

THE MINERAL INDUSTRY OF

MOZAMBIQUE

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The Republic of Mozambique is located on the southeastern coast of Africa and has an area of 749,090 square kilometers. The mining industry was chiefly noted for its production and export of bauxite, bentonite, gemstones, graphite, and marble; production at the Ancuabe graphite mine was suspended in October 1999 owing to weak market conditions. In addition to these minerals, small quantities of gold near Niassa and some industrial mineral commodities, which included cement, marine salt, and sand and gravel, were produced (table 1). Minerals exports included bauxite, gemstones, graphite, and marble.

Following nearly 30 years of internal conflict, which ended with the establishment of a freely elected government in 1994, Mozambique has been striving to rebuild its economy. In 1999, Mozambique's gross domestic product (GDP) amounted to about \$18.7 billion at purchasing power parity, which was an increase of 10% compared with that of 1998. Per capita income was \$1,000 in 1999. The output of the industrial sector accounted for about 18% of GDP (U.S. Central Intelligence Agency, 2000).

Mozambique consumed 1.0 billion kilowatt-hours (GkWh) of electricity in 1998. Production of electricity totaled 1.2 GkWh. Hydroelectric power sources provided 75% of the country's electricity, and fossil fuel sources accounted for the remaining 25% (U.S. Central Intelligence Agency, 2000).

The minerals and energy sectors played secondary roles to agriculture and fishing in the economy but were the targets for several major new foreign investment proposals. Efforts to rebuild the economy have placed major emphases on mineral-resource development and regional economic integration. By early 2000, more than \$6 billion in new mineral development projects were under consideration by Government and private foreign investors. Construction of the \$1.3 billion Mozal aluminum smelter, which was the first, was well underway in 1999; completion was scheduled for late 2000. The capacity for the smelter was 250,000 tons per year (Mozal, 1999, Project overview, accessed April 9, 2001, at URL <http://www.mozal.com/project/project.htm>).

Development plans to date depended heavily on the energy potential of the underutilized Cabora Bassa hydroelectric dam; the undeveloped Buzi, Pande, and Temane natural gas fields; the coal resources at Moatize; and the modernization of the Indian Ocean export harbors at Beira, Maputo-Matola, and Nacala and associated transportation infrastructure. In the metals sector, studies were underway to determine the feasibility of developing a second aluminum smelter and major coal, iron, and titanium projects. Mozambique also has identified resources of dimension stone, gemstones, gold, niobium, petroleum, phosphates, rare-earth minerals, and tantalum (Mozambique Ministry of Mineral Resources and Energy, 1995, p. 21-22).

State-owned Empresa Nacional de Hidrocarbonetos had statutory responsibility for the exploration and development of natural gas and petroleum resources and can enter into joint ventures and other forms of contractual relations with private companies.

With the development of the Mozal aluminum smelter project well underway, the Mozambican economy appeared to be poised to undergo a major recovery based substantially on proposed new energy- and mineral-related investment and export-oriented industrial development. Although the outlook is optimistic, the full realization of the nearly \$12 billion in new mineral and infrastructure investment is still contingent on several political and market factors. These include continued internal political stability and external regional cooperation, especially with South Africa and Zimbabwe, and positive market conditions for aluminum, coal, iron and steel, and titanium and the ability of project management to attract the necessary development capital in competition with similar projects elsewhere in the world. The country's strong coal, gas, and hydroelectric energy base, however, remained a strong magnet for attracting the needed capital and industrial development.

References Cited

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U.S. Central Intelligence Agency, 2000, Mozambique, *in* World factbook 2000: U.S. Central Intelligence Agency, p. 342-344.

Major Sources of Information

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TABLE 1
MOZAMBIQUE: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity 3/		1995	1996	1997	1998	1999 e/
Bauxite		10,700	11,459	8,218	6,130	6,000
Cement, hydraulic e/	thousand tons	60	180	220	290	390
Clays, bentonite		3,500	11,051	12,625	10,448	10,400
Coal, bituminous		40,000	40,000	100,000 e/	100,000 e/	100,000
Gemstones, semiprecious:						
Cut stones, all types	carats	6,000	2,663	5,168	5,303	5,300
Rough stones 4/	kilograms	8,000	1,862	1,091	1,465	1,500
Gold 5/	do.	6,800	67	6	17	17
Graphite, concentrates		3,019	3,283	5,125	5,889	2,100
Gravel and crushed rock	cubic meters	100,000 e/	120,000 e/	123,532	282,832	283,000
Marble:						
Block	cubic meters	1,500	744	251	117	117
Slab	square meters	52,300	18,232	13,820	2,736	2,700
Salt, marine e/		40,000	60,000	60,000	60,000	60,000

e/ Estimated.

1/ Estimated data are rounded to no more than three significant digits.

2/ Data available through February 2000.

3/ In addition to the commodities listed, construction materials (other clays, sand and gravel, and stone) were produced, as was a small quantity of natural gas. For these commodities, output is not reported quantitatively, and information was insufficient to make reliable estimates.

4/ Artisanal production of rough gemstones include, in order of importance, garnet, tourmaline, dumortierite, aquamarine, emerald, and morganite.

5/ Does not include artisanal gold, which the Government has estimated to be roughly 4,000 kilograms per year.