## THE MINERAL INDUSTRY OF

# KENYA

### By Philip M. Mobbs

Soda ash was the most important mineral commodity produced in Kenya in 1996. Other mineral commodities produced included cement, fluorspar, gemstones, gold, petroleum products, and salt. The mineral industry accounted for about 1% of the country's gross domestic product (Ministry of Environment and Natural Resources, 1997).

Kenya's major trading partners in Africa and the European Union received about 80% of the nation's exports. Agricultural products dominated the export markets, but fluorspar, petroleum products, and soda ash were notable sources of foreign exchange earnings. Petroleum products, refined from oil imported from the Middle East, were primarily re-exported as value-added products to neighboring African countries, particularly Uganda. Minerals accounted for about 5% of Kenya's exports to the United States. The United States received about 40% of Kenya's fluorspar production. Mineralrelated imports from the United States included machinery and transport equipment, phosphate rock, and processed nonferrous minerals.

Mining was covered by the Mining Act, Chapter 306, of the Laws of Kenya. The 1940 Mining Act was under legislative review. Additionally, the mineral industry was covered by the Customs and Excise Act, the Foreign Investment Protection Act, the Income Tax Act, and the Value Added Tax Act.

Gold production was mainly artisanal. Auvista Minerals N.L., a subsidiary of Panorama Resources NL of Australia, was drilling the Migori gold prospect near Kiisi, about 400 kilometers (km) west of Nairobi. The Migori prospect was a joint venture with Mio Migori Mining Co. Ltd. of Kenya. Pan African Resources Corp. of Canada acquired a 75% interest in the Ndori gold prospect in southwestern Kenya from San Martin Mining and Investment Co. Ltd. of Kenya. San Martin continued to reprocess 50-year-old Kenyan gold mine dumps near Lake Victoria. (*See table 1.*)

World-class, titanium-bearing, heavy mineral sands resources were being evaluated along the coastline. Tiomin Resources Inc. of Canada began a prefeasibility study of the Mambrui prospect, about 125 km northeast of Mombasa. The company estimated that there was 650 million metric tons (Mt) of sand grading more than 3% titanium-bearing minerals (Tiomin Resources Inc., 1997a). Tiomin also was drilling the Sokoke prospect, about 50 km northeast of Mombasa. The company initially projected that ilmenite, rutile, and zircon would compose more than 3% of the 400 Mt of sands estimated to be in place at the Sokoke prospect (Tiomin Resources Inc., 1997b, p. 12).

Fluorspar is the second most important mineral after soda ash. It was produced from an open-pit mine at Cheberen in the

Kerio Valley, near Eldoret. The former Government-owned Kenya Fluorspar Co. Ltd. operated the mine and produced acidgrade fluorspar that contained only 10% moisture. In 1996, Kenya Fluorspar was acquired by Minerals and Chemical Manufactures Ltd. of Kenya.

Soda ash was a significant source of foreign exchange earnings. Magadi Soda Co. Ltd., a subsidiary of Brunner Mond (U.K.) Ltd. of the United Kingdom, had a total soda ash production capacity of 300,000 metric tons per year. The Lake Magadi operation also was the largest source of crude salt in Kenya. Although much of the company's production was exported to Asia, the company was increasing exports to South Africa.

Kenya did not produce crude petroleum. Proceeds from petroleum products refined by Kenya Petroleum Refineries Ltd. in Mombasa made up a sizable share of Government revenues, as the Government owned 50% of the operation. Transportation of petroleum products from Mombasa to Nairobi was primarily via the pipeline of the Government-owned Kenya Pipelines Co. Ltd. The West Kenya pipeline extension, completed in 1994, transported petroleum products to terminals at Eldoret and Kisumu.

The Kenya Railways Corp. line runs from the west near Tororo, Uganda, passes through Nairobi, and terminates at the port of Mombasa, connecting key mining districts along the route. The road system was reportedly in poor condition, however, and electricity demand continued to outpace supply (Indian Ocean Newsletter, 1997).

