

# THE MINERAL INDUSTRY OF ISLANDS OF COMOROS, MAURITIUS, REUNION, AND SEYCHELLES

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## Comoros

Comoros has a total area of 2,170 square kilometers (km<sup>2</sup>), on three main islands, in the Mozambique Channel about two-thirds of the way between northern Madagascar and northern Mozambique. It had a 1995 population of 550,000 and a 1994 gross domestic product (GDP) per capita of \$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. Quantities were not available but were presumably very low because there were no significant construction projects noted in the press since the early 1980's. The development of geothermal energy remained a possibility. However, the outlook on minerals output was for no significant change.

The economy of Comoros is based on the export of agricultural products, chiefly spices. Political instability and an aborted coup attempt in October 1995 affected the important tourism sector of the economy and the ability of the Government to pay civil service salaries.

## Mauritius

The Republic of Mauritius is a small island nation of 1,860 km<sup>2</sup>, located about 1,000 km east of Madagascar. It has population of 1.13 million and a GDP per capita of \$8,600.

The mineral industry of Mauritius was a negligible factor in the economy which is based chiefly on tourism and the export of sugar and textiles. As a participating member of the Uruguay Round of the General Agreement on Trade and Tariffs and the successor World Trade Organization, Mauritius lost its preferential trade status in several of its major export markets. This had a negative affect on the economy of Mauritius in 1995.<sup>1</sup> Mauritius expanded its tourism sector and was trying to position itself as a regional financial hub in 1995. 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. For 1991-95, production of mineral commodities was estimated as follows in metric tons per year (t/yr): lime, 7,000 t/yr; salt, 6,000 t/yr; sand, 300,000 t/yr; and stone, 1,000,000 t/yr. Undoubtedly, the bulk of the coral sand was used for construction; but, in 1991 (the latest year for which data were available), about 20% was reported used in industry; presumably, some was used to make lime at the rate of 1.5 to 2.0 tons of coral per ton of lime. Environmental groups objected to coral mining because of detrimental effects on coastal lagoons. Sand made from crushing basalt rock was used as a substitute for natural sand in construction materials.

Polymetallic nodules occur on the ocean floor at about 4,000 meters depth, extending from 400 km to 800 km north of Port Louis, northeast of Tromelin Island. The nodules average more than 15% each of iron and manganese and more than 0.3% cobalt, with an abundance 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.

While the country is completely dependent on imports for its energy requirements, oil possibilities were of interest east of the polymetallic nodules area at shallower depth. The area was inconclusively explored with geophysics and drilling by Texaco in the 1970's.

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, an overseas department of France, is a small island of 2,510 km<sup>2</sup>, located about 650 km east of Madagascar. It has a population of 666,000 and a gross national product per capita of \$3,900. It has an agricultural economy dominated by sugar cane exports.

Mineral commodities production represented only a small part of the economy of Reunion in 1995 as in prior years, even though little quantitative information was available. However, output of hydraulic cement, made by grinding

imported clinker, presumably remained substantial, well above 300,000 t/yr. The plant, owned by Ciments de Bourbon SA at Pointe des Galets, Le Port, had a capacity of 400,000 t/yr. Additionally, production of basic volcanic rock and sea coast coral continued to meet the needs of construction. Little change in future mineral activity is anticipated.

## Seychelles

The Republic of Seychelles is a group of 40 granitic and 50 or more coralline islands with a total area of 455 km<sup>2</sup> in the Indian Ocean northeast of Madagascar. It has a population of nearly 73,000 and a GDP per capita of \$6,000. The economy is based on tourism.

Mineral production in Seychelles consisted mostly of unspecified quantities of construction materials—clay, coral, stone, and sand. Output of guano, an organic phosphate fertilizer composed of bird droppings, ceased in the mid-1980's; but a 5,000-t/yr capacity remained; occasional small production was unofficially reported.

Granite in the bedrock of Mahe and nearby islands had some economic potential. It was 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. Tile and statuary products reportedly were the most likely end uses. Lime and cement production from the abundant coral also continued to be considered during the mid 1990's. However, preservationists and other environmentally concerned groups opposed both the granite and coral use projects.

Polymetallic nodules occur on the ocean bottom near the Admirante Islands. Limited sampling was done in the mid-1980's, but funds for further planned work were not available.

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 were known for many years to occur on beaches of Coetivy Island, as well as on Mahe and some nearby islands. Exploration began in 1969; and, up to 1994, 23,150 km of seismic

profiles and 27,911 km of aeromagnetic lines had been accumulated. In the early 1980's, Amoco drilled three wells about 150 km west of Victoria, each of which showed evidence of hydrocarbons, but gave up its acreage when oil prices dropped. In the late 1980's, several other companies acquired exploration rights in the Seychelles: Enterprise Oil PLC, a British major oil firm, in the southeast and Texaco of the United States and Lasmo PLC of the United Kingdom in the north and west. Enterprise reportedly undertook a \$10-million drilling test in 1995 on its 10,000-km<sup>2</sup> offshore concession 200 km southeast of Victoria. Mbendi Information Services of South Africa reported that Enterprise Oil's offshore appraisal well in the southern Constant Bank was declared dry in August 1995. A comprehensive 1996 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 through this Mbendi Internet site.<sup>2</sup>

Petroleum could well play a larger role in the future economy of the Seychelles.

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<sup>1</sup>World Trade Organization (WTO). Trade Policy Review: Mauritius, Minutes of 17-18 Oct. 1995 meeting of the WTO Trade Policy Review Body, Report WT/TPR/5, 14 Dec. 1995, 22 pp.

<sup>2</sup>Mbendi Internet address: <<http://mbendi.co.za/cyseoius.htm>>.

## Major Sources of Information

Ministry of Economy

Ministry of Planning

Government Building

Moroni, Njazidja (Grand-Comore Island), Comoros

Ministry of Agriculture and Natural Resources

Government House

Port Louis, Mauritius

Bureau de Recherches Geologiques et Minières

46 Bis Rue de Nice, P.B. 1206

Saint-Denis, La Reunion

Ministry for National Development

Ministry of Industry

Independence House, P.O. Box 199

Victoria, Mahe, Seychelles