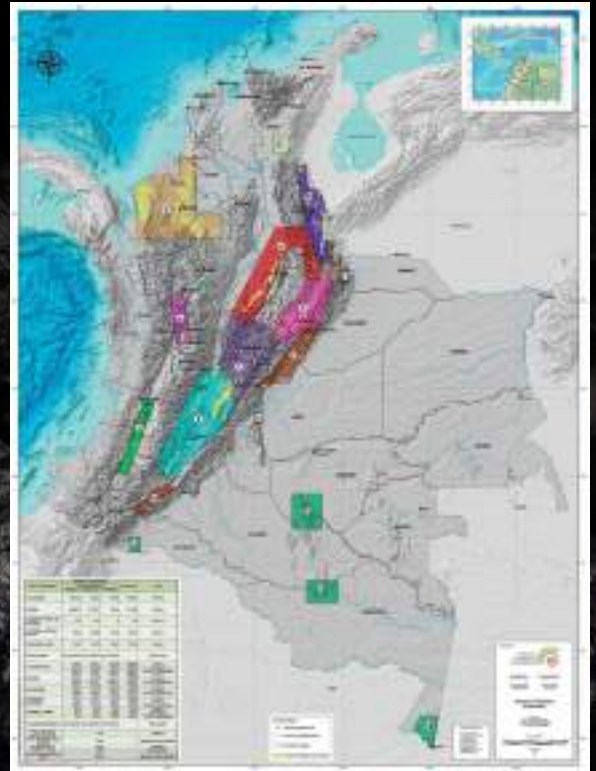


Coal

Of the total number of mining titles, **97.5%** correspond to small and medium mining, and only **2.5%** to large-scale mining. About **88%** of coal production is extracted in open-pit mining areas, mainly in the departments of Cesar, La Guajira and Cordoba, with thermal coal primarily for export; the remaining **12%** is mined mainly underground in the departments of Antioquia, Cauca and Valle del Cauca, with thermal coal, and in the departments of Cundinamarca, Boyacá, Santander and Norte de Santander, with high-quality thermal and metallurgical coal, which besides supplying the domestic market, is also exported.



1,621
Mining Titles

94%
Includes
Metallurgical
Coal



1,008,776 ha
(0.89% of national territory)



157 in exploration*
Metallurgical Coal **73%**

160 in construction & assembly*
98%

1,304 in exploitation*
96%

*Titles by contractual stage

967
Mining concession
proposals

579,402 ha
(0.51% of national territory)

Source: NMA,- AnnA minería 30/11/2023



Economic Data Colombia

	Production Associated to royalty payments (Million tons)	Royalties (Million USD)	Exports (Million tons - Million FOB USD)
2020	56.1	306.8	71.2 Mt - 4,165.8 M
2021 ^P	62.2	522.1	59.7 Mt - 5,652.3 M
2022 ^{Pr}	64.2	1,686.5	60.9 Mt - 12,288.8 M



2022 World Rankings

World Production*	(Million tons)	Production in Latin America*	(Million tons)	Consumers*	(Exajoules)
1. China	4,560.0	1. Colombia	64.2	1. China	88.17
2. India	910.9	2. Brazil	7.5	2. India	20.09
3. Indonesia	687.4	3. Mexico	5.5	3. USA	9.87
4. USA	539.4	4. Venezuela	0.2	4. Japan	4.92
5. Australia	443.4	5. Other LATAM	0.3	5. Indonesia	4.38
6. Russia	439.0			6. South Africa	3.31

