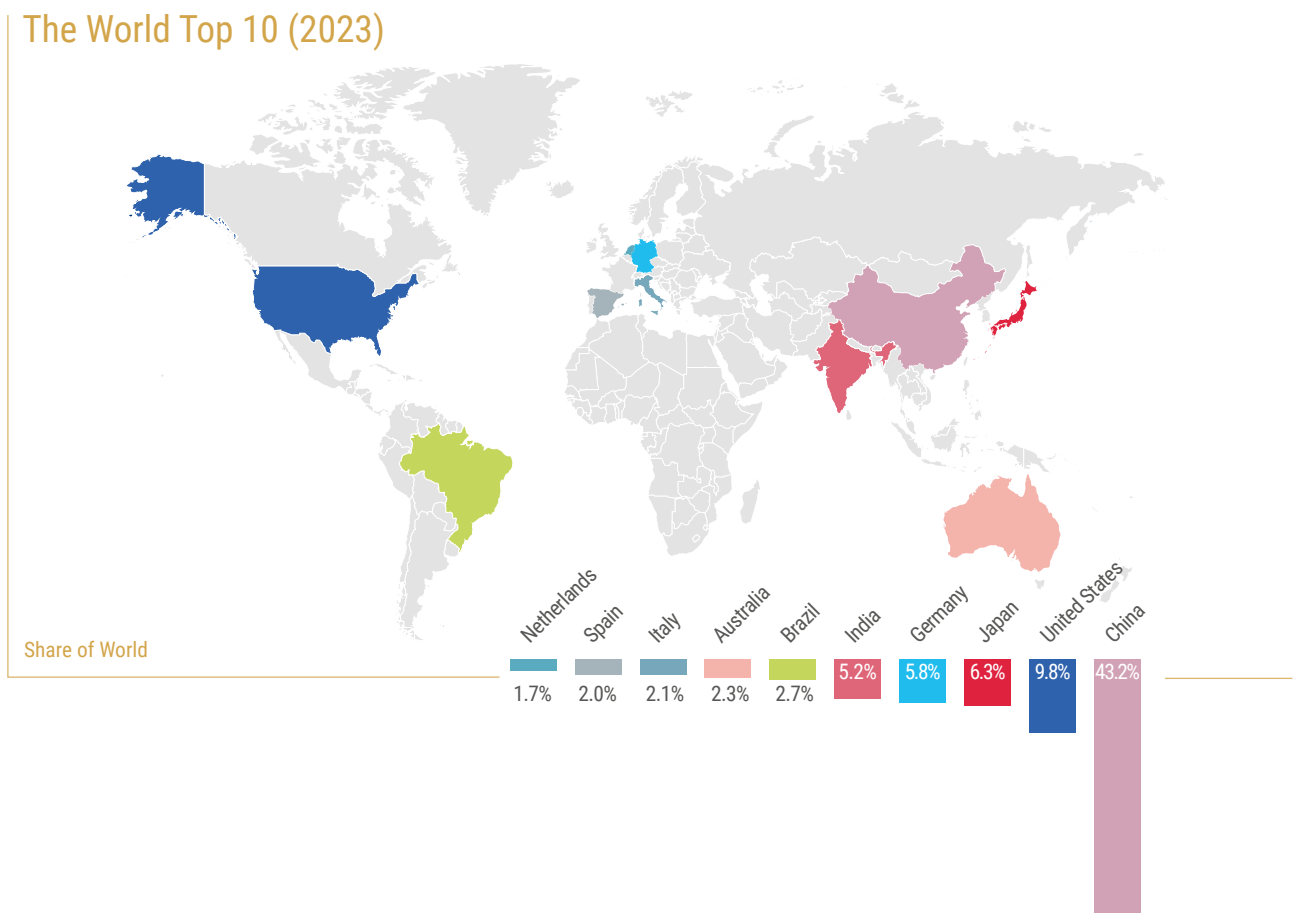
Solar Photovoltaic Power Capacity

The World Top 10^(*)

(MW)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
China	1,022	43,538	175,016	204,575	253,414	306,403	392,462	609,351	55.3%	63.5%
United States	2,909	22,479	50,229	59,829	74,693	93,911	112,881	137,725	22.0%	34.5%
Japan	3,618	34,150	56,162	63,192	71,868	78,413	85,066	89,077	4.7%	27.9%
Germany	18,004	39,222	45,156	48,912	53,669	60,036	67,477	81,737	21.1%	12.3%
India	69	5,368	27,156	34,908	39,363	49,607	63,048	72,767	15.4%	70.9%
Brazil	1	46	2,453	4,698	8,452	14,499	25,520	37,449	46.7%	129.0%
Australia	1,088	5,032	11,125	15,450	19,769	24,393	28,884	32,609	12.9%	29.9%
Italy	3,592	18,901	20,108	20,865	21,650	22,594	24,555	29,789	21.3%	17.7%
Spain	3,873	4,704	4,764	8,807	10,136	13,715	23,311	28,712	23.2%	16.7%
Netherlands	90	1,526	4,608	7,228	11,110	14,823	19,600	23,904	22.0%	53.6%
The World Top 10	34,265	174,967	396,776	468,464	564,123	678,395	842,804	1,143,121	35.6%	31.0%
Rest of the World	6,007	48,263	89,400	120,185	155,689	185,871	221,470	268,018	21.0%	33.9%
World	40,272	223,230	486,176	588,649	719,813	864,266	1,064,274	1,411,139	32.6%	31.5%

The World Top 10 (2023)



^(*) Data source: Eni's calculations on IRENA (2024), *Renewable Energy Statistics 2024*, International Renewable Energy Agency, Abu Dhabi, data.

Solar Photovoltaic Power Capacity

Countries^(*)

(MW)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	30,125	97,541	124,322	146,013	167,142	196,423	241,010	297,615	23.5%	19.3%
Albania	0	1	1	14	21	23	100	240	139.8%	63.6%
Austria	89	937	1,455	1,702	2,043	2,783	3,792	6,832	80.2%	39.7%
Belarus		6	154	154	160	163	273	273	0.1%	
Belgium	1,007	3,132	4,000	4,637	5,573	6,012	6,756	8,549	26.5%	17.9%
Bosnia Herzegovina	0	8	18	22	35	57	102	132	29.4%	59.7%
Bulgaria	25	1,028	1,033	1,044	1,100	1,275	1,737	2,937	69.1%	44.3%
Croatia	0	48	68	85	109	138	222	461	107.5%	75.8%
Cyprus	7	76	118	151	229	315	424	606	42.9%	40.9%
Czech Republic	1,727	2,075	2,081	2,111	2,172	2,246	2,420	2,499	3.3%	2.9%
Denmark	7	782	998	1,080	1,304	1,704	3,070	3,529	15.0%	61.4%
Estonia	0	7	32	121	208	395	520	822	58.1%	100.1%
Finland	7	17	140	222	318	425	664	900	35.5%	45.3%
France	1,044	7,138	9,629	10,729	11,917	14,603	17,341	20,542	18.5%	25.8%
Germany	18,004	39,222	45,156	48,912	53,669	60,036	67,477	81,737	21.1%	12.3%
Greece	202	2,604	2,651	2,834	3,288	4,277	5,430	7,030	29.5%	31.4%
Hungary	2	172	728	1,400	2,131	2,968	4,235	5,835	37.8%	84.7%
Iceland		3	5	7	7	7	7	7	0.0%	
Ireland	1	5	53	96	152	228	289	738	155.4%	63.4%
Italy	3,592	18,901	20,108	20,865	21,650	22,594	24,555	29,789	21.3%	17.7%
Kosovo		0	7	10	10	14	14	20	38.2%	
Latvia			2	3	5	7	113	353	212.4%	
Lithuania	0	69	82	103	164	255	572	1,165	103.7%	105.5%
Luxembourg	29	116	131	160	187	277	317	432	36.3%	22.9%
Malta	1	75	132	155	188	205	222	231	3.8%	54.6%
Moldova		1	3	5	4	14	60	87	44.7%	
Montenegro					3	3	22	42	88.4%	
Netherlands	90	1,526	4,608	7,228	11,110	14,823	19,600	23,904	22.0%	53.6%
North Macedonia		17	17	17	85	91	190	535	181.6%	
Norway	9	15	68	120	160	205	366	666	82.0%	39.1%
Poland		108	562	1,539	3,955	7,416	12,170	15,809	29.9%	
Portugal	134	447	667	901	1,100	1,646	2,646	3,876	46.5%	29.5%
Romania	0	1,326	1,386	1,398	1,383	1,394	1,809	1,917	6.0%	113.5%
Serbia	3	16	21	23	31	52	137	137	0.0%	33.2%
Slovakia	19	533	471	590	535	537	549	631	15.0%	30.9%
Slovenia	12	239	247	278	370	461	626	1,034	65.2%	40.9%
Spain	3,873	4,704	4,764	8,807	10,136	13,715	23,311	28,712	23.2%	16.7%
Sweden	11	104	428	714	1,107	1,606	2,388	3,488	46.1%	55.7%
Switzerland	125	1,394	2,173	2,498	2,973	3,655	4,340	5,840	34.6%	34.4%
Türkiye	6	249	5,063	5,995	6,667	7,816	9,425	11,292	19.8%	79.3%
Ukraine	3	841	2,003	5,936	7,331	8,062	8,062	8,062	0.0%	86.2%
United Kingdom	95	9,601	13,060	13,345	13,551	13,915	14,651	15,919	8.7%	48.3%
Others Europe	0	0	1	2	3	5	5	5	0.0%	

^(*) Data source: Eni's calculations on IRENA (2024), *Renewable Energy Statistics 2024*, International Renewable Energy Agency, Abu Dhabi, data.

Solar Photovoltaic Power Capacity

Countries^(*)

(MW)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia and Central Asia	0	124	801	1,879	2,433	3,014	3,524	4,470	26.8%	108.9%
Russia	0	61	535	1,276	1,428	1,661	1,816	2,170	19.5%	157.3%
Armenia			17	21	51	146	235	402	70.8%	
Azerbaijan	0	5	35	33	35	48	51	282		69.3%
Georgia			1	3	5	18	23	58	146.8%	
Kazakhstan		57	209	542	912	1,038	1,146	1,306	13.9%	
Uzbekistan		1	4	4	4	104	253	253	0.0%	
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Middle East	85	1,046	3,377	5,627	7,663	9,817	13,348	17,882	34.0%	50.9%
Bahrain		5	6	10	10	21	46	57	24.2%	
Iran	0	9	286	346	430	456	539	595	10.3%	75.8%
Iraq		37	37	37	37	37	42	42	0.0%	
Israel	70	790	1,340	1,890	2,410	3,349	4,169	4,282	2.7%	37.2%
Jordan	0	57	760	971	1,541	1,811	1,966	1,990	1.2%	147.8%
Kuwait		3	32	33	33	33	50	50	0.0%	
Lebanon	0	11	55	76	90	190	875	1,005	14.9%	85.3%
Oman		2	26	26	129	155	655	672	2.6%	
Qatar		4	5	5	5	5	805	805	0.0%	
Saudi Arabia	2	24	34	59	359	389	390	2,535		71.1%
Syria			1	2	12	33	60	60	0.0%	
United Arab Emirates	11	31	500	1,835	2,232	2,902	3,296	5,307	61.0%	61.0%
Yemen	1	60	253	254	258	258	264	290	10.0%	54.6%
Others Middle East		12	40	82	117	178	192	192	0.0%	

^(*) Data source: Eni's calculations on IRENA (2024), *Renewable Energy Statistics 2024*, International Renewable Energy Agency, Abu Dhabi, data.

Solar Photovoltaic Power Capacity

Countries^(*)

(MW)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Africa	166	1,800	6,959	8,208	9,574	10,497	11,561	12,353	6.9%	39.3%
Algeria		36	341	341	341	341	426	426	0.0%	
Angola		0	0	1	1	1	285	310	8.8%	
Benin		1	3	4	5	6	33	33	0.0%	
Cameroon	0	0	12	13	14	26	26	62	136.8%	95.8%
Chad	0	0	1	1	1	2	2	2	0.0%	67.5%
Congo		0	0	0	1	1	1	1	0.0%	
Côte d'Ivoire		0	2	4	6	8	9	46		
Dem. Rep. Congo		1	8	10	14	18	22	22	0.0%	
Egypt	15	16	744	1,627	1,623	1,643	1,704	1,836	7.7%	44.7%
Equatorial Guinea			0	0	0	0	0	0	0.0%	
Ethiopia	0	10	12	12	20	21	21	21	0.0%	66.5%
Gabon		0	0	0	0	1	1	1	0.0%	
Ghana		32	72	83	108	165	169	169	0.0%	
Kenya	0	30	105	126	146	216	318	358	12.6%	78.2%
Libya	4	5	5	5	5	6	6	8	31.6%	6.4%
Madagascar	0	0	22	23	24	24	51	51	0.0%	96.0%
Mauritania		18	87	88	88	88	89	123	38.2%	
Morocco	14	20	194	194	234	314	314	394	25.5%	29.6%
Mozambique		3	3	43	45	46	88	103	17.1%	
Namibia	1	8	91	144	145	145	170	170	0.0%	50.4%
Niger	6	6	14	14	15	15	50	80	60.1%	21.4%
Nigeria	0	11	25	37	53	73	102	112	9.8%	57.6%
Rwanda	0	11	19	22	24	25	26	26	0.0%	43.1%
Senegal	0	3	147	171	171	239	262	262	0.0%	130.7%
Sierra Leone	0	0	1	5	7	15	20	20	0.0%	51.1%
Somalia	0	0	2	2	11	19	42	46	8.3%	81.4%
South Africa	2	1,253	4,405	4,408	5,494	5,816	5,826	5,664	-2.8%	84.5%
South Sudan		0	1	1	2	3	3	16		
Sudan	2	20	59	80	117	136	190	190	0.0%	40.6%
Tanzania	0	13	17	16	17	19	20	20	0.0%	67.7%
Tunisia	2	28	64	80	95	95	197	506	156.8%	54.2%
Uganda	15	22	67	78	88	90	95	95	0.2%	15.3%
Zambia		1	5	95	96	97	98	133	35.7%	
Zimbabwe	0	2	9	12	14	33	46	46	0.0%	116.5%
Others Africa	104	249	420	468	548	752	849	1,001	17.8%	19.0%

^(*) Data source: Eni's calculations on IRENA (2024), *Renewable Energy Statistics 2024*, International Renewable Energy Agency, Abu Dhabi, data.

Solar Photovoltaic Power Capacity

Countries^(*)

(MW)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Asia - Pacific	6,630	95,168	286,411	345,738	430,544	511,741	628,637	870,267	38.4%	45.5%
Afghanistan	0	19	22	32	31	31	33	33	0.0%	
Australia	1,088	5,032	11,125	15,450	19,769	24,393	28,884	32,609	12.9%	
Bangladesh	32	196	240	280	343	506	523	748	43.1%	
Brunei	1	1	1	1	1	5	5	5	2.8%	11.7%
China	1,022	43,538	175,016	204,575	253,414	306,403	392,462	609,351	55.3%	63.5%
East Timor	0	1	1	1	0	0	0	0	4.1%	8.4%
Hong Kong			1	89	91	95	185	191	3.4%	
India	69	5,368	27,156	34,908	39,363	49,607	63,048	72,767	15.4%	70.9%
Indonesia	15	79	65	155	163	225	313	637	103.6%	33.7%
Japan	3,618	34,150	56,162	63,192	71,868	78,413	85,066	89,077	4.7%	27.9%
Malaysia	1	266	545	894	1,483	1,787	1,933	1,933	0.0%	87.6%
Mongolia	5	5	64	89	95	95	95	95	0.0%	26.2%
Myanmar	0	21	48	88	84	110	181	181	0.0%	60.1%
Nepal	4	13	56	55	66	90	110	115	5.0%	28.8%
New Zealand	3	37	91	115	145	192	260	363	39.6%	44.6%
North Korea	1	23	50	65	79	102	116	129	11.8%	45.9%
Pakistan	9	265	680	756	855	1,078	1,244	1,244	0.0%	45.8%
Papua New Guinea	0	1	1	3	3	4	4	4	0.0%	20.6%
Philippines	2	172	919	983	1,059	1,379	1,628	1,729	6.2%	68.1%
Singapore	3	46	162	272	332	487	634	901	42.2%	54.7%
South Korea	651	3,467	7,701	10,847	14,756	17,905	20,525	23,493	14.5%	31.8%
Sri Lanka	7	37	228	350	436	624	800	966	20.8%	46.2%
Taiwan	35	884	2,738	4,150	5,817	7,700	9,724	12,418	27.7%	57.2%
Thailand	49	1,420	2,962	2,983	2,979	3,060	3,180	3,181	0.0%	37.9%
Vietnam	5	5	105	4,994	16,661	16,661	16,698	17,077	2.3%	88.4%
Others Asia - Pacific	11	121	270	414	650	787	988	1,018	3.1%	41.7%

^(*) Data source: Eni's calculations on IRENA (2024), *Renewable Energy Statistics 2024*, International Renewable Energy Agency, Abu Dhabi, data.

Solar Photovoltaic Power Capacity

Countries^(*)

(MW)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Americas	3,266	27,550	64,304	81,184	102,457	132,775	166,194	208,553	25.5%	37.7%
Argentina	5	16	198	447	769	1,080	1,116	1,408	26.2%	54.6%
Barbados	1	3	17	33	49	64	69	69	0.0%	38.6%
Belize	0	0	1	7	7	7	7	7	0.0%	96.5%
Bolivia	3	5	5	5	121	170	171	172	0.8%	36.6%
Brazil	1	46	2,453	4,698	8,452	14,499	25,520	37,449	46.7%	129.0%
Canada	216	2,877	3,719	4,007	4,379	5,261	5,439	5,884	8.2%	28.9%
Chile	0	546	2,315	2,716	3,302	4,516	6,579	8,790	33.6%	224.3%
Colombia	1	1	13	23	83	181	480	716	49.2%	62.7%
Costa Rica	1	9	33	48	57	74	74	74	0.0%	45.0%
Cuba		18	124	151	213	246	267	280	4.7%	
Curacao	0	10	12	12	13	13	13	13	1.0%	62.1%
Dominican Republic		24	191	335	386	584	735	1,077	46.5%	
Ecuador	0	26	28	28	28	28	29	31	9.9%	76.2%
El Salvador	0	11	167	410	479	543	571	586	2.6%	107.6%
Guatemala	1	93	101	101	101	101	105	110	4.6%	49.2%
Guyana	0	1	6	8	8	9	10	15	42.4%	40.7%
Haiti	1	2	3	3	3	3	3	4	21.7%	16.1%
Honduras	4	396	515	518	525	529	529	529	0.0%	46.4%
Jamaica	1	7	56	107	107	107	107	110	2.4%	43.5%
Mexico	30	295	2,754	6,230	7,141	8,910	9,339	10,893	16.6%	57.4%
Nicaragua		1	14	16	16	16	17	18	6.4%	
Panama		43	199	225	235	498	529	646	22.1%	
Paraguay	0	0	0	0	0	0	1	1	0.0%	72.1%
Peru	13	135	324	335	335	332	332	332	0.0%	28.7%
Suriname	0	6	8	8	9	9	12	12	0.0%	39.4%
Trinidad and Tobago	3	4	4	4	4	4	4	4	0.0%	2.9%
United States	2,909	22,479	50,229	59,829	74,693	93,911	112,881	137,725	22.0%	34.5%
Uruguay	0	64	248	254	258	266	280	297	5.8%	79.9%
Venezuela	2	3	3	3	3	4	4	5	12.2%	7.7%
Others Americas	76	427	566	623	682	808	970	1,296	33.6%	24.3%

^(*) Data source: Eni's calculations on IRENA (2024), *Renewable Energy Statistics 2024*, International Renewable Energy Agency, Abu Dhabi, data.

Solar Photovoltaic Power Generation

Areas and Aggregates^(*)

(GWh)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Europe	22,598	104,629	131,833	145,085	172,216	194,987	244,857	287,232	17.3%	21.6%
Russia and Central Asia		459	1,162	2,215	3,696	4,203	5,041		19.9%	
Middle East	95	1,428	5,101	9,911	13,579	16,770	21,223		26.6%	56.9%
Africa	349	2,586	6,921	10,859	12,605	14,048	15,002		6.8%	36.8%
Asia - Pacific	5,599	98,079	310,082	392,176	467,997	588,473	742,068		26.1%	50.3%
Americas	3,400	37,686	98,639	123,245	154,488	201,805	265,181		31.4%	43.8%
- North America	3,312	34,932	84,735	97,696	119,974	153,266	189,549	221,482	16.8%	38.2%
- Central South America	88	2,754	13,904	25,549	34,514	48,539	75,632		55.8%	75.6%
World	32,041	244,867	553,738	683,491	824,581	1,020,286	1,293,372		-100.0%	-100.0%
European Union 27	22,465	95,262	108,079	118,010	139,803	159,073	205,713	244,546	18.9%	20.2%
MENA	308	1,699	7,531	15,542	19,757	22,979	28,374		23.5%	45.8%
OECD	30,703	181,858	301,788	349,511	421,207	503,073	622,732	711,390	14.2%	27.3%
NON OECD	1,338	63,009	251,950	333,980	403,374	517,213	670,640		29.7%	67.9%
OPEC	30	255	2,151	5,240	7,274	8,377	9,979		19.1%	62.2%
NON OPEC	32,011	244,612	551,587	678,251	817,307	1,011,909	1,283,393		26.8%	36.0%

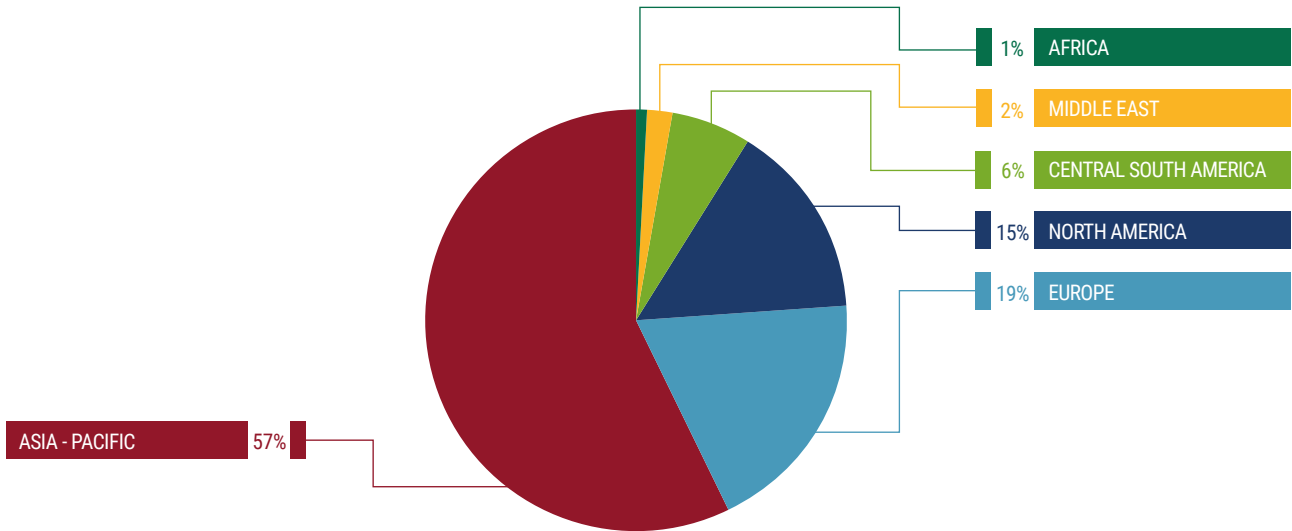
^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

Solar Photovoltaic Power Generation

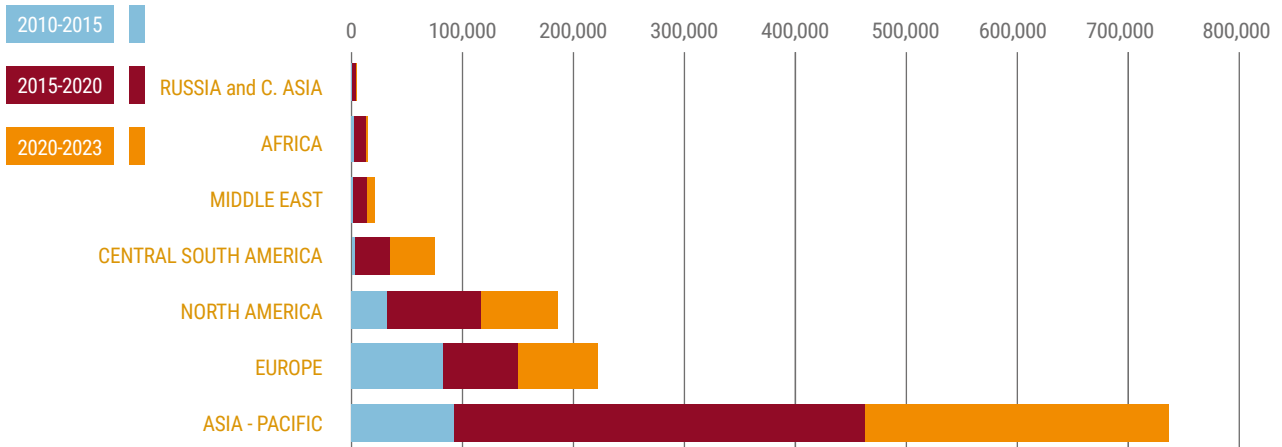
World Solar Photovoltaic Power Generation (2022)

1,293,372 GWh



World Solar Photovoltaic Power Generation Growth (2010-2022)

1,261,331 GWh



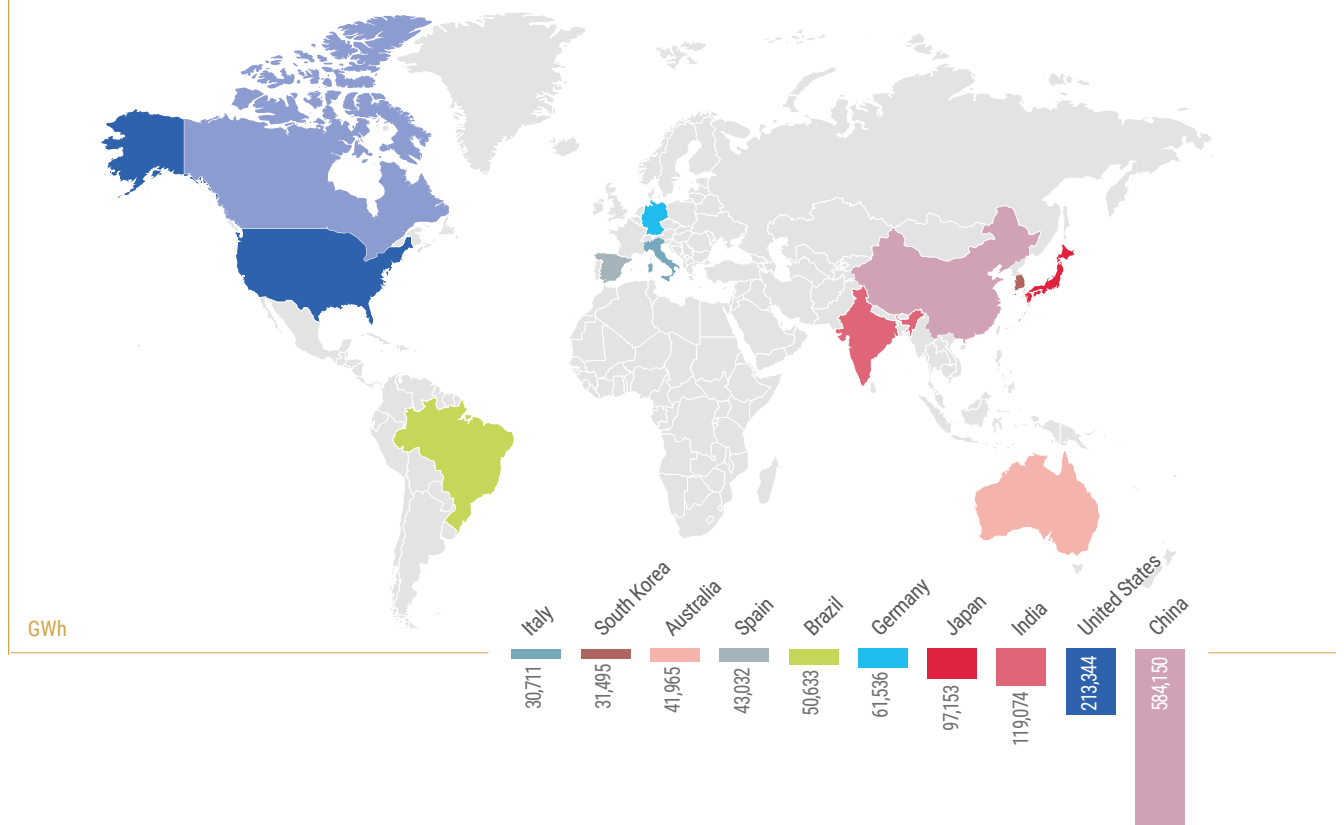
Solar Photovoltaic Power Generation

The World Top 10^(*)

(GWh)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
China	699	39,500	176,900	224,300	260,500	327,000	427,270	584,150	36.7%	67.8%
United States	3,063	32,091	81,244	93,944	115,902	148,153	183,812	213,344	16.1%	38.6%
India	54	10,401	40,358	51,387	62,042	75,565	104,740	119,074	13.7%	80.8%
Japan	3,543	34,803	62,668	69,382	79,087	86,081	92,614	97,153	4.9%	29.0%
Germany	11,729	38,726	43,459	44,383	49,496	50,472	60,304	61,536	2.0%	13.6%
Brazil	0	59	3,461	6,655	10,748	16,752	30,126	50,633	68.1%	
Spain	6,425	8,266	7,877	9,420	15,675	21,922	31,187	43,032	38.0%	15.8%
Australia	386	5,019	9,925	14,842	21,028	27,712	34,681	41,965	21.0%	43.4%
South Korea	772	3,975	9,208	12,996	17,967	23,395	28,918	31,495	8.9%	33.0%
Italy	1,906	22,942	22,654	23,689	24,942	25,039	28,121	30,711	9.2%	23.8%
The World Top 10	28,577	195,782	457,754	550,998	657,387	802,091	1,021,773	1,273,093	24.6%	33.9%
Rest of the World	3,464	49,085	95,984	132,493	167,194	218,195	271,599		24.5%	43.8%
World	32,041	244,867	553,738	683,491	824,581	1,020,286	1,293,372		26.8%	36.1%

The World Top 10 (2023)



^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

Solar Photovoltaic Power Generation

Countries^(*)

(GWh)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Europe	22,598	104,629	131,833	145,085	172,216	194,987	244,857	287,232	17.3%	21.6%
Albania			1	22	32	41	161	297	84.5%	
Austria	89	937	1,455	1,702	2,043	2,783	3,792	6,092	60.7%	38.4%
Belarus		8	177	181	176	172	287		66.9%	
Belgium	560	3,057	3,903	4,253	5,112	5,618	6,876	7,286	6.0%	21.8%
Bosnia Herzegovina			21	30	45	72	114		58.3%	
Bulgaria	15	1,382	1,343	1,417	1,469	1,467	2,094	3,250	55.2%	51.2%
Croatia		57	75	83	96	149	152	279	83.6%	
Cyprus	6	127	199	218	296	468	602	854	41.9%	46.4%
Czech Republic	616	2,264	2,365	2,316	2,294	2,250	2,626	3,210	22.2%	13.5%
Denmark	6	604	953	963	1,181	1,309	2,203	3,363	52.7%	62.7%
Estonia			31	74	245	354	596	629	5.5%	
Finland	5	11	90	147	218	298	392	647	65.1%	45.4%
France	620	7,754	10,808	12,165	13,189	15,357	19,628	22,688	15.6%	31.9%
Germany	11,729	38,726	43,459	44,383	49,496	50,472	60,304	61,536	2.0%	13.6%
Greece	158	3,900	3,791	4,429	4,447	5,251	7,140	8,280	16.0%	35.6%
Hungary	1	141	629	1,497	2,459	3,796	4,732	6,960	47.1%	97.5%
Ireland		2	18	33	53	79	148	411	177.7%	
Italy	1,906	22,942	22,654	23,689	24,942	25,039	28,121	30,711	9.2%	23.8%
Kosovo			2	11	12	16	14	9	-35.7%	
Latvia			1	3	5	7	41	239		
Lithuania		73	87	91	129	191	342	688	101.2%	
Luxembourg	21	104	119	130	161	180	276	318	15.2%	23.2%
Malta	1	95	190	195	237	256	290	309	6.6%	55.4%
Moldova		2	3	3	4	10	53	86	62.3%	
Montenegro					2	3	3	17		
Netherlands	56	1,108	3,708	5,399	8,568	11,304	17,079	19,993	17.1%	57.2%
North Macedonia		23	23	23	24	51	92	307		
Norway			2	13	82	109	173	358	106.9%	
Poland		57	300	711	1,958	3,934	8,310	11,345	36.5%	
Portugal	211	796	1,006	1,342	1,716	2,237	3,519	5,481	55.8%	28.5%
Romania		1,982	1,771	1,778	1,733	1,703	1,988	2,224	11.9%	
Serbia		11	13	14	13	14	16	42	162.5%	
Slovakia	17	506	585	589	663	671	650	606	-6.8%	31.6%
Slovenia	13	274	255	303	368	453	646	1,016	57.3%	39.8%
Spain	6,425	8,266	7,877	9,420	15,675	21,922	31,187	43,032	38.0%	15.8%
Sweden	9	97	407	679	1,051	1,526	1,980	3,098	56.5%	56.7%
Switzerland	94	1,119	1,945	2,178	2,599	2,842	3,858	4,419	14.5%	34.5%
Türkiye		194	7,800	9,250	10,950	13,943	16,888	18,727	10.9%	
Ukraine		477	1,099	2,933	5,969	6,565	4,201	4,598	9.5%	
United Kingdom	40	7,533	12,668	12,418	12,504	12,075	13,283	13,827	4.1%	56.8%

(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

(**) When 2023 data is missing, the figure refers to the latest available years.

