



2019 Minerals Yearbook

SIERRA LEONE [ADVANCE RELEASE]

THE MINERAL INDUSTRY OF SIERRA LEONE

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In 2019, Sierra Leone's gross real domestic product (GDP) increased by 5.1%. The country produced bauxite, cement (hydraulic), diamond, gold, iron ore, titanium mineral concentrates (ilmenite, leucosene, and rutile), and zirconium mineral concentrates. The country was the ninth-ranked producer of gem-quality diamond in the world. The exports of the mineral industry of Sierra Leone have contributed significantly to its national economy in the past—in particular, exports of iron ore (International Monetary Fund, 2020, p. 37; Olson, 2021).

Government Policies and Programs

The Ministry of Mines and Metal Resources of Sierra Leone is the Government agency responsible for the administration of the mining sector, which is regulated by the Mines and Minerals Act of 2009. Under this law, all rights of ownership in and control of minerals in Sierra Leone are vested in the state. Petroleum exploration and production are regulated by the Petroleum (Exploration and Production) Act (2011). The Petroleum Directorate is the Government agency tasked with monitoring all petroleum operations in the country, including assisting in the assessment of prospective investors in the sector, participating in the bidding process, assessing royalties and bonuses owed to the Government, and ensuring the establishment of a central database for petroleum-related activities, among other tasks. The Sierra Leone National Petroleum Company is responsible, on behalf of the Government, for the management of all commercial aspects of petroleum operations in the country (Ministry of Mines and Mineral Resources, 2010; Government of Sierra Leone, 2013, p. 10–13).

The National Minerals Agency (NMA), which was created through the enactment of the National Minerals Agency Act in 2012, was officially launched on March 7, 2013. The NMA is tasked with implementing mining policies and mineral legislation as formulated by the Ministry of Mineral Resources and is responsible for the enforcement of the Mines and Minerals Act of 2009, for the management of mineral rights, for the collection and dissemination of geologic information, and for the regulation of trade in precious minerals (National Minerals Agency, 2014).

In 2018, the Government published a new mineral policy document in which it outlined the main objectives and strategies of the Government with regard to the mineral industry. The Government stated that the goal of the new mineral policy was to set out a clear framework through which the Government would manage the mineral sector with the intent of making it a key driver of economic transformation, growth, and development for Sierra Leone. Furthermore, the mineral policy mandates that development of the sector will be accomplished in a manner that will safeguard the environment and contribute to social development as well as improve livelihoods, and it will be based on active stakeholder participation, transparency, accountability, and respect for human rights (Ministry of Mines and Mineral Resources, 2018).

Production

Of the mineral commodities produced in Sierra Leone, iron ore had the most significant decrease in production in 2019, decreasing by about 82% to 97,000 metric tons (t) from 535,000 t in 2018. Gold production is estimated to have decreased by 73% to 120 kilograms (kg) from 446 kg in 2018. Gold mining was artisanal. Some gold projects were aiming to start producing gold in the future, but they were still in the early stages of planning and development. Zirconium mineral concentrate production decreased by an estimated 21% to 9,000 t from 11,400 t in 2018. Rutile production increased by about 13% to 137,200 t from 121,500 t in 2018 (table 1).

Structure of the Mineral Industry

Sierra Leone's mining and mineral processing operations (excluding hydrocarbon processing operations) were privately owned. Table 2 is a list of major mineral industry facilities.

Commodity Review

Metals

Bauxite and Alumina.—In 2019, Sierra Leone's bauxite production decreased to 1.88 million metric tons (Mt) from 1.94 Mt in the previous year. Vimetco N.V. of the Netherlands owned Sierra Mineral Holdings 1 Ltd. (SMHL), which operated the Sierra Minerals Mine. All bauxite produced by SMHL was shipped to Romania for refining into alumina at Vimetco's alumina refinery in Tulcea and into aluminum at the company's aluminum smelter in Slatina. SMHL submitted a request to the Government to have its Sierra Minerals Mine mining lease agreement amended to include the right to mine an additional 321 square kilometers in the Mokanji area for a period of 20 years (Vimetco N.V., 2020a, b).

Iron Ore.—In 2019, Shandong Iron and Steel Group of China owned the Tonkolili Mine, which had been on care-and-maintenance status since 2014. In August 2019, however, the Government of Sierra Leone canceled or suspended the licenses of several major mining projects, including the Tonkolili and the Marampa iron ore mines. Shandong challenged the decision of the Government to cancel its Tonkolili license, and the decision was under litigation. The other iron ore mine in Sierra Leone, Marampa, which was operated by Timis Corp. (a subsidiary of commodity trader Gerald Group of the United Kingdom) halted shipments after its license was temporarily suspended in 2019 and then reinstated later in the year (Financial Times, 2019).

