2010 Minerals Yearbook

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The Mineral Industry of Liberia

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In 2010, Liberia made significant progress in reviving the mining sector, which before 1990 had contributed more than 65% of the country's export earnings and represented about 25% of the country's gross domestic product (GDP). During a 14-year-long civil war that ended in 2003, all major mines were closed and the mineral sector's contribution to the economy was reduced to a negligible level (Ministry of Lands, Mines and Energy, 2010, p. 6).

In 2010, the contribution of the mining sector to the GDP was 0.9%. The mineral commodities produced included cement, diamond, and gold. Liberia's undeveloped mineral resources included base metals, such as cobalt, lead, manganese, nickel, and tin, and industrial minerals, such as dolorite, granite, ilmenite, kyanite, phosphate rock, rutile, silica sand, and sulfur. The Government continued actively to seek investment in the redevelopment of the country's vast iron ore deposits. Projects to improve mining-related infrastructure included the joint venture of African Aura Mining Inc. of Canada and OAO Severstal Resources of Russia to develop the Putu iron ore project in Grand Gedeh County; Luxembourg-based ArcelorMittal to develop the western iron ore deposits in Nimba County; and Israel-based Elenilto Minerals & Mining Ltd. to develop the Western Cluster Iron Ore (WCIO) project, which included the Bea Mountain, Bomi Hills, and Mano River iron ore deposits. ArcelorMittal was expected to resume its exports of iron ore in 2011. In 2010, the Government also signed mineral development agreements (MDAs) with private companies to develop and operate diamond and gold mines (Ministry of Lands, Mines and Energy, 2010, p. 7; Central Bank of Liberia, 2011, p. 23–24).

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 it has statutory oversight of the energy, land, mineral, and water sectors. The mineral sector is regulated by the Mining and Minerals Law of 2000. The new Mineral Policy of Liberia became effective on March 1, 2010. Environmental protection guidelines for mineral exploration and exploitation were formulated by the National Environmental Protection Agency of Liberia and the MLME. All companies seeking a mining license were required to submit an environmental and social impact assessment to be evaluated and approved by the Government (Ministry of Lands, Mines and Energy, 2010, p. 10).

Production

In 2010, cement production decreased by 5.1% to 67,000 metric tons (t) from 70,584 t in 2009. The decrease in cement production was a result of the opening of the cement market to imported cement, which led to a decrease in cement production by Liberia Cement Corp. (Cemenco). Diamond production decreased by 12% to 25,000 carats compared with 28,368 carats (revised) in 2009. The decrease in diamond production was attributable to the shortage of hand tools and mechanized equipment available for alluvial diamond mining. Production of gold increased by 53% to 800 kilograms (kg) compared with 524 kg in 2009.The increase in gold production was the result of an increase in demand and the mechanization of gold mining operations (Central Bank of Liberia, 2011, p. 24–25). Data on mineral production are in table 1.

Mineral Trade

The estimated proceeds from Liberia's total exports in 2010 increased by 50% to $223 million compared with $149 million in 2009. The increase was attributed to the increased demand for primary commodities in response to the global economic recovery. Export receipts from minerals also increased during the year. Earnings from the diamond sector increased by 70% to $11.9 million from $7 million in 2009 and earnings from the gold sector increased by 29% to $15.3 million from $11.9 million in 2009. Receipts from the export of stockpiled iron ore also rose to $2.4 million from $900,000 in 2009 (Central Bank of Liberia, 2011, p. 38–40).

Liberia's exports to the United States were valued at about $180 million in 2010 compared with about $80 million in 2009 and $143 million in 2008; rough diamond accounted for $555,000 of these exports. Imports from the United States were valued at about $190 million in 2010 compared with $95 million in 2009 and $157 million in 2008. These included nearly $8 million worth of railway transportation equipment, $6 million worth of specialized mining equipment, and $2 million worth of excavating machinery (U.S. Census Bureau, 2011a, b).