Solar Photovoltaic Power Generation

Countries^(*)

(GWh)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Africa	349	2,586	6,921	10,859	12,605	14,048	15,002		6.8%	36.8%
Algeria		58	655	675	665	640	649		1.4%	
Angola						19	387			
Benin		5	5	8	7	17	33		94.1%	
Cameroon	1	10	20	20	45	46	46		0.0%	37.6%
Congo		1	1	1	8	9	10		11.1%	
Côte d'Ivoire		1	3	6	9	11	13		18.2%	
Dem. Rep. Congo		1	25	25	27	27	27	27	0.0%	
Egypt	206	168	1,525	4,430	4,945	4,753	4,893	4,540	-7.2%	30.2%
Ethiopia		18	20	20	32	34	36		5.9%	
Gabon		2				1	1		0.0%	
Ghana		3	33	52	57	122	162	150	-7.4%	
Kenya	3	50	90	92	88	167	384	492	28.1%	49.8%
Libya	6	8	8	8	8	9	10		11.1%	4.3%
Madagascar			15	32	34	36	53		47.2%	
Mauritania				115	109	87	109		25.3%	
Morocco		1	156	395	390	534	584	612	4.8%	
Mozambique		1	1	31	70	69	72		4.3%	
Namibia	7	39	233	362	421	437	509	509	0.0%	39.1%
Niger	3	4	13	24	24	24	24		0.0%	18.9%
Nigeria		14	34	52	74	102	101	111	9.9%	
Rwanda		15	16	18	18	18	18		0.0%	
Senegal	3	4	252	329	385	552	594		7.6%	55.4%
South Africa		1,946	3,212	3,255	4,071	5,001	4,777	5,015	5.0%	
South Sudan		2	10	11	11	17	35		105.9%	
Tanzania		23	31	27	31	31	31	31	0.0%	
Tunisia	1	36	84	119	150	215	319	492	54.2%	61.1%
Uganda	22	32	71	119	129	140	147		5.0%	17.1%
Zambia				118	150	148	143	147	2.8%	
Zimbabwe					24	18	29		61.1%	
Others Africa	97	144	408	515	623	764	806		5.5%	19.3%

^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

Solar Photovoltaic Power Generation

Countries ^(*) (GWh)	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y	CAGR
									(2023-2022) ^(**)	(2023-2010) ^(**)
Asia - Pacific	5,599	98,079	310,082	392,176	467,997	588,473	742,068		26.1%	50.3%
Australia	386	5,019	9,925	14,842	21,028	27,712	34,681	41,965	21.0%	43.4%
Bangladesh	44	266	315	374	459	613	866	1,067	23.2%	27.8%
Brunei		2	2	2	2	4	5		25.0%	
China	699	39,500	176,900	224,300	260,500	327,000	427,270	584,150	36.7%	67.8%
Hong Kong	1	4	6	17	52	120	180		50.0%	54.1%
India	54	10,401	40,358	51,387	62,042	75,565	104,740	119,074	13.7%	80.8%
Indonesia	1	5	90	118	171	193	444	713	60.6%	65.8%
Japan	3,543	34,803	62,668	69,382	79,087	86,081	92,614	97,153	4.9%	29.0%
Malaysia		273	573	1,404	2,044	2,027	2,193		8.2%	
Mongolia	8	8	59	117	117	165	187		13.3%	30.0%
Myanmar		7	10	35	81	86	159		84.9%	
Nepal	6	18	81	84	84	86	103		19.8%	26.7%
New Zealand	4	37	101	128	161	208	281	367	30.6%	41.6%
North Korea	1	29	49	53	53	65	65		0.0%	41.6%
Pakistan		207	629	705	712	785	908		15.7%	
Philippines	1	139	1,249	1,246	1,373	1,470	1,822		23.9%	86.9%
Singapore	5	69	244	410	501	734	955	1,165	22.0%	52.1%
South Korea	772	3,975	9,208	12,996	17,967	23,395	28,918	31,495	8.9%	33.0%
Sri Lanka	17	21	205	299	387	545	720		32.1%	36.6%
Taiwan	22	850	2,704	4,016	6,075	7,970	10,677		34.0%	67.4%
Thailand	20	2,378	4,537	5,146	5,031	5,015	5,070	5,268	3.9%	53.5%
Vietnam			22	4,818	9,575	27,791	28,397		2.2%	
Others Asia-Pacific	15	68	147	297	495	843	813		-3.6%	39.5%

(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

(**) When 2023 data is missing, the figure refers to the latest available years.

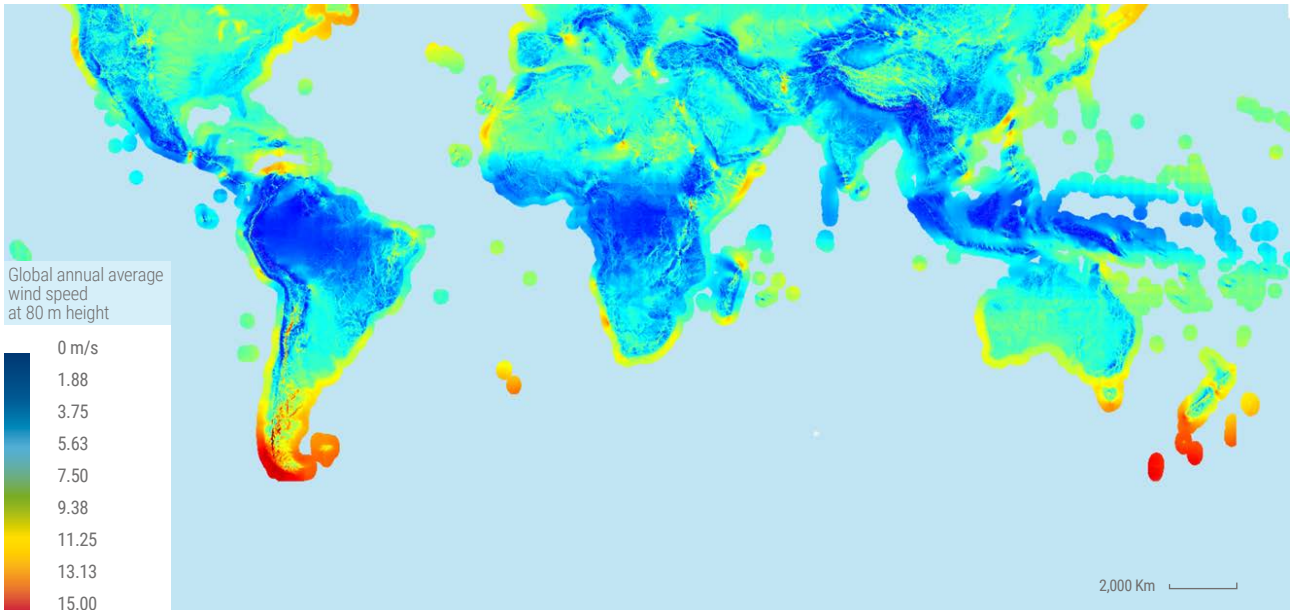
Solar Photovoltaic Power Generation

Countries ^(*) (GWh)	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y	CAGR
									(2023-2022) ^(**)	(2023-2010) ^(**)
Americas	3,400	37,686	98,639	123,245	154,488	201,805	265,181		31.4%	43.8%
Argentina		15	108	800	1,345	2,203	2,941		33.5%	
Bolivia		5	127	188	332	351	351		0.0%	
Brazil		59	3,461	6,655	10,748	16,752	30,126	50,633	68.1%	
Canada	249	2,841	3,491	3,752	4,072	5,113	5,737	8,138	41.9%	30.8%
Chile		1,261	5,218	6,419	7,971	10,411	15,406	17,748	15.2%	
Colombia	8	9	21	137	201	333	518	964	86.1%	44.6%
Costa Rica	..	3	59	68	70	82	81	81	0.0%	
Cuba		29	124	207	217	222	198		-10.8%	
Curaçao		17	20	25	27	27	27		0.0%	
Dominican Republic		32	230	289	323	449	646		43.9%	
Ecuador		36	38	38	38	37	39		5.4%	
El Salvador		7	285	490	902	1,076	1,124		4.5%	
Guatemala		150	205	232	219	227	217	243	12.0%	
Guyana		5	11	18	12	13	18		38.5%	
Haiti		2	3	3	3	3	3		0.0%	
Honduras	2	441	1,044	1,176	1,113	1,140	1,038		-8.9%	68.4%
Jamaica			46	90	124	132	131		-0.8%	
Mexico	31	239	1,363	7,057	9,115	13,010	20,542	18,211	-11.3%	63.3%
Nicaragua		2	24	26	26	27	26		-3.7%	
Panama		16	233	295	317	586	703	872	24.0%	
Peru		230	750	779	794	817	837		2.4%	
Suriname		9	11	11	12	12	12			
Trinidad and Tobago	4	6	6	6	6	6	6		3.4%	
United States	3,063	32,091	81,244	93,944	115,902	148,153	183,812	213,344	16.1%	38.6%
Uruguay		49	414	424	462	483	503	491	-2.4%	
Venezuela	2	7	6	9	9	9	9		0.0%	13.4%
Others Americas	41	125	97	107	128	131	130		-0.8%	10.1%

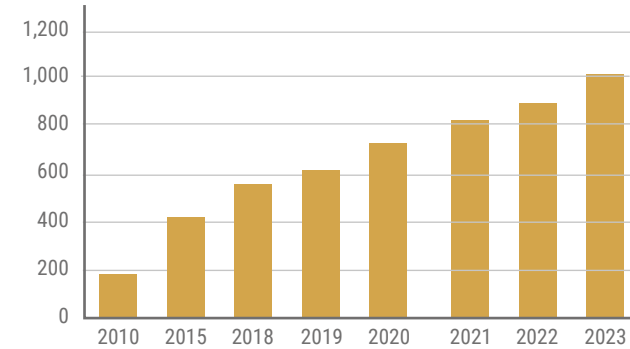
(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

(**) When 2023 data is missing, the figure refers to the latest available years.

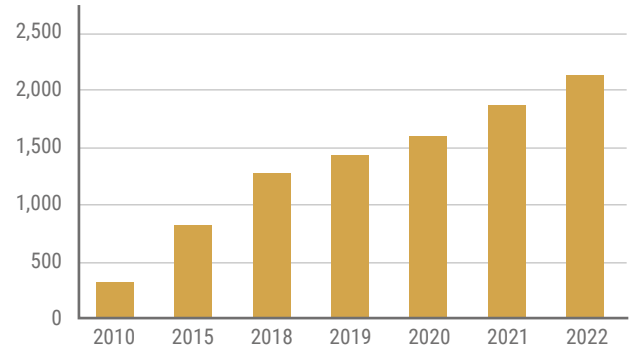
Wind Resources Map (Average Wind Speed at 80 m height)^(*) (m/s)



Wind Power Capacity (GW)

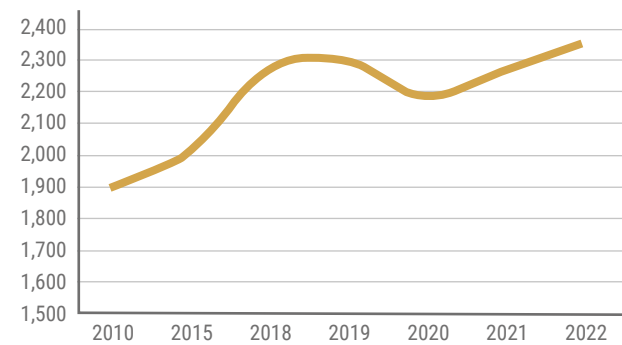


Wind Power Generation (TWh)

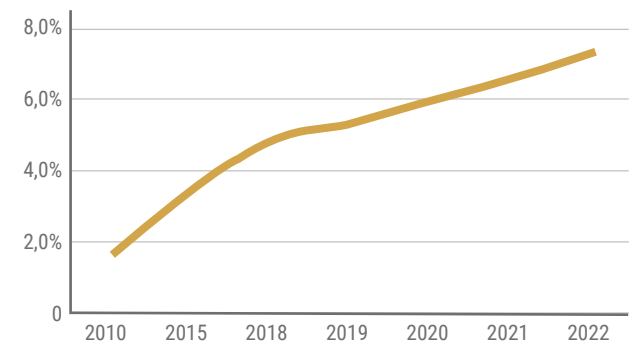


Capacity Factor

(hours per year - world average)



Share of Wind on Total Power Generation



^(*) IRENA: Global Atlas, Map data: VAISALA, 2022.

Wind Power Capacity

Areas and Aggregates^(*)

(MW)

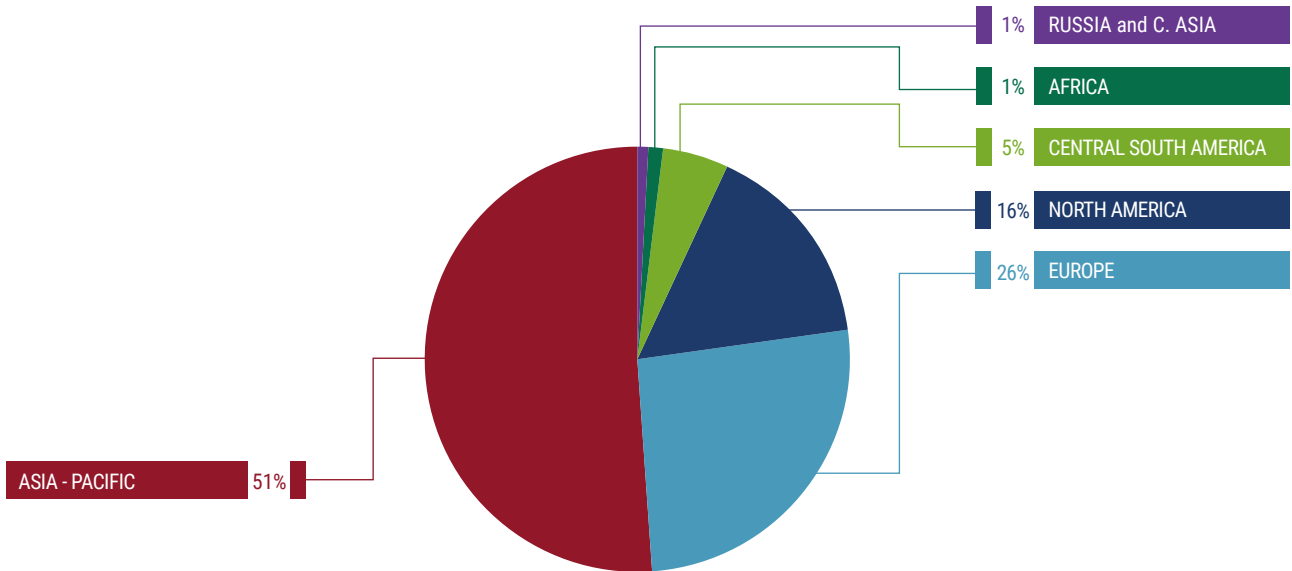
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	86,240	147,518	188,793	203,701	216,729	232,124	251,674	267,313	6.2%	9.1%
Russia and Central Asia	15	93	148	476	1,522	2,730	3,414	4,049	18.6%	54.1%
Middle East	104	286	623	785	934	1,039	1,564	1,866	19.3%	24.9%
Africa	865	3,320	5,471	5,528	6,514	6,909	7,745	8,654	11.7%	19.4%
Asia - Pacific	48,523	166,799	236,007	266,011	342,406	395,579	438,408	521,202	18.9%	20.0%
Americas	45,314	98,419	132,523	146,229	165,368	185,939	200,078	214,307	7.1%	12.7%
- North America	43,317	83,981	107,482	117,056	132,196	146,741	156,755	165,009	5.3%	10.8%
- Central South America	1,998	14,438	25,041	29,174	33,173	39,198	43,324	49,298	13.8%	28.0%
World	181,061	416,435	563,565	622,730	733,473	824,321	902,883	1,017,390	12.7%	14.2%
European Union 27	78,937	127,174	157,211	167,140	177,072	187,947	203,554	217,301	6.8%	8.1%
MENA	933	2,088	3,233	3,397	4,004	4,405	5,019	5,869	16.9%	15.2%
OECD	134,315	239,638	308,674	336,755	368,439	399,798	432,154	458,262	6.0%	9.9%
NON OECD	46,746	176,797	254,890	285,975	365,034	424,522	470,730	559,129	18.8%	21.0%
OPEC	95	218	358	381	384	386	818	940	14.9%	19.3%
NON OPEC	180,966	416,217	563,207	622,350	733,089	823,935	902,066	1,016,451	12.7%	14.2%

^(*) Data source: Eni's calculations on IRENA (2024), *Renewable Energy Statistics 2024*, International Renewable Energy Agency, Abu Dhabi, data.

Wind Power Capacity

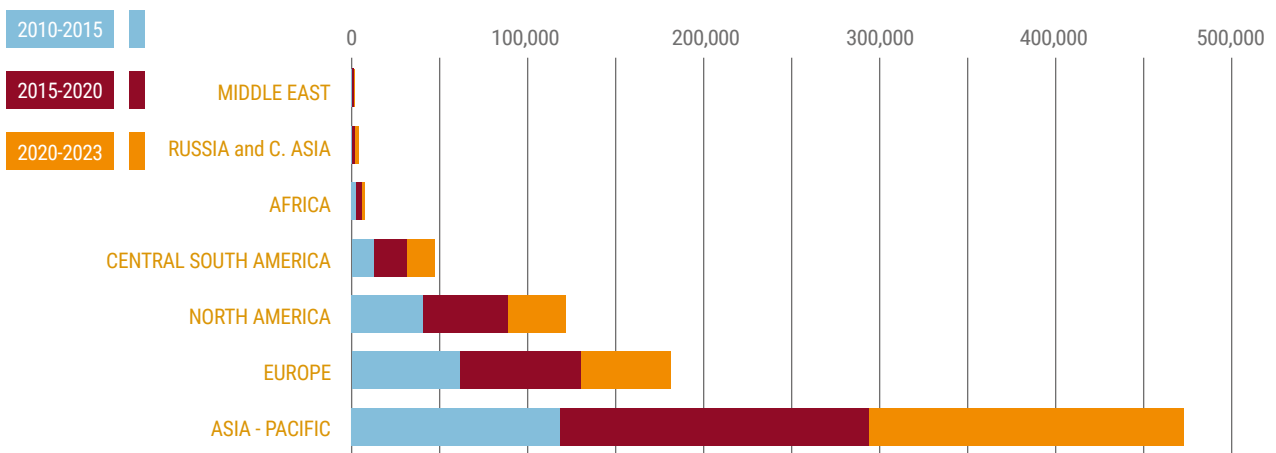
World Wind Power Capacity (2023)

1,017,390 MW



World Wind Power Capacity Growth (2010-2023)

836,330 MW



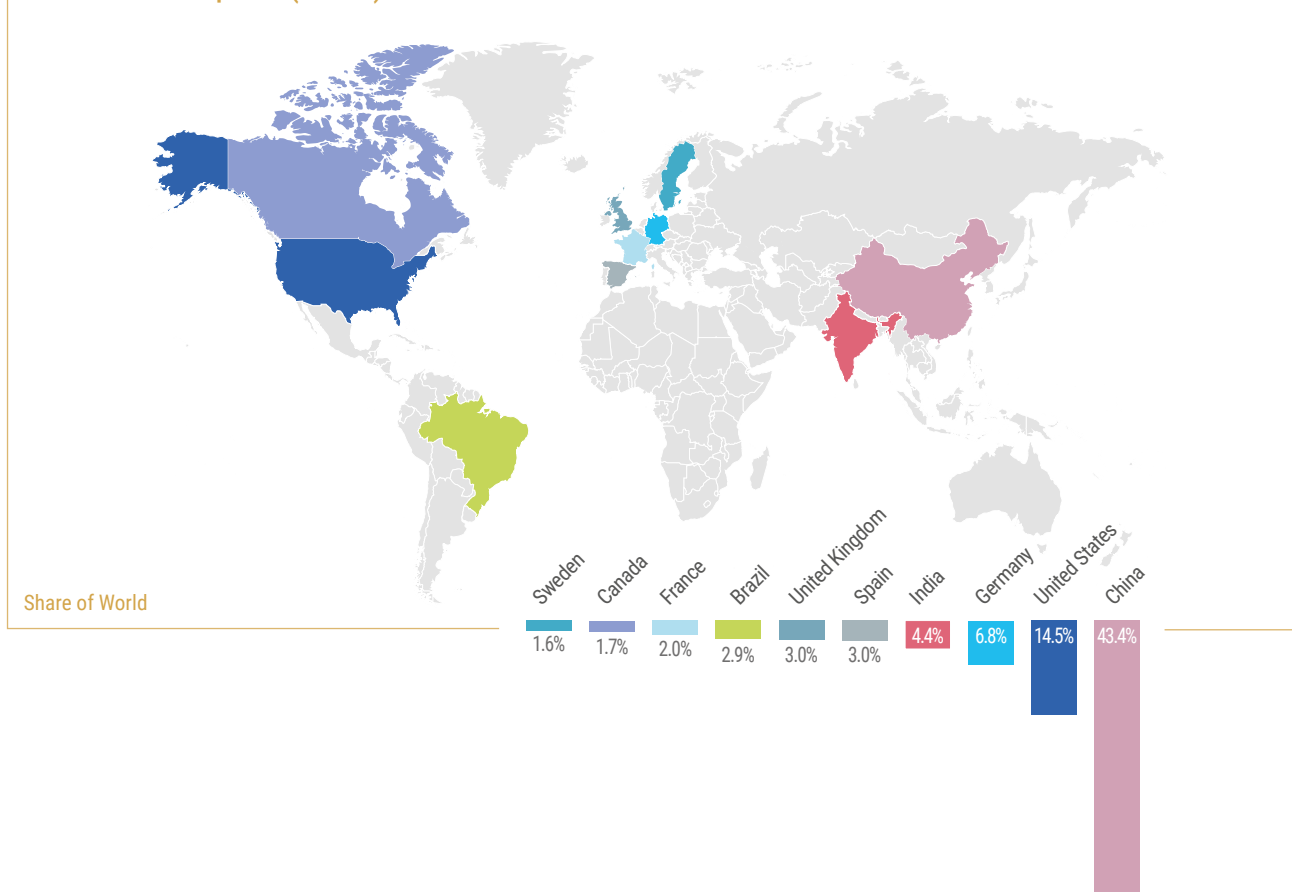
Wind Power Capacity

The World Top 10^(*)

(MW)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
China	29,633	131,048	184,665	209,582	281,993	328,973	365,964	441,895	20.7%	23.1%
United States	39,350	72,767	94,666	103,836	118,664	133,019	141,674	148,020	4.5%	10.7%
Germany	26,903	44,580	58,721	60,742	62,201	63,711	66,163	69,459	5.0%	7.6%
India	13,184	25,088	35,288	37,505	38,559	40,067	41,930	44,736	6.7%	9.9%
Spain	20,693	22,943	23,405	25,590	26,819	27,908	30,114	31,028	3.0%	3.2%
United Kingdom	5,421	14,305	21,606	23,887	24,458	25,748	28,762	30,102	4.7%	14.1%
Brazil	927	7,633	14,843	15,438	17,198	21,161	24,163	29,135	20.6%	30.4%
France	5,912	10,298	14,900	16,427	17,535	18,551	20,811	20,811	0.0%	10.2%
Canada	3,967	11,214	12,816	13,220	13,532	13,722	15,081	16,989	12.7%	11.8%
Sweden	2,017	5,819	7,300	8,681	9,976	12,116	14,279	16,252	13.8%	17.4%
The World Top 10	148,007	345,695	468,210	514,908	610,935	684,977	748,941	848,427	13.3%	14.4%
Rest of the World	33,069	70,639	95,630	107,866	122,581	139,088	152,106	168,963	11.1%	13.4%
World	181,061	416,435	563,565	622,730	733,473	824,321	902,883	1,017,390	12.7%	14.2%

The World Top 10 (2023)



^(*) Data source: Eni's calculations on IRENA (2024), *Renewable Energy Statistics 2024*, International Renewable Energy Agency, Abu Dhabi, data.

Wind Power Capacity

Countries^(*)

(MW)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Europe	86,240	147,518	188,793	203,701	216,729	232,124	251,674	267,313	6.2%	9.1%
Austria	1,016	2,489	3,133	3,224	3,226	3,408	3,579	3,977	11.1%	11.1%
Belarus	2	22	92	112	112	112	120	122	1.7%	37.7%
Belgium	912	2,181	3,305	3,864	4,673	4,948	5,303	5,504	3.8%	14.8%
Bosnia Herzegovina		0	51	87	87	135	135	135	0.0%	
Bulgaria	488	699	699	703	703	704	702	702	0.0%	2.8%
Croatia	79	418	586	646	801	987	987	1,143	15.8%	22.8%
Cyprus	82	158	158	158	158	158	158	158	0.3%	5.2%
Czech Republic	213	281	316	339	339	339	339	343	1.3%	3.7%
Denmark	3,802	5,077	6,123	6,111	6,259	7,004	7,084	7,482	5.6%	5.3%
Estonia	108	300	310	316	317	315	316	408	29.1%	10.8%
Finland	197	1,005	2,041	2,284	2,586	3,257	5,677	6,957	22.5%	31.5%
France	5,912	10,298	14,900	16,427	17,535	18,551	20,811	20,811	0.0%	10.2%
Germany	26,903	44,580	58,721	60,742	62,201	63,711	66,163	69,459	5.0%	7.6%
Greece	1,298	2,091	2,877	3,589	4,119	4,649	4,702	5,220	11.0%	11.3%
Hungary	293	329	329	323	323	324	324	326	0.6%	0.8%
Iceland		3	2	2	2	2	2	2	0.0%	
Ireland	1,390	2,451	3,674	4,126	4,307	4,339	4,536	4,807	6.0%	10.0%
Italy	5,794	9,137	10,230	10,679	10,871	11,254	11,821	12,308	4.1%	6.0%
Kosovo	1	1	34	34	34	34	68	137	101.1%	46.0%
Latvia	30	68	78	78	78	77	82	141	71.3%	12.7%
Lithuania	133	436	533	534	540	671	946	1,287	36.0%	19.1%
Luxembourg	44	64	123	136	153	136	165	221	33.9%	13.3%
Malta		0	0	0	0	0	0	0	0.0%	
Moldova		1	33	35	41	67	115	141	22.8%	
Montenegro			72	118	118	118	118	118	0.0%	
Netherlands	2,237	3,391	4,393	4,484	6,648	7,674	8,755	10,749	22.8%	12.8%
North Macedonia		37	37	37	37	37	73	110	50.4%	
Norway	425	867	1,710	2,914	4,030	5,049	5,062	5,065	0.1%	21.0%
Poland	1,108	4,886	5,766	5,838	6,298	6,967	8,150	9,307	14.2%	17.8%
Portugal	3,796	4,937	5,172	5,223	5,122	5,427	5,538	5,617	1.4%	3.1%
Romania	389	3,130	3,032	3,038	3,013	3,015	3,015	3,087	2.4%	17.3%
Serbia		10	227	398	398	398	398	511	28.4%	
Slovakia	3	3	3	4	4	4	4	4	0.0%	2.2%
Slovenia		3	3	3	3	3	3	3	0.0%	
Spain	20,693	22,943	23,405	25,590	26,819	27,908	30,114	31,028	3.0%	3.2%
Sweden	2,017	5,819	7,300	8,681	9,976	12,116	14,279	16,252	13.8%	17.4%
Switzerland	42	60	75	75	87	87	87	87	0.0%	5.8%
Türkiye	1,320	4,503	7,005	7,591	8,832	10,607	11,396	11,697	2.6%	18.3%
Ukraine	88	514	621	1,258	1,402	1,761	1,761	1,761	0.0%	25.9%
United Kingdom	5,421	14,305	21,606	23,887	24,458	25,748	28,762	30,102	4.7%	14.1%
Others Europe	4	20	16	13	19	23	23	23	0.0%	14.0%

^(*) Data source: Eni's calculations on IRENA (2024), *Renewable Energy Statistics 2024*, International Renewable Energy Agency, Abu Dhabi, data.

