



2017–2018 Minerals Yearbook

GUINEA [ADVANCE RELEASE]

THE MINERAL INDUSTRY OF GUINEA

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Note: In this chapter, information for 2017 is followed by information for 2018.

Guinea's real gross domestic product (GDP) was projected to increase by 6.7% in 2017 compared with an increase of 6.6% in 2016, and the rate of inflation was about 7.8%; the nominal GDP was nearly \$9.2 billion. The country produced bauxite, cement, diamond, and gold, and it had significant undeveloped iron ore resources. In 2017, Guinea was the world's third-ranked producer of bauxite, accounting for 15% of the world's output, and the 15th-ranked producer of gem diamond (table 1; International Monetary Fund, 2017a; 2017b, p. 26; Ministry of Mines and Geology, 2017, p. 10; Bray, 2018, 2019; Olson, 2018).

Guinea held the world's largest bauxite reserves, which were estimated to be 7.4 billion metric tons (Gt). The country's proven iron ore reserves were estimated to be 20 Gt and to have an estimated average iron content of at least 60% (Ministry of Mines and Geology, 2017).

Minerals in the National Economy

The mining sector in Guinea had been a key driver of Guinea's economic growth; however, it had a limited effect on job creation, as mining accounted for only 3% of the employed population. In comparison, the agricultural sector accounted for 70% of the employed population in the country. The portion of the GDP generated by mining in 2017 was projected to increase by 13.7% compared with that of 2016. Exports of mining products were valued at \$2.6 billion in 2017 compared with \$1.9 billion in 2016, which was an increase of about 37% (International Monetary Fund, 2017b, p. 15, 26–27).

Government Policies and Programs

The Ministère des Mines et de la Géologie [Ministry of Mines and Geology] was the Government agency in charge of overseeing the implementation of Guinea's mining code, and Société Guinéenne du Patromoine Minier (Soguijami) [Guinean Mining Heritage Society] was the entity in charge of acting on behalf of the Government in all mining ventures and of promoting Guinea's mineral sector abroad. The legislative framework for Guinea's mineral sector is provided by law L/2013/053/CNT of April 2013. Guinea's amended mining code committed the country to increase transparency in the mining sector, reduce taxes and royalties, and hire Guinean residents (Library of Congress, 2013; U.S. Department of State, 2016, p. 26).

Production

Diamond production, gem and industrial, increased by about 61% each. Bauxite (dry basis) production increased by 46.5%, and gold production increased by 18.2%, whereas cement production was estimated to have remained at about the same level as in 2016. Data on mineral production are in table 1.

Structure of the Mineral Industry

Guinea's mining and mineral-processing operations were privately owned but had a significant share of Government ownership as well. Artisanal miners mined diamond and gold at various locations throughout the country. Table 2 is a list of major mineral industry facilities.

Commodity Review

Metals

Bauxite and Alumina.—The SMB-Winning consortium (SMB-Winning)—a consortium composed of the SMB, Wei Qiao Group of China, Winning International Group of Singapore, United Mining Supply Guinée SARL, and the Government of Guinea—which was a 10% shareholder in the consortium—announced in November that it was planning the construction of an alumina refinery to be completed in 2018. Along with this construction project, the company stated that it was also planning to construct a railway that would run the length of the Boke corridor. SWB-Winning was a leading trading company and exporter of bauxite in Guinea, and the president of SWB-Winning stated that, by November, the consortium had already exported 30 million metric tons (Mt) of bauxite, which, he said, made Guinea the leading bauxite exporter in the world. The bauxite was exported to China (SMB-Winning, 2017).

Guinea accounted for 25% of the world's total bauxite reserves. The Compagnie des Bauxites de Guinée (CBG) owned the Sangaredi Mine, which was the largest bauxite mine in the country. CBG was a joint venture of Halco Mining Inc. (Alcoa Inc. of the United States, 45%; Rio Tinto plc of the United Kingdom, 45%; and Dadco Group of Germany, 10%), which owned a 51% share, and the Government of Guinea, which owned a 49% share. In 2017, Sangaredi's total bauxite reserves were estimated to be 332 Mt of ore grading 48.8% Al_2O_3 , including 170 Mt of proved reserves grading 48.4% Al_2O_3 and 162 Mt of probable reserves grading 49.3% Al_2O_3 . The mine produced 15.4 Mt of bauxite in 2017 compared with 16 Mt in 2016, which was a 4% decrease (table 2; Rio Tinto plc, 2018, p. 225, 228; Bray, 2019).

