



2019 Minerals Yearbook

GUINEA [ADVANCE RELEASE]

THE MINERAL INDUSTRY OF GUINEA

By Alberto Alexander Perez

In 2019, Guinea's real gross domestic product (GDP) increased by 5.6% compared with an increase of 6.2% (revised) in 2018. The country's rate of inflation was about 9.5% compared with 9.8% in 2018 (revised), and the GDP at current prices was nearly \$13.8 billion compared with about \$12.2 billion in 2018 (revised). Guinea has a variety of mineral resources (including significant undeveloped iron ore resources). In 2019, the country produced alumina, bauxite, cement, diamond, and gold. Guinea's bauxite reserves, which were thought to be the world's largest, were estimated to be 7.4 billion metric tons (Gt). Its proven iron ore reserves were estimated by the Government to be 20 Gt and to have an estimated average iron content of more than 60%. In 2019, Guinea was the world's third-ranked producer of bauxite, accounting for 19% of world output; the country also was a significant producer of diamond, by carat. Guinea did not produce or refine petroleum and was dependent upon imports to meet its domestic requirements for petroleum; however, reports dating from 2017 indicate that petroleum exploration was taking place offshore Guinea (table 1; Ministry of Mines and Geology, 2017, p. 10; International Monetary Fund, 2020; Bray, 2021; Olson, 2021).

Minerals in the National Economy

The mining sector in Guinea accounted for about 9.7% of Government revenue in 2018 (the latest year for which data were available), or about 16% of real GDP. In 2018 Guinea exported about 62.2 million metric tons (Mt) of bauxite, 260,000 carats of diamond (gem and industrial), 26.5 metric tons (t) of gold, and about 169,000 t of alumina (Institute of National Statistics, 2020, p. 287).

In 2019, unrest and strikes slowed production of bauxite in the Boke region, affecting the Sangaredi and Boke Mines, which were operated by Compagnie des Bauxites de Guinée (CBG) and the Hongqiao Group Ltd., respectively. By October 19, it had been reported that operations at both mines had gone back to normal production and that yearly production would not be affected by the disturbances (Aluminum Insider, 2019).

In 2018 (the latest year for which data were available), Guinea's exports of goods and services decreased by 12% compared with that of the previous year, and its imports of goods and services also decreased by 1%. In 2017 (the latest year for which data were available), the country's main export partners were, in terms of the value of exports, China (which received 70% of Guinea's total mineral exports), Belgium (7%), the United Arab Emirates (3%), France (2%), and Spain (2%) (International Monetary Fund, 2016; Institute of National Statistics, 2019, p. 36–37).

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 the Société Guinéenne du Patrimoine Minier (Soguipami) [Guinean Mining Heritage Society] was the company 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 nationals (Law Library of Congress, The, 2013).

Production

In 2019, bauxite (dry and wet basis) production increased by 17.5%; the increase was most likely due to the continuing efforts to normalize production after the effects of the Ebola virus disease outbreak in the country affected production in previous years. Gold production decreased by about 7.6%, whereas gem diamond production decreased by 21.8% and industrial diamond production decreased by 21.7%. These decreases were likely due to the fluctuation in world demand. Cement production was estimated to have increased by about 8.7% owing to the increase in construction activity in the country in the same year. Data on mineral production are in table 1.

Structure of the Mineral Industry

Guinea's mining and mineral-processing operations were either privately owned companies or partnerships of private companies with Government participation, with the Government's participating interest ranging from 15% to 49% for about one-half of all operations. 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.—In 2019, Guinea accounted for 25% of the world's total bauxite reserves. The Compagnie des Bauxites de Guinée (CBG)—which was owned by the Government of Guinea (49%), and Halco Mining Inc. [a joint venture of Rio Tinto plc of the United Kingdom (Rio Tinto) (23%), Alcoa Inc. of the United States (23%), and Dadco Group of Germany (5%)]—owned the Sangaredi Mine, which was the largest bauxite mine in the country (table 2; Aluminum Insider, 2019).