Wind Power Capacity

Countries^(*)

(MW)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Russia and Central Asia	15	93	148	476	1,522	2,730	3,414	4,049	18.6%	54.1%
Russia	10	11	11	102	945	1,955	2,218	2,518	13.5%	53.0%
Armenia	3	3	3	3	3	3	3	3	-0.9%	0.7%
Azerbaijan	2	8	16	66	66	66	64	67	3.9%	30.9%
Georgia			20	21	21	21	21	21	0.0%	
Kazakhstan		72	98	284	486	684	1,108	1,440	30.0%	
Uzbekistan				1	1	1	1	1	0.0%	

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Middle East	104	286	623	785	934	1,039	1,564	1,866	19.3%	24.9%
Bahrain	1	1	1	1	1	1	3	3	0.0%	11.2%
Iran	95	153	282	305	308	310	342	365	6.7%	10.9%
Israel	6	6	27	27	27	27	136	316	132.1%	35.7%
Jordan	1	118	295	384	529	632	614	614	0.0%	59.7%
Kuwait		2	12	12	12	12	12	12	0.0%	
Lebanon		3	3	3	3	3	3	3	0.0%	
Oman				50	50	50	50	50	0.0%	
Saudi Arabia			3	3	3	3	403	403	0.0%	
Syria	1	1	1	1	1	1	1	1	0.0%	0.0%
Others Middle East		2				0	0	99		

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Africa	865	3,320	5,471	5,528	6,514	6,909	7,745	8,654	11.7%	19.4%
Algeria		10	10	10	10	10	10	10	0.0%	
Chad			1	1	1	1	1	1	0.0%	
Egypt	555	755	1,130	1,132	1,380	1,640	1,643	1,890	15.1%	9.9%
Ethiopia		324	324	324	324	324	404	324	-19.8%	
Ghana		0	0	0	0	0	0	0	0.0%	
Kenya	6	26	336	336	336	436	436	436	0.0%	39.7%
Madagascar	0	0	0	0	0	0	0	0	0.0%	0.2%
Mauritania		34	34	34	34	34	34	137		
Morocco	221	797	1,225	1,225	1,435	1,471	1,558	1,858	19.3%	17.8%
Namibia	0	0	5	5	5	5	5	5	0.0%	27.6%
Senegal				55	159	159	159	159	0.0%	
Somalia		3	4	4	4	4	4	4	0.0%	
South Africa	10	1,079	2,094	2,094	2,516	2,495	3,163	3,442	8.8%	56.5%
Tanzania	54	240	245	245	245	245	245	245	0.0%	12.4%
Tunisia					2	2	2	2	0.0%	
Others Africa	19	51	62	62	62	82	81	141	74.3%	16.7%

^(*) Data source: Eni's calculations on IRENA (2024), *Renewable Energy Statistics 2024*, International Renewable Energy Agency, Abu Dhabi, data.

Wind Power Capacity

Countries^(*)

(MW)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Asia-Pacific	48,523	166,799	236,007	266,011	342,406	395,579	438,408	521,202	18.9%	20.0%
Afghanistan		0	0	0	0	0	0	0	0.0%	
Australia	1,864	4,318	6,409	7,881	10,207	10,555	11,966	12,911	7.9%	16.1%
Bangladesh	2	3	3	3	3	3	3	3	0.0%	3.3%
China	29,633	131,048	184,665	209,582	281,993	328,973	365,964	441,895	20.7%	23.1%
Hong Kong			1	1	1	1	1	1	0.0%	
India	13,184	25,088	35,288	37,505	38,559	40,067	41,930	44,736	6.7%	9.9%
Indonesia	0	1	144	154	154	154	154	152	-1.3%	59.9%
Japan	2,294	2,809	3,498	3,952	4,120	4,262	4,483	5,343	19.2%	6.7%
Mongolia	1	51	156	156	156	156	156	156	0.0%	52.0%
Myanmar		0	0	0	0	0	0	0	0.0%	
Nepal		0	0	0	0	0	0	0	0.0%	
New Zealand	540	689	690	690	690	913	994	1,059	6.5%	5.3%
North Korea	0	1	1	1	2	2	2	2	0.0%	15.7%
Pakistan	6	308	1,186	1,236	1,236	1,335	1,845	1,845	0.0%	55.4%
Philippines	33	427	427	443	443	443	443	443	0.0%	22.1%
Singapore			0	0	0	0	0	0	0.0%	
South Korea	367	853	1,303	1,494	1,645	1,709	1,946	2,205	13.3%	14.8%
Sri Lanka	34	131	128	128	179	252	252	267	6.0%	17.2%
Taiwan	476	647	713	845	937	1,033	1,581	2,674	69.1%	14.2%
Thailand	6	234	1,103	1,507	1,507	1,545	1,545	1,545	0.0%	54.1%
Vietnam	31	136	237	375	518	4,118	5,065	5,888	16.2%	49.7%
Others Asia - Pacific	52	54	55	57	57	57	77	77	0.0%	3.0%

^(*) Data source: Eni's calculations on IRENA (2024), *Renewable Energy Statistics 2024*, International Renewable Energy Agency, Abu Dhabi, data.

Wind Power Capacity

Countries^(*)

(MW)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Americas	45,314	98,419	132,523	146,229	165,368	185,939	200,078	214,307	7.1%	12.7%
Argentina	1	188	751	1,609	2,624	3,292	3,310	3,706	12.0%	86.4%
Barbados	0	0	0	0	0	0	1	1	0.0%	29.6%
Belize	0	0	0	0	0	0	0	0	0.0%	0.0%
Bolivia		3	27	27	27	128	128	135	5.6%	
Brazil	927	7,633	14,843	15,438	17,198	21,161	24,163	29,135	20.6%	30.4%
Canada	3,967	11,214	12,816	13,220	13,532	13,722	15,081	16,989	12.7%	11.8%
Chile	163	907	1,524	1,620	2,340	3,137	3,830	4,510	17.8%	29.1%
Colombia	18	18	18	18	18	18	18	18	0.0%	0.0%
Costa Rica	120	278	408	411	394	390	390	408	4.5%	9.9%
Cuba	16	16	16	16	16	16	16	16	0.0%	0.2%
Curaçao	12	30	47	47	47	47	47	47	0.0%	11.0%
Dominican Republic		86	183	370	370	370	417	417	0.0%	
Ecuador	2	21	21	21	21	21	21	71		29.8%
El Salvador					36	54	54	54	0.0%	
Guatemala		76	107	107	107	107	107	107	0.0%	
Guyana	0	0	0	0	0	0	0	0	0.0%	15.4%
Haiti			0	0	0	0	0	0	0.0%	
Honduras		156	229	239	239	239	239	239	0.0%	
Jamaica	42	42	102	102	102	102	102	102	0.0%	7.1%
Mexico	519	3,271	4,180	6,541	6,995	7,469	7,634	7,318	-4.1%	22.6%
Nicaragua	63	186	186	186	186	186	186	186	0.0%	8.7%
Panama		205	270	270	270	270	336	336	0.0%	
Peru	1	240	372	372	409	409	539	705	30.9%	70.2%
Trinidad and Tobago		0	0	0	0	0	0	0	0.0%	
United States	39,350	72,767	94,666	103,836	118,664	133,019	141,674	148,020	4.5%	10.7%
Uruguay	41	857	1,513	1,516	1,516	1,516	1,516	1,516	0.0%	32.1%
Venezuela		50	50	50	50	50	50	50	0.0%	
Others Americas	73	175	192	210	205	214	218	219	0.2%	8.8%

^(*)Data source: Eni's calculations on IRENA (2024), *Renewable Energy Statistics 2024*, International Renewable Energy Agency, Abu Dhabi, data.

Wind Power Generation

Areas and Aggregates^(*)

(GWh)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Europe	154,013	319,000	403,309	462,242	513,532	499,836	555,753	611,107	10.0%	11.2%
Russia and Central Asia	12	288	862	1,231	2,459	5,233	8,039		53.6%	72.0%
Middle East	174	381	1,448	1,719	2,372	2,615	4,506		72.3%	31.2%
Africa	2,372	8,552	15,285	18,529	19,566	22,903	24,510		7.0%	21.5%
Asia - Pacific	77,067	245,691	467,889	518,843	580,411	788,070	912,725		15.8%	22.9%
Americas	108,570	260,090	387,897	426,472	482,271	545,515	614,239		12.6%	15.5%
- North America	103,872	219,956	309,302	331,073	377,579	418,820	476,123		13.7%	13.5%
- Central South America	4,698	40,134	78,595	95,399,00	104,692	126,695	138,116		9.0%	32.5%
World	342,208	834,002	1,276,690	1,429,036	1,600,611	1,864,172	2,119,772		13.7%	16.4%
European Union 27	139,842	263,204	320,616	367,117	397,983	386,721	421,316	477,833	13.4%	9.9%
MENA	2,470	5,425	8,793	11,185	12,694	13,943	16,011		14.8%	16.9%
OECD	270,173	560,958	747,250	833,729	937,251	973,352	1,092,673	1,144,696	4.8%	11.7%
NON OECD	72,035	273,044	529,440	595,307	663,360	890,820	1,027,099		15.3%	24.8%
OPEC	163	354,00	655	750,00	883	939	2,539		170.4%	25.7%
NON OPEC	342,045	833,648	1,276,035	1,428,286	1,599,728	1,863,233	2,117,233		13.6%	16.4%

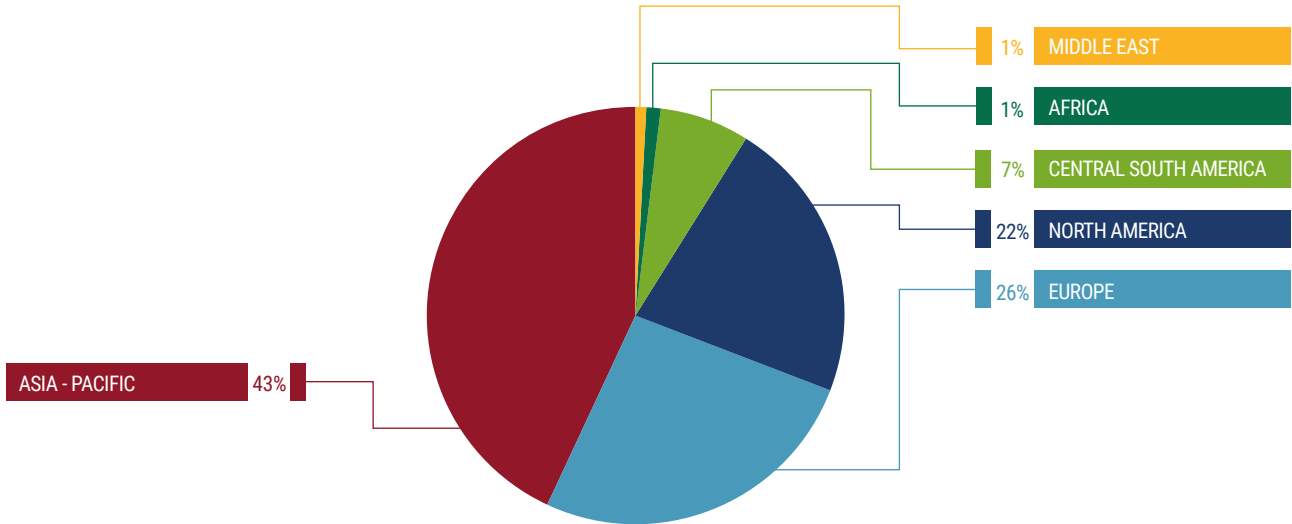
^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

Wind Power Generation

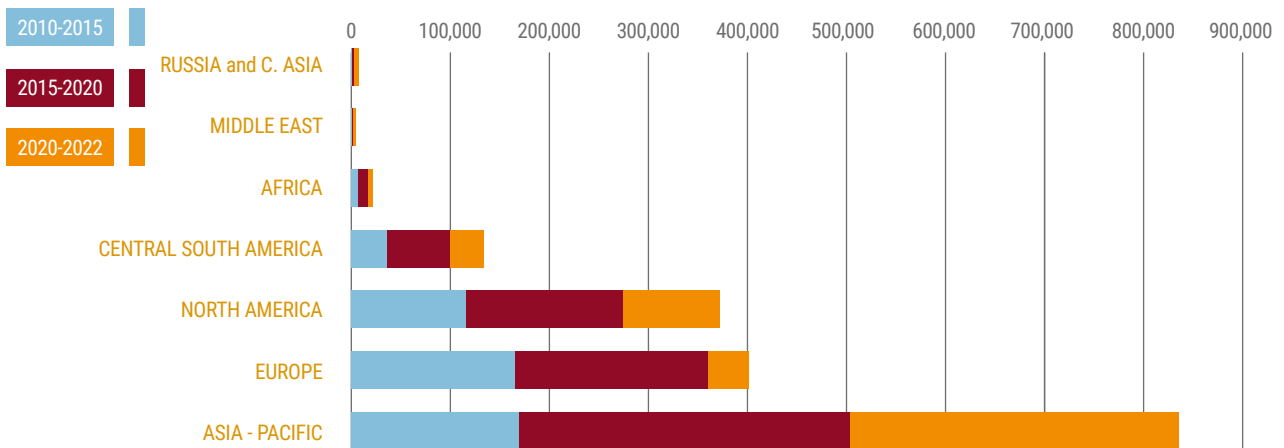
World Wind Power Generation (2022)

2,119,772 GWh



World Wind Power Generation Growth (2010-2022)

1,777,564 GWh



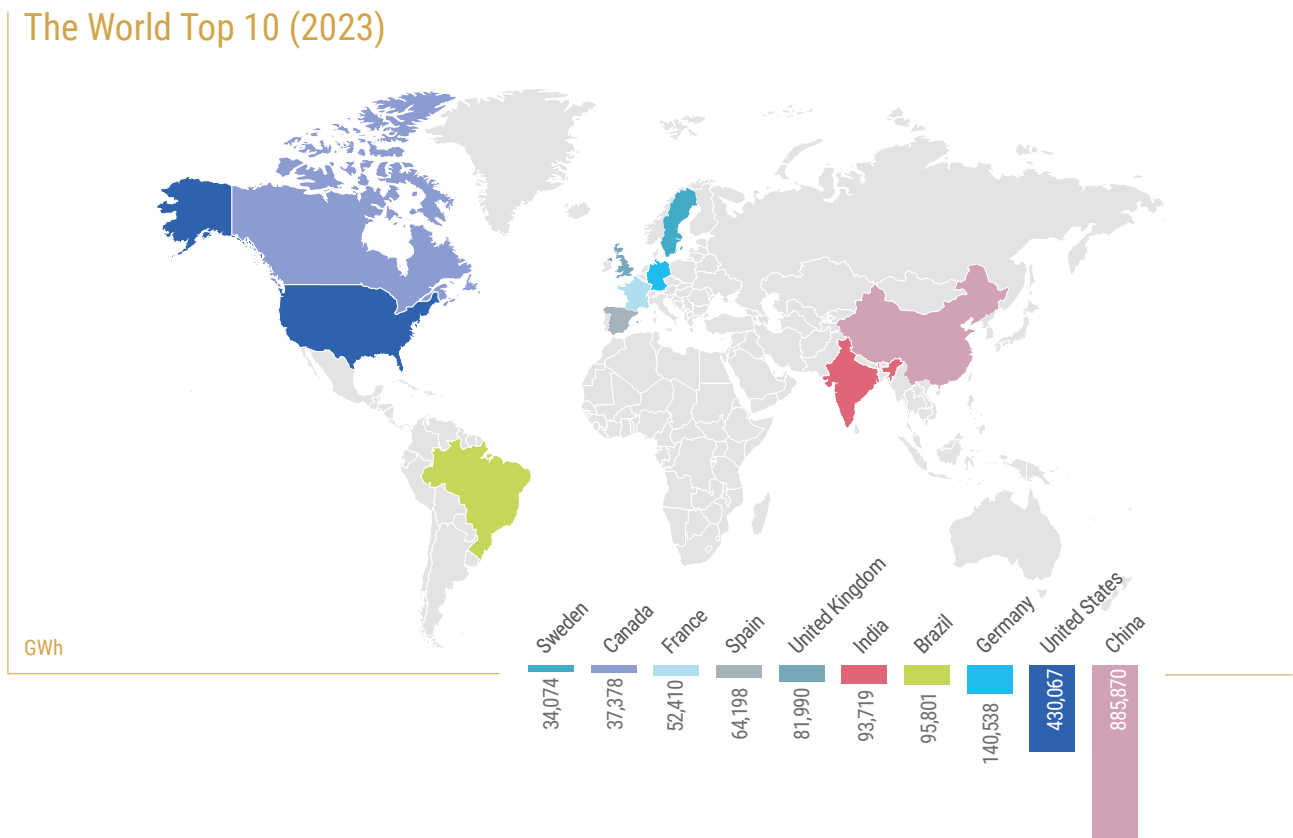
Wind Power Generation

The World Top 10^(*)

(GWh)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
China	44,622	185,766	365,971	406,032	466,474	656,102	762,672	885,870	16.2%	25.8%
United States	95,148	192,992	275,834	298,200	341,818	382,814	439,270	430,067	-2.1%	12.3%
Germany	38,547	80,624	109,951	125,894	132,102	114,169	124,816	140,538	12.6%	10.5%
Brazil	2,177	21,626	48,475	55,986	57,051	72,286	81,632	95,801	17.4%	33.8%
India	19,657	35,075	65,710	70,949	67,308	75,453	80,714	93,719	16.1%	12.8%
United Kingdom	10,286	40,275	56,908	63,835	75,380	64,663	80,257	81,990	2.2%	17.3%
Spain	44,271	49,325	50,896	55,647	56,444	62,061	62,784	64,198	2.3%	2.9%
France	9,945	21,421	28,599	34,722	40,045	37,119	38,004	52,410	37.9%	13.6%
Canada	8,724	26,964	33,468	32,873	35,761	36,006	36,853	37,378	1.4%	11.8%
Sweden	3,487	16,322	16,623	19,847	27,526	27,244	33,253	34,074	2.5%	19.2%
The World Top 10	276,864	670,390	1,052,435	1,163,985	1,299,909	1,527,917	1,740,255	1,916,045	10.1%	16.0%
Rest of the World	65,344	163,612	224,255	265,051	300,702	336,255	379,517		12.9%	15.8%
World	342,208	834,002	1,276,690	1,429,036	1,600,611	1,864,172	2,119,772		13.7%	16.4%

The World Top 10 (2023)



^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved

^(**) When 2023 data is missing, the figure refers to the latest available years.

Wind Power Generation

Countries^(*)

(GWh)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Europe	154,013	319,000	403,309	462,242	513,532	499,836	555,753	611,107	10.0%	11.2%
Austria	2,064	4,840	6,030	7,450	6,792	6,740	7,245	8,037	10.9%	11.0%
Belarus	1	26	99	178	194	168	180		7.1%	54.1%
Belgium	1,292	5,574	7,574	9,755	12,819	11,998	12,353	15,643	26.6%	21.1%
Bosnia Herzegovina			103	254	262	382	391		2.4%	
Bulgaria	681	1,452	1,318	1,317	1,477	1,434	1,499	1,584	5.7%	6.7%
Croatia	139	796	1,335	1,467	1,721	2,062	2,138	2,503	17.1%	24.9%
Cyprus	32	222	221	239	240	246	224	208	-7.1%	15.5%
Czech Republic	335	573	609	700	699	602	641	702	9.5%	5.9%
Denmark	7,809	14,133	13,902	16,150	16,330	16,054	19,028	19,540	2.7%	7.3%
Estonia	277	715	636	687	844	733	668	683	2.2%	7.2%
Finland	294	2,327	5,839	6,025	8,256	8,507	12,022	14,691	22.2%	35.1%
France	9,945	21,421	28,599	34,722	40,045	37,119	38,004	52,410	37.9%	13.6%
Germany	38,547	80,624	109,951	125,894	132,102	114,169	124,816	140,538	12.6%	10.5%
Greece	2,714	4,621	6,300	7,266	9,310	10,483	10,883	11,010	1.2%	11.4%
Hungary	534	693	607	729	655	664	610	645	5.7%	1.5%
Iceland		11	4	7	7	6	6	7	16.7%	
Ireland	2,815	6,573	8,640	10,019	11,549	9,778	11,208	11,605	3.5%	11.5%
Italy	9,126	14,844	17,716	20,202	18,762	20,927	20,494	23,303	13.7%	7.5%
Kosovo	1		30	91	90	126	363	403	11.0%	58.6%
Latvia	49	147	122	154	177	141	190	271	42.6%	14.1%
Lithuania	224	810	1,144	1,499	1,552	1,362	1,512	2,536	67.7%	20.5%
Luxembourg	55	102	255	281	351	314	312	497	59.3%	18.5%
Moldova		2	23	43	51	77	140	194	38.6%	
Montenegro			143	295	315	320	325	312	-4.0%	
Netherlands	3,994	7,550	10,549	11,508	15,278	18,046	21,401	29,164	36.3%	16.5%
North Macedonia		121	97	102	117	103	108	158	46.3%	
Norway	879	2,515	3,877	5,525	9,913	11,770	14,810	13,965	-5.7%	23.7%
Poland	1,664	10,858	12,799	15,107	15,800	16,234	19,780	23,249	17.5%	22.5%
Portugal	9,182	11,607	12,617	13,667	12,299	13,216	13,244	13,184	-0.5%	2.8%
Romania	306	7,063	6,322	6,773	6,945	6,576	6,997	7,548	7.9%	28.0%
Serbia			150	898	976	1,085	949	1,020	7.5%	
Slovakia	6	6	6	6	4	5	4	4	0.0%	-3.1%
Slovenia		6	6	6	6	6	6	6	0.0%	
Spain	44,271	49,325	50,896	55,647	56,444	62,061	62,784	64,198	2.3%	2.9%
Sweden	3,487	16,322	16,623	19,847	27,526	27,244	33,253	34,074	2.5%	19.2%
Switzerland	37	110	122	146	145	145	150	169	12.7%	12.4%
Türkiye	2,916	11,652	19,949	21,731	24,828	31,437	34,945	34,023	-2.6%	20.8%
Ukraine	51	1,084	1,188	2,020	3,271	2,833	1,813	1,033	-43.0%	26.0%
United Kingdom	10,286	40,275	56,908	63,835	75,380	64,663	80,257	81,990	2.2%	17.3%

^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved

^(**) When 2023 data is missing, the figure refers to the latest available years.

Wind Power Generation

Countries^(*)

(GWh)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Russia and Central Asia	12	288	862	1,231	2,459	5,233	8,039		53.6%	72.0%
Russia	4	148	232	331	1,241	3,311	5,547		67.5%	82.7%
Armenia	7	3	2	3	2	1	2	2	0.0%	-9.2%
Azerbaijan	1	5	83	105	96	91	83	55	-33.7%	36.1%
Georgia			84	85	91	83	88	86	-2.3%	
Kazakhstan		132	461	707	1,029	1,747	2,319	2,450	5.6%	
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Middle East	174	381	1,448	1,719	2,372	2,615	4,506		72.3%	31.2%
Bahrain			1	1	1	1	5			
Iran	163	221	518	616	754	737	813		10.3%	14.3%
Israel	8	7	183	190	204	178	317	735	131.9%	35.9%
Jordan	3	121	707	875	1,379	1,596	1,748		9.5%	70.0%
Kuwait		25	38	36	33	29	34		17.2%	
Lebanon		6								
Saudi Arabia						73	1,588			
United Arab Emirates		1								
Other Middle East			1	1	1	1	1		0.0%	
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Africa	2,372	8,552	15,285	18,529	19,566	22,903	24,510		7.0%	21.5%
Algeria		19	11	10	8	12	16		33.3%	
Egypt	1,498	2,058	3,018	4,233	5,257	5,784	5,811	5,837	0.4%	11.0%
Ethiopia		759	848	609	818	561	529		-5.7%	
Kenya	17	60	375	1,563	1,331	1,985	2,143	2,008	-6.3%	44.3%
Morocco	659	2,519	3,863	4,723	4,592	5,107	5,356	6,546	22.2%	19.3%
Namibia	1	1	18	18	22	22	22	22	0.0%	26.8%
Senegal				23	217	400	396		-1.0%	
South Africa	34	2,484	6,467	6,624	6,611	8,356	9,689	11,613	19.9%	56.6%
Tunisia	139	448	453	500	465	425	322	338	5.0%	7.1%
Others Africa	24	204	232	226	245	251	226		-10.0%	20.5%

^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

Wind Power Generation

Countries^(*)

(GWh)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Asia-Pacific	77,067	245,691	467,889	518,843	580,411	788,070	912,725		15.8%	22.9%
Australia	5,052	11,467	15,164	17,712	20,396	24,535	29,108	31,385	7.8%	15.1%
Bangladesh	3	4	5	5	5	5	5	5	0.0%	4.0%
China	44,622	185,766	365,971	406,032	466,474	656,102	762,672	885,870	16.2%	25.8%
Hong Kong	1	1	1	1	1	1	1		0.0%	0.0%
India	19,657	35,075	65,710	70,949	67,308	75,453	80,714	93,719	16.1%	12.8%
Indonesia	4	4	190	484	475	437	356	481	35.1%	44.5%
Japan	4,016	5,580	7,481	7,617	8,970	9,412	9,297	10,593	13.9%	7.7%
Mongolia	1	154	301	476	476	581	510		-12.2%	68.1%
Nepal					1	1	1		0.0%	
New Zealand	1,637	2,364	2,068	2,255	2,305	2,642	2,865	3,228	12.7%	5.4%
Pakistan		786	3,161	2,882	2,900	4,584	6,335		38.2%	
Philippines	62	748	1,153	1,042	1,026	1,270	1,030		-18.9%	26.4%
South Korea	817	1,342	2,465	2,681	3,151	3,182	3,372	3,405	1.0%	11.6%
Sri Lanka	53	343	325	348	350	653	738		13.0%	24.5%
Taiwan	1,026	1,526	1,709	1,892	2,309	2,257	3,543		57.0%	10.9%
Thailand		329	1,641	3,670	3,220	3,552	3,036	3,521	16.0%	
Vietnam	50	124	487	724	982	3,344	9,090		171.8%	54.3%
Others Asia-Pacific	66	78	57	73	62	59	52		-11.9%	-2.0%

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Wind Power Generation

Countries^(*)

(GWh)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
Americas	108,570	260,090	387,897	426,472	482,271	545,515	614,239		12.6%	15.5%
Argentina	25	593	1,413	4,997	9,412	12,940	14,168		9.5%	69.6%
Bolivia	1	12	59	70	64	120	439		265.8%	66.0%
Brazil	2,177	21,626	48,475	55,986	57,051	72,286	81,632	95,801	17.4%	33.8%
Canada	8,724	26,964	33,468	32,873	35,761	36,006	36,853	37,378	1.4%	11.8%
Chile	332	2,115	3,588	4,897	5,602	7,628	8,893	9,461	6.4%	29.4%
Colombia	39	68	43	63	10	62	74	111	50.0%	8.4%
Costa Rica	359	1,080	1,799	1,796	1,459	1,573	1,369	1,489	8.8%	11.6%
Cuba	12	21	44	44	44	44	44		0.0%	11.4%
Curaçao	63	124	234	208	191	197	189		-4.1%	9.6%
Dominican Republic		290	497	793	1,065	1,223	1,174		-4.0%	
Ecuador	3	99	80	86	77	62	61		-1.6%	28.5%
Guatemala		107	320	331	313	324	314	344	9.6%	
Honduras		665	929	818	707	775	686		-11.5%	
Jamaica	53	125	302	272	280	264	272		3.0%	14.6%
Mexico	1,239	8,745	12,877	16,880	19,702	20,896	20,629	20,700	0.3%	24.2%
Nicaragua	163	865	801	730	550	656	562		-14.3%	10.9%
Panama		419	588	725	584	530	577	887	53.7%	
Peru	1	595	1,502	1,654	1,813	1,822	1,931		6.0%	87.9%
United States	95,148	192,992	275,834	298,200	341,818	382,814	439,270	430,067	-2.1%	12.3%
Uruguay	70	2,065	4,732	4,752	5,476	4,991	4,783	4,765	-0.4%	38.4%
Venezuela		88	88	88	88	88	88		0.0%	
Others Americas	161	432	224	209	204	214	231		7.9%	3.1%

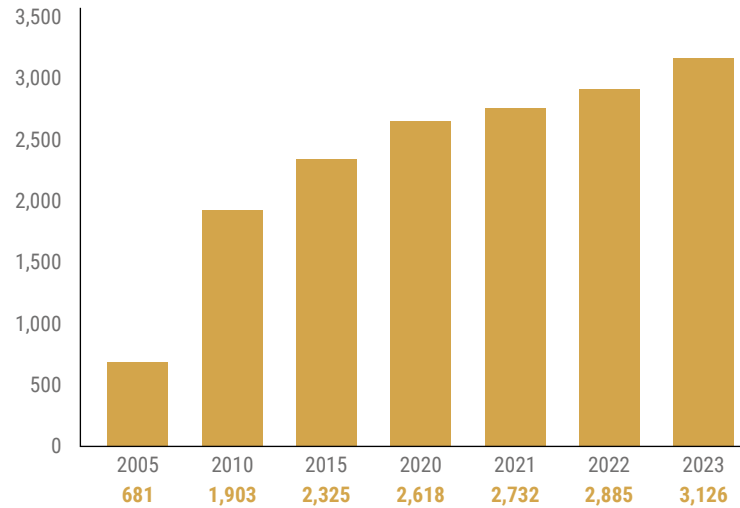
^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved

^(**) When 2023 data is missing, the figure refers to the latest available years.