Commodity Review

Metals

Gold.—African Aura 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. In July, the Government granted the company a Class "A" mining license to explore and mine a total area of 457 square kilometers (km^2). A preliminary economic assessment conducted by AMC Consultants Ltd. of the United Kingdom found the estimated indicated resources to be about 5.6 million metric tons (Mt) of ore at an average grade of 4.17 grams per metric ton (g/t) gold, and the inferred resources to be an estimated 7.0 Mt of ore at an average grade of 3.40 g/t gold. A definitive feasibility study was to be completed in the fourth quarter of 2011. The New Liberty Gold Mine was expected to produce about 3,100 kilograms per year of gold (African Aura Mining Inc., 2010a, p. 8; 2010c; AMC Consultants Ltd., 2010).

Iron Ore.—In 2010, Liberia did not produce iron ore but did export stockpiled material. In September 2010, the Government granted OAO Severstal (61.5%) and African Aura (38.5%) an MDA for the Putu iron ore project. The 25-year agreement provides for the construction and development of the project. The MDA also provides for a 2-year extension of the company exploration license until September 2012. Inferred mineral resources were estimated to be 1.08 billion metric tons of ore with an average grade of 37.6% iron. A prefeasibility study was expected to be completed during 2012 and was to be followed by a definitive feasibility study that was expected to be completed by 2014. The project would require the construction of a 130-km railway line to the coast and a new deepwater port (African Aura Mining Inc., 2010a, p. 6; 2010b).

ArcelorMittal, which had put the redevelopment of the western iron ore deposits in Nimba County on hold in 2009, began the operation of the first phase of the project in 2010. This included the construction of a crusher plant, housing, a railroad, roads, sewerage facilities, and a water supply and treatment plant. The rehabilitation of the 267-km rail track that connected the old Yekepa Mine in Nimba County with the city of Buchanan in Gran Bassa County was expected to be completed by early 2011. The dredging of the Buchanan Port commenced in December and was expected to be completed by June 2011. The company envisioned the mine to come online in the second half of 2011. The mine was expected to produce 1 million metric ton per year (Mt/yr) of iron ore during its first year of production and 15 Mt/yr thereafter. In 2010, ArcelorMittal and BHP Billiton Ltd. of Australia announced that they had ended a preliminary discussion to potentially combine their respective iron ore mining and infrastructure interests in Liberia (ArcelorMittal, 2010a, b; 2011; Magnowski, 2010).

In 2009, a tender process for the development of the WCIO project was issued by the Government. In January 2010, the Government selected Elenilto to develop and rehabilitate the project, which consisted of several deposits covering about 208 km^2 near the coast in northwestern Liberia. These deposits, which are located 140 km northwest of Monrovia, included the Mano River iron ore deposit, which was formerly mined by the National Iron Ore Co. The Government estimated the iron ore reserves at Mano River to be about 80 Mt containing 51% iron. The Bomi Hills deposits, which were formerly mined by the Liberia Mining Co., are located in Bomi County about 70 km northwest of Monrovia. Iron ore reserves were estimated to be about 50 Mt of ore containing 68% iron. The undeveloped Bea Mountain deposits are located about 100 km northwest of Monrovia. Reserves were estimated to be about 900 Mt of ore containing 37% iron. Elenilto planned to invest $2.4 billion to develop the WCIO project (Ministry of Lands, Mines and Energy, 2008, 2010; Herman, 2010).

In October, Sable Mining Ltd. of the British Virgin Islands acquired a 51% interest in Liberia-based Southern Cross Investment Ltd., which held 6-month reconnaissance licenses for the 477-km^2 Bolopu prospect and the 486-km^2 Timbo prospect. Sable selected South Africa-based New Resolution Geophysics to conduct noninvasive aeromagnetic and radiometric geophysical surveys. The company conducted a geophysical survey of the Bolopu and the Timbo prospects in early November 2010. Sable Mining proposed to conduct a 15,000-meter diamond drilling program in the second quarter of 2011, subject to the approval of its license (Sable Mining Ltd., 2010).

