THE MINERAL INDUSTRY OF

ETHIOPIA

By Philip M. Mobbs

The mineral industry was a minor contributor to Ethiopia's agrarian-based economy. In 1998, mining and mineral-based production accounted for less than 1% of the nation's $6.6 billion gross domestic product (Walta Information Center, [undated], Background to the mineral, petroleum, and energy sector, accessed November 1, 1999, at URL http://www.telecom.net.et/~walta/profile/html/minbg.html; World Bank, September 22, 1999, At-a-glance—Ethiopia, accessed November 1, 1999, via URL http://www.worldbank.org/data/countrydata/countrydata.html).

After a month-long dispute with Eritrea concerning national boundaries, the altercation erupted into war on June 3. Popular Ethiopian opinion concerning the objectives of the war included regaining the disputed area occupied by Eritrean troops, as well as retaking the Red Sea port of Assab, ceded to Eritrea when that nation became independent from Ethiopia in 1993 (Wrong, 1998; Addis Tribune, June 12, 1998, The economic causes and implications of the Ethio-Eritrean War, accessed June 12, 1998, at URL http://addistribune.ethiopiaonline.net/archives/1998/06/ 12-06-98/Eco-297.htm).

In 1998, Ethiopian exports were valued at $602 million. Gold was the most significant mineral export. Fertilizer and refined petroleum products were the nation's most significant mineral-related imports, accounting for 16% of total imports that were valued at $1,519 million (World Bank, September 22, 1999, At-a-glance—Ethiopia, accessed November 1, 1999, at URL http:www.worldbank.org/data/countrydata/countrydata.html).

The Ministry of Mines and Energy administered mineral-resources development in Ethiopia. The Ethiopian Institute of Geological Surveys conducted mapping and mineral prospecting. The state-owned Ethiopian Mineral Resources Development Corp. (EMRDC) was involved in development and production of mineral resources. All foreign investment was licensed by the Ethiopian Investment Authority. Mining Proclamation 52/1993, the Mining Income Tax Proclamation 53/1993, Mining Operations Regulation 182/1994, Proclamation 22/1996, Proclamation 23/1996, and Proclamations 37/1996 and 115/1998, the investment laws, formed the legal basis for mining in Ethiopia. The state retained title to all land. Proposed mining operations required national and regional governmental approval. The National Government could acquire 2% participation interest in mining ventures and levied a 35% income tax on mining operations. The royalty rate was 5% on precious metals and 3% on other minerals.

The downturn in international gold prices during 1998 and resultant reduction in the availability of financing for mineral exploration and development projects interfered with the Government's attempt to increase foreign investment in Ethiopia's mineral sector. Exploration and production operation in northern Ethiopia were severely hampered by the war. Regional insurgencies also periodically threatened mining operations (Africa Energy & Mining, 1999b).

National Mining Corp., an associate company of the Midroc Group of Ethiopia, was producing from the 3,000-kilogram-per-year (kg/yr)-capacity Lega Dembi gold mine. Midroc acquired the mine from the Government in March for $172 million. Midroc planned additional exploration and eventually to expand the mine's capacity to 5,000 kg/yr (Addis Tribune, August 28, 1998, Lega Dembi gold mines to produce 2,800 kilograms of gold in the first year, accessed September 25, 1998, at URL http://addistribune.ethiopiaonline.net/Archives/1998/28-08-98/Gold.htm).

Some companies with northern Ethiopian concessions temporarily abandoned their operations because of the war (U.S. Department of State, [undated], Ethiopia's mineral prospects, accessed November 5, 1999, at URL http://www.telecom.net.et/ ~usis-eth/wwwhec09.htm). EMRDC continued gold exploration in the Oromia region. International Roraima Gold Corp. of Guyana continued exploration of the Koko-Kenticha property in the Adola gold belt of southern Ethiopia. Tan Range Exploration Corp. of Canada drilled the Tulu Kapi concession and continued exploration for gold on the Hagere Mariam and the Tulu Dimtu concessions. The joint venture of Canyon Resources Africa Ltd., a subsidiary of Canyon Resources Corp. of the United States, and JCI Ltd. of South Africa investigating the Megado Serdo, the Meleka Abeba, and the Tendaho Graben area properties was dissolved because the mining interests of JCI were being restructured in 1998. Canyon subsequently suspended operations because of the war. JCI continued evaluation of the Chambi, the Katta-Gulliso, and the Werseti-Gudba licenses.