Biofuels Production

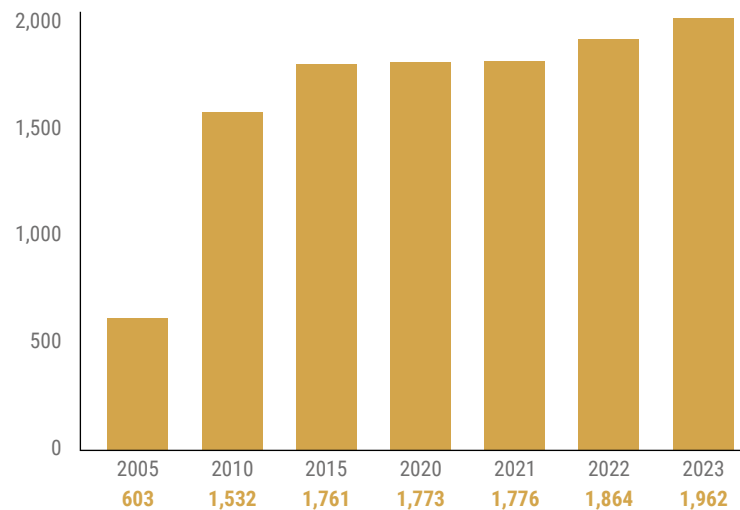
Total Biofuels^(*)

(thousand barrels/day)



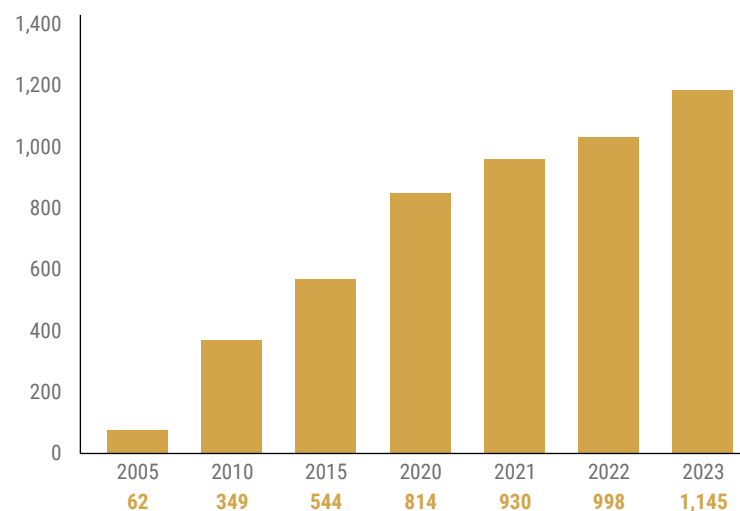
Biogasoline^(*)

(thousand barrels/day)



Biodiesel^(*)

(thousand barrels/day)

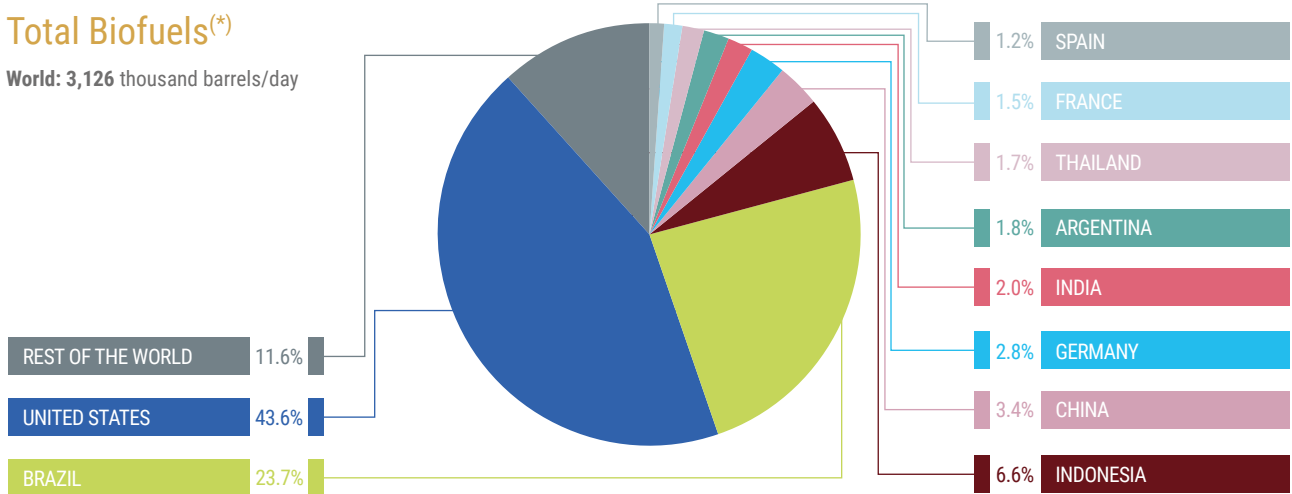


^(*) Data source: IEA (2024) *Extended Balances* and EIA DOE. All rights reserved. Total Biofuels include biogasoline (also ethanol used pure in Brazil "Hydrous"), biodiesel and other liquid biofuels.

Biofuels Production

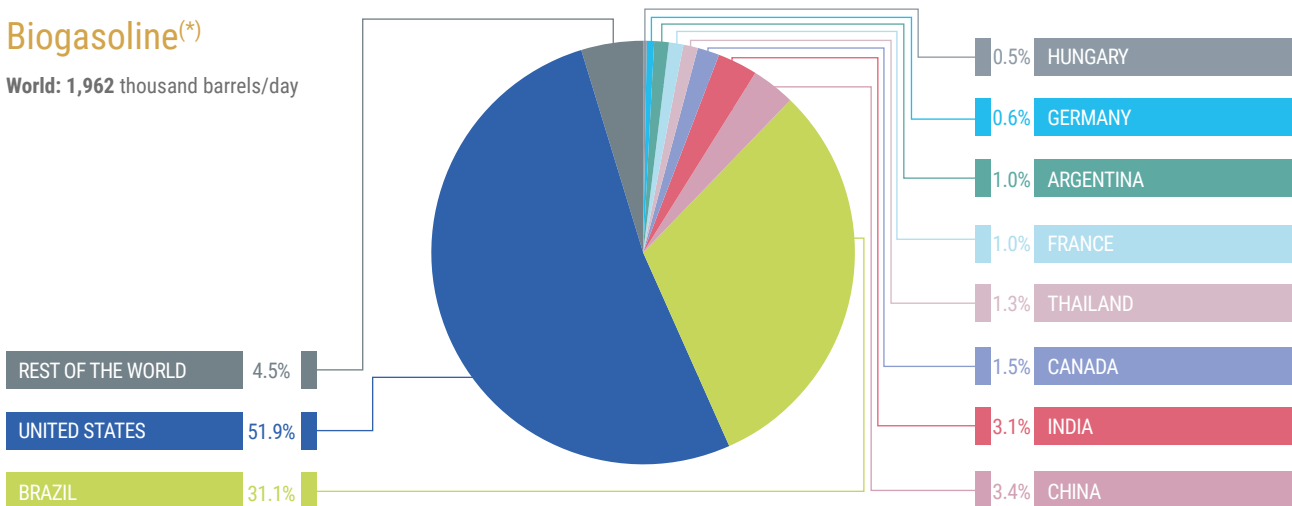
Total Biofuels^(*)

World: 3,126 thousand barrels/day



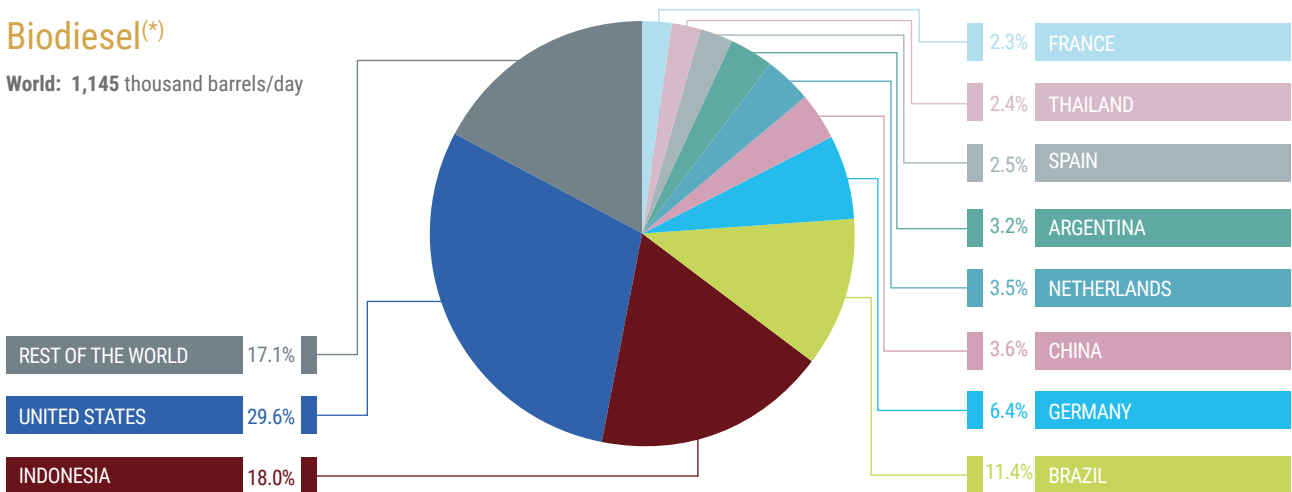
Biogasoline^(*)

World: 1,962 thousand barrels/day



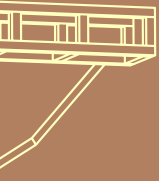
Biodiesel^(*)

World: 1,145 thousand barrels/day



^(*) Data source: IEA (2024) *Extended Balances* and EIA DOE. All rights reserved. Total Biofuels include biogasoline (also ethanol used pure in Brazil "Hydrous"), biodiesel and other liquid biofuels.





Power Generation

Focus On

Hydroelectric and **nuclear** are two mature power generation technologies, that saw their greatest development a few decades ago. As these technologies have been widely established, they have not experienced a sharp increase in capacity as happened for wind and solar, maintaining an almost constant level of generation. In 2022, hydroelectricity represented around 15% of global electricity production, while nuclear accounted for around 10%.

In 2022, **hydropower generation worldwide** reached about 4,350 TWh, up 1.2% compared to 2021, mainly due to higher production recorded in Asia (+3%) and the Americas (+6.5%), which more than offset the significant reduction in European production (-14%) due to the severe drought. **Nuclear generation** decreased by -4.5% compared to the previous year, at 2,685 TWh globally. The decline was mainly caused by lower production in Europe (-16%) and the Americas (-2%), only partially offset by the increase in the Middle East.

In **2023** China was the world's first country for **hydroelectric generation** with a production of about 1,250 TWh, down by -5% compared to 2022, followed by Brazil (425 TWh) and Canada (360 TWh); the United States was the world's leading country for **nuclear generation** with a production of around 810 TWh, followed by China (435 TWh) and France (340 TWh).



Power Generation - Focus On

HYDROELECTRIC GENERATION

Areas and Aggregates

The World Top 10

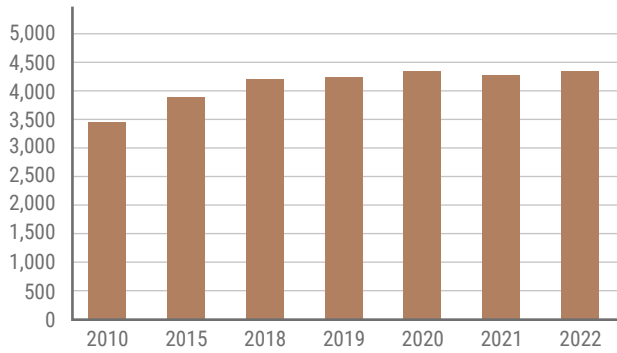
NUCLEAR GENERATION

Areas and Aggregates

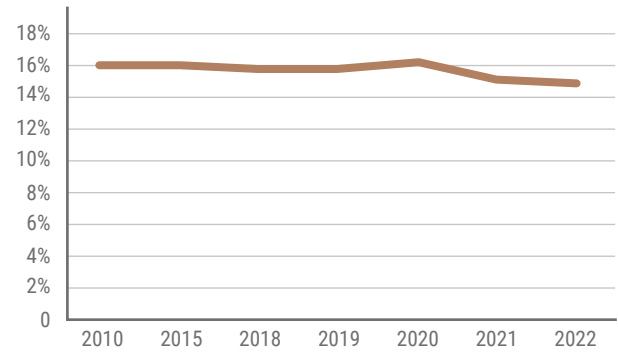
The World Top 10

Hydro Power Generation

(TWh)

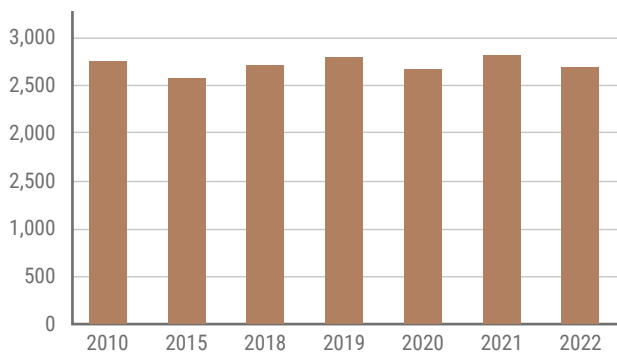


Share of hydro on total generation

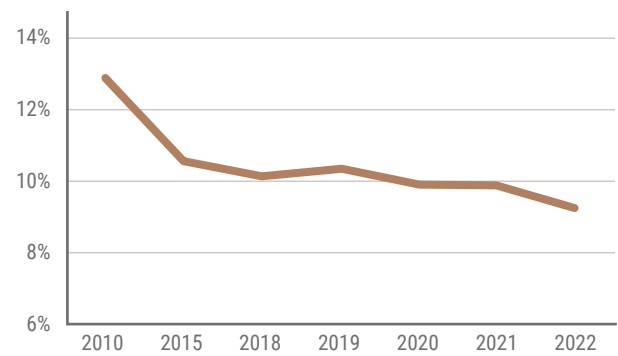


Nuclear Power Generation

(TWh)



Share of Nuclear on total generation



Hydroelectric Generation

Areas and Aggregates^(*)

(GWh)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)**	CAGR (2023-2010)**
Europe	639,029	629,569	637,855	622,716	655,097	644,511	554,300	624,372	12.6%	-0.2%
Russia and Central Asia	225,577	224,487	254,184	257,073	270,437	273,936	259,197		-5.4%	1.2%
Middle East	15,224	17,192	17,954	37,033	27,311	16,244	15,984		-1.6%	0.4%
Africa	109,638	121,244	135,693	140,623	146,944	153,625	161,435		5.1%	3.3%
Asia - Pacific	1,110,220	1,569,627	1,730,865	1,805,268	1,857,875	1,863,411	1,924,123		3.3%	4.7%
Americas	1,353,095	1,339,151	1,434,816	1,395,634	1,399,172	1,347,300	1,434,386		6.5%	0.5%
- North America	613,616	633,173	681,357	671,531	673,645	637,331	654,217	605,071	-7.5%	-0.1%
- Central South America	739,479	705,978	753,459	724,103	725,527	709,969	780,169		9.9%	0.4%
World	3,452,783	3,901,270	4,211,367	4,258,347	4,356,836	4,299,027	4,349,425		1.2%	1.9%
European Union	371,825	335,992	343,882	320,260	347,179	348,309	276,237	329,727	19.4%	-0.9%
MENA	34,554	33,249	33,656	54,306	43,798	32,502	31,765		-2.3%	-0.7%
OECD	1,404,430	1,441,741	1,498,440	1,471,596	1,503,431	1,458,668	1,403,571	1,394,311	-0.7%	-0.1%
NON OECD	1,931,614	2,322,227	2,712,927	2,786,751	2,853,405	2,840,359	2,945,854		3.7%	3.6%
OPEC	98,971	100,879	86,382	96,877	99,297	92,070	92,116		0.0%	-0.6%
NON OPEC	3,237,073	3,663,089	4,124,985	4,161,470	4,257,539	4,206,957	4,257,309		1.2%	2.3%

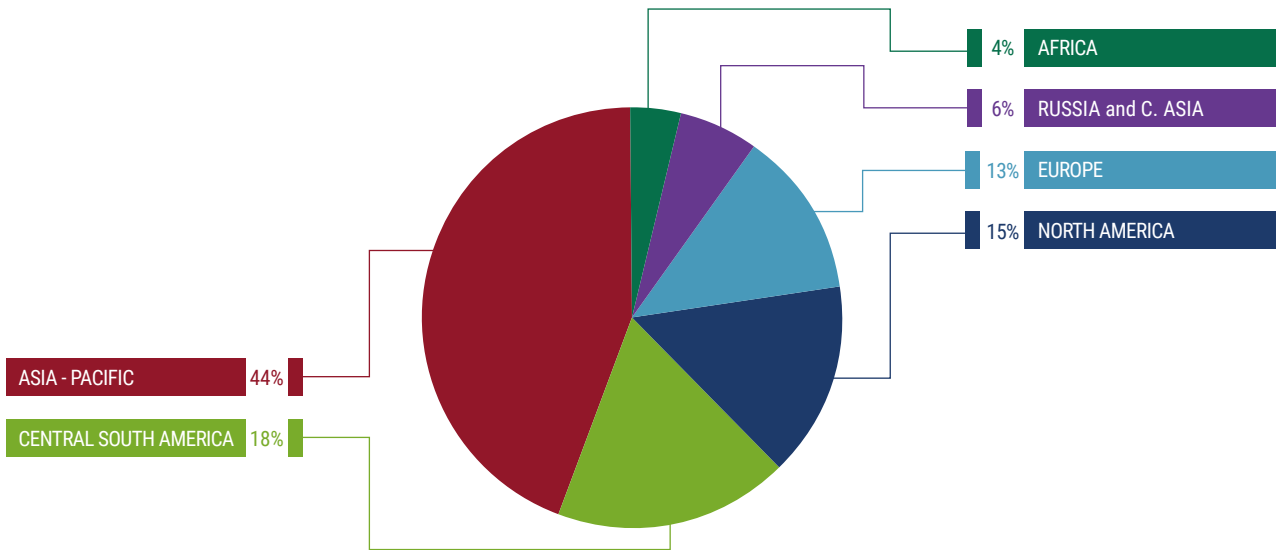
^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

Hydroelectric Generation

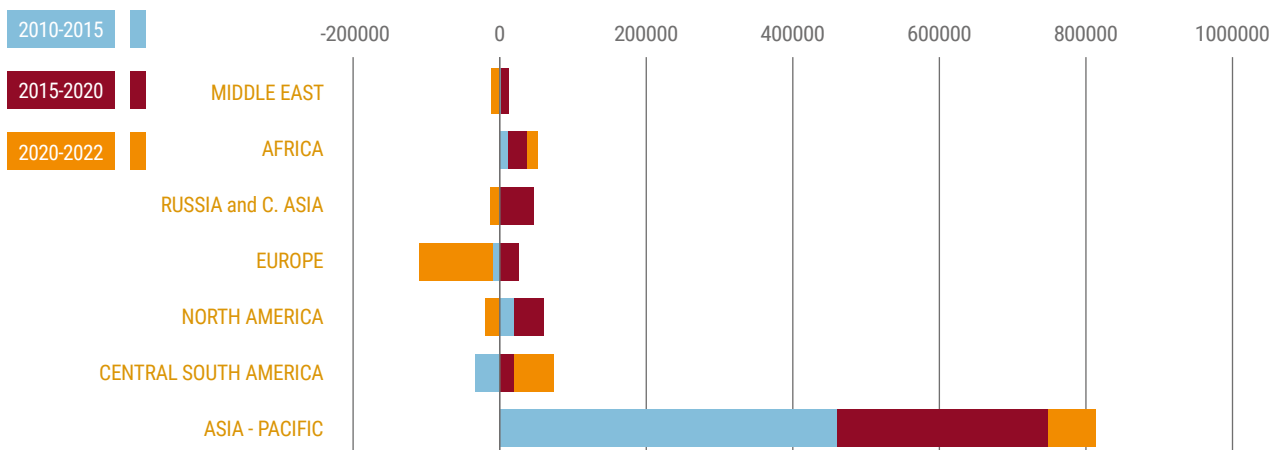
Hydroelectric Generation (2022)

4,349,425 GWh



Hydroelectric Generation Growth (2010-2022)

896,642 GWh



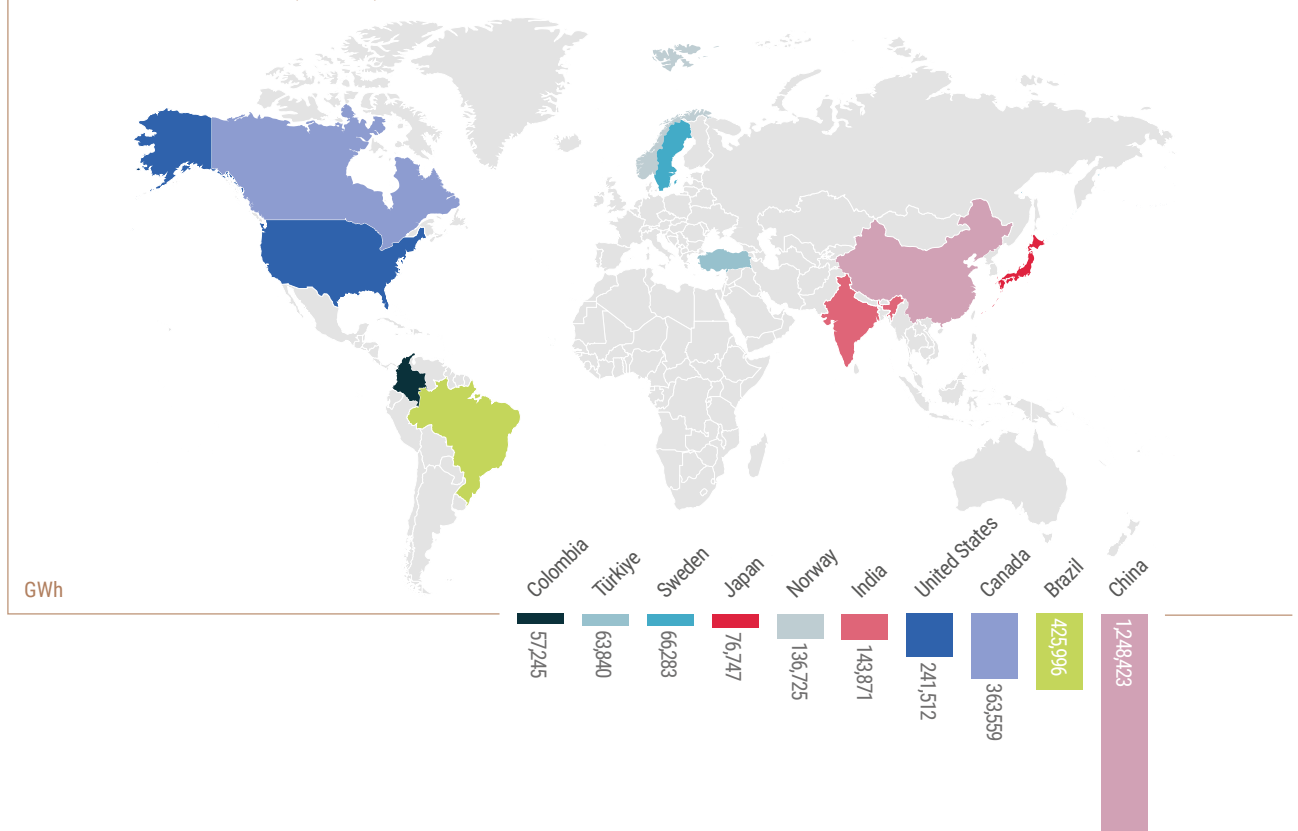
Hydroelectric Generation

The World Top 10^(*)

(GWh)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
China	711,383	1,114,470	1,198,887	1,272,516	1,321,762	1,299,999	1,312,837	1,248,423	-4.9%	4.4%
Brazil	403,289	359,743	388,971	397,877	396,381	362,818	427,114	425,996	-0.3%	0.4%
Canada	351,350	382,155	385,856	381,732	386,506	383,852	397,616	363,559	-8.6%	0.3%
United States	262,266	251,018	295,501	289,799	287,139	253,479	256,601	241,512	-5.9%	-0.6%
India	124,921	136,495	151,306	172,467	160,898	162,447	173,669	143,871	-17.2%	1.1%
Norway	116,739	137,302	138,981	125,289	141,805	143,965	128,240	136,725	6.6%	1.2%
Japan	83,800	87,118	80,968	79,993	78,807	78,792	77,235	76,747	-0.6%	-0.7%
Sweden	66,398	75,312	62,210	65,371	72,389	73,885	69,871	66,283	-5.1%	0.0%
Türkiye	51,796	67,146	59,938	88,823	78,094	55,927	66,802	63,840	-4.4%	1.6%
Colombia	40,401	48,568	59,932	54,594	49,977	62,318	62,248	57,245	-8.0%	2.7%
The World Top 10	2,212,343	2,659,327	2,822,550	2,928,461	2,973,758	2,877,482	2,972,233	2,824,201	-5.0%	1.9%
Rest of the World	1,123,701	1,104,641	1,388,817	1,329,886	1,383,078	1,421,545	1,377,192		-3.1%	1.7%
World	3,336,044	3,763,968	4,211,367	4,258,347	4,356,836	4,299,027	4,349,425		1.2%	2.2%

The World Top 10 (2023)



^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

Nuclear Generation

Areas and Aggregates^(*)

(GWh)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)**	CAGR (2023-2010)**
Europe	1,032,101	967,737	936,917	930,943	834,356	888,954	750,029	736,500	-1.8%	-2.6%
Russia and Central Asia	172,905	198,258	206,645	211,182	218,501	225,370	226,218		0.4%	2.3%
Middle East		2,914	7,450	6,757	7,318	14,425	28,681		98.8%	
Africa	12,099	12,237	11,580	13,252	9,903	12,355	9,803		-20.7%	-1.7%
Asia - Pacific	582,022	423,478	568,194	647,654	649,006	730,418	746,429		2.2%	2.1%
Americas	957,162	965,447	978,310	980,324	957,366	941,685	924,305		-1.8%	-0.3%
- North America	929,589	932,097	942,060	944,527	921,345	904,180	890,908	898,307	0.8%	-0.3%
- Central South America	27,573	33,350	36,250	35,797	36,021	37,505	33,397		-11.0%	1.6%
World	2,756,289	2,570,071	2,709,096	2,790,112	2,676,450	2,813,207	2,685,465		-4.5%	-0.2%
European Union 27	854,470	786,676	761,943	765,338	683,512	731,701	609,255	619,431	1.7%	-2.4%
MENA		2,914	7,450	6,757	7,318	14,425	28,681		98.8%	
OECD	2,288,371	1,970,960	1,979,186	1,985,510	1,861,265	1,914,121	1,787,463	1,832,436	2.5%	-1.7%
NON OECD	467,918	599,111	729,910	804,602	815,185	899,086	898,002		-0.1%	5.6%
OPEC		2,914	7,450	6,757	7,318	14,425	28,681		98.8%	
NON OPEC	2,756,289	2,567,157	2,701,646	2,783,355	2,669,132	2,798,782	2,656,784		-5.1%	-0.3%

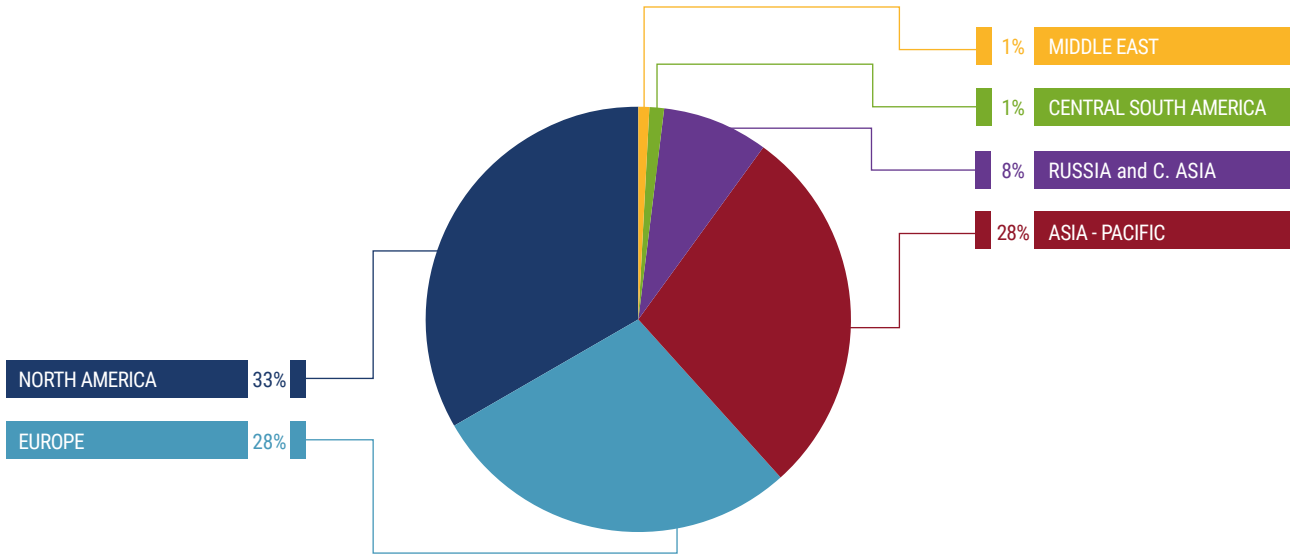
^(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

^(**) When 2023 data is missing, the figure refers to the latest available years.