Industrial Minerals

Cement.—Scancem International ANS of Norway, which was a subsidiary of HeidelbergCement AG of Germany, through Cemenco, was the sole producer of cement in Liberia. The company operated a grinding plant in Monrovia that produced portland cement and employed at least 63 people. In May, HeidelbergCement signed an agreement with the International Finance Corp. (a member of the World Bank Group) to support the development of local infrastructure by increasing the local supply of cement. The initial capital injection would be used to expand Cemenco's production capacity. The construction of a new cement mill was underway and was expected to be completed by the first quarter of 2012 (International Finance Corp., 2010; HeidelbergCement AG, 2011, p. 62, 115).

Diamond.—In June 2009, Fundy Minerals Ltd. of Canada announced that 12 new primary diamond and gold targets were identified at Sehnkewen Cestos with the potential of kimberlitic intrusions and dykes. The company obtained a mineral exploration license for the claim in August 2008. In April 2010, Fundy announced that it was to write off its Liberia operations by 2011 and would focus on exploration in Canada instead (Fundy Minerals Ltd., 2009, 2010).

Mineral Fuels

Petroleum.—On January 31, 2010, the Government, through the National Oil Company of Liberia (NOCAL) and the MLME, 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 NOCAL 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. The NOCAL received applications for all five blocks in March, and in April, it requested that all interested companies submit an Expression of Interest (EOI) to establish their financial capabilities and technical qualifications. The companies that participated in the bidding round included African Petroleum Corp. Ltd. of Australia, Atlas Petroleum International Ltd. of Nigeria, Arizona-based Liberty Petroleum Corp., China-based Mandra Material Ltd., Repsol Exploration S.A. and Statoil ASA of Spain, and Victoria Oil & Gas PLC of the United Kingdom (National Oil Company of Liberia, 2010 a, b).

In September 2010, the Government granted approval for Chevron Corp. of the United States to acquire a 70% interest and operatorship of three deepwater concessions in Oranto Petroleum Ltd. of Nigeria, which held the remaining 30% interest. Blocks LB-11, LB–12, and LB–14 were located between 20 and 180 km south of the capital city of Monrovia. Three-dimensional seismic data were purchased and an exploration well was planned to be drilled during the fourth quarter of 2011 (Chevron Corp., 2010, 2011, p. 25).

Outlook

If plans to redevelop the country's iron ore resources and the possible development of its cement, diamond, gold, and petroleum resources comes to fruition, the mineral sector is likely to become one of Liberia'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 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 investment 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 increase in the coming years.

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TABLE 1
LIBERIA: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons unless otherwise specified)

Commodity		2006	2007	2008	2009	2010
Cement, hydraulic		135,486	157,200	94,037	70,584	67,000 [e, 2]
Diamond	carats	NA [3]	21,700 [4]	47,007 [r, 4]	28,368 [r, 4]	25,000 [e, 2]
Gold, mine output, Au content	kilograms	9	311	624	524	800 [e, 2]
Sand[5]		220,000	260,000 [r]	160,000 [r]	120,000 [r]	110,000
Stone, crushed[5]		6,000	6,500 [r]	4,000 [r]	3,000 [r]	3,000

[e]Estimated; estimated data are rounded to no more than three significant digits. [r]Revised. NA Not available.
[1]Table includes data available through June 2, 2011.
[2]Source: Preliminary data as estimated by the Central Bank of Liberia.
[3]Exports of diamond under United Nations Security Council sanctions.
[4]Source: Kimberley Process Certification Scheme.
[5]Estimated based on cement production.

TABLE 2
LIBERIA: STRUCTURE OF THE MINERAL INDUSTRY IN 2010

(Thousand metric tons)

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