United Company RUSAL of Russia continued to delay production at the Dian-Dian bauxite project during 2017. The company had announced in March 2016 that it would delay the Dian-Dian bauxite project until 2017 owing to low aluminum prices. As of the end of 2017, the project continued to be idle. RUSAL had launched the first stage of the project in 2014, which included the construction of a 3-million-metric-ton-per-year-(Mt/yr) bauxite mine that was to be completed in 2018. The second phase of the project would include the ramp-up of

bauxite production to 6 Mt/yr by 2021. RUSAL stated that, by the end of 2020, it would discuss with the parties involved the possibility of constructing a 1.2-Mt/yr alumina refinery. RUSAL also stated that it was to resume operations at the suspended Friguia alumina complex, although a specific date was not announced. Mineral resources at Dian-Dian were estimated to be 564 Mt (Thomson Reuters, 2016; United Company RUSAL, 2017, p. 21–24, 50–54, 100, 178; 2018, p. 31).

In 2016, Anglo-African Minerals plc (Anglo-African) of the United Kingdom entered into a joint venture with China New Era Group Corp. and China Geo-Engineering Corp. to codevelop its FAR project, which Anglo-African was developing through its wholly owned subsidiary Forward Africa Resources (FAR). The project is located in the Dubreka and Kindia Prefectures. Anglo-African also was developing two other projects, the Somalu and the Toubal projects, which are located near Mamou and Tougue, respectively. As of November 2015 (the latest date for which data were available), the Joint Ore Reserves Committee (JORC)-compliant mineral resources of the FAR project were estimated to be 73 Mt of bauxite, including 26 Mt of measured resources, 11 Mt of indicated resources, and 36 Mt of inferred resources. The inferred JORC-compliant resources for the Somalu project were estimated to be 459 Mt of bauxite grading 43% Al_2O_3 . The inferred JORC-compliant resources for the Toubal project were estimated to be 722 Mt of bauxite grading 43% Al_2O_3 (Anglo-African Minerals plc, 2016).

Gold.—In 2017, gold production at the Lefa Mine, which was operated by Netherlands-based Nord Gold N.V. (Nordgold), increased by 7.2% to 6,494 kilograms (kg) from 6,056 kg in 2016. The increase was due in part to an increase in the grade of the ore mined, and also an increase in the amount of ore milled. In 2016, Nordgold finalized a preliminary design for a new tailings storage facility, and it applied for the relevant permits in the first part of 2017. The company had also reported that the mine's exploration program was expanded to include regional oxide deposits located up to 45 kilometers (km) away from the mine (Nord Gold N.V., 2018, p. 10, 26, 30, 32).

In 2017, AngloGold Ashanti Ltd. of South Africa announced that it was investing \$115 million over 2 years to construct a hard-rock processing plant at the Siguri Mine to make it possible to develop the significant sulfide-ore potential that exists on the current company-owned mining concession. The company also reported that it was building a new powerplant at a cost of \$43 million to produce electricity for the new facility. Production at the Siguri Mine increased to about 10,078 kg from 8,055 kg in 2016 as a result of the increase in the amount of ore processed. As of December 2015 (the latest date for which these data were available), the total inclusive mineral resources, including measured, indicated, and inferred, were estimated to be 191.8 Mt at a grade of 0.89 gram per metric ton (g/t) gold and containing 171 t of gold. The mineral reserves were estimated to be 99.7 Mt of ore grading 1.02 g/t gold and containing 101 t of gold (AngloGold Ashanti Ltd., 2015, p. 39, 82, 90–91; 2018, p. 91–99).