12*. Colombia 64.2

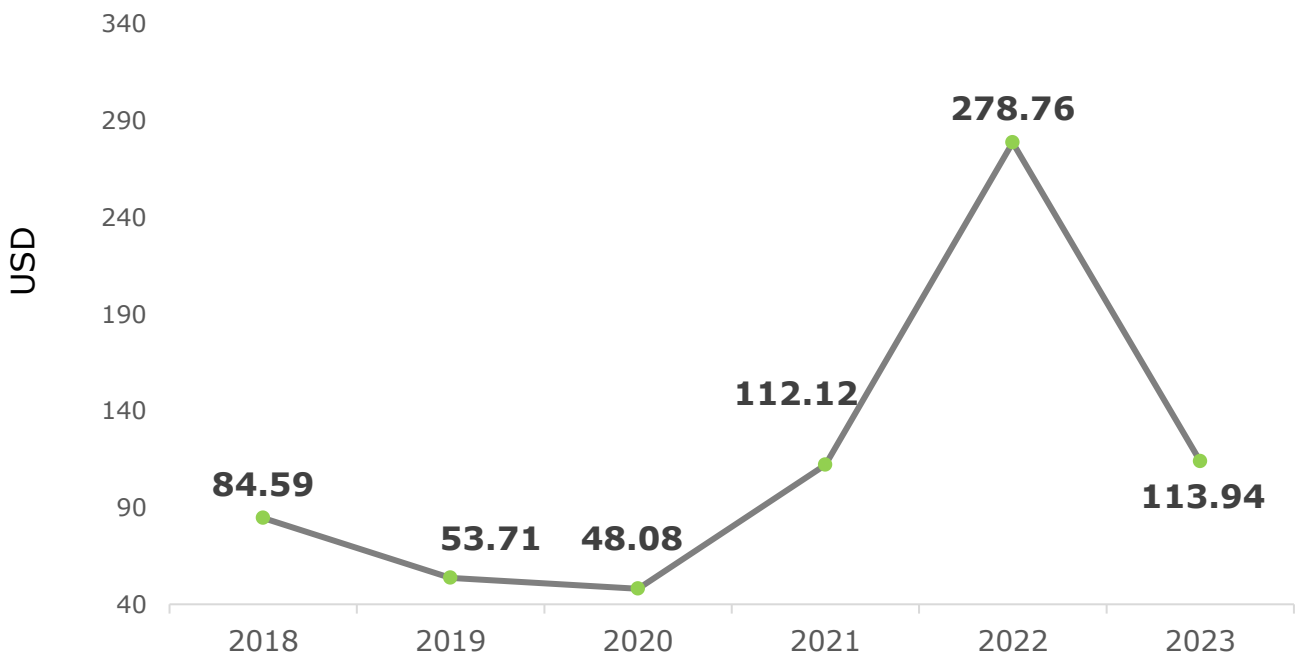
At **year 2021**, Colombia has proved reserves by **4,554 Mt** of anthracitic and bituminous coal, the largest in **LATAM (46.6%)**; correspond to approximately **0.6%** of the World Reserves.

