

2009 Minerals Yearbook

LIBERIA

THE MINERAL INDUSTRY OF LIBERIA

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Before 1990, Liberia's mineral sector had contributed more than 65% of the country's export earnings and represented about 25% of the country's gross domestic product (GDP), but political discord and economic collapse, which culminated in civil war, brought all mining activities in the country to a standstill. Before the civil war, the Liberian economy had relied heavily on exports of iron ore, which ranged between 12 million metric tons per year (Mt/yr) and 24 Mt/yr during the period from 1964 to 1989. During the civil war, however, all major mines were closed and contributions to the economy were reduced to negligible levels. Iron ore production, in particular, which had been on a decreasing trend since 1987, ceased in 1993 mostly as a result of the development of hostilities. Proceeds from small-scale mining, mainly diamond, were used to a large extent to finance the war and prolong hostilities within Liberia and also contributed to the development of instability in Sierra Leone, which entered into its own period of civil war in 1991 (van Oss, H.G., 1990, 1991, 1992; U.S. Bureau of Mines, 1994; Geberie, 2004; United Nations Mission in Liberia, 2010; U.S. Department of State, 2010).

The civil war in Liberia ended in 2003, and a ban imposed by the United Nations Security Council on Liberia's diamond exports was finally lifted in 2007. In 2009, the contribution of the mining sector to the GDP was negligible (0.2%). The only mineral commodities being produced (commodities for which output figures were reported; it is not clear whether the country continued to mine crushed stone and sand) were cement, diamond, and gold. Despite the moderate resumption of mining activities, Liberia continued to make significant progress in the rehabilitation of the mining sector by opening up the sector to foreign investment and adhering to global standards for transparency (United Nations News Centre, 2007; Central Bank of Liberia, 2010, p. 29; Ministry of Lands, Mines and Energy, undated).

Liberia's undeveloped mineral resources included base metals, such as cobalt, lead, manganese, nickel, and tin, and other industrial minerals, such as dolorite, granite, ilmenite, kyanite, phosphate rock, rutile, and sulfur. The Government continued to actively seek investment in the redevelopment of the country's vast iron ore deposits. Projects to rehabilitate mining-related infrastructure were also ongoing, and foreign companies continued to engage in gold and petroleum exploration activities.

Government Policies and Programs

The Ministry of Lands, Mines, and Energy (MLME) is the Government agency responsible for the administration of the mining sector and has statutory oversight for the energy, land, mineral, and water sectors. The mineral sector is regulated by the Mining and Minerals Law of 2000. A new mineral policy was to become effective on March 1, 2010, and a process for reviewing the country's mining fiscal regime was underway. An electronic-based mining cadastre system was also to be established to enhance transparency in the awarding and monitoring of mineral rights. A principle of "first-in, first-assessed" was to form the basis for conferring mineral exploration rights for areas where the country's mineral assets are unknown, and a competitive auction system supported by the Public Procurement and Concessioning Act of 2006 was to be used to grant concessions of known mineral deposits. Environmental protection guidelines were to be jointly formulated by the National Environmental Protection Agency of Liberia and the MLME. All companies seeking a mining license would be required to submit an environmental and social impact assessment to be evaluated and approved by the Government. The impact assessment would involve early consultation with the potentially affected public and include remediation plans upon closure of the mine, as well as plans for sustaining community livelihoods thereafter (Ministry of Lands, Mines and Energy, undated).

The Government also planned to facilitate the provision of technical skills to artisanal and small-scale miners by providing access to appropriate information that would help in the development of different mining techniques in the sector, such as mercury-free gold processing. Other plans included the development of micro-loan schemes to assist these miners. A procedure for registering and licensing miners was also being considered. The Government was also to address the need to regulate the mining of industrial minerals used in the construction sector, especially uncontrolled sand mining, which has caused beach erosion throughout the coast (Ministry of Lands, Mines and Energy, undated).