Iron Ore.—In 2016, Rio Tinto agreed to sell its stake in the Simandou iron ore project to Aluminum Corporation of China Ltd. (Chinalco). This was a nonbinding agreement that set the principal terms of sale with the objective of having

a binding agreement signed within 6 months. By the end of 2017, however, no agreement had been signed, and it seemed likely that Rio Tinto would retain its stake in the project if the agreement was not renegotiated in 2018; in the meantime, Simandou remained undeveloped (Rio Tinto plc, 2016).

In 2014, joint-venture partners Rio Tinto (47%), Chinalco (41%), and the International Finance Corporation (IFC) (4.5%) signed an investment framework contract with the Government of Guinea (7.5%) for the development of the Simandou South (Blocks 3 and 4) iron ore project. The contract was approved for ratification by the Guinean National Assembly in June 2014 and approved by the Executive branch and Supreme Court in August 2014. The first stage in the development of the project included the completion of a bankable feasibility study and the establishment of a funding consortium to build associated infrastructure. The bankable feasibility study was expected to be submitted to the Government of Guinea in 2015; however, it was delayed owing to the Ebola virus disease outbreak. The joint-venture partners were working to finalize the bankable feasibility study for the mine and infrastructure in 2015, and the final copy of the study was submitted to the Government in May 2016 (Rio Tinto plc, 2015a, p. 1; 2015b, p. 14; 2016).

The Simandou South project is located 550 km southeast of Conakry, and the concession was held by Simfer S.A. (a subsidiary of Rio Tinto). The project was considered to host one of the world's largest undeveloped high-grade iron ore deposits and was expected to produce about 100 Mt/yr of iron ore upon commissioning. As of 2015, total resources, including measured, indicated, and inferred, were estimated to be 835 Mt grading 65% iron. The project was expected to generate about \$1.5 billion per year in Government revenue, to create about 4,500 direct jobs, and to employ 3,500 contractors. These estimated Government proceeds were based on long-term market forecasts for the production of 100 Mt/yr of iron ore at an average price of \$75 per metric ton (free on board) (Rio Tinto plc, 2015a, p. 1; 2015b, p. 14; 2016).

Consolidated Growth Holdings Ltd. of the United Kingdom (CGH) was the principal owner of the Nimba iron ore project. The Nimba project's total JORC-compliant resources were estimated to be 205.2 Mt grading 57.8% iron at a cutoff of 40%. The Nimba project is located in southeastern Guinea near the border with Liberia and Côte d'Ivoire and consisted of a near-surface hematite banded iron formation deposit. At the end of 2017, the project continued to be in the preliminary feasibility stage (Consolidated Growth Holdings Ltd., 2019).

Industrial Minerals

Diamond.—Guinea produced an estimated 181,000 carats of diamond (industrial and gem) in 2017, which was an increase of about 61%. The increase was owing mostly to fluctuations in diamond prices internationally and increased demand for diamond in international markets (Kimberley Process, 2018; Olson, 2019).

MINERAL INDUSTRY HIGHLIGHTS 2018

In 2018, Guinea's real GDP increased by 6.2% compared with a 6.7% increase in the previous year. The country produced bauxite, cement, diamond, and gold, and it had significant undeveloped iron ore resources (International Monetary Fund, 2017a).

In June 2018, RUSAL announced the reopening of the Friguia alumina refinery. In 2016, RUSAL had reached an agreement with the Government of Guinea to reopen the refinery; this agreement stated that the facility would produce between 550,000 and 600,000 metric tons per year (t/yr) of alumina within one year of the reopening of the refinery. The Friguia refinery had a nameplate capacity of 650,000 t/yr and had been idle since 2012 owing to market conditions (Aluminium Insider, 2018).

In August, Alufer Mining Ltd. (Alufer) of Guernsey, Channel Islands [United Kingdom] shipped the first ore from the Bel Air bauxite mine, located near Cap Verga. Alufer had discovered the bauxite deposit in Bel Air and obtained a license to build a mine from the Government of Guinea in 2010. Alufer also reported that it had secured a long-term agreement with China State Power Investment Co. (SPIC) to provide bauxite to SPIC's alumina refineries in China. The company reported that it would ramp up production to reach a target of 5.5 Mt/yr, without indicating the expected time that this rampup would take place (Mining Review Africa, 2018).