Nuclear Generation

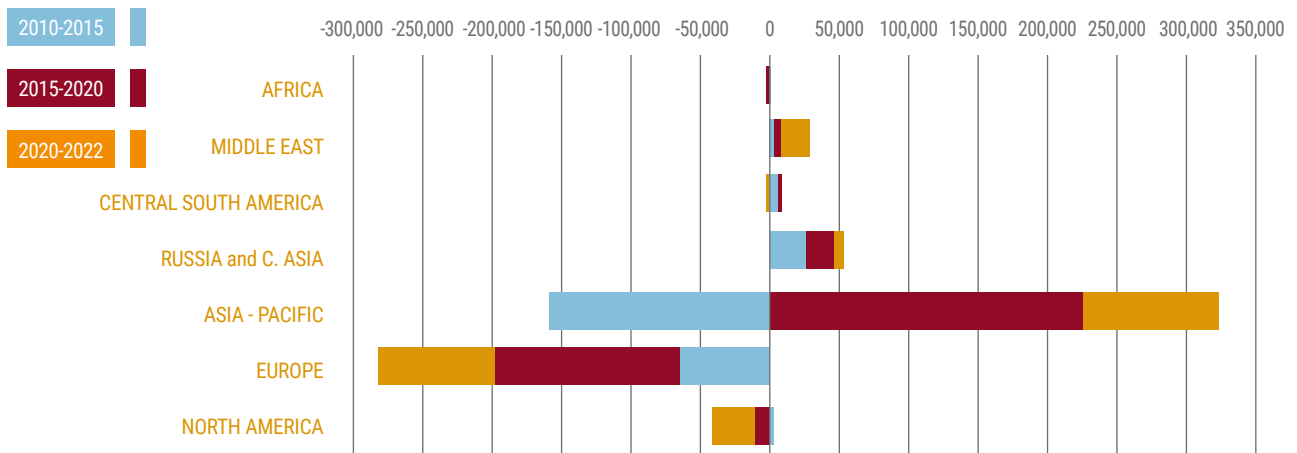
Nuclear Power Generation (2022)

2,685,465 GWh



Nuclear Power Generation Growth (2010-2022)

70,824 GWh



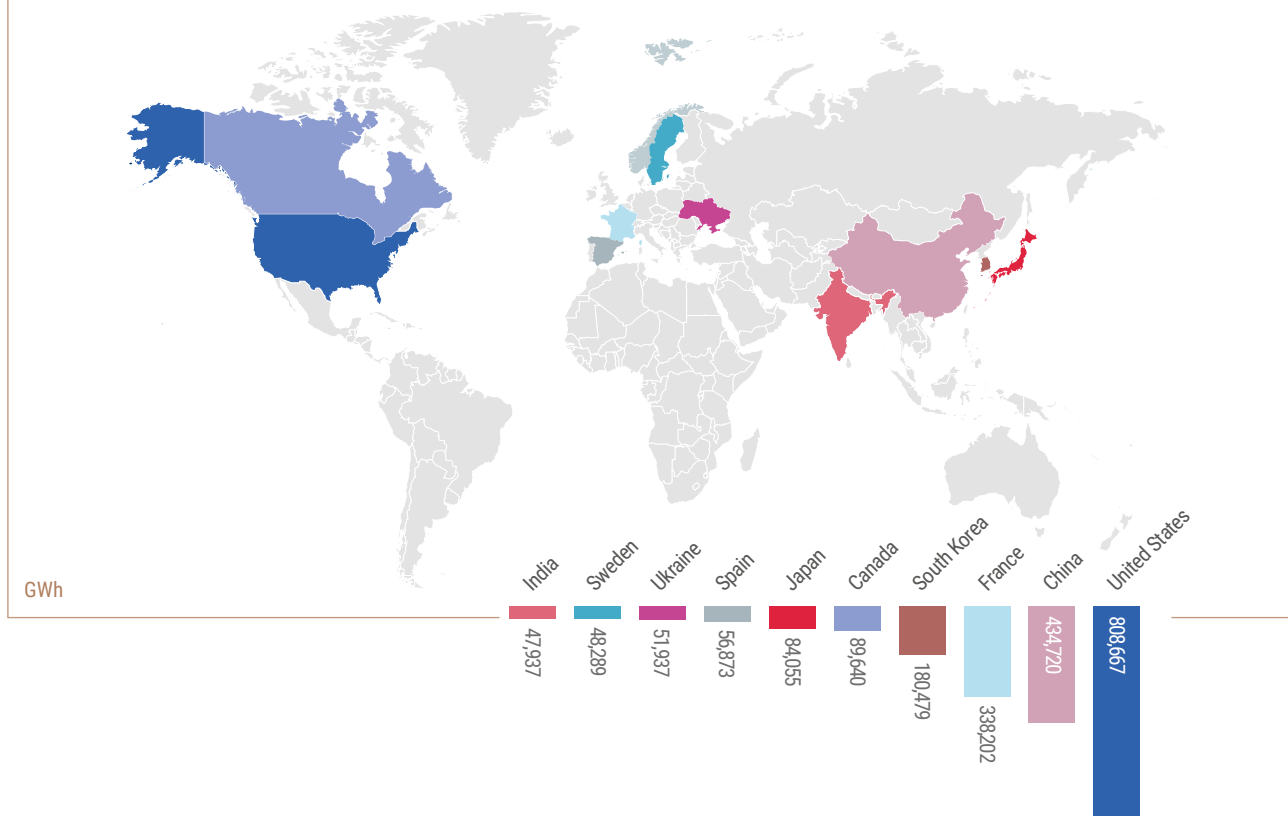
Nuclear Generation

The World Top 10^(*)

(GWh)

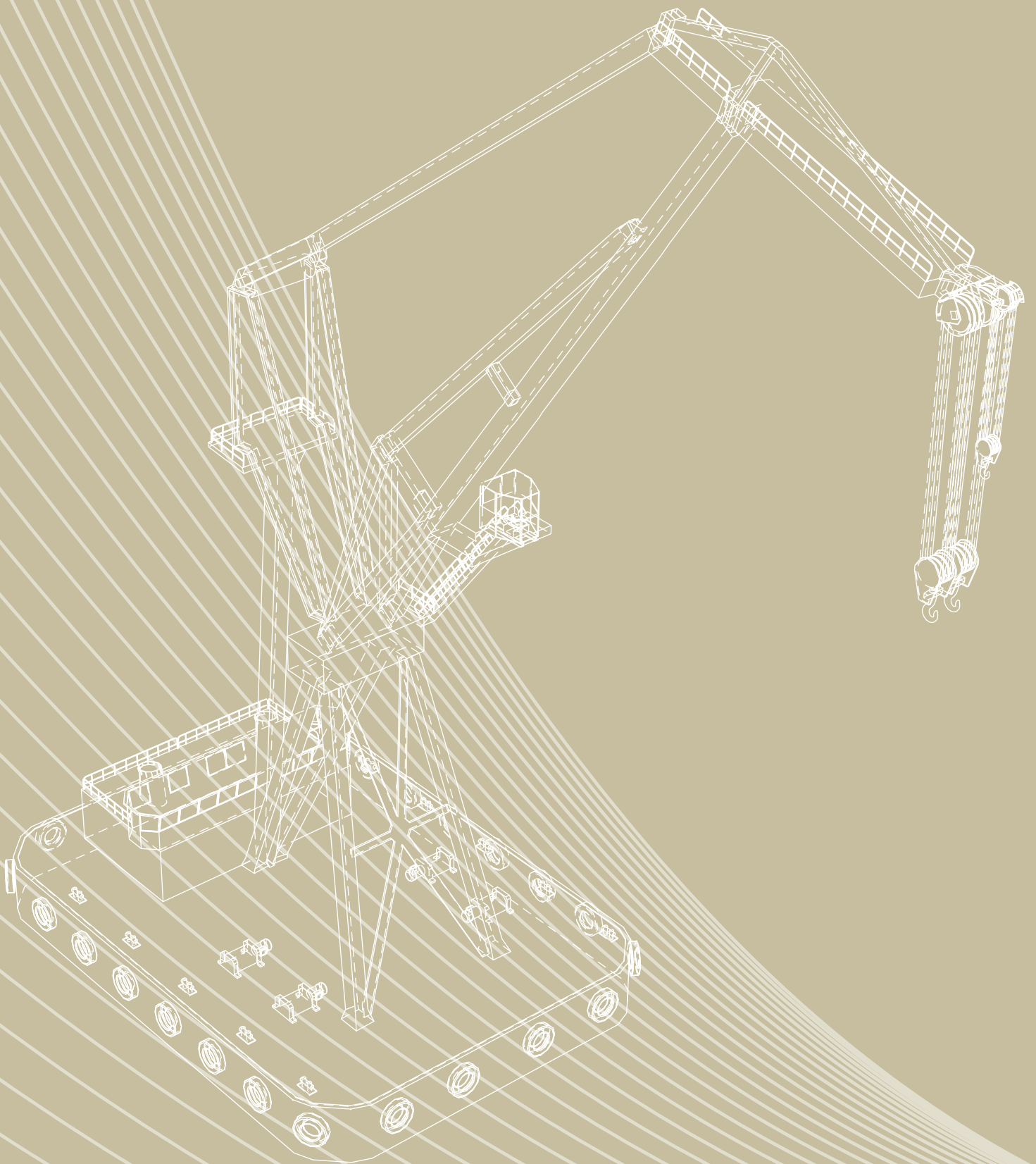
	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022) ^(**)	CAGR (2023-2010) ^(**)
United States	838,931	830,288	841,329	843,330	823,150	811,551	803,669	808,667	0.6%	-0.3%
China	73,880	170,789	294,359	348,355	366,255	407,523	417,775	434,720	4.1%	14.6%
France	428,521	437,428	412,942	399,012	353,833	379,361	294,731	338,202	14.7%	-1.8%
South Korea	148,596	164,762	133,505	145,910	160,184	158,015	176,054	180,479	2.5%	1.5%
Canada	90,658	101,809	100,731	101,197	98,195	92,629	87,239	89,640	2.8%	-0.1%
Japan	288,230	9,437	64,929	63,779	38,752	70,805	56,070	84,055	49.9%	-9.0%
Spain	61,990	57,196	55,766	58,349	58,299	56,564	58,590	56,873	-2.9%	-0.7%
Ukraine	89,152	87,627	84,398	83,003	76,203	86,206	62,069	51,937	-16.3%	-4.1%
Sweden	57,828	56,348	68,549	66,130	49,198	52,965	51,944	48,289	-7.0%	-1.4%
India	26,266	37,414	37,813	46,472	43,029	47,112	45,861	47,937	4.5%	4.7%
The World Top 10	2,104,052	1,953,098	2,094,321	2,155,537	2,067,098	2,162,731	2,054,002	2,140,799	4.2%	0.1%
Rest of the World	652,237	616,973	614,775	634,575	609,352	650,476	631,463		-2.9%	-0.3%
World	2,756,289	2,570,071	2,709,096	2,790,112	2,676,450	2,813,207	2,685,465		-4.5%	-0.2%

The World Top 10 (2023)



(*) Data source: Eni's calculations on IEA (2024) *Extended Balances* data. All rights reserved.

(**) When 2023 data is missing, the figure refers to the latest available years.





Critical Minerals

Critical minerals play a vital role in some key transition-related technologies: batteries (cobalt, lithium, nickel, manganese, and graphite), wind (rare earth), and solar (silicon).

The extraction of these raw materials is concentrated in a few countries, which, together with high prices and expected growth in demand, could jeopardize the security of supply.

In recent years, many critical raw materials have experienced significant price spikes. Most of them show significant growth rates in terms of production (e.g., lithium CAGR 2010-2023 of +15%), also reflecting the estimated growth in demand, linked to the energy transition. Cobalt and lithium are, among all critical minerals, the most concentrated in terms of reserves and production.

In terms of **reserves**, cobalt saw a growth of 2,700 kton in 2023 (+33%), the most significant increase recorded in the Democratic Republic of Congo (+2,000 kton), where 57% of the world reserves are concentrated; for lithium, there was an increase of 2,000 kton compared to 2022, owing to a large number of reserves in China and Argentina; on the other hand, Chile is the country with the highest geographical concentration of reserves (34%).

Regarding **production**, 74% of cobalt is produced in the Democratic Republic of Congo, 68% of rare earths in China, over 50% of nickel in Indonesia, and almost 50% of lithium in Australia.



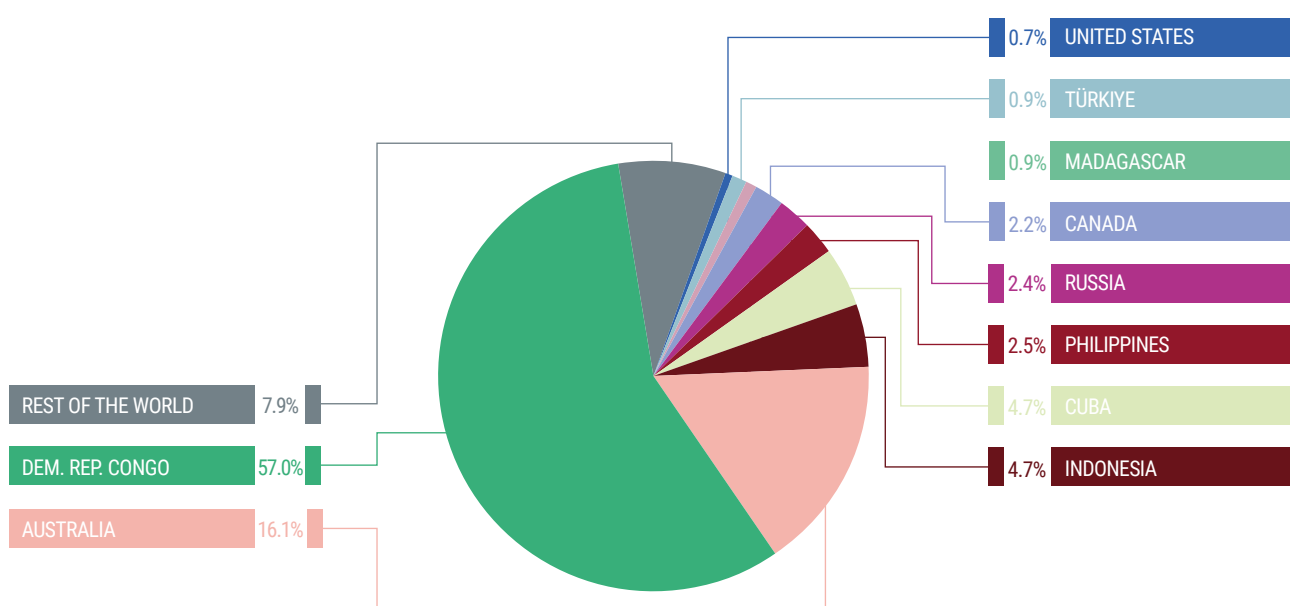
Cobalt - Reserves

Countries^(*)

(tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Australia	1,400,000	1,100,000	1,200,000	1,200,000	1,400,000	1,400,000	1,500,000	1,700,000	13.3%	1.5%
Brazil	89,000	78,000								-100.0%
Canada	150,000	240,000	250,000	230,000	220,000	220,000	220,000	230,000	4.5%	3.3%
China	80,000	80,000	80,000	80,000	80,000	80,000	140,000		-100.0%	-100.0%
Cuba	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	0.0%	0.0%
Dem. Rep. Congo	3,400,000	3,400,000	3,400,000	3,600,000	3,600,000	3,500,000	4,000,000	6,000,000	50.0%	4.5%
Indonesia						600,000	600,000	500,000	-16.7%	
Madagascar		130,000	140,000	120,000	100,000	100,000	100,000	100,000	0.0%	
Morocco	20,000		17,000	18,000	14,000	13,000	13,000		-100.0%	-100.0%
New Caledonia	370,000	200,000								-100.0%
Papua New Guinea			56,000	56,000	51,000	47,000	47,000	49,000	4.3%	
Philippines		250,000	280,000	260,000	260,000	260,000	260,000	260,000	0.0%	
Russia	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	0.0%	0.0%
South Africa		31,000	24,000	50,000	40,000					
Türkiye							36,000	91,000	152.8%	
United States	33,000	23,000	38,000	55,000	53,000	69,000	69,000	69,000	0.0%	5.8%
Zambia	270,000	270,000								-100.0%
Others	740,000	610,000	640,000	570,000	560,000	610,000	610,000	780,000	27.9%	0.4%
World (rounded)	7,300,000	7,100,000	6,900,000	7,000,000	7,100,000	7,600,000	8,300,000	11,000,000	32.5%	3.2%

The World Top 10 (2023)

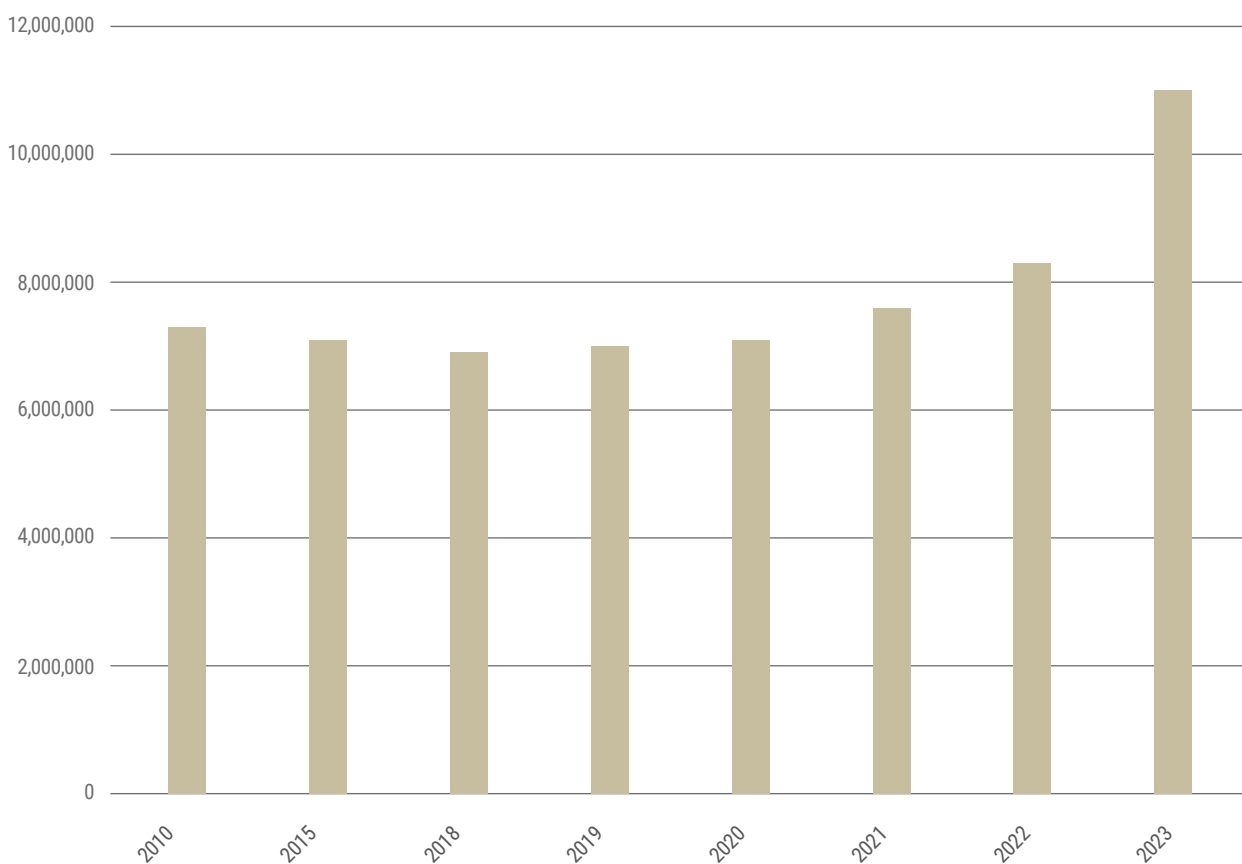


^(*) Data source: U.S. Geological Survey.

Cobalt - Reserves

World Cobalt Reserves

(tons)



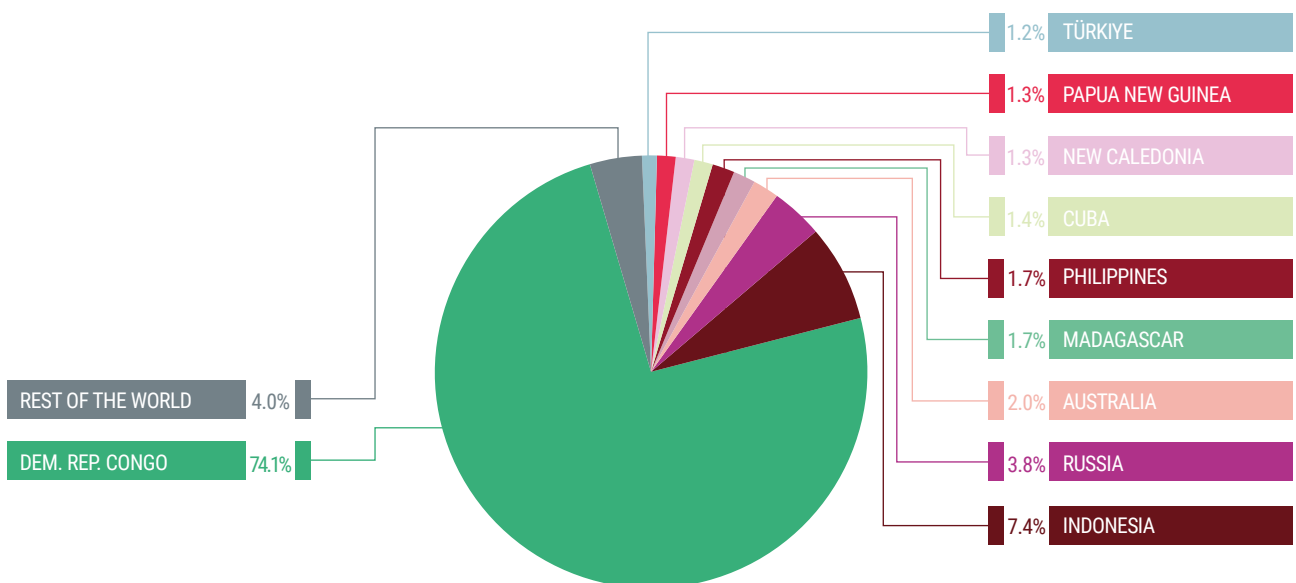
Cobalt - Production

Countries^(*)

(tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Australia	3,850	6,000	4,880	5,740	5,630	5,295	5,790	4,600	-20.6%	1.4%
Brazil	1,600									-100.0%
Canada	4,600	6,900	3,520	3,340	3,690	4,361	3,060	2,100	-31.4%	-5.9%
China	6,500	7,700	2,000	2,500	2,200	2,200	2,200		-100.0%	-100.0%
Cuba	3,600	4,300	3,500	3,800	3,800	4,000	3,700	3,200	-13.5%	-0.9%
Dem. Rep. Congo	47,400	63,000	104,000	100,000	98,000	119,000	144,000	170,000	18.1%	10.3%
Indonesia					1,100	2,700	9,600	17,000	77.1%	
Madagascar		3,700	3,300	3,400	850	2,800	3,500	4,000	14.3%	
Morocco	2,200		2,100	2,300	2,300	2,300	2,000			
New Caledonia	1,000	3,680	2,100				2,000	3,000	50.0%	8.8%
Papua New Guinea			3,280	2,910	2,940	2,953	2,990	2,900	-3.0%	
Philippines		4,300	4,600	5,100	4,500	3,600	3,900	3,800	-2.6%	
Russia	6,200	6,200	6,100	6,300	9,000	8,000	9,200	8,800	-4.3%	2.7%
South Africa		3,000	2,300	2,100						
Türkiye						2,400	2,100	2,800	33.3%	
United States		760	490	500	600	650	500	500	0.0%	
Zambia	5,700	4,600								-100.0%
Others	6,800	11,600	5,540	6,320	7,640	4,567	6,600	6,600	0.0%	-0.2%
World (rounded)	89,500	126,000	148,000	144,000	142,000	165,000	197,000	230,000	16.8%	7.5%

The World Top 10 (2023)

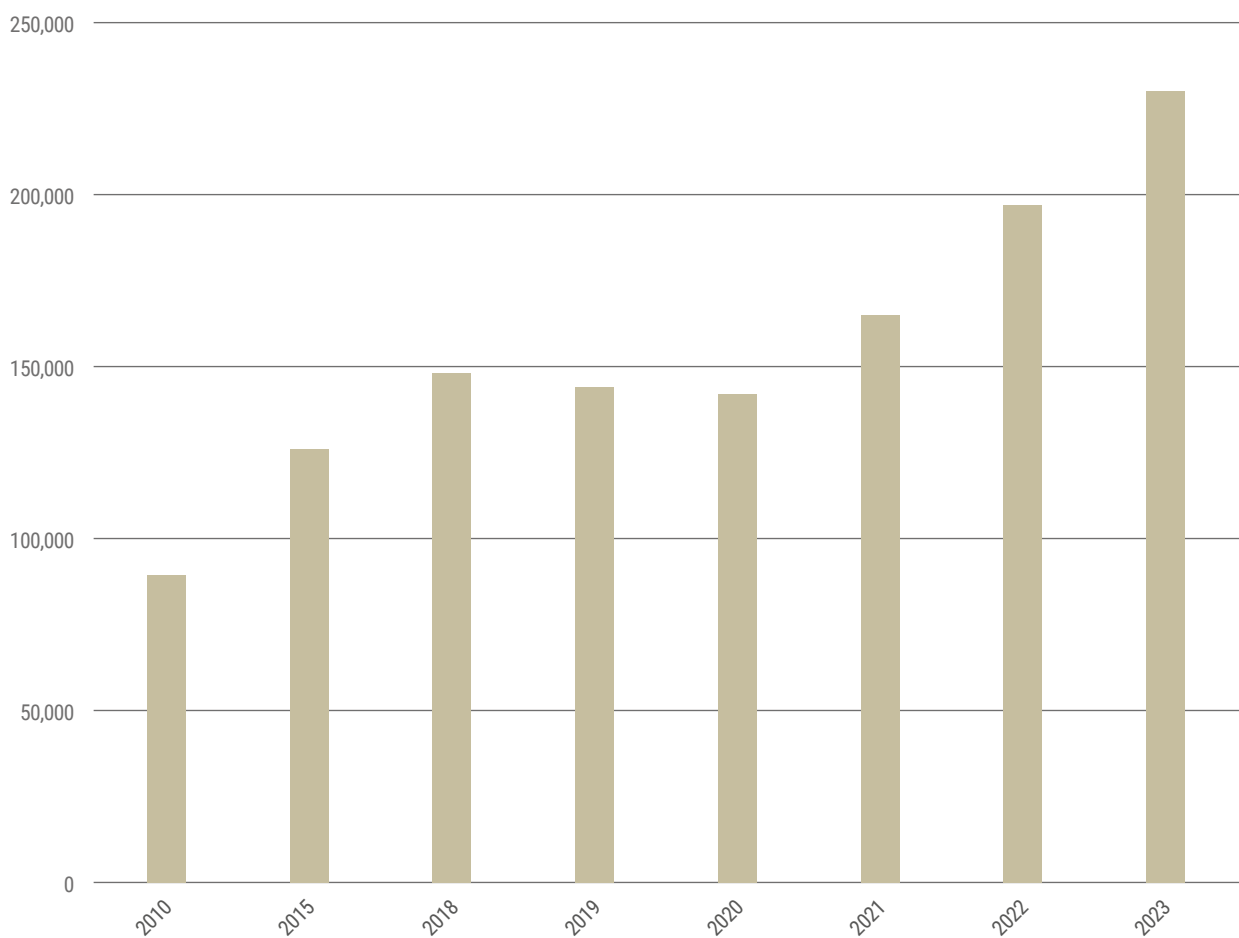


^(*) Data source: U.S. Geological Survey.

Cobalt - Production

World Cobalt Production

(tons)



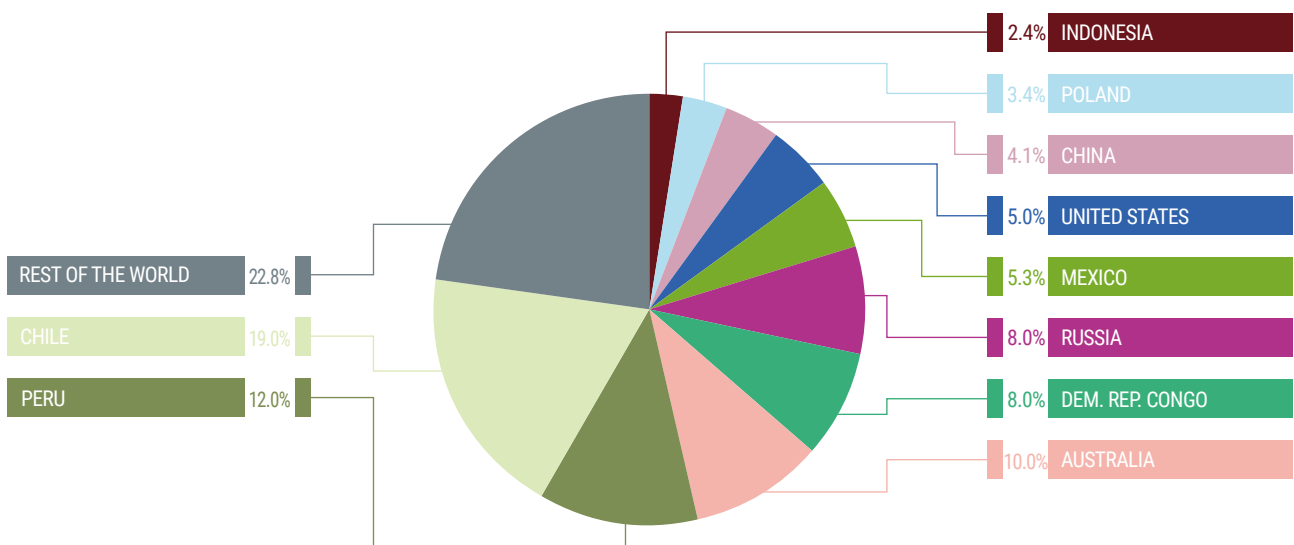
Copper - Reserves

Countries^(*)

(thousand tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Australia	80,000	88,000	88,000	87,000	88,000	93,000	97,000	100,000	3.1%	1.7%
Canada	8,000	11,000			9,000	9,800	7,600	7,600	0.0%	-0.4%
Chile	150,000	210,000	170,000	200,000	200,000	200,000	190,000	190,000	0.0%	1.8%
China	30,000	30,000	26,000	26,000	26,000	26,000	27,000	41,000	51.9%	2.4%
Dem. Rep. Congo		20,000	20,000	19,000	19,000	31,000	31,000	80,000	158.1%	
Germany					2,000					
Indonesia	30,000		51,000	28,000		24,000	24,000	24,000	0.0%	-1.7%
Kazakhstan	18,000			20,000	20,000	20,000	20,000	20,000	0.0%	0.8%
Mexico	38,000	46,000	50,000	53,000	53,000	53,000	53,000	53,000	0.0%	2.6%
Peru	90,000	82,000	83,000	87,000	92,000	77,000	81,000	120,000	48.1%	2.2%
Poland	26,000				32,000	31,000	30,000	34,000	13.3%	2.1%
Russia	30,000	30,000	61,000	61,000	61,000	62,000	62,000	80,000	29.0%	7.8%
United States	35,000	33,000	48,000	51,000	48,000	48,000	44,000	50,000	13.6%	2.8%
Zambia	20,000	20,000	19,000	19,000	21,000	21,000	19,000	21,000	10.5%	0.4%
Others	80,000	150,000	210,000	220,000	200,000	180,000	200,000	180,000	-10.0%	6.4%
World (rounded)	630,000	720,000	830,000	870,000	870,000	880,000	890,000	1,000,000	12.4%	3.6%

The World Top 10 (2023)

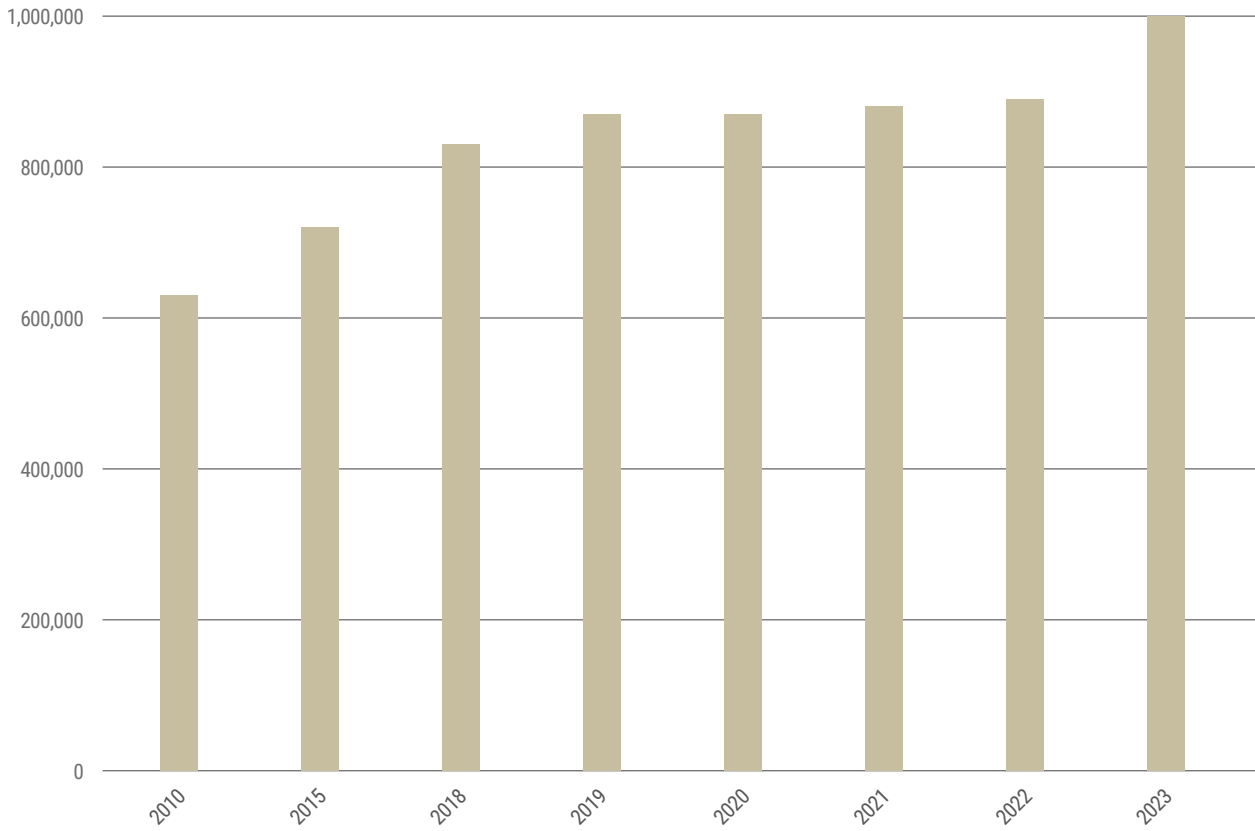


^(*) Data source: U.S. Geological Survey.