Legislation passed in July 2009 established the Liberia Extractive Industries Transparency Initiative. Under the initiative, a multistakeholder group, which included Government officials, Members of Parliament, mining companies, civil society organizations, and the Workers Union, was tasked with the responsibility of overseeing all Liberia's mining contracts. The law required mining companies to report on a yearly basis all material payments due from and (or) made to all agencies and levels of the Government; the Government, in turn, was required to report all revenues collected from mining companies operating in the country (Ministry of Foreign Affairs, 2009).

Production

In 2009, cement production decreased by 24.9% to 70,584 metric tons (t) from 94,037 t produced in 2008. The decrease in production was mostly because Liberia Cement Corp. was unable to increase production owing to the lack of adequate facilities to store cement. Diamond production decreased by 39% to 36,828 carats compared with 60,536 carats produced in 2008 mostly owing to a decrease in external demand. Production of gold decreased by 16% to 524 kilograms (kg) compared with 624 kg produced in 2008 (Central Bank of Liberia, 2010, p. 31). Data on mineral production are in table 1.

Mineral Trade

Estimated export proceeds in 2009 decreased by 38.8% to \$148 million compared with \$242 million in 2008. The decrease was attributed to the slowdown in economic activities as a result of the global economic crisis, Liberia's narrow export base, and a decline in the price of primary export commodities, in particular, rubber. Export receipts from minerals also decreased during the year. Earnings from the diamond sector decreased by 26% to \$7.4 million from \$10 million in 2008 and earnings from the gold sector decreased by 27.8% to \$9.6 million from \$13.3 million in 2008. Receipts from the export of stockpiled iron ore also declined by 40% to \$900,000 from \$1.5 million in 2008 (Central Bank of Liberia, 2010, p. 34-35).

Liberia's exports to the United States were valued at about \$80 million in 2009 compared with about \$143 million in 2008 and \$115 million in 2007; \$1.4 million of these exports was from rough diamond. Imports from the United States were valued at about \$95 million in 2009 compared with \$157 million in 2008 and a revised \$76 million in 2007. These included nearly \$7 million of railway transportation equipment, \$799,000 of excavating machinery, and \$150,000 of specialized mining equipment (U.S. Census Bureau, 2010a, b).

Commodity Review

Metals

Gold.—African Aura Mining Inc. of Canada (formerly Mano River Resources Inc.; the name was changed in October 2009) held a 100% interest in the New Liberty Gold (NLG) deposit, which is located about 90 kilometers (km) north of the capital city of Monrovia. On August 10, the Government granted the company a mining license to develop the deposit, and in October, a 10,000-meter (m) drilling program was launched. Upon completion of the drilling program, the company planned to prepare an updated resource statement and to undertake a scoping study, which was to be completed in the third quarter of 2010. A feasibility study, which was conducted by Lower Quartile Solutions of Australia and MDM Engineering Pty Ltd. of South Africa in 2007, estimated total measured and indicated mineral resources at NLG to be about 13.5 Mt of ore at an average grade of 3.18 grams per metric ton gold. A revised definitive feasibility study was to be completed in 2010. The New Liberty Gold Mine was expected to produce about 3,100 kilograms per year of gold (African Aura Mining Inc., 2010, p. 8).

Iron Ore.—In 2009, Liberia did not produce iron ore but did export stockpiled material. On July 29, the joint venture of OAO Severstal Resources of Russia (61.5%) and African Aura Mining Inc. (38.5%) was granted a 25-year mining license to develop the Putu iron ore deposit. In 2007, the partners hired SRK Consulting Ltd. to complete an independent technical study of the deposit and in 2008 a 3,960-m drilling program for the geologic characterization of the deposit was completed. Putu is located in Grand Gedeh County, eastern Liberia. Inferred mineral resources were estimated to be 1.08 billion metric tons at an average grade of 37.6% iron. A prefeasibility study

was expected to be completed during 2012 and a definitive feasibility study was to be completed 18 months thereafter. Once in operation, the mine was expected to produce about 20 Mt/yr of magnetite concentrate. The project would require the construction of a 130-km railway line to the coast and a new deepwater port (African Aura Mining Inc., 2010, p. 6).