Outlook

Guinea's GDP increased in 2018, and the International Monetary Fund forecasts growth in the country for the next few years. Bauxite production will continue to be a major engine of development in the country, and the country's supply relationship with Chinese companies is expected to continue or increase for the foreseeable future. Also, there is great potential for the development and mining of Guinea's iron ore resources in the near future.

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TABLE 1
GUINEA: PRODUCTION OF MINERAL COMMODITIES¹

(Thousand metric tons, gross weight, unless otherwise specified)

Commodity ²		2014	2015	2016	2017	2018
METALS						
Aluminum:						
Bauxite:						
Dry basis		17,258	16,300 ^e	31,500	46,160	57,000 ^e
Wet basis		19,175	18,114	34,700 ^{r,e}	50,800 ^e	62,700 ^e
Alumina		--	--	--	--	182
Gold, mine, Au content	kilograms	11,987 ^r	16,071 ^r	15,561 ^r	18,388	18,000 ^e
INDUSTRIAL MINERALS						
Cement, hydraulic		435	500 ^e	500 ^e	500 ^e	520 ^e
Diamond, natural: ^e						
Gem	carats	131,000 ^r	134,000 ^r	90,200 ^r	145,000	234,000
Industrial	do.	32,800	33,400	22,600	36,300	58,500

^eEstimated. ^rRevised. do. Ditto. -- Zero.

¹Table includes data available through January 13, 2020. All data are reported unless otherwise noted. Estimated data are rounded to no more than three significant digits.

²In addition to the commodities listed, clay, gravel, iron ore, salt, sand, and stone may have been produced, but available information was inadequate to make reliable estimates of output.

TABLE 2
GUINEA: STRUCTURE OF THE MINERAL INDUSTRY IN 2018

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Alumina		Friguia S.A. (United Company RUSAL, 100%)	Friguia alumina refinery, Fria	650,000
Bauxite		Alufer Mining Ltd., 100%	Bel Air bauxite mine, near the Cap Verga	NA
Do.		Compagnie des Bauxites de Guinée (CBG) [Halco Mining Inc. (Alcoa Inc., 45%; Rio Tinto plc, 45%; Dadco Group, 10%), 51%, and Government, 49%]	Sangaredi Mine, Kamsar	50,000,000
Do.		Compagnie des Bauxites de Kindia S.A. (CBK) (United Company RUSAL, 100%)	Debele Mine, Kindia	10,000,000
Do.		Friguia Bauxite and Alumina Complex (United Company RUSAL, 100%)	Friguia Mine, Fria	2,100,000
Do.		Hongqiao Group Ltd., 100%	Boke Mine, Boke	10,000,000
Cement		Ciments de Guinée S.A. (LafargeHolcim Ltd., 59.9%, and Government, 40.1%)	Conakry grinding plant, 35 kilometers from Conakry Port	300,000
Do.		Ciments d'Afrique (CIMAF)	Dubreka industrial zone, 40 kilometers from Conakry	500,000
Diamond	carats	Association pour la Recherche et l'Exploitation du Diamant et de l'Or (Batax Bouna International Mining Corp.)	Aredor Mine	38,000
Do.	do.	Artisanal miners	Mainly in Banankoro	NA
Gold	kilograms	Société AngloGold Ashanti de Guinée SA (AngloGold Ashanti Ltd., 85%, and Government, 15%)	Siguiiri Mine, 850 kilometers northeast of Conakry	10,600
Do.	do.	Société Minière de Dinguiraye (Nord Gold N.V., 85%, and Government, 15%)	Lefa (Lero-Karta) Mine, 700 kilometers northeast of Conakry	6,400
Do.	do.	Artisanal miners	Various locations throughout the country, including the town of Kouremale near the border with Mali	NA

Do., do. Ditto. NA Not available.