Copper - Reserves

World Copper Reserves

(thousand tons)



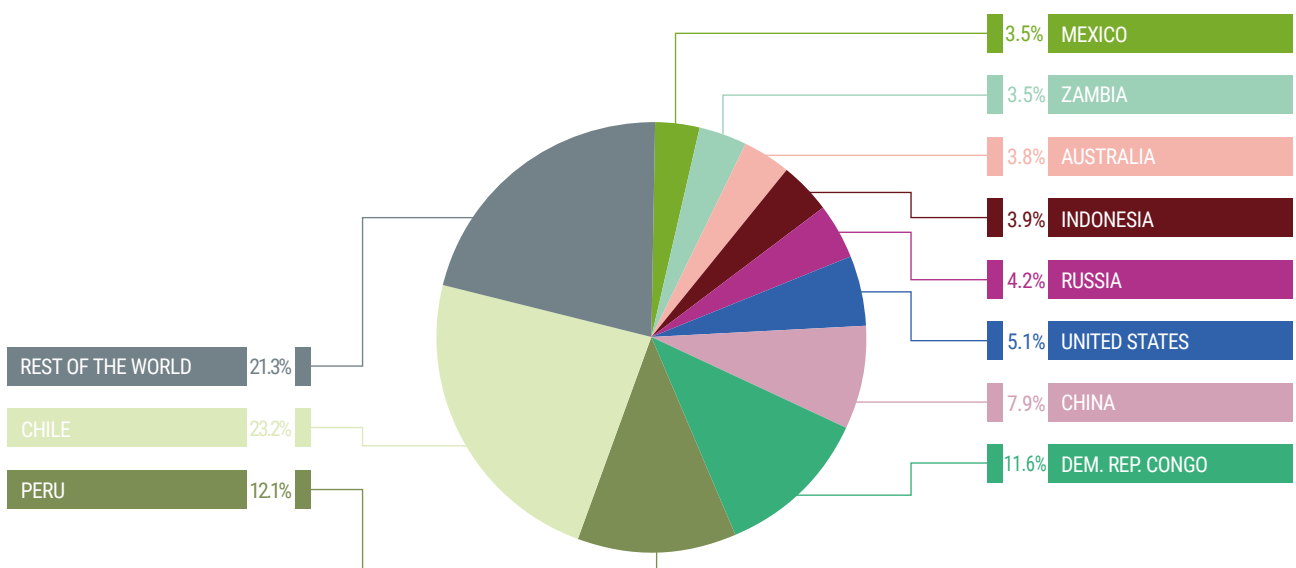
Copper - Production

Countries^(*)

(thousand tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Australia	870	971	920	934	885	813	819	810	-1.1%	-0.5%
Canada	525	697		573	585	550	520	480	-7.7%	-0.7%
Chile	5,420	5,760	5,830	5,790	5,730	5,620	5,330	5,000	-6.2%	-0.6%
China	1,190	1,710	1,590	1,680	1,720	1,910	1,940	1,700	-12.4%	2.8%
Dem. Rep. Congo	343	1,020	1,230	1,290	1,600	1,740	2,350	2,500	6.4%	16.5%
Indonesia	872		651		505	731	941	840	-10.7%	-0.3%
Kazakhstan	380		603	562	552	510	593	600	1.2%	3.6%
Mexico	260	594	751	715	733	734	754	750	-0.5%	8.5%
Peru	1,250	1,700	2,400	2,460	2,150	2,300	2,450	2,600	6.1%	5.8%
Poland	425			399	393	391	393	400	1.8%	-0.5%
Russia	703	732	751	801	810	940	936	910	-2.8%	2.0%
United States	1,110	1,380	1,220	1,260	1,200	1,230	1,230	1,100	-10.6%	-0.1%
Zambia	690	712	854	797	853	842	797	760	-4.6%	0.7%
Others	1,900	3,800	3,540	3,100	2,840	2,850	2,850	3,100	8.8%	3.8%
World (rounded)	15,900	19,100	20,400	20,400	20,600	21,200	21,900	22,000	0.5%	2.5%

The World Top 10 (2023)

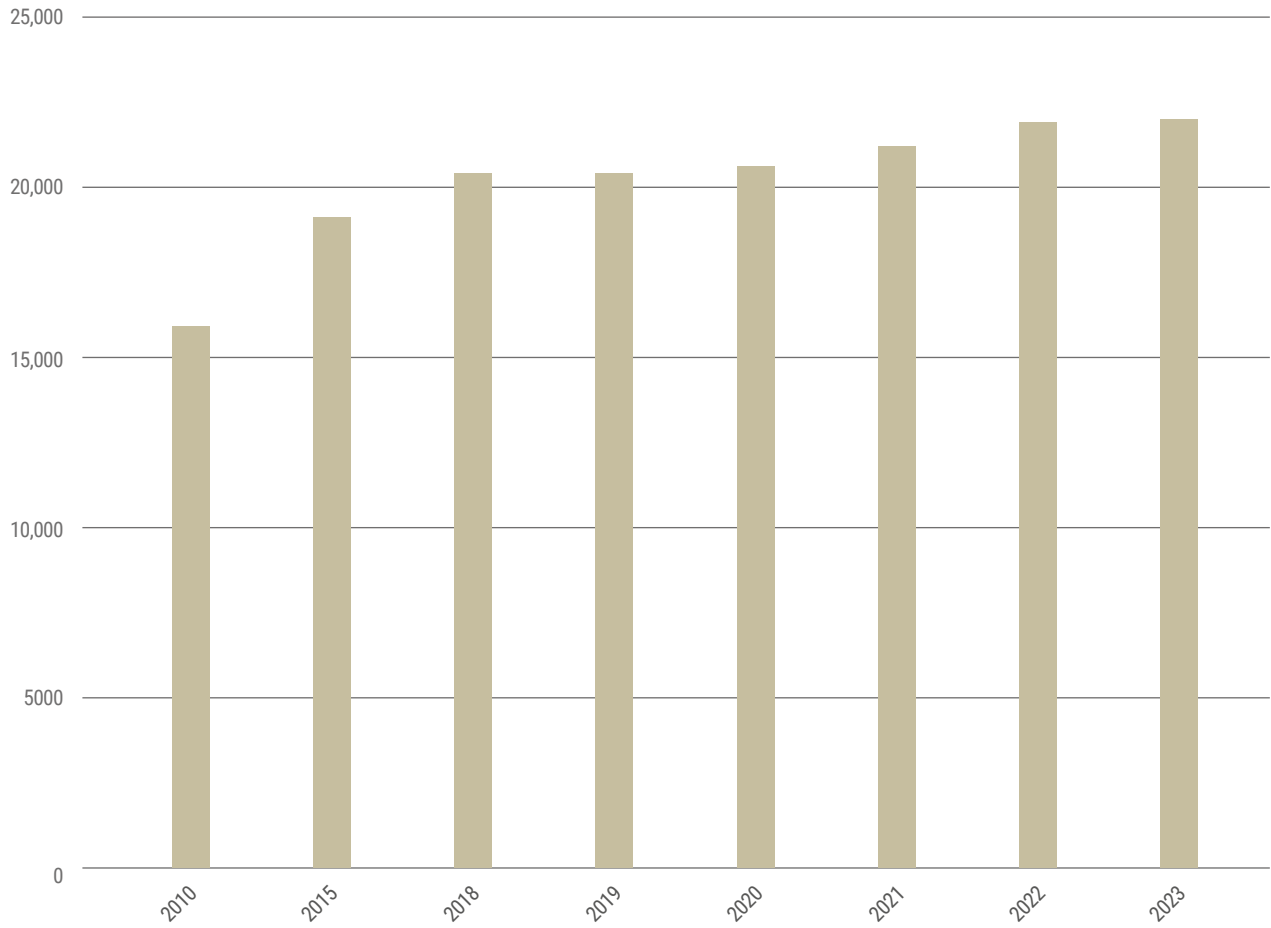


^(*) Data source: U.S. Geological Survey.

Copper - Production

World Copper Production

(thousand tons)



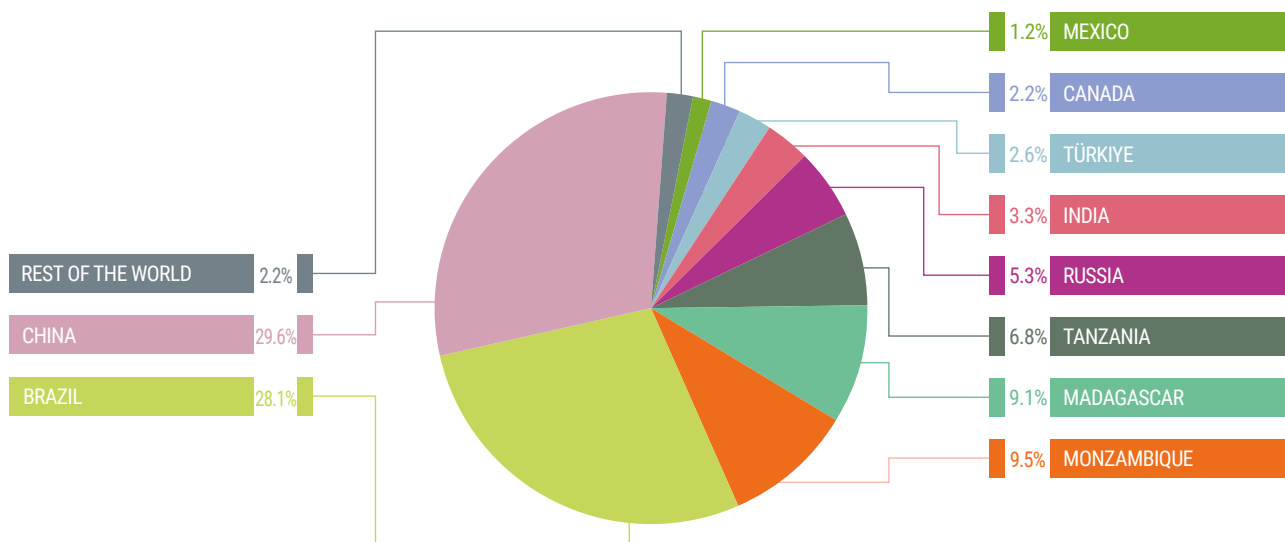
Graphite - Reserves

Countries^(*)

(tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Brazil	360,000	72,000,000	72,000,000	72,000,000	70,000,000	70,000,000	74,000,000	74,000,000	0.0%	50.6%
Canada								5,700,000		
China	55,000,000	55,000,000	73,000,000	73,000,000	73,000,000	73,000,000	52,000,000	78,000,000	50.0%	2.7%
India	5,200,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000	8,600,000	7.5%	3.9%
North Korea			2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	0.0%	
South Korea							1,800,000	1,800,000	0.0%	
Madagascar	940,000	940,000	1,600,000	1,600,000	26,000,000	26,000,000	26,000,000	24,000,000	-7.7%	28.3%
Mexico	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	0.0%	0.0%
Monzambique			17,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	0.0%	
Norway			600,000	600,000	600,000	600,000	600,000	600,000	0.0%	
Russia							14,000,000	14,000,000	0.0%	
Sri Lanka					1,500,000	1,500,000	1,500,000	1,500,000	0.0%	
Tanzania			17,000,000	18,000,000	17,000,000	18,000,000	18,000,000	18,000,000	0.0%	
Türkiye		90,000,000	90,000,000	90,000,000	90,000,000	90,000,000	90,000,000	6,900,000	-92.3%	
Uzbekistan			7,600,000	7,600,000	7,600,000	7,600,000	7,600,000		-100.0%	
Other	6,400,000									-100.0%
World (rounded)	71,000,000	230,000,000	300,000,000	300,000,000	320,000,000	320,000,000	330,000,000	280,000,000	-15.2%	11.1%

The World Top 10 (2023)

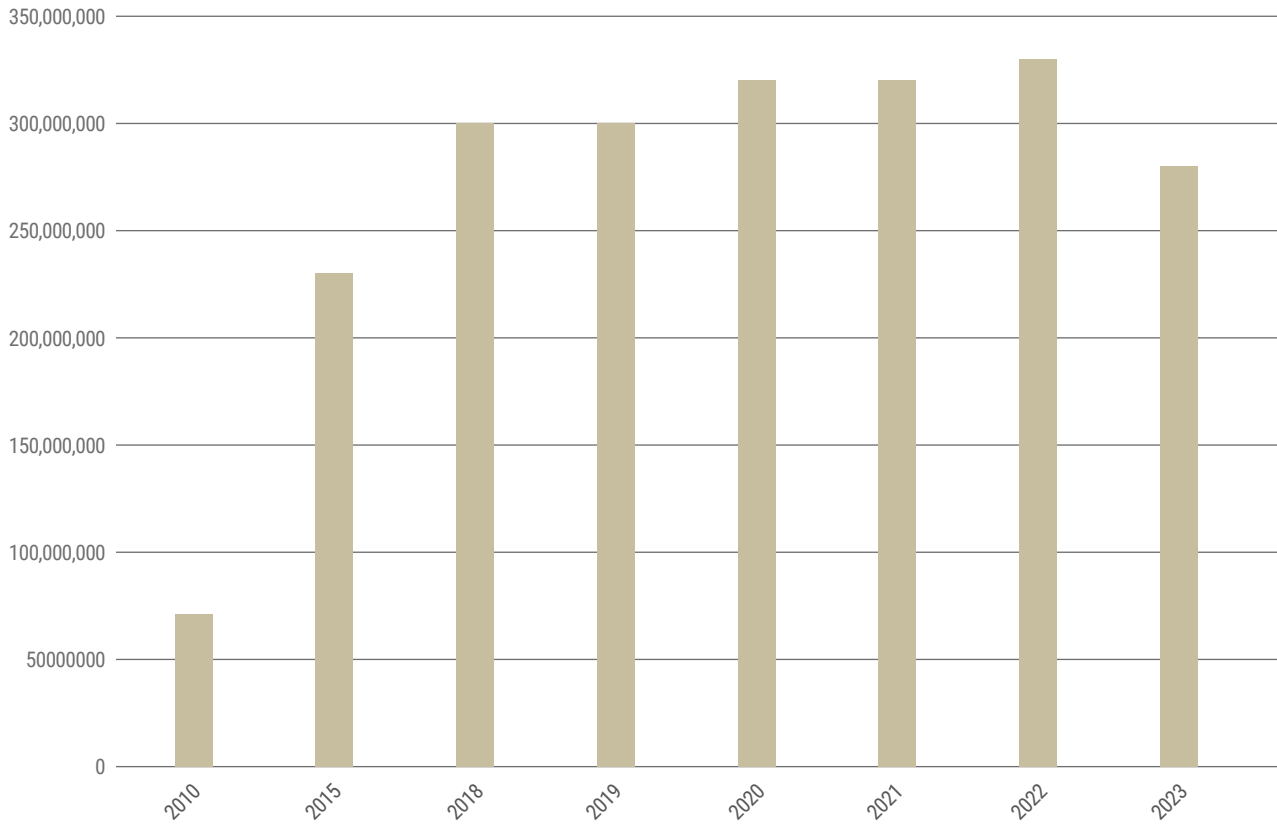


^(*) Data source: U.S. Geological Survey.

Graphite - Reserves

World Graphite Reserves

(tons)



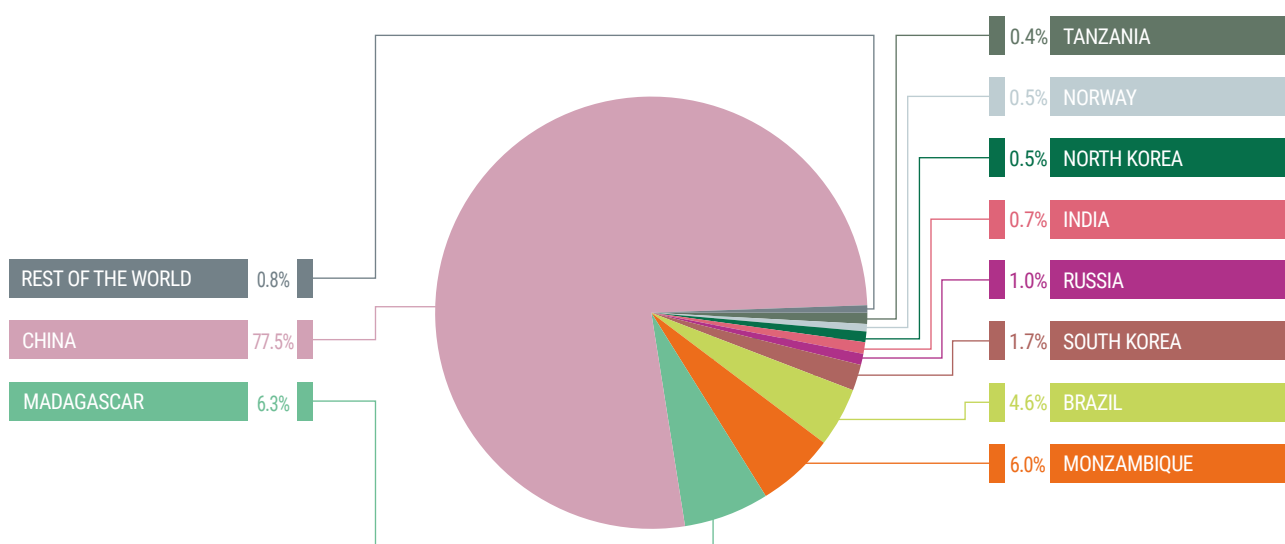
Graphite - Production

Countries^(*)

(tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Austria			1,000	1,000	500	500	500	500	0.0%	
Brazil	76,000	80,000	95,000	96,000	63,500	82,000	72,000	73,000	1.4%	-0.3%
Canada	25,000	30,000	40,000	11,000	8,000	12,000	13,000	3,500	-73.1%	-14.0%
China	600,000	780,000	693,000	700,000	762,000	820,000	1,210,000	1,230,000	1.7%	5.7%
Germany			800	800	300	250	170	150	-11.8%	
India	140,000	170,000	35,000	35,000	6,000	7,000	11,000	11,500	4.5%	-17.5%
North Korea	30,000	30,000	6,000	6,000	8,100	8,100	8,100	8,100	0.0%	-9.6%
South Korea						10,500	23,800	27,000	13.4%	
Madagascar	5,000	5,000	46,900	48,000	20,900	70,000	130,000	100,000	-23.1%	25.9%
Mexico	7,000	22,000	9,000	9,000	3,300	2,100	2,000	2,000	0.0%	-9.2%
Monzambique			104,000	107,000	28,000	72,000	166,000	96,000	-42.2%	
Namibia			3,460							
Norway	2,000	8,000	16,000	16,000	12,000	6,290	10,380	7,200	-30.6%	10.4%
Pakistan			14,000	14,000						
Romania	20,000									-100.0%
Russia		15,000	25,200	25,100	25,000	15,000	16,000	16,000	0.0%	
Sri Lanka	8,000	4,000	4,000	4,000	4,000	3,000	2,600	2,200	-15.4%	-9.5%
Tanzania			150	150			6,120	6,000	-2.0%	
Türkiye		32,000	2,000	2,000	2,500	2,700	2,800	2,000	-28.6%	
Ukraine	6,000	5,000	20,000	20,000	16,000	10,000	1,000	2,000	100.0%	-8.1%
Uzbekistan			100	100	100	110				
Vietnam			500	5,000	5,000	5,000	500	500	0.0%	
Zimbabwe		7,000	2,000							
Other	6,000		200							-100.0%
World (rounded)	925,000	1,190,000	1,120,000	1,100,000	966,000	1,130,000	1,680,000	1,600,000	-4.8%	4.3%

The World Top 10 (2023)

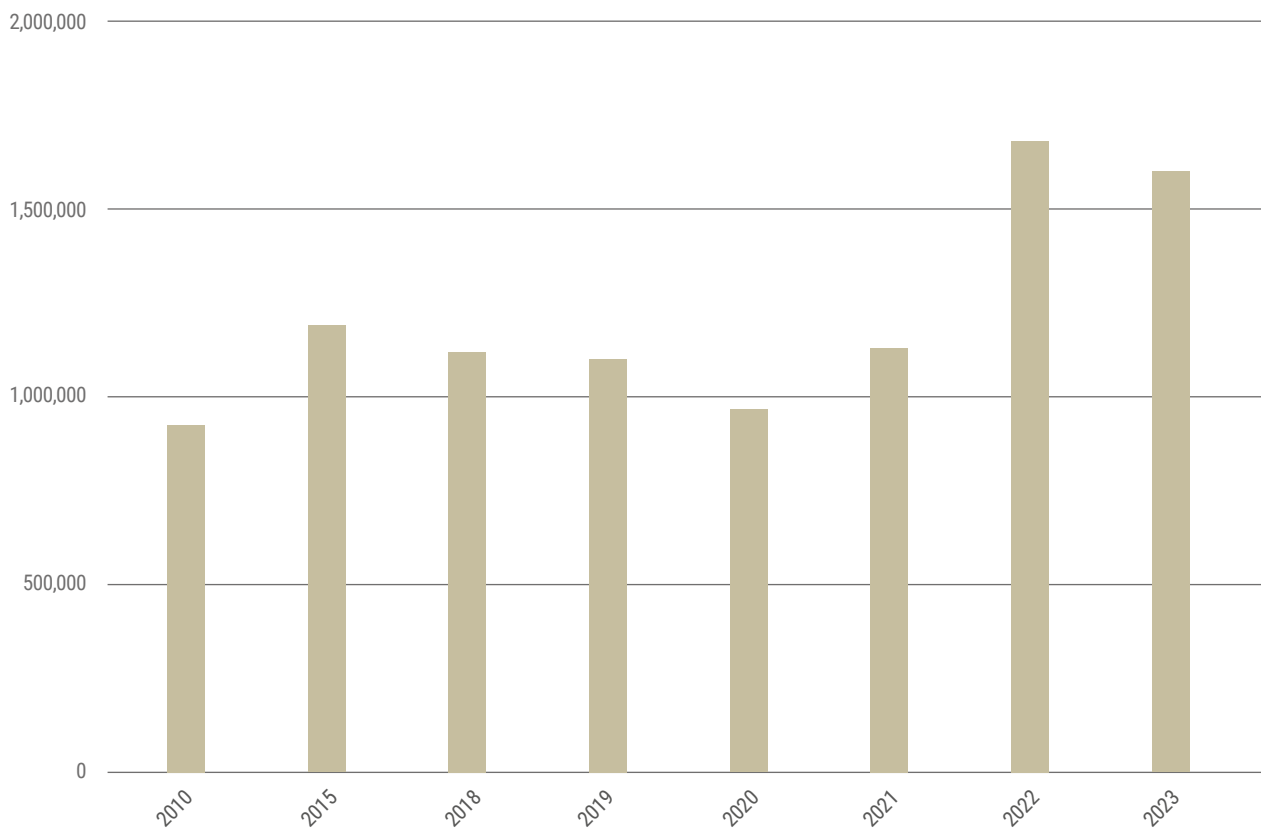


^(*) Data source: U.S. Geological Survey.

Graphite - Production

World Graphite Production

(tons)



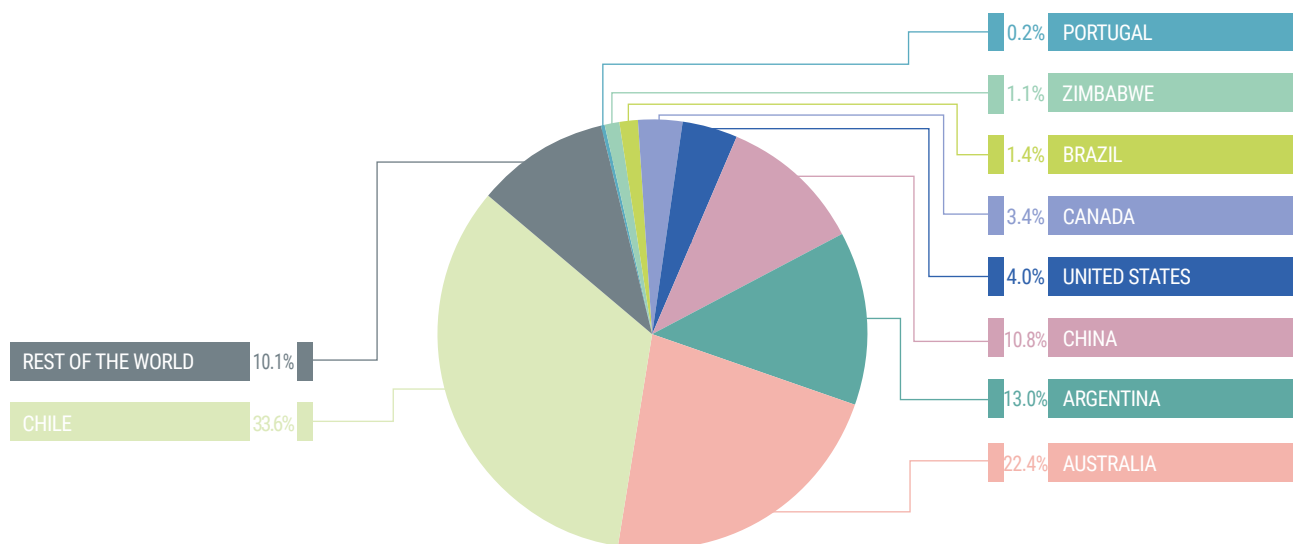
Lithium - Reserves

Countries^(*)

(tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Argentina	850,000	2,000,000	2,000,000	1,700,000	1,900,000	2,200,000	2,700,000	3,600,000	33.3%	11.7%
Australia	580,000	1,500,000	2,700,000	2,800,000	4,700,000	5,700,000	6,200,000	6,200,000	0.0%	20.0%
Brazil	64,000	48,000	54,000	95,000	95,000	95,000	250,000	390,000	56.0%	14.9%
Canada				370,000	530,000		930,000	930,000	0.0%	
Chile	7,500,000	7,500,000	8,000,000	8,600,000	9,200,000	9,200,000	9,300,000	9,300,000	0.0%	1.7%
China	3,500,000	3,200,000	1,000,000	1,000,000	1,500,000	1,500,000	2,000,000	3,000,000	50.0%	-1.2%
Portugal	10,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	0.0%	14.8%
United States	38,000	38,000	35,000	630,000	750,000	750,000	1,000,000	1,100,000	10.0%	29.5%
Zimbabwe	23,000	23,000	70,000	230,000	220,000	220,000	310,000	310,000	0.0%	22.2%
Others				1,100,000	2,100,000	2,700,000	3,300,000	2,800,000	-15.2%	
World (rounded)	13,000,000	14,000,000	14,000,000	17,000,000	21,000,000	22,000,000	26,000,000	28,000,000	7.7%	6.1%

The World Top 9 (2023)

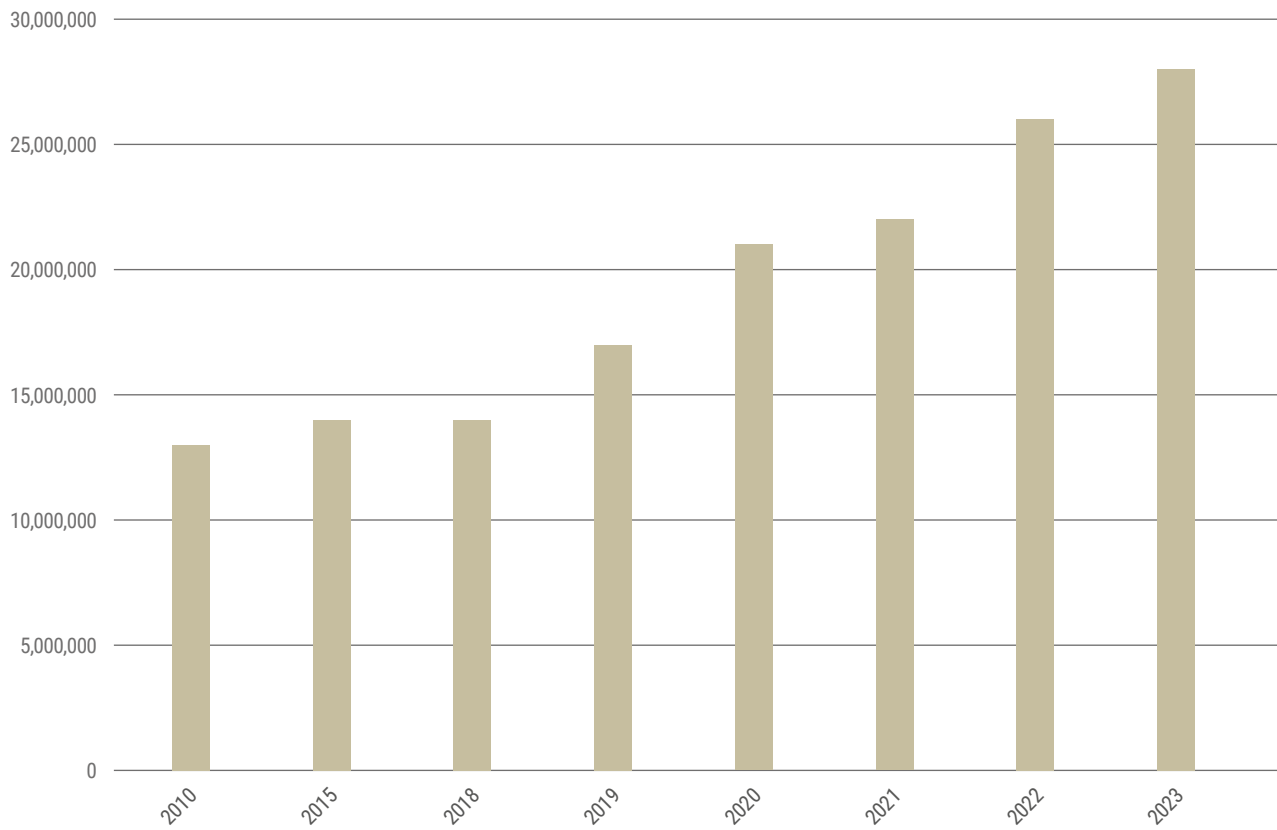


^(*) Data source: U.S. Geological Survey.