Luxembourg-based ArcelorMittal put on hold its plans to redevelop the western iron ore deposits of an abandoned mine and related infrastructure in Nimba County owing to the company's weakened financial position as a result of the global financial crisis. The company also terminated a contract to build a 267-km rail track, which was to connect the old Yekepa Mine in Nimba County with the city of Buchanan in Grand Bassa County. ArcelorMittal had planned to invest \$1.6 billion to redevelop the mine that was to produce 12.5 Mt/yr of iron ore by 2009. These plans were put on hold until 2010 or 2011. In 2009, ArcelorMittal had entered into initial discussions with BHP Billiton Ltd. to potentially combine their respective iron ore mining and infrastructure interests in Liberia (Konneh, 2009; Magnowski, 2009).

Industrial Minerals

Diamond.—Trans Hex Group Ltd. of South Africa in joint venture with Stellar Diamond Ltd. terminated its diamond exploration activities in Liberia, citing unfavorable exploration results. The joint venture had completed bulk sampling of five of the six known kimberlites on the Kpo Range diamond concession in 2008, and although the kimberlite pipes proved to be uneconomical, the company had continued with its exploration work on new kimberlite targets in 2009. As of yearend, Trans Hex announced that it was disposing of its fixed and movable assets in Liberia (Trans Hex Group Ltd., 2010, p. 13).

Mineral Fuels

Petroleum.—In August the Government opened a third petroleum licensing round for exploration acreage offshore Liberia for Blocks LB-1, LB-2, LB-3, LB-4, and LB-5. The licensing round was scheduled to close on January 31, 2010. The National Oil Company of Liberia announced that two-dimensional seismic data and shallow well logs were to be made available to all interested bidders at TGS NOPEC Geophysical Company ASA offices in Houston, Texas, and in London. Companies exploring for petroleum offshore Liberia included African Petroleum Corp. of Australia, Broadway Consolidated plc of the United Kingdom, Oranto Petroleum Ltd. of Nigeria, Repsol YPF S.A. of Spain, Woodside Petroleum Corp. of Australia, Hong Kong-based Tong Tai Petroleum International Corp., and Texas-based Anadarko Petroleum Corp. (Ghana Business News, 2009; National Oil Company of Liberia, 2009).

Outlook

If plans to redevelop the country's iron ore resources and to develop its diamond, gold, and petroleum resources come to fruition, the minerals sector in Liberia is likely to become one of the country's main sources of foreign exchange and of employment in the next 5 to 10 years. The country's dilapidated infrastructure will continue to present challenges to investors in the short run. The approval of a new mineral policy, the establishment of the Extractive Industries Transparency Initiative, and the development of a mining cadastre, however, suggest that the country is on its way to establishing a transparent investment climate, which is likely to attract foreign direct investments in the mineral sector in the longer run. The presence of multinational corporations engaged in petroleum exploration also suggests that foreign direct investment in the mining sector is likely to continue to grow in the coming years.

References Cited

- African Aura Mining Inc., 2010, 2009 annual report and accounts: Vancouver, British Columbia, Canada, African Aura Mining Inc., 48 p.
- Central Bank of Liberia, 2010, 2009 annual report: Monrovia, Liberia, Central Bank of Liberia, 49 p.
- Geberie, L., 2004, Diamonds without maps: Ottawa, Ontario, Canada, Partnership Africa Canada, 16 p.
- Ghana Business News, 2009, Liberia ratifies offshore deals with Anadarko— Oranto: Ghana Business News, July 25. (Accessed October 12, 2010, at http://www.ghanabusinessnews.com/2009/07/25/liberia-ratifies-offshoredeals-with-anadarko-oranto.)
- Konneh, Ansu, 2009, ArcelorMittal to resume full operations at Liberia mine in 2010: Bloomberg.com, September 16. (Accessed January 12, 2010, at http://www.bloomberg.com/apps/news?pid=newsarchive&sid= aWLDzlu1QwGE.)
- Magnowski, Daniel, 2009, CORRECTED—ArcelorMittal says delays Liberia iron ore: Thomson Reuters, May 21. (Accessed January 12, 2010, at http://www.reuters.com/article/idUSLK98120720090521.)
- Ministry of Foreign Affairs, 2009, An Act establishing the Liberia Extractive Industries Transparency Initiative: Monrovia, Liberia, Ministry of Foreign Affairs, July 10, 15 p.