In 2019, Rio Tinto declared that production from the Sangaredi Mine had been constrained owing to a slower than anticipated planned rampup of operations at the mine following the completion of the estimated \$700 million expansion project. As of 2019, total bauxite reserves at the Sangaredi Mine were estimated to be 428 Mt grading 47.1% Al₂O₃, including 341 Mt

of proved reserves grading 47% Al₂O₃ and 87 Mt of probable reserves grading 47.1% Al₂O₃. The mine produced 13.7 Mt of bauxite in 2019 compared with 13 Mt in 2018 (table 2; Rio Tinto plc, 2020, p. 47, 270, 273; Bray, 2021).

In 2019, United Company RUSAL plc (RUSAL) of Russia continued its gradual restart of operations at the previously suspended Friguia alumina complex. This gradual restart begun in June 2018 and was needed because the complex had been in long-term conservation since 2012. As part of this restart of operations, in 2019, the Boiler No. 4 overhaul at the plant was completed and the setup of a second digester was launched. During the second half of 2019, alumina production was increased steadily, and by the end of the year, the company had reached the previously planned capacity utilization level (United Company RUSAL plc, 2020, p. 5, 24).

In 2017, owing to weak aluminum prices, RUSAL temporarily suspended the development of the Dian-Dian project, but then restarted it at the end of the year. RUSAL had launched the first stage of the project in 2014, which included the construction of 3-million-metric-ton-per-year (Mt/yr) bauxite mine that was completed in 2018. In 2019, RUSAL announced that the Dian-Dian bauxite mine had reached its 3-Mt/yr capacity from the 0.85 Mt/yr produced in 2018. The second phase of the project was launched during the year, and all sections of the assembly line, dryer, indoor dry bauxite warehouse, fuel handling facilities, and railway depot were constructed. The second phase of the project would include the ramping 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 (United Company RUSAL plc, 2017, p. 21–24, 50–54; 2020, 24–25, 52).

In 2016 (the latest year for which information was available), Anglo-African Minerals plc of the Republic of Ireland (Anglo-African) entered into a joint venture with China New Era Group Corp. and China Geo-Engineering Corp. to codevelop the 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 project and the Toubal project—which are located near Mamou and Tougue, respectively. As of November 2015 (the latest month 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 JORC-compliant inferred mineral resources of the Somalu project were estimated to be 459 Mt of bauxite at a grade of 43% Al₂O₃. The JORC-compliant inferred resources of the Toubal project were estimated to be 722 Mt of bauxite at a grade of 43% Al₂O₃ (Anglo-African Minerals plc, 2016).

Gold.—In March 2019, Nord Gold N.V. (Nordgold) of the Netherlands, which owned the Lefa Mine, announced that the new mining permit for the mine took effect on the 21st of that month. According to Nordgold, the new permit and the convention that was negotiated with it would be active for 15 years, in line with the projected life of the Lefa Mine. In 2019, the Lefa Mine produced 5,903 kilograms (kg) of gold,

which was an increase from the 5,841 kg produced in 2018. As of December 2016 (the latest month for which data were available), the Lefa-corridor stockpiles' measured and indicated resources were estimated to be 4.56 Mt at a grade of 0.60 gram per metric ton (g/t) gold, and the Lefa-corridor heap-leach resources were estimated to be 9.42 Mt at a grade of 0.52 g/t gold. The Lefa Mine was located about 700 kilometers (km) northeast of Conakry (Nord Gold N.V., 2017, 98–99, 102, 104; 2020, p. 8, 28–29).

Iron Ore.—The Simandou iron ore deposit is divided into four blocks; Blocks 1 and 2 are referred to as Simandou North and Blocks 3 and 4 are referred to as Simandou South by the Government. The Simandou South project, which is located 550 km southeast of Conakry, 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 2019, legal and international commodity price challenges had kept the development of the project idle, and the Government stated that it would revoke the previous license for the project and offer it again to attract better investment in the project if the current holders—Rio Tinto Group of Australia and Aluminum Corporation of China Ltd. (Chinalco)—did not show progress in the development of the project. In 2015 (the latest year for which data were available), total measured, indicated, and inferred resources were estimated to be 835 Mt at a grade of 65% iron (Rio Tinto plc, 2016a, p. 225; 2016b; 2016c, p. 14).