Lithium - Reserves

World Lithium Reserves

(tons)



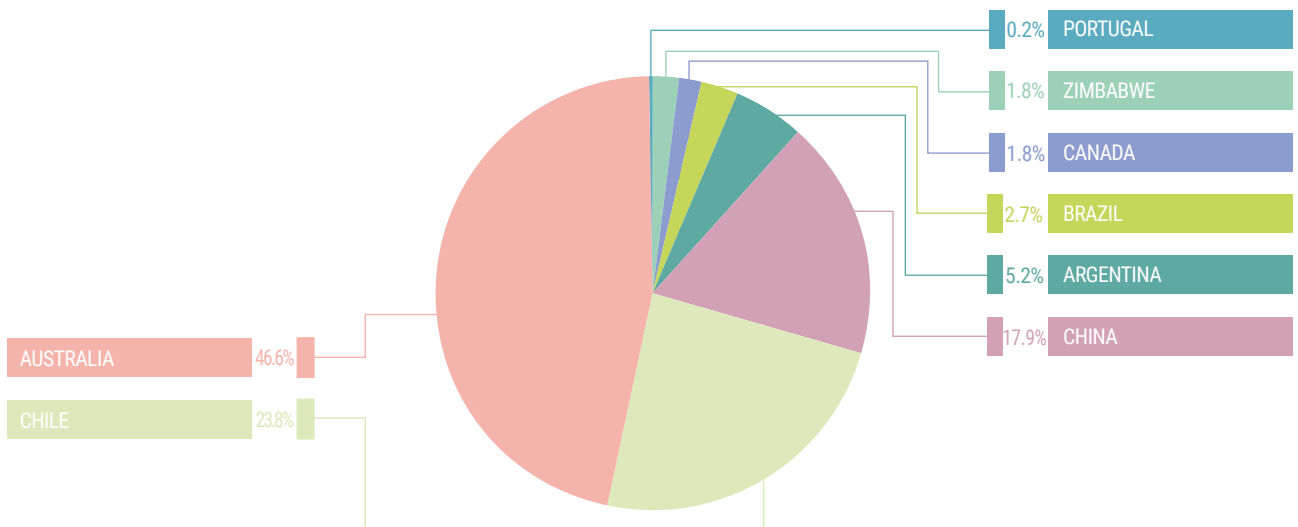
Lithium - Production

Countries^(*)

(tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Argentina	2,950	3,600	6,400	6,300	5,900	5,970	6,590	9,600	45.7%	9.5%
Australia	9,260	14,100	58,800	45,000	39,700	55,300	74,700	86,000	15.1%	18.7%
Brazil	160	200	300	2,400	1,420	1,700	2,630	4,900	86.3%	30.1%
Canada			2,400	200			520	3,400	553.8%	
Chile	10,510	10,500	17,000	19,300	21,500	28,300	38,000	44,000	15.8%	11.6%
China	3,950	2,000	7,100	10,800	13,300	14,000	22,600	33,000	46.0%	17.7%
Namibia			500							
Portugal	800	200	800	900	348	900	380	380	0.0%	-5.6%
Zimbabwe	470	900	1,600	1,200	417	710	1,030	3,400	230.1%	16.4%
World (rounded)	28,100	31,500	95,000	86,000	82,500	107,000	146,000	180,000	23.3%	15.4%

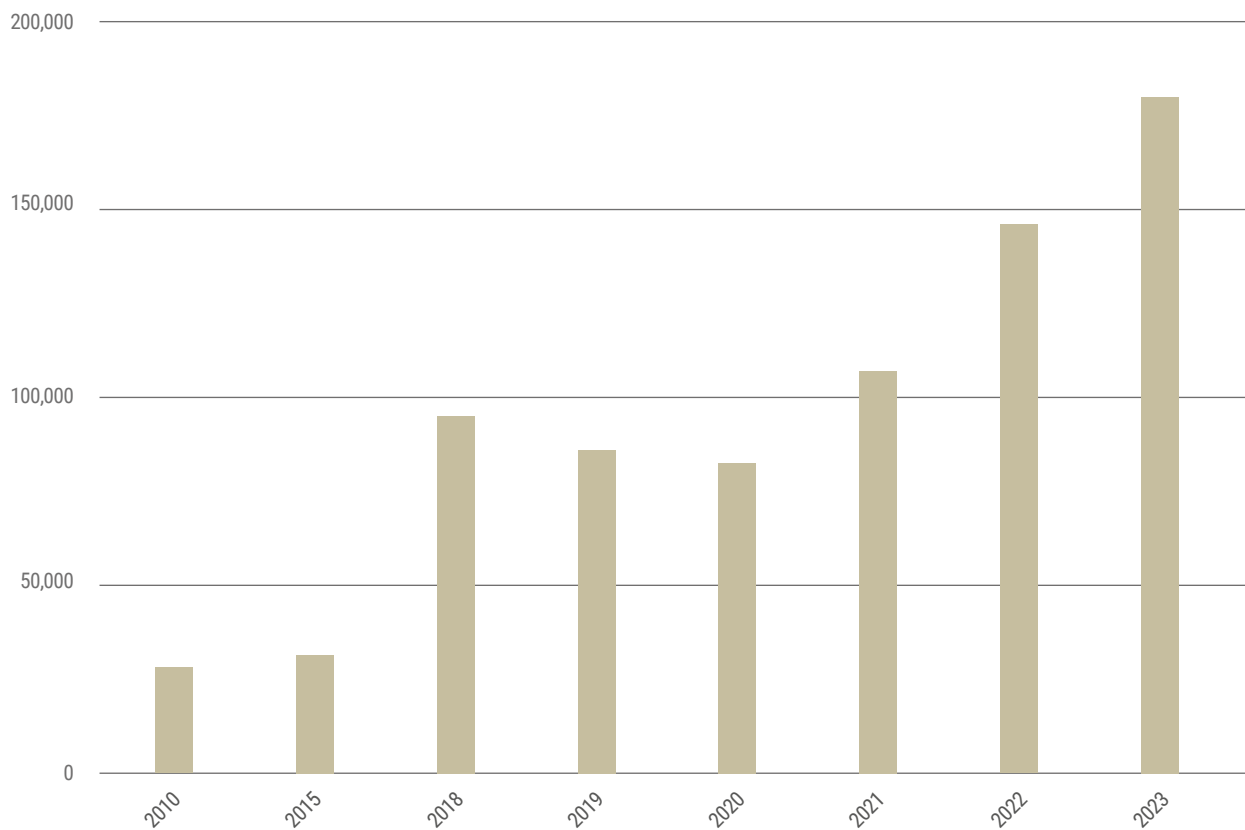
The World Top 8 (2023)



Lithium - Production

World Lithium Production

(tons)



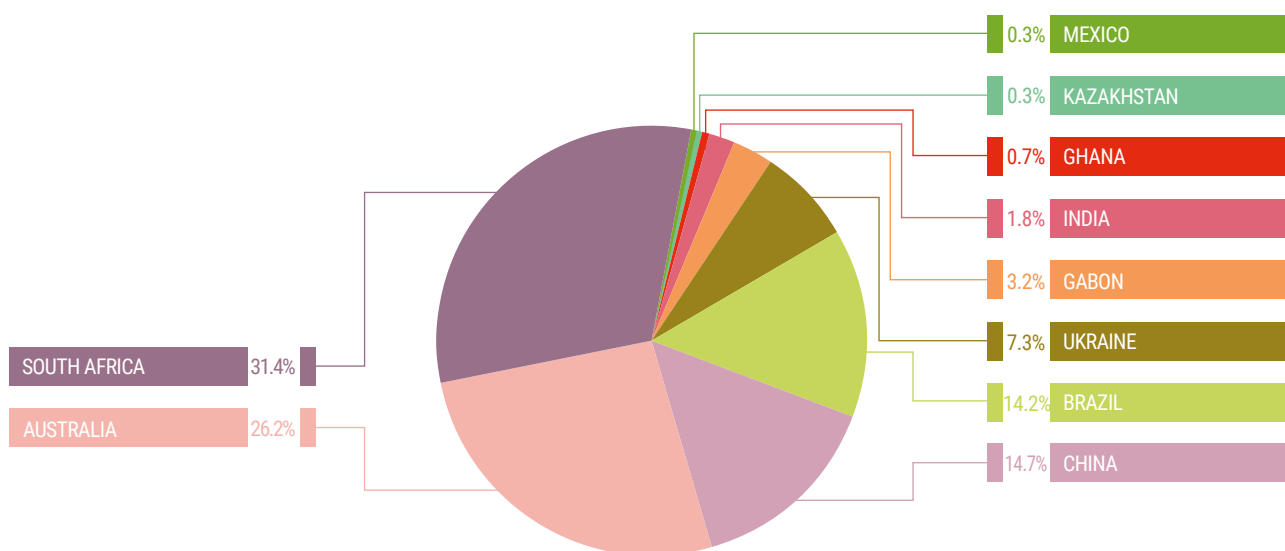
Manganese - Reserves

Countries^(*)

(thousand tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Australia	93,000	91,000	99,000	100,000	230,000	270,000	270,000	500,000	85.2%	13.8%
Brazil	110,000	50,000	110,000	140,000	270,000	270,000	270,000	270,000	0.0%	7.2%
China	44,000	44,000	54,000	54,000	54,000	54,000	280,000	280,000	0.0%	15.3%
Gabon	52,000	22,000	65,000	61,000	61,000	61,000	61,000	61,000	0.0%	1.2%
Ghana		13,000	13,000	13,000	13,000	13,000	13,000	13,000	0.0%	
India	56,000	52,000	33,000	34,000	34,000	34,000	34,000	34,000	0.0%	-3.8%
Kazakhstan		5,000	5,000	5,000	5,000	5,000	5,000	5,000	0.0%	
Mexico	4,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	0.0%	1.7%
South Africa	120,000	200,000	230,000	260,000	520,000	640,000	640,000	600,000	-6.3%	13.2%
Ukraine	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	0.0%	0.0%
World (rounded)	630,000	620,000	760,000	810,000	1,300,000	1,500,000	1,700,000	1,900,000	11.8%	8.9%

The World Top 10 (2023)

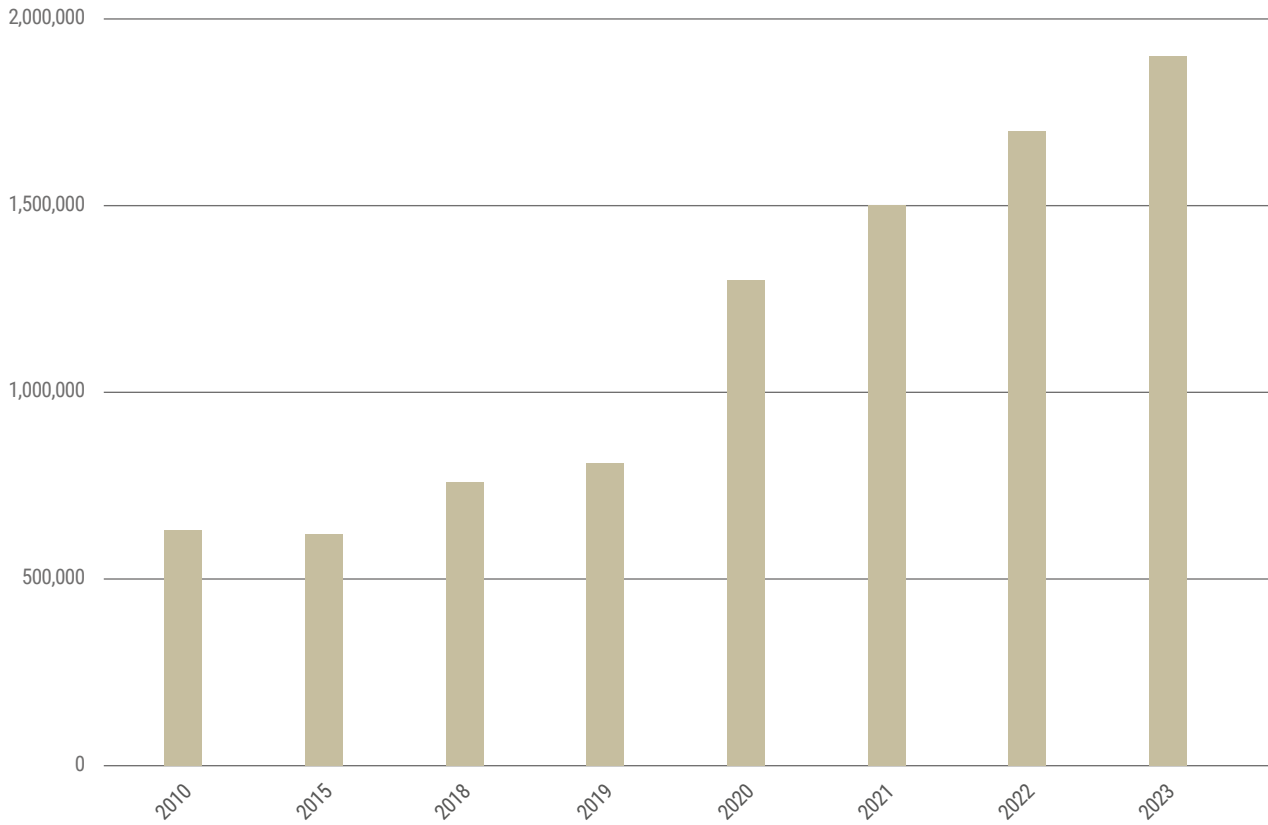


^(*) Data source: U.S. Geological Survey.

Manganese - Reserves

World Manganese Reserves

(thousand tons)



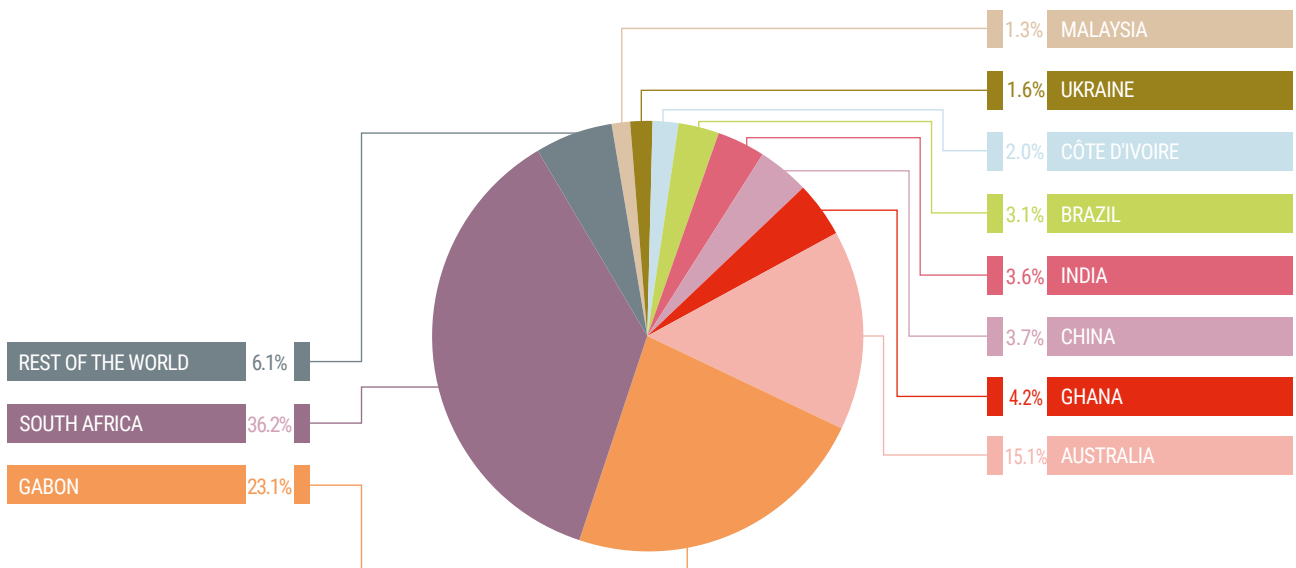
Manganese - Production

Countries^(*)

(thousand tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Australia	3,100	2,450	3,480	3,180	3,330	3,260	3,040	3,000	-1.3%	-0.3%
Brazil	780	1,090	1,310	1,740	494	542	624	620	-0.6%	-1.8%
Burma			207	430	254	206	207	210	1.4%	
China	2,600	3,000	1,200	1,330	1,340	991	743	740	-0.4%	-9.2%
Côte d'Ivoire			395	482	525	362	394	390	-1.0%	
Gabon	1,420	2,020	2,330	2,510	3,310	4,340	4,670	4,600	-1.5%	9.5%
Georgia			200	116	186	224	166	160	-3.6%	
Ghana		416	1,360	1,550	637	940	844	840	-0.5%	
India	1,000	900	961	801	632	453	721	720	-0.1%	-2.5%
Kazakhstan		222	140	140	158	90	129	130	0.8%	
Malaysia		201	390	390	347	356	247	250	1.2%	
Mexico	175	220	210	202	198	226	221	220	-0.5%	1.8%
South Africa	2,900	5,900	5,800	5,800	6,500	7,200	7,300	7,200	-1.4%	7.2%
Ukraine	540	410	517	500	578	600	323	320	-0.9%	-3.9%
Vietnam				158	121	146	155	160	3.2%	
Other	1,340	678	391	270	260	150	325	330	1.5%	-10.2%
World (rounded)	13,900	17,500	18,900	19,600	18,900	20,100	19,800	20,000	1.0%	2.8%

The World Top 10 (2023)

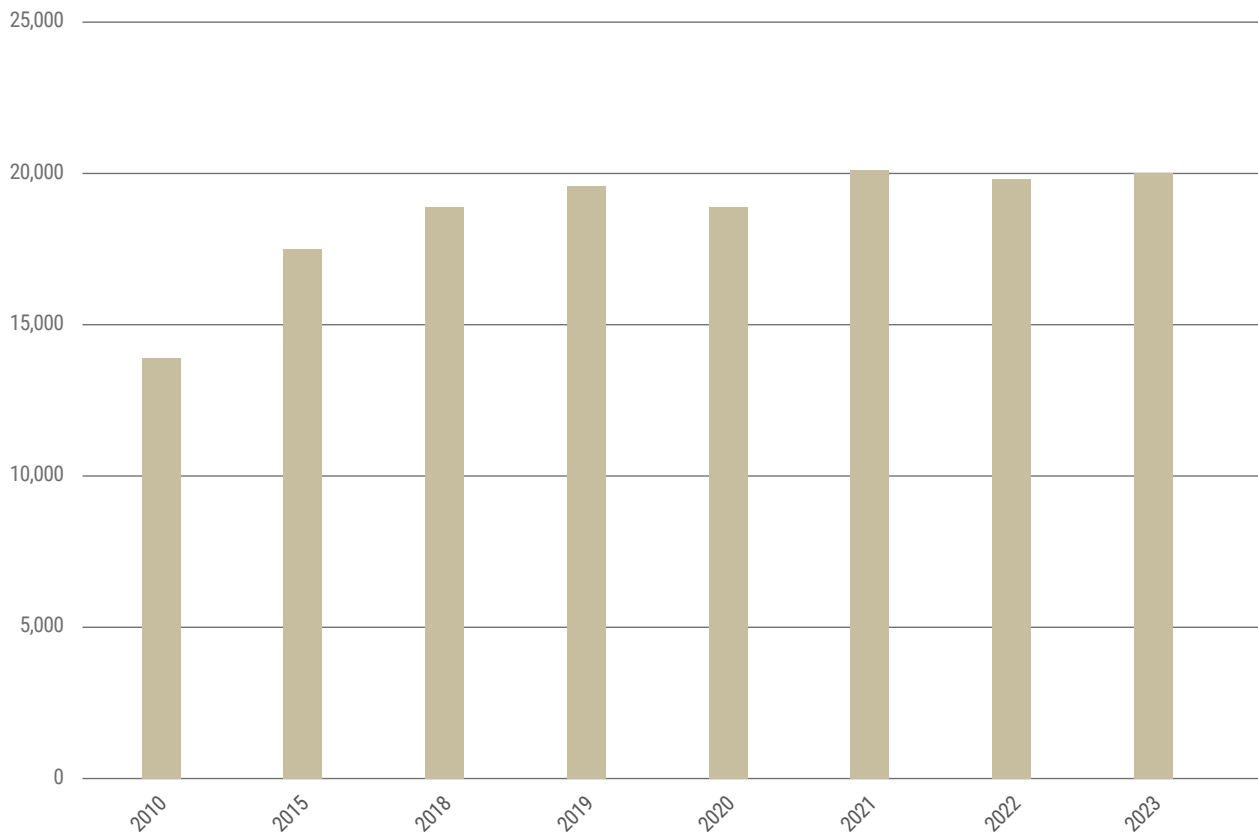


^(*) Data source: U.S. Geological Survey.

Manganese - Production

World Manganese Production

(thousand tons)



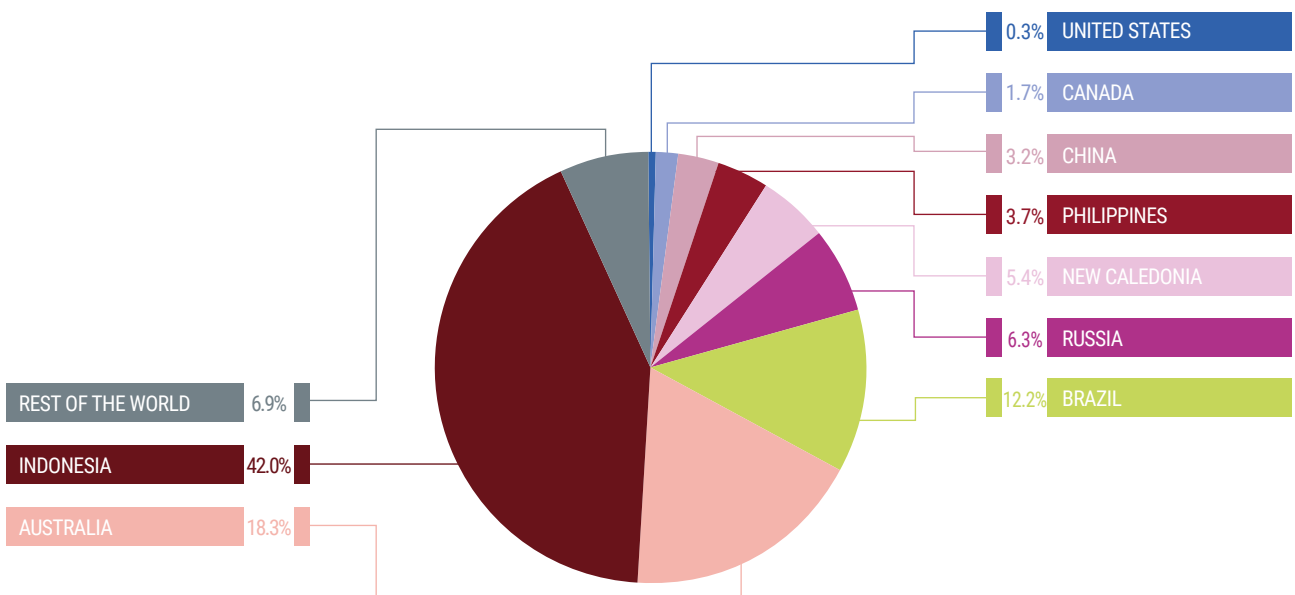
Nickel - Reserves

Countries^(*)

(tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Australia	24,000,000	19,000,000	19,000,000	20,000,000	20,000,000	21,000,000	21,000,000	24,000,000	14.3%	0.0%
Botswana	490,000									-100.0%
Brazil	8,700,000	10,000,000	11,000,000	11,000,000	16,000,000	16,000,000	16,000,000	16,000,000	0.0%	4.8%
Canada	3,800,000	2,900,000	2,700,000	2,600,000	2,800,000	2,000,000	2,200,000	2,200,000	0.0%	-4.1%
China	3,000,000	3,000,000	2,800,000	2,800,000	2,800,000	2,800,000	2,100,000	4,200,000	100.0%	2.6%
Colombia	1,600,000	1,100,000	440,000							-100.0%
Cuba	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000					-100.0%
Dominican Republic	960,000									-100.0%
Guatemala		1,800,000	1,800,000							
Indonesia	3,900,000	4,500,000	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000	55,000,000	161.9%	22.6%
Madagascar	1,300,000	1,600,000	1,600,000							-100.0%
New Caledonia	7,100,000	8,400,000					7,100,000	7,100,000	0.0%	0.0%
Philippines		3,100,000	4,800,000	4,800,000	4,800,000	4,800,000	4,800,000	4,800,000	0.0%	
Russia	6,000,000	7,900,000	7,600,000	6,900,000	6,900,000	7,500,000	7,500,000	8,300,000	10.7%	2.5%
South Africa	3,700,000	3,700,000	3,700,000							-100.0%
United States		160,000	110,000	110,000	100,000	340,000	370,000	340,000	-8.1%	
Venezuela	490,000									-100.0%
Others	4,500,000	6,500,000	6,500,000	14,000,000	14,000,000	20,000,000	20,000,000	9,100,000	-54.5%	5.6%
World (rounded)	76,000,000	79,000,000	89,000,000	89,000,000	94,000,000	95,000,000	100,000,000	130,000,000	30.0%	4.2%

The World Top 9 (2023)

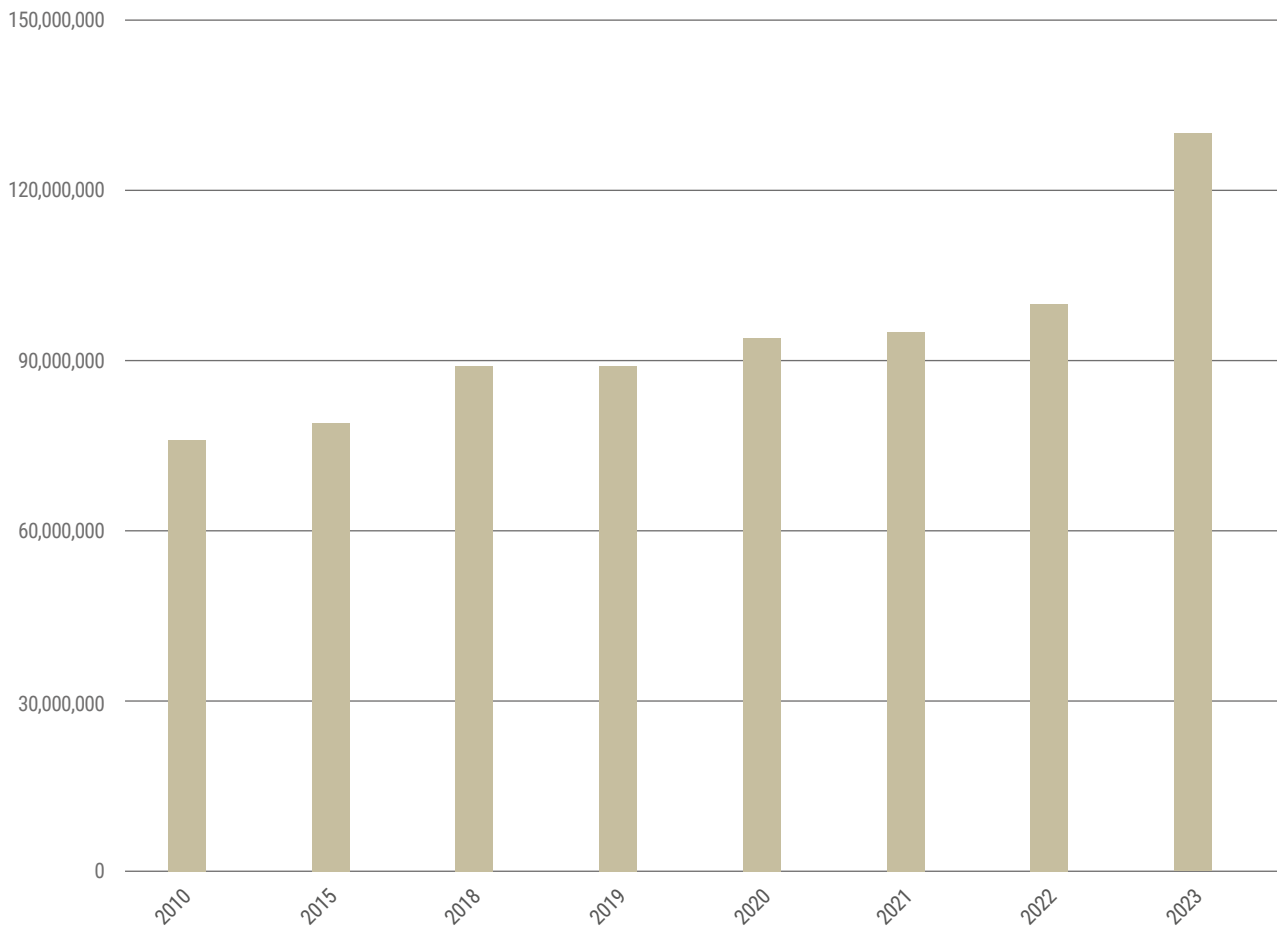


^(*) Data source: U.S. Geological Survey.