Coal

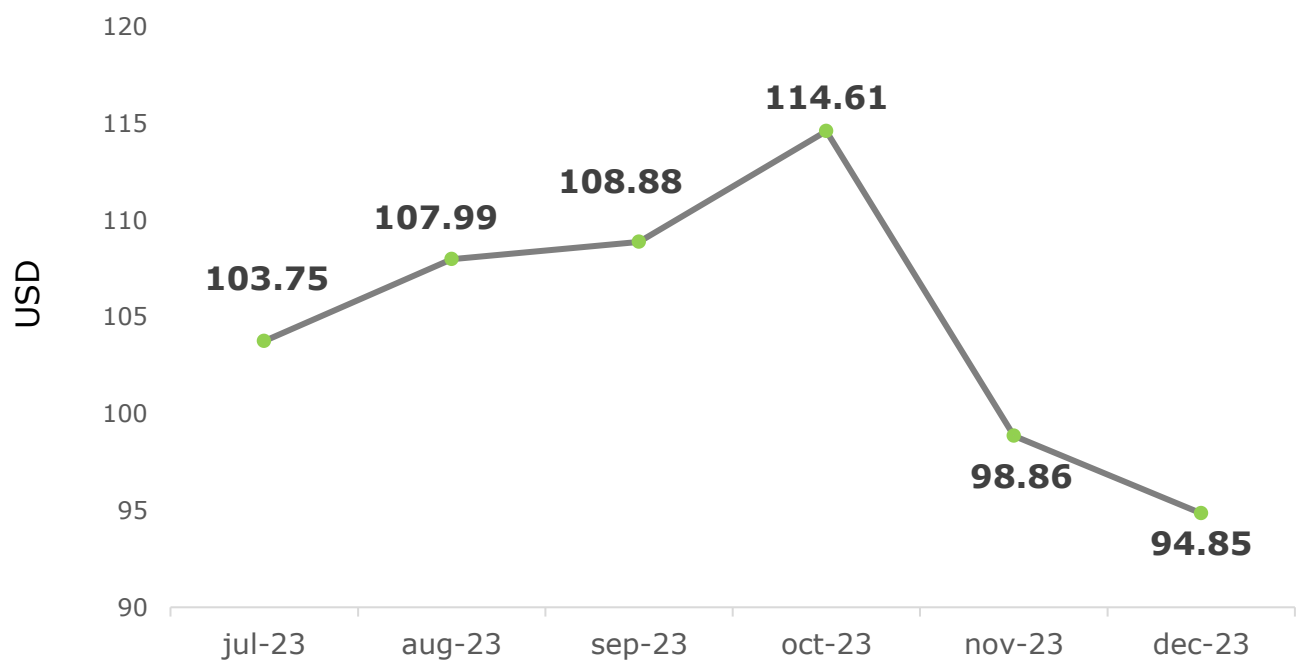


Economic Data

Colombian thermal coal FOB price last 6 years USD/ton



Colombian thermal coal FOB price last 6 months USD/ton



Source: NMA - ARGUS API-10 (FOB Colombia prices, Updated in January 2024).

Coal



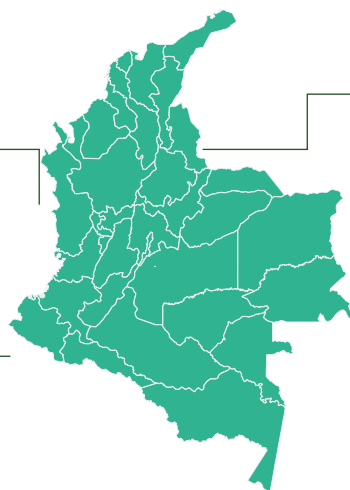
Production

(Associated to royalty payments)

Department	Municipality	2020 (Ton)	2021 ^P (Ton)	2022 ^{Pr} (Ton)
Cesar	Agustin Codazzi	6,159,357	373,978	44,025
	Becerril	15,921,028	20,261,855	20,380,744
	Chiriguana			353,151
	El Paso	1,526,016	660,952	2,614,094
	La Jagua de Ibirico	10,990,941	8,308,815	6,879,293
La Guajira	Albania	1,696,331	2,598,495	2,547,238
	Barrancas	10,536,043	20,347,557	18,451,104
	Hatonuevo	344,022	671,200	919,324
Cundinamarca	Various	2,118,467	2,213,950	2,761,407
Boyaca	Various	2,767,377	2,601,153	3,024,940
Norte de Santander	Various	2,287,327	1,943,763	3,584,003
Cordoba	Puerto Libertador	1,489,687	1,580,930	2,074,564
Santander	Various	110,764	340,157	313,731
Antioquia	Various	156,257	252,520	227,833
Valle del Cauca	Various	14,017	20,556	45,456
Cauca	Various	11,818	6,653	8,715
Casanare	Recetor	641		
Total		56,130,093	62,182,534	64,229,662

In **2022^{Pr}** coal accounted for **54.4% (USD 2,358 million)** of mining GDP, **0.66%** of national GDP and **89.45%** of total mining royalties collected.

In **2022**, Colombian coal production represented **82.7%** of LATAM production and **0.7%** of world production.



Colombia produces high quality thermal and metallurgical coal due to its high calorific value of up to **14,161 BTU/LB** (one of the highest in the world), with low sulfur, ash and moisture content.