Primarily derived from hydroelectric sources, usable electric generating capacity totaled about 784 megawatts (MW) of the 820-MW installed electric generating capacity. An additional 30 MW was imported from Uganda. Additional geothermal plants were under study. Proposed during 1996 were a 44-MW dieselfueled plant at Nairobi and a 43-MW plant for Mombasa.

The outlook for the mineral industry of Kenya is good, with the Government continuing policies directed toward increasing domestic employment and foreign earnings through mineral production projects.

#### **References Cited**

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- Tiomin Resources Inc., 1997a, Tiomin makes a significant rutile/zircon discovery in Kenya: Toronto, Tiomin Resources Inc. press release, January 22, 1 p.

——1997b, Tiomin Resources Inc.: Toronto, Tiomin Resources Inc. investment pamphlet, 20 p.

#### **Other Sources of Information**

Permanent Secretary Ministry of Environment and Natural Resources P.O. Box 30126 Nairobi, Kenya Telephone: (254) 2-229-261

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# TABLE 1 KENYA: PRODUCTION OF MINERAL COMMODITIES 1/

#### (Metric tons unless otherwise specified)

Commodity 2/		1992	1993	1994	1995	1996 e/
Aluminum, secondary e/		2,000	2,400	2,400	2,400	2,400
Barite		100 e/	14	20	20 e/	20
Carbon dioxide gas, natural		4,802	5,910	5,605	7,982	9,119 3/
Cement, hydraulic	thousand tons	1,508	1,417	1,182 r/	1,122 r/	1,102 3/
Clays, kaolin		21	7	69 r/	300 r/	595 3/
Diatomite		507	829	592	457 r/	734 3/
Feldspar e/		1,200	1,200	1,200	500 r/	100
Fluorspar (acid grade)		80,630	78,725	53,400	80,230	83,000 3/
Gemstones, precious and semipreciou	18:					
Amethyst	kilograms	(4/)	303	303 e/	310 e/	300
Aquamarine	do.	100	43	14	50 e/	50
Cordierite (Iolite) e/	do.	10	14 3/	15	15	15
Garnet	do.	90	31	42	119	120
Ruby	do.	123	120 e/	200	1,200	1,200
Sapphire e/	do.	20	2,314 3/	2,310	2,300	2,300
Tourmaline	do.	10	229	43	224	250
Gold, mine output, Au content	do.	20	154	155 e/	170 e/	300
Gypsum and anhydrite e/		36,000	36,000	30,000 r/	28,000 r/	28,000
Lead, mine output, Pb content		300 r/ e/	396 e/	350	4	5
Iron and steel, steel, crude e/	thousand tons	20	20	20	20	20
Lime e/		12,000	12,000	12,000	12,000	15,000
Petroleum refinery products e/	thousand 42-gallon barrels	17,000	17,000	16,200 r/	16,000 r/	16,000
Salt, crude		102,000 e/	74,669	70,500	71,400	41,000 3/
Soda ash		186,038	144,850	226,150	218,450	223,000 3/
Stone, sand and gravel:						
Coral e/	thousand tons	1,600	1,600	1,600	1,600	1,000
Limestone	do.	24 r/	25 r/	30 r/	31 r/	32 3/
Sand, industrial (glass) e/		12,300	12,300	12,300	12,300	13,000
Shale e/		115,000	115,000	95,000 r/	90,000 r/	88,000
Vermiculite		2,291	1,961	1,113 e/	457	734 3/
Wollastonite		100 e/	100 e/			

e/ Estimated. r/ Revised.

1/ Includes data available through Dec. 26, 1997.

2/ In addition to the commodities listed, a variety of industrial minerals and construction materials (brick clays, gravel, iron ore, kyanite, marble, crushed rock, and construction sand) are produced, but quantities are not reported and information is inadequate to make reliable estimates of output.

3/ Reported figure.

4/ Less than 1/2 unit.