In November 2019, a China-backed joint venture secured the rights to develop Blocks 1 and 2 of the Simandou iron ore deposit, also known as Simandou North. The Government of Guinea granted the consortium of Société Minière de Boké and Winning Shipping (SMB-Winning)—which was owned by Chinese aluminum producer Shandong Weiqiao, Singapore's Winning Shipping Ltd., and United Mining Supply (UMS) S.A.—the right to develop the deposit. As part of its bid, SMB-Winning planned to build a 650-km railway and a deepwater port on the coast of Guinea to transport the ore (Financial Times, The, 2019).

Industrial Minerals

Diamond.—In 2019, Guinea produced 228,800 carats of diamond (industrial and gem), including artisanal production; this was a decrease of about 21.7% from the amount produced in 2018, and the decrease was mostly owing to the fluctuation in international prices. The export value of diamond in 2019 amounted to \$19.7 million (table 1; Kimberley Process Rough Diamond Statistics, 2020.).

Outlook

Guinea's GDP increased in 2019, although at a slower pace than in 2018. Bauxite production is likely to be the major commodity that drives the engine of development in the country. Guinea's trade with Chinese companies is expected to continue to increase for the foreseeable future, as China has developed an interest in Guinea's mineral industry, in particular, its iron ore. China has invested considerably in bauxite mining in Guinea in the past and has also invested in iron ore mining in the country.

The lack of associated infrastructure to support mining operations at Simandou South have been a deterrent to foreign direct investment in the project, however. Capital expenditures for the construction of associated infrastructure to develop not only the Simandou South project but other bauxite and iron ore mineral projects represent a significant proportion of the cost that companies must expend to access these mineral resources and get them to international markets. These costs will continue to exert financial pressure on mining companies and potential investors and have the potential to delay the commissioning of mineral projects.

References Cited

- Aluminum Insider, 2019, Bauxite operations back to normal in Guinea after deadly political protests: Aluminum Insider, October. (Accessed February 4, 2021, at <https://aluminuminsider.com/bauxite-operations-back-to-normal-in-guinea-after-deadly-political-protests/>.)
- Anglo-African Minerals plc, 2016, Shareholder information memorandum: London, United Kingdom, Anglo-African Minerals plc, 3 p. (Accessed February 17, 2021, at <https://www.angloafricanmineralsplc.com/app/download/27123724/Shareholder+IM+September+2016+v3.2.pdf>.)
- Bray, E.L., 2021, Bauxite and alumina: U.S. Geological Survey Mineral Commodity Summaries 2021, p. 30–31.
- Financial Times, The, 2019, China backed JV wins rights to prized Simandou iron ore project: London, United Kingdom, The Financial Times, November 13. (Accessed February 12, 2021, at <https://www.ft.com/content/3f5b5280-0619-11ea-a984-fbbacad9e7dd>.)
- Institute of National Statistics, 2019, Annuaire du commerce extérieur 2017 [Foreign trade yearbook 2017]: Institute of National Statistics, 61 p. (Accessed February 2, 2021, at https://www.stat-guinee.org/images/Documents/Publications/INS/annuelles/CE/INS_Statistiques_CommerceExterieur_2017.pdf.) [In French.]
- Institute of National Statistics, 2020, Annuaire statistique 2019 [Statistical yearbook 2019]: Institute of National Statistics, June, 417 p. (Accessed February 6, 2021, at https://www.stat-guinee.org/images/Documents/Publications/INS/annuelles/annuaire/Annuaire_INS_2019_opt.pdf.) [In French.]
- International Monetary Fund, 2016, World economic outlook database: Washington, DC, International Monetary Fund, October. (Accessed February 4, 2021, at [International Monetary Fund, 2020, Guinea: Washington, DC, International Monetary Fund, October. \(Accessed February 2, 2021, at <https://www.imf.org/en/Countries/GIN#countrydata>.\)