*Coal potential of Colombia: Coal resources and reserves, 2004 base

Atlantic Coast:	Interior of the country:	Total:
Thermal coal 7,906 MT	Thermal coal 6,053 MT	Thermal and Metallurgical coal 16,569 MT
	Metallurgical coal 2,609 MT	

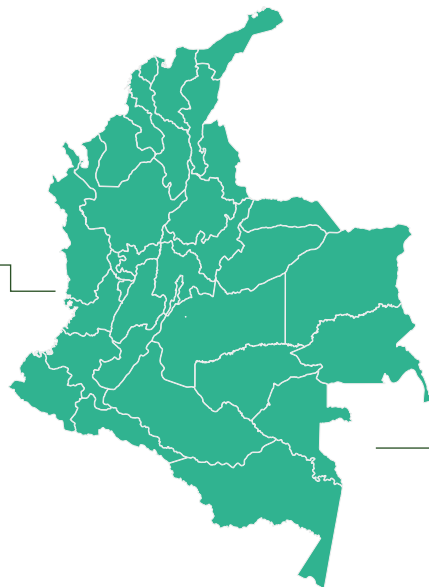
Coal



Coal exports 2022 (Million tons)

Thermal	54.5 MT
Metallurgical	1.9 MT
Anthracite and others	0.1 MT
Coke	4.4 MT

Colombia is the **sixth largest exporter of coal in the world** with **4.9%** of total exports*; it is also the **third largest exporter of coke** with about **12%** of world exports**.



Coal accounted for **21.5%** of the value of Colombian exports and **74.2%** of mining exports in 2022.

Source: SIMCO- UPME, NMA 30/04/2023., *Bp Statistical Review of World Energy Data 2022. Exchange Rate 2020: \$3,693.36; 2021: Col \$3,743.09; 2022 : Col \$4,255.44. **www.trademap.org/ 2022.

Colombian coal exports are transported by sea. Main destinations for thermal coal in **2022**: **Turkey 21.22%**; **Netherlands 14.85%**; **Chile 7.85%**; **Israel 7.66%**; **Dominican Republic 4.55%**; **Brazil 4.43%**; **United States 4.43%**; **Poland 4.15%**; **Mexico 4.06%**; **Korea 3.94%**; **Spain 2.72%**; **Canada 2.64%**; **Puerto Rico 2.52%**; **Guatemala 2.20%**; **Japan 1.67%**; **Panama 1.66%**; **Germany 1.43%**; **Ireland 1.12%**; **Argentina 1.00%**; **United Kingdom 0.81%**; **Taiwan 0.76%**; **Morocco 0.72%**; **Peru 0.65%**; **Italy 0.63%**; **France 0.54%**; **Ukraine 0.46%**; **Denmark 0.46%**; **Guadeloupe 0.31%**; **Indonesia 0.15%**; **South Africa 0.10%**; **Romania 0.10%**; **India 0.09%**; **Senegal 0.07%**; **Belgium 0.06%**; and other countries **0.005%**.

Metallurgical coal: **Brazil 32.76%**; **China 19.65%**; **Japan 18.12%**; **Turkey 16.63%**; **Poland 6.02%**; **Mexico 3.24%**; **Singapore 3.04%**; **Argentina 0.52%**; and **Ecuador 0.004%**.

Main coke destinations during **2022**: **Brazil 26.62%**; **India 15.52%**; **Turkey 12.72%**; **Mexico 12.56%**; **United Kingdom 6.21%**; **Belgium 4.63%**; **South Africa 4.07%**; **Argentina 2.62%**; **Malaysia 2.08%**; **Gabon 1.88%**; **Sweden 1.70%**; **Norway 1.70%**; **Ukraine 1.67%**; **Finland 1.52%**; **Poland 1.08%**; **Albania 0.76%**; **New Caledonia 0.59%**; **Germany 0.50%**; **France 0.50%**; **Spain 0.33%**; **Ireland 0.24%**; **Singapore 0.23%**; **Georgia 0.22%**; **Ecuador 0.03%** **Indonesia 0.02%**; **Japan 0.01%** and other countries **0.01%**.

"Colombia accounts for about 5% of the world's total seaborne coal trade*".