- Ministry of Lands, Mines and Energy, undated, Mineral policy of Liberia: Monrovia, Liberia, Ministry of Lands, Mines and Energy, 14 p.
- National Oil Company of Liberia, 2009, Third Liberia petroleum licensing round: Monrovia, Liberia, National Oil Company of Liberia press release, December 13, 1 p.
- Trans Hex Group Ltd., 2010, 2009 annual report: Cape Town, South Africa, Trans Hex Group Ltd., 86 p.
- United Nations Mission in Liberia, 2010, UNMIL background: United Nations Mission in Liberia. (Accessed December, 1, 2010, at http://www.un.org/en/ peacekeeping/missions/unmil/background.shtml.)
- United Nations News Centre, 2007, Security Council lifts ban on diamond exports from Liberia: United Nations News Centre, April 27. (Accessed October 7, 2010, at http://www.un.org/apps/news/story.asp?NewsID=22377& Cr=liberia&Cr1.)
- U.S. Census Bureau, 2010a, U.S. exports to Liberia from 2005 to 2009 by 5-digit end-use code: U.S. Census Bureau. (Accessed October 8, 2010, at http://www.census.gov/foreign-trade/statistics/product/enduse/exports/ c7650.html.)
- U.S. Census Bureau, 2010b, U.S. imports from Liberia from 2005 to 2009 by 5-digit end-use code: U.S. Census Bureau. (Accessed October 8, 2009, at http://www.census.gov/foreign-trade/statistics/product/enduse/imports/ c7650.html.)
- U.S. Department of State, 2010, Liberia: U.S. Department of State background note, March. (Accessed December, 1, 2010, at http://www.state.gov/r/pa/ei/ bgn/6618.htm.)
- U.S. Bureau of Mines, 1994, The mineral industry of other countries of Africa, *in* International review: U.S. Bureau of Mines Minerals Yearbook 1994, v. III, p. 623-644.
- van Oss, H.G., 1990, The mineral industry of Liberia, *in* Area reports— International—Mineral Industries of Africa: U.S. Bureau of Mines Minerals Yearbook 1990, v. III, p. 114-117.
- van Oss, H.G., 1991, The mineral industry of Liberia, *in* Area reports— International—Mineral Industries of Africa: U.S. Bureau of Mines Minerals Yearbook 1991, v. III, p. 140-143.
- van Oss, H.G., 1992, The mineral industry of Liberia, *in* Area reports— International—Mineral Industries of Africa: U.S. Bureau of Mines Minerals Yearbook 1992, v. III, p. 120-121.

TABLE 1 LIBERIA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity		2005	2006	2007	2008	2009
Cement, hydraulic		143,847	135,486	157,200	94,037	70,584 ²
Diamond	carats	NA ³	NA ³	21,700 4	60,536 ²	36,828 4
Gold, mine output, Au content	kilograms	27	9	311	624	524 ²
Sand ^e		222,274 5	220,000	220,000	220,000	220,000
Stone, crushed ^e		5,964 ⁵	6,000	6,000	6,000	6,000

^eEstimated; estimated data are rounded to no more than three significant digits. NA Not available.

¹Table includes data available through October 7, 2010.

²Source: Central Bank of Liberia.

³Exports of diamond under United Nations Security Council sanctions.

⁴Source: Kimberley Process Certification Scheme.

⁵Reported figure. Source: Ministry of Lands, Mines, and Energy of Liberia.

TABLE 2LIBERIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2009

(Thousand metric tons)

				Annual
	Commodity	Major operating companies and major equity owners	Location of main facilities	capacity
Cement		Liberia Cement Corp. Ltd. (Scancem International	Monrovia	220
		ANS, 62%, and Government, 29%)		