

THE MINERAL INDUSTRIES OF THE INDIAN OCEAN ISLANDS

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Comoros

The Federal Islamic Republic of the Comoros has a total area of 2,170 square kilometers (km²) and is located on three main islands in the Mozambique Channel about two-thirds of the way between northern Madagascar and northern Mozambique. In 1998, the population was about 560,000, and the gross domestic product (GDP) per capita, which was based on 1997 purchasing power parity, was estimated to be \$700.

The mineral industry of Comoros continued to be limited to the production of common construction materials, such as clay, sand, gravel, and crushed stone, for local consumption. Cement was imported from Kenya and South Africa. Quantities were not available, but were presumably very low because no significant construction projects have been noted in the press since the early 1980's. Geothermal energy resources are known within the territory. The outlook on minerals output, however, was for no significant change. The former French colony was dependent on imports to meet all its energy and cement needs. The economy of Comoros was based on the export of agricultural products, chiefly spices. Political instability in recent years has continued to have a negative affect on the economy.

Mauritius

The Republic of Mauritius has a total area of 1,860 km² and is located about 1,000 kilometers (km) east of Madagascar. In 1998, the population was 1.18 million, and the GDP per capita, based on purchasing power parity, was estimated to be \$10,000.

The mineral industry of Mauritius was a negligible factor in an economy that was based chiefly on tourism, financial services, and the export of sugar and textiles. It maintained a favorable foreign investment climate and a Free Port Authority.

Historically, mineral output consisted of the local production and use of basalt construction stone, coral sand, lime from coral, and solar-evaporated sea salt. Quantitative information was rarely available and then appeared to be inconsistent. Data on production of mineral commodities was not available, but on the basis of past activity, Mauritius produced about 7,000 metric tons per year (t/yr) of lime, 6,000 t/yr of salt, 300,000 t/yr of sand, and 1,000,000 t/yr of stone. Environmental concerns regarding the mining of coral sand and its impact on coastal lagoons were being raised. All cement used in Mauritius was imported. In early 1998, negotiations were underway with the Mehta Group of India on a proposal to build a 300,000-t/yr cement grinding plant in Mauritius.

Polymetallic nodules occurred on the ocean floor at a depth of about 4,000 meters and extended from 400 to 800 km north of Port Louis, which is northeast of Tromelin Island. The nodules

averaged more than 15% each of iron and manganese and more than 0.3% of cobalt, with a concentration averaging from 2 to 6 kilograms per square meter. The abundance of land-based resources of these commodities made it unlikely that these resources would be developed in the foreseeable future.

Although the country was totally dependent on imports for its energy requirements, oil possibilities were of interest offshore, east of the polymetallic nodules area at shallower depth. In the 1970s, Texaco had explored the area by using geophysics and drilling; the results were inconclusive. Energy consumption was from oil-derived products (84.1%), electricity (10.5%), and coal (5.4%). In 1993, consumption of oil products was about 570,000 metric tons and between 1993 and 1998 was growing at a rate of about 7% per year (Mbendi Information Services, August 17, 1997, Oil industry profile—Overview—Mauritius, accessed September 15, 1997, at URL <http://mbendi.co.za/indy/oilg/oilmrds.htm>).

Steel reinforcing bars were made from imported ingot at three rolling mills. The near-term outlook for the exploitation of minerals other than construction materials was negligible.

Reunion

Reunion, which is an overseas department of France, has a total area of 2,510 km² and is located about 650 km east of Madagascar. In 1998, the population was 717,000, and the GDP per capita, based on purchasing power parity, was estimated to be \$4,800. It has an agricultural economy dominated by sugar cane exports. Production of mineral commodities represented only a small part of the economy of Reunion, although little quantitative information was available. Output of hydraulic cement was made by grinding imported clinker. The Ciments de Bourbon S.A. cement grinding plant at Le Port, owned by the Holderbank Group of Switzerland, had a capacity of 400,000 t/yr. Additionally, production of basic volcanic rock and sea coast coral undoubtedly continued to meet local construction needs. Little change in future mineral activity was anticipated.

Seychelles

The Republic of Seychelles is a group of 40 granitic and 50 or more coralline islands with a total area of 455 km², that is located northeast of Madagascar in the Indian Ocean. In 1998, the population was around 79,000, and the GDP per capita, based on a 1997 purchasing power parity, was estimated to be \$7,000. The economy was based on tuna fishing and tourism.

Mineral production in Seychelles consisted mostly of unspecified quantities of construction materials—clay, coral, sand, and stone. Although output of guano, an organic

phosphate fertilizer comprised of bird droppings, ceased in the mid-1980's, a 5,000-t/yr-capacity plant remained, and occasional small production was unofficially reported during the mid-1990's. Cement requirements are met from imports.

Granite in the bedrock of Mahe and nearby islands had some economic potential. It had been quarried for dimension stone on a trial basis by an Italian firm in the early 1980's. In 1992, Gondwana Granite, a South African company, was granted a license to extract and export up to 3,000 cubic meters of granite for use in tile and statuary products. Lime and cement production from the abundant coral also continued to be considered. Preservationists and other environmentally concerned groups, however, opposed the granite and coral use projects. Polymetallic nodules were known to occur on the ocean bottom near the Admirante Islands.

The oil potential of the entire Seychelles region continued to be promoted by the Government-owned Seychelles National Oil Company (SNOC) through the Petroleum Mining Act of 1976. Tar balls from subsurface seeps have long been known to wash up on the beaches of Coetivy Island, as well as on Mahe and some nearby islands. Exploration began in 1969, and by 1994, 23,150 km of seismic profiles and 27,911 km of aeromagnetic lines had been accumulated. Active exploration through 1995 had failed to discover any commercial petroleum sources. A comprehensive report on the Seychelles geology, hydrocarbon potential, historical exploration activity, geophysical data

availability and on the terms of SNOC's Model Petroleum Agreement are available on the Internet (Mbendi Information Services, August 17, 1997, Oil industry—Upstream profile—Seychelles, accessed September 15, 1997, at URL <http://mbendi.co.za/indy/oilg/oilgseus.stm>).

Major Sources of Information

Ministry of Economy

Government Building

Moroni, Grand-Comore Island, Comoros

Ministry of Agriculture and Natural Resources

Government House

Port Louis, Mauritius

Ministry of Energy, Water Resources and Postal Services

New Government Centre

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