Kimberley Process Rough Diamond Statistics, 2020, Annual global summary—2019 production, imports, exports and KPC counts: Kimberley Process Rough Diamond Statistics, 1 p. \(Accessed February 10, 2021, at \[https://kimberleyprocessstatistics.org/static/pdfs/public_statistics/2019/2019GlobalSummary.pdf\]\(https://kimberleyprocessstatistics.org/static/pdfs/public_statistics/2019/2019GlobalSummary.pdf\).\)

Law Library of Congress, The, 2013, Guinea, mining code amended: Washington, DC, The Law Library of Congress, July 31. \(Accessed February 3, 2021, at <http://www.loc.gov/law/foreign-news/article/guinea-mining-code-amended/>.\)

Ministry of Mines and Geology, 2017, Mineral potential and mining investment opportunity in Guinea: Ministry of Mines and Geology, 29 p. \(Accessed February 28, 2019, at <http://www.cgs.gov.cn/ddzt/kydh/2017kydh/kjcx/201709/P020170921518054322159.pdf>.\)

Nord Gold N.V., 2017, 2016 integrated report: Amsterdam, Netherlands, Nord Gold N.V., 329 p. \(Accessed February 9, 2021, at \[http://www.nordgold.com/upload/iblock/3ce/NG_2016_Integrated_Report_1.pdf\]\(http://www.nordgold.com/upload/iblock/3ce/NG_2016_Integrated_Report_1.pdf\).\)

Nord Gold N.V., 2020, 2019 integrated report: Amsterdam, Netherlands, Nord Gold N.V., 154 p. \(Accessed February 10, 2021, at <https://www.nordgold.com/upload/iblock/874/NG-2019-13-03-final.pdf>.\)

Olson, D.W., 2021, Gemstones: U.S. Geological Survey Mineral Commodity Summaries 2021, p. 66–67.

Rio Tinto plc, 2016a, Local content policy for the Simandou integrated mining and infrastructure project: London, United Kingdom, Rio Tinto plc, 50 p. \(Accessed February 18, 2021, at \[http://www.riotinto.com/documents/151124_Simandou%20Local%20Content%20Policy_EN.pdf\]\(http://www.riotinto.com/documents/151124_Simandou%20Local%20Content%20Policy_EN.pdf\).\)

Rio Tinto plc, 2016b, Rio Tinto agrees Heads of Agreement to sell its stake in the Simandou project to Chinalco: London, United Kingdom, Rio Tinto plc press release, October 28, 1 p. \(Accessed February 18, 2021, at \[http://www.riotinto.com/media/media-releases-237_19886.aspx\]\(http://www.riotinto.com/media/media-releases-237_19886.aspx\).\)

Rio Tinto plc, 2016c, Simandou south supports increased Guinean participation through its local content policy: London, United Kingdom, Rio Tinto plc press release, 3 p. \(Accessed February 18, 2021, at \[http://www.riotinto.com/documents/MediaReleases-simandou/151130_Simandou%20supports%20increased%20Guinean%20participation_EN.pdf\]\(http://www.riotinto.com/documents/MediaReleases-simandou/151130_Simandou%20supports%20increased%20Guinean%20participation_EN.pdf\).\)

Rio Tinto plc, 2020, 2019 annual report: London, United Kingdom, Rio Tinto plc, 306 p. \(Accessed February 4, 2021, at <https://www.riotinto.com/-/media/Content/Documents/Invest/Reports/Annual-reports/RT-Annual-report-2019.pdf>.\)

United Company RUSAL plc, 2017, Annual report 2016—Creating value: Moscow, Russia, United Company RUSAL plc, 337 p. \(Accessed February 7, 2021, at <https://rusal.ru/upload/iblock/812/812b47718b66bef2f2f7092c81aa412d.pdf>.\)

