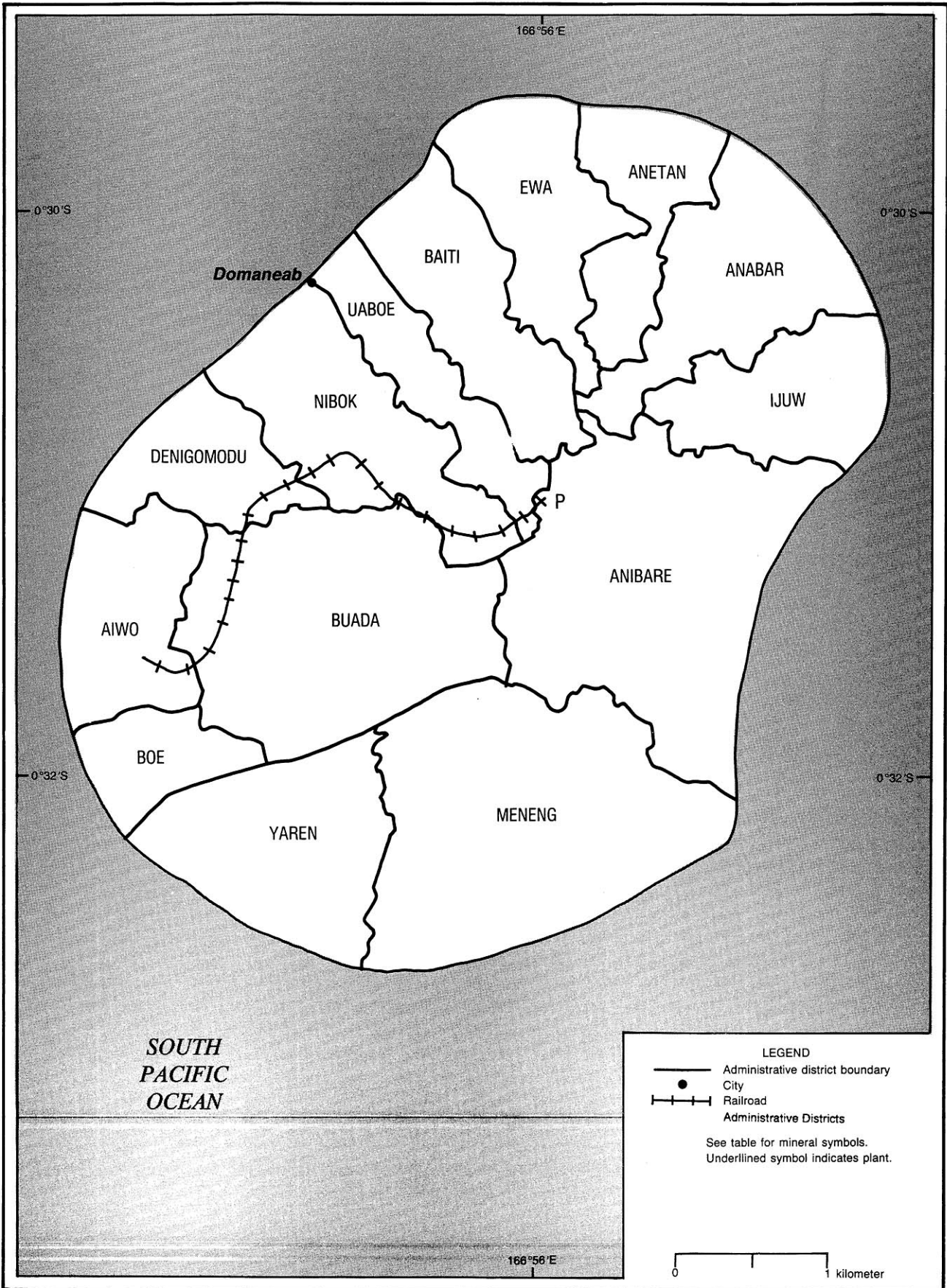


NAURU

AREA 21 km²

POPULATION 9,500



THE MINERAL INDUSTRY OF

NAURU

By Travis Q. Lyday

The 21-km² island of Nauru is one of three historic phosphate-producing islands of the Pacific. The other two are Banaba (or Ocean Island) in the Gilbert Islands Group of Kiribati and Makatea, part of French Polynesia; however, Nauru is the only remaining producer.