Nickel - Reserves

World Nickel Reserves

(tons)



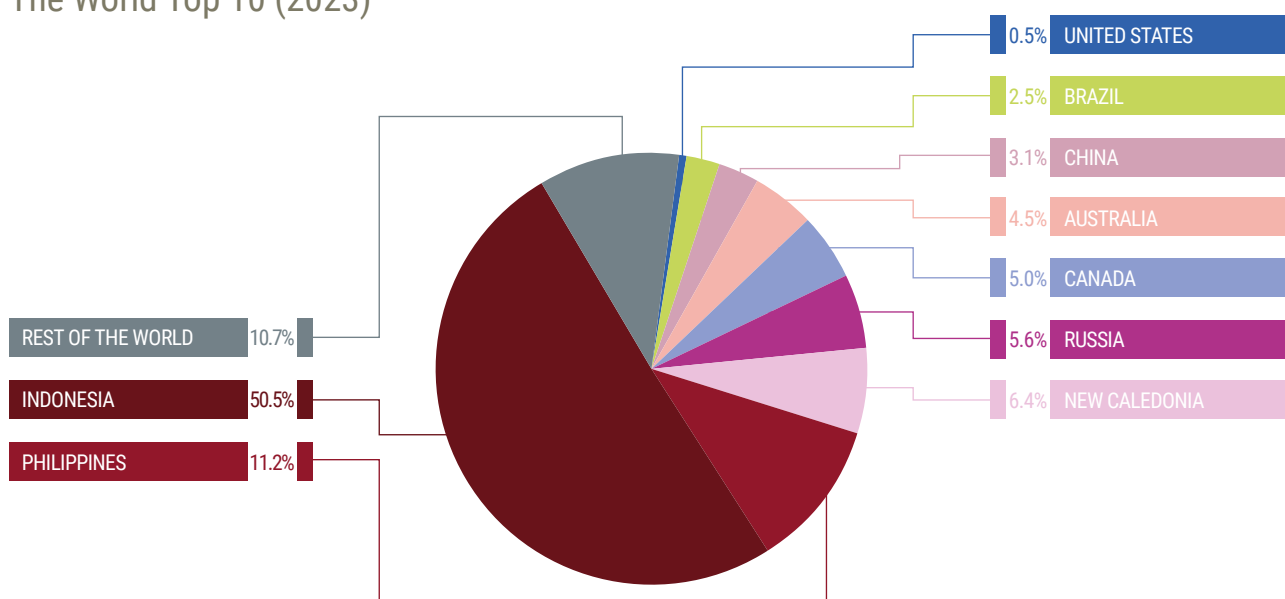
Nickel - Production

Countries^(*)

(tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Australia	170,000	222,000	170,000	159,000	169,000	151,000	155,000	160,000	3.2%	-0.5%
Botswana	28,000									-100.0%
Brazil	59,100	160,000	74,400	60,600	77,100	76,000	88,500	89,000	0.6%	3.2%
Canada	158,000	235,000	176,000	181,000	167,000	134,000	143,000	180,000	25.9%	1.0%
China	79,000	92,900	110,000	120,000	120,000	109,000	114,000	110,000	-3.5%	2.6%
Colombia	72,000	40,400								
Cuba	70,000	56,400	51,000	49,200						
Dominican Republic				56,900						
Guatemala		52,400								
Indonesia	232,000	130,000	606,000	853,000	771,000	1,040,000	1,580,000	1,800,000	13.9%	17.1%
Madagascar	15,000	45,000								-100.0%
New Caledonia	130,000	186,000	216,000	208,000	200,000	186,000	200,000	230,000	15.0%	4.5%
Philippines	173,000	554,000	345,000	323,000	334,000	387,000	345,000	400,000	15.9%	6.7%
Russia	269,000	269,000	272,000	279,000	283,000	205,000	222,000	200,000	-9.9%	-2.3%
South Africa	40,000	56,700								-100.0%
United States		27,200	17,800	13,500	16,700	18,400	17,500	17,000	-2.9%	
Others	99,000	157,000	366,000	310,000	373,000	429,000	404,000	380,000	-5.9%	10.9%
World (rounded)	1,590,000	2,280,000	2,400,000	2,610,000	2,510,000	2,730,000	3,270,000	3,600,000	10.1%	6.5%

The World Top 10 (2023)

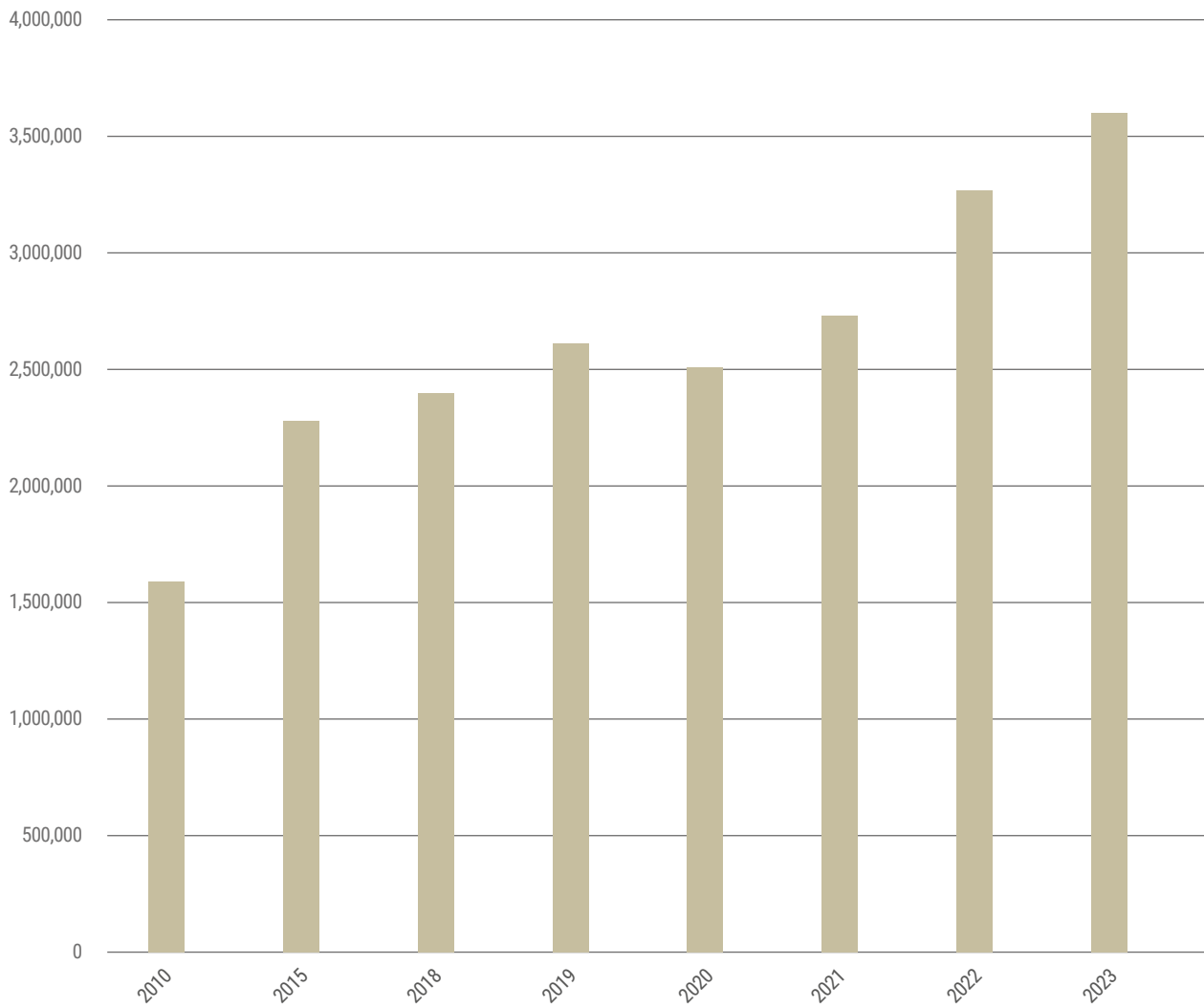


^(*) Data source: U.S. Geological Survey.

Nickel - Production

World Nickel Production

(tons)



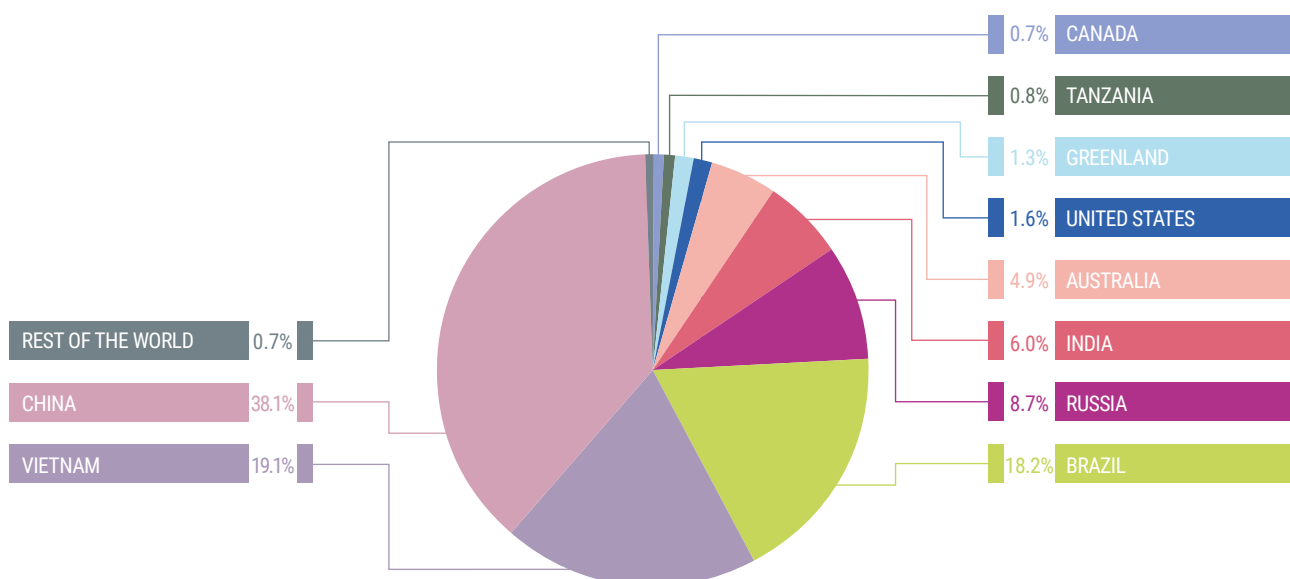
Rare Earths - Reserves

Countries^(*)

(tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Australia	1,600,000	3,200,000	3,400,000	3,300,000	4,100,000	4,000,000	4,200,000	5,700,000	35.7%	10.3%
Brazil	48,000	22,000,000	22,000,000	22,000,000	21,000,000	21,000,000	21,000,000	21,000,000	0.0%	59.6%
Canada				830,000	830,000	830,000	830,000	830,000	0.0%	
China	55,000,000	55,000,000	44,000,000	44,000,000	44,000,000	44,000,000	44,000,000	44,000,000	0.0%	-1.7%
Commonwealth of Independent States**	19,000,000									-100.0%
Greenland				1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	0.0%	
India	3,100,000	3,100,000	6,900,000	6,900,000	6,900,000	6,900,000	6,900,000	6,900,000	0.0%	6.3%
Malaysia	30,000	30,000	30,000							-100.0%
Russia			12,000,000	12,000,000	12,000,000	21,000,000	21,000,000	10,000,000	-52.4%	
South Africa				790,000	790,000	790,000	790,000	790,000	0.0%	
Tanzania						890,000	890,000	890,000	0.0%	
Thailand								4,500		
United States	13,000,000	1,800,000	1,400,000	1,400,000	1,500,000	1,800,000	2,300,000	1,800,000	-21.7%	-14.1%
Vietnam			22,000,000	22,000,000	22,000,000	22,000,000	22,000,000	22,000,000	0.0%	
Others	22,000,000	41,000,000	4,400,000	310,000	310,000	280,000	280,000		-100.0%	-100.0%
World (rounded)	110,000,000	130,000,000	120,000,000	120,000,000	120,000,000	120,000,000	130,000,000	110,000,000	-15.4%	0.0%

The World Top 10 (2023)



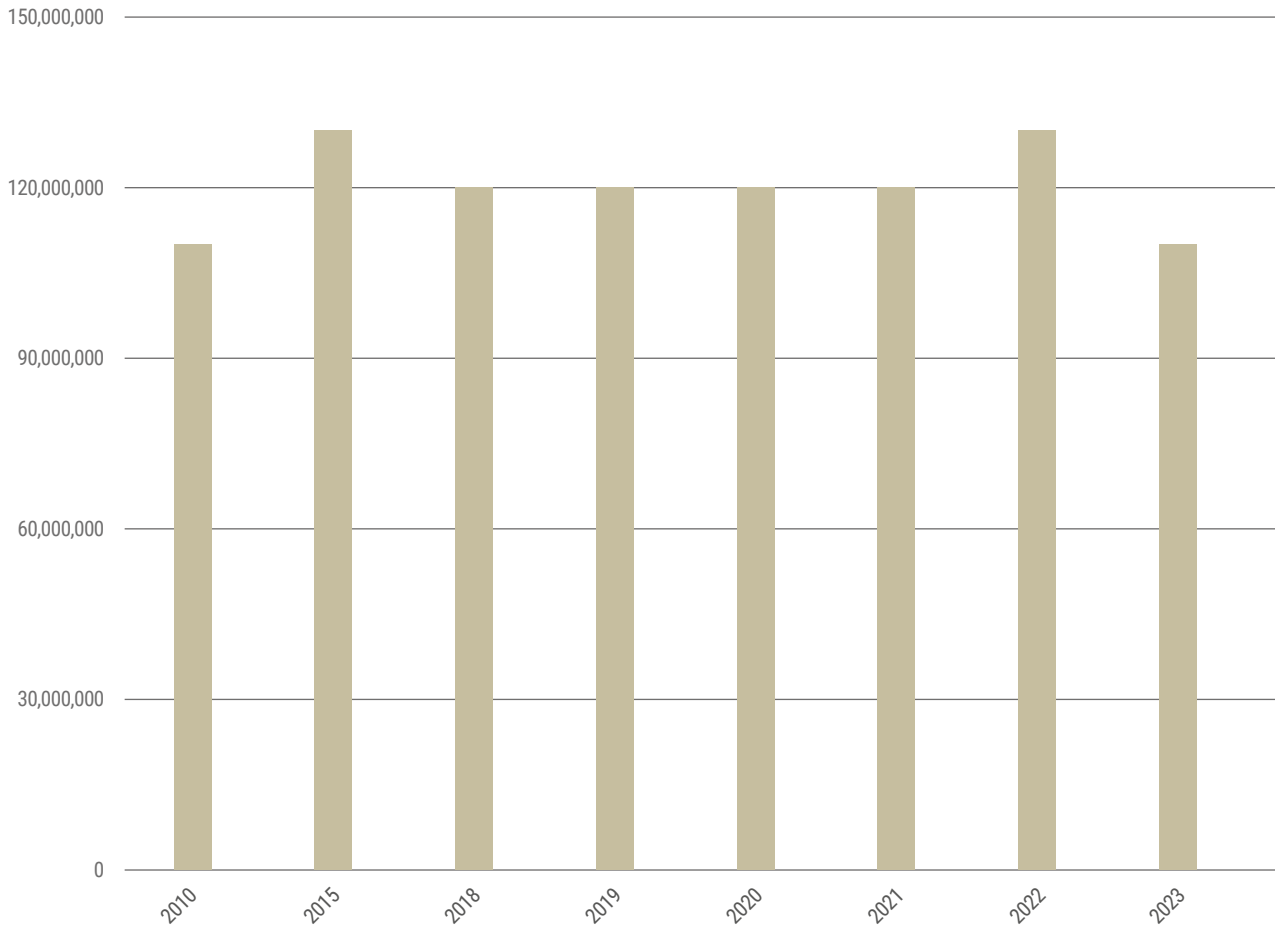
(*) Data source: U.S. Geological Survey.

(**) The aggregate includes the following states according to international definitions: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. However, some of these countries may not produce rare earths.

Rare Earths - Reserves

World Rare Earths Reserves

(tons)



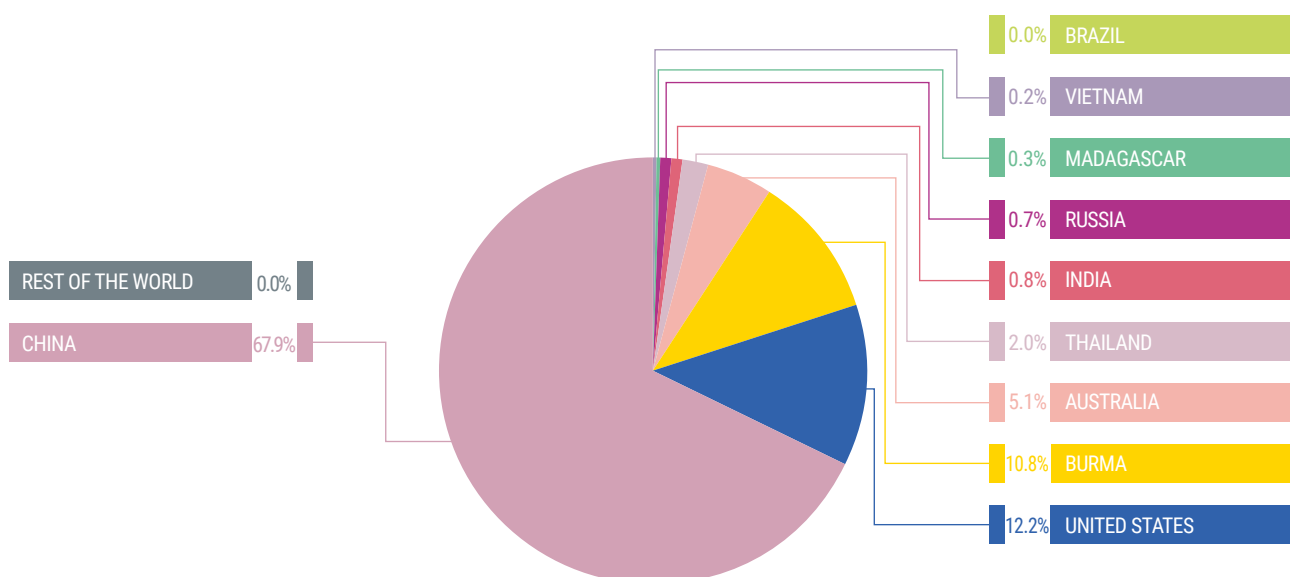
Rare Earths - Production

Countries^(*)

(tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Australia		12,000	21,000	20,000	21,000	24,000	18,000	18,000	0.0%	
Brazil	550	880	1,100	710	600	500	80	80	0.0%	-13.8%
Burma							12,000	38,000	216.7%	
Burundi			630	200	300	200				
China	130,000	105,000	120,000	132,000	140,000	168,000	210,000	240,000	14.3%	4.8%
India	2,800	1,700	2,900	2,900	2,900	2,900	2,900	2,900	0.0%	0.3%
Madagascar			2,000	4,000	2,800	6,800	960	960	0.0%	
Malaysia	30	500					80	80	0.0%	7.8%
Russia		2,800	2,700	2,700	2,700	2,600	2,600	2,600	0.0%	
Thailand		760	1,000	1,900	3,600	8,200	7,100	7,100	0.0%	
United States		5,900	18,000	28,000	39,000	42,000	42,000	43,000	2.4%	
Vietnam		250	920	1,300	700	400	1,200	600	-50.0%	
Others			60	66	100	60	80		-100.0%	
World (rounded)	133,000	130,000	190,000	220,000	240,000	290,000	300,000	350,000	16.7%	7.7%

The World Top 10 (2023)

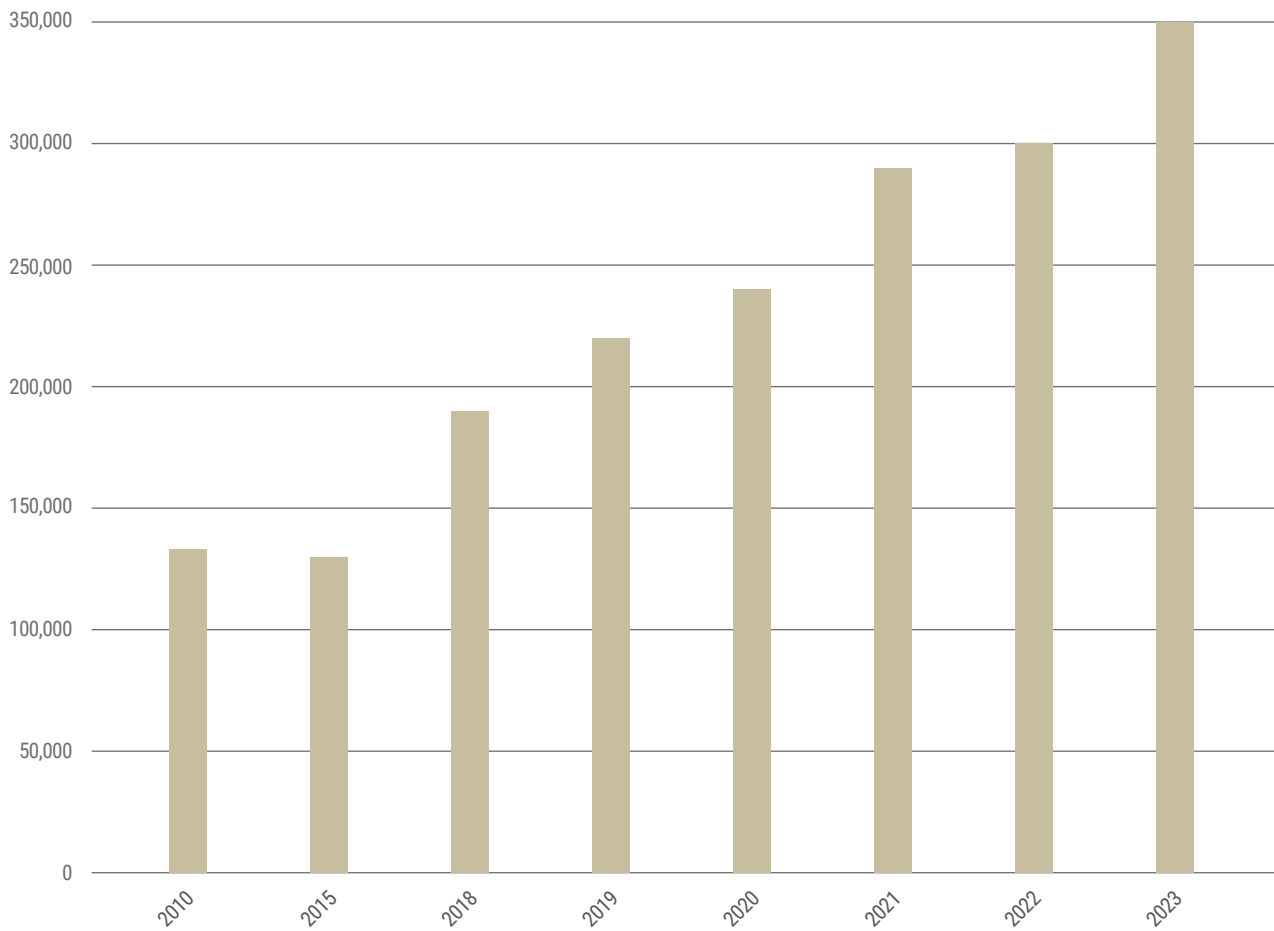


^(*) Data source: U.S. Geological Survey.

Rare Earths - Production

World Rare Earths Production

(tons)



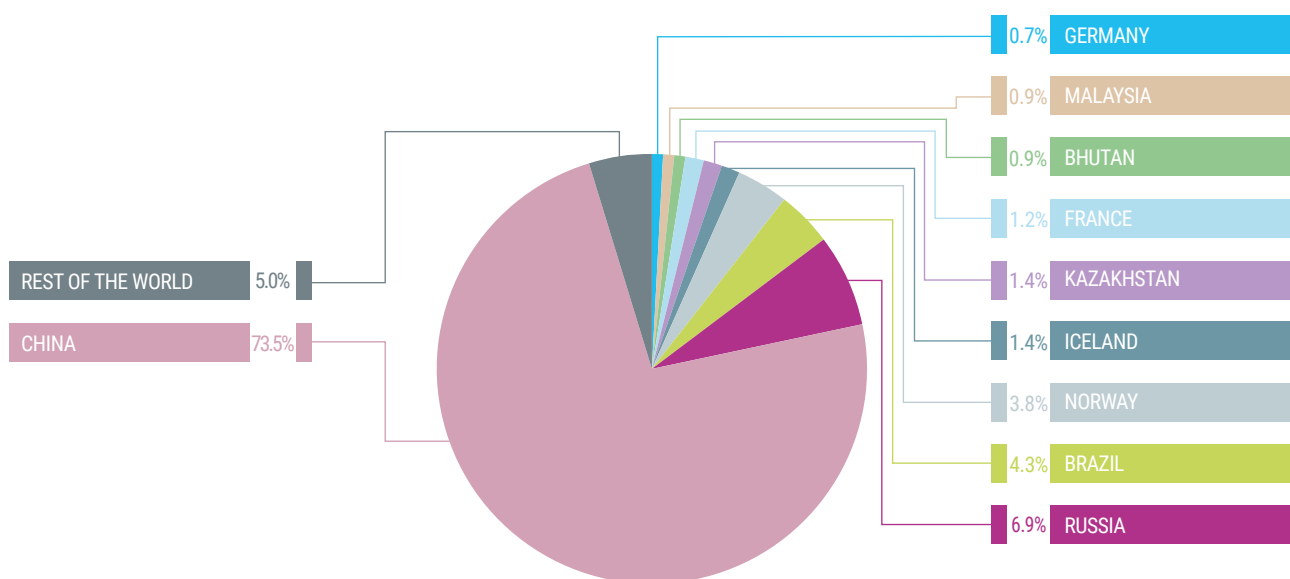
Silicon - Production

Countries^(*)

(thousand tons)

	2010	2015	2018	2019	2020	2021	2022	2023	Δ y/y (2023-2022)	CAGR (2023-2010)
Australia					42	50	48	50	4.2%	
Bhutan		78	90	90	67	85	75	80	6.7%	
Brazil	224	117	220	340	404	389	391	390	-0.3%	4.4%
Canada	52	54	57	57	47	49	49	50	2.0%	-0.3%
China	4,920	5,000	4,800	5,700	5,600	6,400	6,670	6,600	-1.0%	2.3%
France	127	121	140	130	112	127	121	110	-9.1%	-1.1%
Germany						63	62	60	-3.2%	
Iceland	74	75	83	88	103	111	128	130	1.6%	4.4%
India	66	60	57	60	59	59	59	60	1.7%	-0.7%
Kazakhstan					67	122	101	125	23.8%	
Malaysia		68	140	150	109	85	91	80	-12.1%	
Norway	303	375	370	375	345	362	339	340	0.3%	0.9%
Poland			43		42	49	47	50	6.4%	
Russia	643	747	600	610	576	644	626	620	-1.0%	-0.3%
South Africa	137	84		96						-100.0%
Spain		81	69	66	55	60	52	56	7.7%	
Ukraine	127	59	49	63	40	49	28	2	-92.9%	-27.3%
Venezuela	50									-100.0%
United States	176	411	430	310	277	313	310		-100.0%	-100.0%
Others	394	300	290	278	175	128	223	180	-19.3%	-5.8%
World (rounded)	7,290	7,630	7,400	8,410	8,120	9,150	9,110	9,000	-1.2%	1.6%

The World Top 10 (2023)

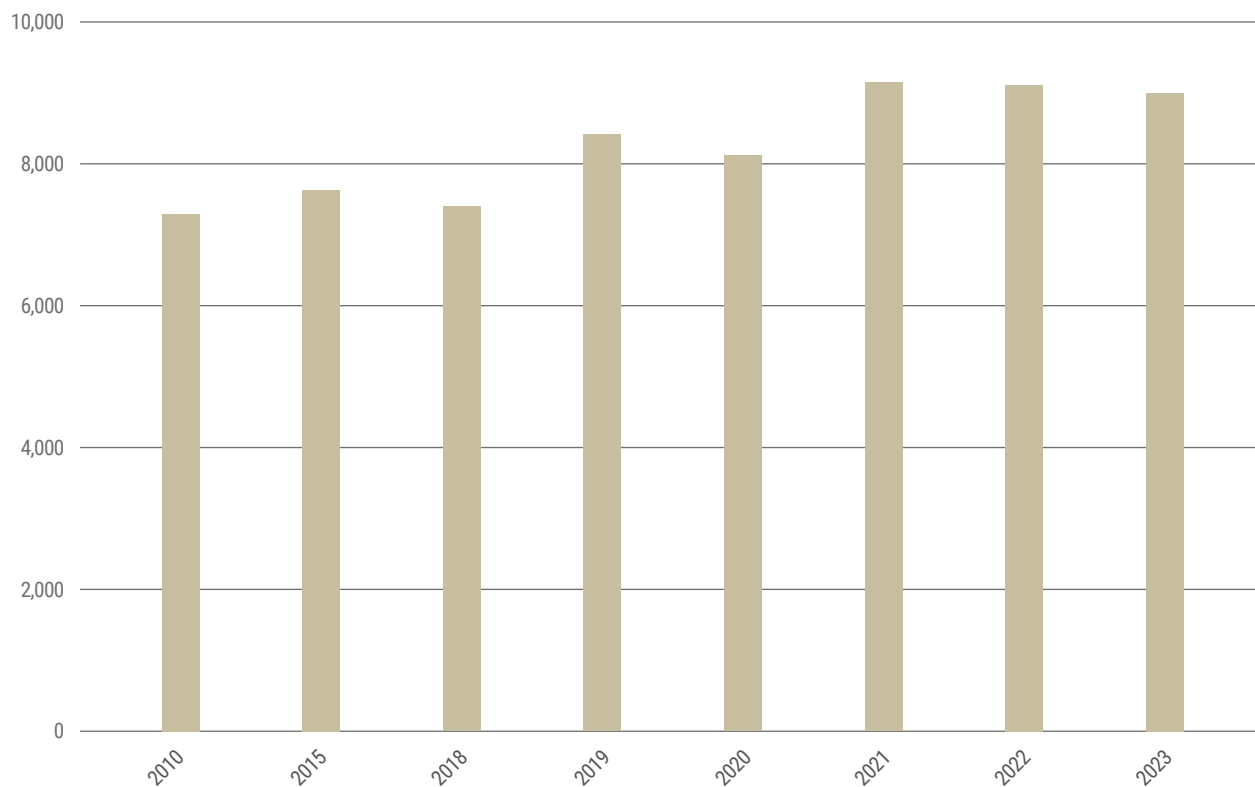


(*) Data source: U.S. Geological Survey.

Silicon - Production

World Silicon Production

(thousand tons)



**Headquarters**

Piazzale Enrico Mattei,1 - Rome - Italy

Capital Stock: € 4,005,358,876.00 fully paid up

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