United Company RUSAL plc, 2020, Annual report 2019—Crafting a green future: Moscow, Russia, United Company RUSAL plc, 260 p. \(Accessed February 10, 2021, at <https://rusal.ru/upload/iblock/2cd/2cbbd8fdb8313c274774d51794fe9d7.pdf>.\)](https://www.imf.org/external/pubs/ft/weo/2016/02/weodata/weorept.aspx?sy=2014&ey=2021&scsm=1&ssd=1&sort=country&ds=.&br=1&pr1.x=61&pr1.y=11&c=656&s=NGDP_RPCH%2CNGDPD%2CNGDPDPC%2CNID_NGDP%2CNGSD_NGDP%2CPCPI%2CPCPIPCH%2CTM_RPCH%2CTMG_RPCH%2CTX_RPCH%2CTXG_RPCH%2CLP%2CGGR_NGDP%2CGGX_NGDP%2CGGXWDG_NGDP&grp=0&a=.)

TABLE 1
GUINEA: PRODUCTION OF MINERAL COMMODITIES¹

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

| Commodity ² | | 2015 | 2016 | 2017 | 2018 | 2019 |
|-------------------------------------|-----------|---------------------|---------------------|---------------------|----------------------|---------------------|
| METALS | | | | | | |
| Aluminum: | | | | | | |
| Bauxite: | | | | | | |
| Wet basis | | 18,114 | 34,700 ^e | 50,800 ^e | 62,700 ^e | 73,700 ^e |
| Dry basis | | 16,300 ^e | 31,500 | 46,160 | 57,000 ^e | 67,000 ^e |
| Alumina | | -- | -- | -- | 182 | 368 |
| Gold, mine, Au content ³ | kilograms | 16,071 | 15,561 | 18,388 | 14,779 ^r | 13,663 |
| INDUSTRIAL MINERALS | | | | | | |
| Cement, hydraulic | | 900 ^r | 1,160 ^r | 1,280 ^r | 1,380 ^{r,e} | 1,500 ^e |
| Diamond, natural: ^e | | | | | | |
| Gem | carats | 134,000 | 90,200 | 145,000 | 234,000 | 183,000 |
| Industrial | do. | 33,400 | 22,600 | 36,300 | 58,500 | 45,800 |

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

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

³The numbers do not reflect artisanal mining. Guinea produced artisanal gold, but available information was inadequate to make reliable estimates of output.

TABLE 2
GUINEA: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(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 plc, 100%) | Friguia alumina refinery, Fria | 650,000 |
| Bauxite | | Alufer Mining Ltd., 100% | Bel Air bauxite mine, near the Cap Verga peninsula | NA |
| Do. | | Compagnie des Bauxites de Guinée (CBG) [Halco Mining Inc. (Alcoa Inc., 45%; Rio Tinto plc, 45%; Dadco Group, 10%), 51%, and the Government, 49%] | Sangaredi Mine, Kamsar | 50,000,000 |
| Do. | | Compagnie des Bauxites de Dian-Dian S.A. (Cobad) (United Company RUSAL plc, 100%) | Dian-Dian Mine, 250 kilometers north of Conakry | 3,000,000 |
| Do. | | Compagnie des Bauxites de Kindia S.A. (CBK) (United Company RUSAL plc, 100%) | Debele Mine, 20 kilometers southwest of Kindia and 100 kilometers northeast of Conakry | 10,000,000 |
| Do. | | Friguia Bauxite and Alumina Complex (United Company RUSAL plc, 100%) | Friguia Mine, Fria Prefecture, Boke Region | 2,100,000 |
| Do. | | Hongqiao Group Ltd., 100% | Boke Mine, Boke, 168 kilometers north of Conakry | 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, 27 kilometers west of Kerouane | 38,000 |
| Do. | do. | Artisanal miners | Alluvial deposits, mainly in Banankoro-Sefadou | NA |
| Gold | kilograms | Société AngloGold Ashanti de Guinée SA (AngloGold Ashanti Ltd., 85%, and Government, 15%) | Siguirri Mine, 850 kilometers northeast of Conakry | 10,600 |
| Do. | do. | Société Minière de Dinguiraye (Nord Gold S.E., 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 on the border with Mali | NA |

Do., do. Ditto. NA Not available.