Nauru is the world's smallest nation. It also has one of the highest per capita incomes in the world. The economy continued to be based on the mining of extensive high-grade phosphate rock deposits on the central plateau of the island by the Government-owned Nauru Phosphate Corp. (NPC). The deposits are among the richest in the world, having a consistent content of 84% bone phosphate of lime (BPL) or tricalcium phosphate, equivalent to 38.5% phosphorus pentoxide (P₂O₅). Rock treated in the calcination plant averaged about 89% BPL (40.7% P₂O₅) and may be as high as 91% BPL (41.7% P₂O₅).

Phosphate rock is mined from deposits interdigitated with evenly spaced dolomitized coral limestone pillars using mechanical extractors with clamshell buckets, leaving the coral as a "forest" of very hard-rock pinnacles. The associated coral is cobbled for domestic use as road aggregate.

After overburden is removed by bulldozing, the alluvial phosphate rock is removed from around the coral pinnacles, trucked to a railhead for primary crushing, and reduced to minus 50 mm. A narrow-gauge railway using diesel locomotives transports the crushed material to a treatment plant where it is dried before further crushing to minus 12 mm and sold as run-of-mine product. A proportion of the fine material is upgraded by high-temperature calcination to remove organic carbon and marketed as Nauru Calcined Rock.

There is 3.9 km of NPC-owned railroad track, which is used to transport phosphate from the central plateau of the island to processing facilities in Aiwo District on the southwestern coast.

All phosphate rock mined on Nauru was exported by NPC. Phosphate remained Nauru's sole export. Exports of phosphate rock, by destination, for 1990-92 are given in table 2. Phosphate rock reserves on Nauru are expected to be sufficient for only a few more years of mining at current production levels.

The International Court of Justice (ICJ) at The Hague, Netherlands, delivered in June its judgement on the preliminary phase of Nauru's claim for entitlement to compensation from the former partners of the British Phosphate Commission (BPC). The BPC was composed of Australia, New Zealand, and the United Kingdom. The decision affirmed that the ICJ does indeed have jurisdiction to hear and determine Nauru's claim, filed in May 1989 against Australia after Australia had rejected the compensation claim, concerning certain phosphate lands in Nauru. Australia rejected the proceedings in a counterclaim filed in early 1991 on several issues, perhaps foremost of which was based on the fact that both New Zealand and the United Kingdom were not joined as parties to the proceedings. Australia contended that because the administering authority comprised three states, any finding of breach on the part of Australia would mean the other two states would be discharged of their respective obligations.

The crux of the dispute is the assertion that Australia, as the administering authority in control of the phosphate industry on behalf of the other partners of the BPC, had failed to rehabilitate the environmental damage to the land caused

by phosphate mining during the period from 1919 until 1968. The NPC assumed control of the island's phosphate industry in 1968, shortly after the island country's independence.

OTHER SOURCES OF INFORMATION

Nauru Phosphate Corp.
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TABLE 1
NAURU: PRODUCTION OF PHOSPHATE ROCK¹

(Thousand metric tons)

Commodity ²	1988	1989	1990	1991	1992
Phosphate rock	1,541	1,181	926	530	747

¹Includes data available through Mar. 26, 1993.

²In addition to the commodity listed, crude construction materials (common clays, sand and gravel, and stone) are produced, but output is not reported quantitatively, and available general information is inadequate to make reliable estimates of output levels.

TABLE 2
NAURU: EXPORTS OF PHOSPHATE ROCK, BY DESTINATION

(Thousand metric tons)

Destination	1990	1991	1992
Australia	593.9	186.6	373.4
Korea, Republic of	153.0	59.2	43.4
New Zealand	179.3	190.9	330.5
Philippines	—	93.4	—
Total	926.2	530.1	747.3

Source: Phosphate Rock Statistics 1992, International Fertilizer Association Ltd.