Titanium and Zirconium.—In 2019, it was reported that the World Bank, through the International Finance Corporation (IFC), had announced a \$60 million investment in Sierra Rutile Ltd. (Sierra Rutile), which was Sierra Leone's sole producer of mineral sands. The IFC announced that it would enter into a 3-year advisory services agreement with Sierra Rutile

to help Sierra Rutile increase the company's positive effect on local communities. The agreement was intended to help the company implement a new community investment and engagement strategy, improve the transparency and use of community-managed mining revenues, and develop social and economic empowerment programs for women and youth. Sierra Rutile was wholly owned by Iluka Resources Ltd. of Australia (Financial Times, 2019; International Finance Corporation, 2019; Iluka Resources Ltd., 2020, p. 26).

Industrial Minerals

Diamond.—BSG Resources Ltd. (BSGR) mined diamond from primary (kimberlite pipe) deposits in the Tankoro Chiefdom of Kono District, which is located in Eastern Province about 360 kilometers (km) east of the capital city of Freetown. The project, known as the Koidu Kimberlite Project (KKP), consisted of two kimberlite pipes, four kimberlite dike zones, and four small blows (small pipe-like primary diamond deposits that form along kimberlitic dike systems), which the company mined through its subsidiary OCTÉA Diamond Group. The company also held the exploration rights for an area that hosts several kimberlite dike zones known as the Tonguma diamond project. The project is located about 68 km south of Koidu in the Lower Bambara Chiefdom, Kenema District. In 2019, the Kimberley Process Certification Scheme reported Sierra Leone's total rough diamond production to be 811,604 carats, which is up from the 741,586 carats produced in 2018 (table 1; Koidu Holdings Ltd., 2017; Kimberley Process, 2020).

Mineral Fuels

Petroleum.—Sierra Leone did not produce or refine petroleum and was dependent upon imports to meet its domestic petroleum requirements. In 2018, the oil and gas exploration company African Petroleum Corp. relinquished its two licenses (SL-03-17 and SL-4A-17) in Sierra Leone, reportedly because it had decided not to commit to an ultra-deepwater drilling program. This decision was taken after a period of discussion with the petroleum directorate of Sierra Leone, during which the Government and the company failed to agree on suitable terms for the extension to the licenses (Oil Review Africa, 2018).

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TABLE 1
SIERRA LEONE: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons, gross weight, unless otherwise specified)

Commodity ²		2015	2016	2017	2018	2019
METALS						
Bauxite	thousand metric tons	1,334	1,369	1,788	1,938 ^r	1,884
Gold, mine, Au content ^c	kilograms	107	188	140	446	120
Iron ore, mine:						
Gross weight	thousand metric tons	18,000	4,108	6,985	923	171
Fe content	do.	10,400	2,380	4,050	535	97
Titanium, mineral concentrates:						
Ilmenite and leucosene		37,633	50,000	58,000	54,500	59,200
Rutile		126,022	143,000	168,000	121,500	137,200
Zirconium, zircon concentrate		1,326	1,500 ^e	3,000	11,400	9,000 ^e
INDUSTRIAL MINERALS						
Cement, hydraulic		324,110	320,000 ^e	324,000 ^e	325,000 ^e	350,000 ^e
Diamond, gem and industrial	carats	500,000	549,086	289,141	741,586	811,604

^eEstimated. ^rRevised. do. Ditto.

¹Table includes data available through February 1, 2021. All data are reported unless otherwise noted. Estimated data are rounded to no more than three significant digits.

²In addition to the commodities listed, lignite may have been produced, but available information was inadequate to make reliable estimates of output.

TABLE 2
SIERRA LEONE: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Bauxite	Sierra Mineral Holdings I Ltd. (Vimetco N.V., 100%)	Sierra Minerals Mine, 150 kilometers southeast of Freetown	2,000
Cement	Sierra Leone Cement Corp. Ltd. (HeidelbergCement AG, 100%)	Leocem cement plant, Freetown	600
Diamond	thousand carats OCTÉA Diamond Group (BSG Resources Ltd., 100%)	Koidu kimberlite project, 2 kilometers from the district capital of Koidu	540
Gold	kilograms Artisanal miners	Various locations throughout the country	NA
Iron ore	Tonkolili Iron Ore (SL) Ltd. (Shandong Iron and Steel Group 100%)	Tonkolili Mine, ¹ 190 kilometers northeast of Freetown	20,000
Do.	Timis Corp. (Gerald Group 100%)	Marampa Mine, 150 kilometers northeast of Freetown	5,400
Titanium, mineral concentrates, ilmenite	Sierra Rutile Ltd. (Iluka Resources Ltd., 100%)	Lanti Dry and Gangama Mines., Moyamba and Bonthe Districts	60
Titanium, mineral concentrates, rutile	do.	do.	200
Zirconium, zircon concentrate	do.	do.	10

Do., do. Ditto. NA Not available.

¹On care-and-maintenance status.