The joint venture between Ashanti Goldfields Co. Ltd. of Ghana and Ezana Mining Development plc of Ethiopia discontinued exploration of the Hawsen and the Shire prospects in northern Ethiopia. Emerging Africa Gold Inc. of Canada wrote-off its remaining Ethiopian license. Pan African Resource Corp., a subsidiary of Golden Star Resources Ltd. of Canada, relinquished the Dul Mountain gold concession, and Rift Resources Ltd. of Canada wrote off the Humera, the Moyale, and the Negele-Bul Bul gold exploration licenses.

Cement production was primarily from the state-owned

Ethiopian Cement Corp.'s Addis Ababa clinker-grinding plant and Mugher cement factory. In 1998, the Ethiopian Privitization Agency collected bids for the 20,000-metric-ton-per-year-capacity Dire Dawa cement factory, the smallest of the state-owned cement plants.

Privately owned operations produced construction materials, including brick clay; limestone and shale mined for cement production; gypsum for cement and plaster; sand and gravel; crushed stone; and for export, dimension stone. EMRDC produced feldspar, kaolin, silica sand, and talc. Abay Natural Resources Development of Ethiopia, a subsidiary of United States-based Abay Resources Technology International, entered into an agreement to explore for opal in Amhara regional state. The exploration application was forwarded to the Ethiopian Council of Ministers for approval. In August, the Government issued a tender for bids on the Coal Phosphate Fertilizer Complex Project, a feasibility study of fertilizer production using the coal reserves at Yayu in Oromia regional state.

Hunt Oil Co. of the United States held a production-sharing contract in the Ogaden region. The Calub Gas Share Co., a venture of the Federal Government (90%), regional governments, and private investors, held the eight-well Calub Field, in the Ogaden region. The field's reserves were estimated to be 68 billion cubic meters (Africa Energy & Mining, 1999a). In 1998, the Government collected bids on the privatization of 51% equity interest in Calub. The submitted bids were being evaluated at yearend.

The physical infrastructure of Ethiopia, a landlocked East African nation of about 61 million persons, had limitations, primarily associated with damage from the 30-year civil war. Roads from Addis Ababa to the port of Assab, Eritrea—about 1,000 kilometer—had carried almost 90% of Ethiopia's exports in 1997; however, after the 1998 border conflict with Eritrea began, most of the country's exports and imports were shifted to secondary roads leading to the the Port Autonome International de Djibouti, on the Red Sea in Djibouti. Rehabilitation of the national road network and upgrading the road to Djibouti were underway at yearend; however, the expulsion of Eritrean contractors delayed some infrastructure projects (Indian Ocean Newsletter, 1998). The Ethiopian Government also encouraged increased use of the 781-km railroad from Addis Ababa to Djibouti. Rehabilitation of locomotives and the rolling stock of the 100-year old Chemin de Fer Djibouto-Ethiopien, operated as a joint venture by the Djiboutian and the Ethiopian Governments, was aided by financing provided by Agence Française de Développement.

The sudden influx of Ethiopian cargo into the port of Djibouti resulted in severe port congestion. Some cargo was diverted to Mombasa, Kenya, and to Berbera in the self-declared Republic of Somaliland (Addis Tribune, July 24, 1998, Ethiopian cargo worth millions of birr still impounded at Assab and Mitswa ports, accessed October 2, 1998, at URL http://addistribune. ethiopiaonline.net/Archives/1998/07/24-07-98/Port.htm; Daily Nation, December 11, 1998, Kenya to handle Addis cargo, accessed December 17, 1998, at URL http://www.nationaudio. com/News/DailyNation/111298/Business/Business2.html).

Ethiopia's electrical generating capacity of 371 megawatts (MW) was of limited availability outside urban areas. Primarily derived from hydroelectric plants, electrical power was also generated by small diesel plants in outlying areas, and in May 1998, an 8.5-MW geothermal electricity generating plant was brought on-line. With 27 additional electrical power projects underway, the national electricity generating capacity was expected to reach 658 MW by 2003 (Addis Tribune, September 18, 1998, 1-2 billion birr allocated for increasing Ethiopia's electric power, accessed September 25, 1998, at URL http://addistribune.ethiopiaonline.net/Archives/1998/09/18-09-98/Power.htm).

The Government, through the Ethiopian Investment Authority and the Ministry of Mines and Energy, was promoting mineral sector investment, especially development of bentonite, coal, columbium (niobium), diatomite, natural gas, gold, granite, iron ore, marble, nickel, oil, phosphate, potash, silica sand, soda ash, and tantalum resources. The Government anticipated that fertilizer production would partially satisfy the expanding demand from the agriculture sector and that mineral exports could significantly increase the nation's foreign exchange earnings and diversify the country's coffee-based economy.

Economic development and export growth are expected to increase as improvements in the Nation's transportation infrastructure are made and the border dispute with Eritrea is resolved. The long-term outlook was for increased activity by domestic and international minerals companies, eventually resulting in increased utilization of Ethiopia's considerable resources.

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TABLE 1
ETHIOPIA: ESTIMATED PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity		1994	1995	1996	1997	1998
Cement, hydraulic		464,396 3/	611,437 3/	663,000 r/	750,000 r/	775,000
Clays: 4/						
Brick		10,000	7,000	7,000	6,000	6,000
Kaolin (China clay)		8	15	15	16	15
Diatomite		150 3/	150 3/	150 3/	150 3/	125
Feldspar		4,000	4,000	4,000	5,000	5,000
Gold, mine output, Au content	kilograms	2,370	4,500 3/	2,500 3/	3,000 3/	2,500
Gypsum and anhydrite, crude		30,700	124,000 3/	124,000 3/	120,000 3/	100,000
Lime		2,727 3/	3,091 3/	3,100 3/	2,500 3/	3,000
Platinum, mine output, Pt content 5/	grams	--	100	100	100	80
Pumice 4/		127,000	360,000	360,000	325,000	325,000
Salt, rock		5,000	5,000	5,000	5,000	5,000
Scoria		190,000	240,000	250,000	250,000	250,000
Soda ash, natural		2,150 3/	20,000 3/	20,000 3/	15,000 3/	15,000
Stone, sand and gravel: 4/						
Construction stone, crushed	thousand tons	300	750	750	750	1,000
Dimension stone 6/		42,000	38,000	38,000	40,000	130,000
Limestone 7/	thousand tons	700	3,215 r/	3,300 r/	3,300 r/	3,400
Sand 8/	do.	6,040	1,600	1,600	1,600	2,500
Silica sand		5,000	6,000	6,000	7,000	7,000
Tantalite, concentrate (40% Ta_2O_5)		26 3/	20 3/	20 3/	20 3/	20

r/ Revised.
1/ Data are for year ending July 7 of the year listed.
2/ In addition to the commodities listed, some lignite, semiprecious gemstones, steel semimanufactures, and talc reportedly were produced, and silver was reportedly contained in gold ingots from the Lege Dembi Mine, but information is inadequate to estimate output reliably.
3/ Reported figure.
4/ When reported as volume or pieces, conversions to metric tons are estimated.
5/ No platinum production was officially reported after 1988. However, some artisanal platinum probably continued to be produced, and platinum was also reported by others as being contained in gold ingots from the Lege Dembi gold mine, which started up in 1990.
6/ Includes marble.
7/ Apparently does not include production for cement manufacture for 1994. Normally, the manufacture of 1 metric ton of cement requires from 30 to 50 kilograms of gypsum as well as from 1.3 to 1.8 metric tons of limestone and up to 0.5 metric ton of shale and/or clay.
8/ May include gravel.