

THE MINERAL INDUSTRY OF

TOGO

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Agriculture, phosphate mining, and regional trade continued to dominate Togo's economy in 1994, which was slowly recovering from the political crisis and the paralyzing 8-month general strike that lasted until July 1993. Although antigovernment demonstrations have declined in 1994, a general atmosphere of uncertainty continued to dampen the country's economic expectations.

Togo and other African members of the Communauté Financière Africaine franc (CFAF) zone devalued their currency, from CFAF 50 to 1 French franc (FFr) to CFAF 100 to 1 FFr, on January 12, 1994. Diesel fuel prices increased 8% in February 1994 in response to the change in exchange rate.

Output of phosphate rock rebounded from the strike-depressed 1993 production volume. (*See table 1.*) Recently, phosphates have accounted for 20% to 30% of export earnings, 10% to 13% of government revenues, and 6% to 10% of the gross domestic product. The Government-owned phosphate producer, Office Togolaise des Phosphates (OTP), remained Togo's largest foreign exchange earner; with 2,500 workers, it was one of Togo's largest employers.

OTP operated the phosphate mines clustered around Hahotoe and Akoumape, about 30 kilometers (km) from the company's treatment plant and export terminal at Kpeme. Exports were shipped primarily to Canada, the Philippines, and South Africa.²

Thirty to forty meters (m) of overburden was removed to reach the 2 to 7 m phosphate deposit. OTP used bucket wheel excavators at Hahotoe to remove approximately 5 cubic meters (m³) of material for each metric ton (mt) of ore extracted. The company could remove approximately 25 million m³ of overburden per year. As the company works down dip, the ratio of overburden to ore will increase, resulting in a reduced volume of produced ore from the pits. At Kpeme, OTP recovered 1 mt of exportable phosphate rock for each 2 mt of raw ore processed.

In recent years, OTP experienced a decline in phosphate rock exports to its traditional Western European and North American markets. European fertilizer producers were reducing the cadmium content of products generated from phosphate imports to less than 15 parts per million (ppm); specifically, 15 milligrams of cadmium per kilogram of phosphorus pentoxide (P₂O₅), by the year 2000.³ Cadmium, a toxic metal, was undesirable in products requiring prolonged handling. Togo's recent high-grade (36% P₂O₅)

phosphate ore production averaged 40 to 50 ppm of cadmium. Cadmium removal procedures were being studied as was the development of deeper, lower-grade phosphate deposits with lower cadmium values.

Industry sources estimated that Togo had phosphate reserves of approximately 260 million metric tons (Mmt) or about 130 Mmt of exportable rock.⁴ Besides phosphate rock for export and limestone for cement, exploitation of minerals in Togo was negligible. The 20,000-metric-ton-per-year (mt/a) steel rolling mill in Lomé, closed in 1991, was reopened by new investors in 1994. Cimtogo, a joint venture between the Government and Scancem ANS, a Norwegian company, operated a 600,000-mt/a cement factory in Lomé. The 90,000-square-meter-per-year marble plant operated by the Government's Nouvelle Société Togolaise de Marbre et de Matériaux had closed in 1991. N.V. Koninklijke Nederlandsche Petroleum Maatschappij of The Netherlands and the "Shell" Transport and Trading Company, Public Limited Company of England (Royal Dutch Shell) was using the Complex Pétrolier facilities near Lomé as a petroleum product storage depot. The small 7.3 million barrels per year refinery had closed in 1981.

A number of mineral deposits were known, but development depended upon more detailed exploration and significant infrastructure improvements. An iron ore deposit, estimated to total 95 Mmt, was near Bassar.⁵ The deposit, which averages more than 40% iron, mainly as magnetite, has been studied periodically by the local Bureau National de Recherches Minières (BNRM) and most recently in conjunction with France's Bureau de Recherches Géologiques et Minières (BRGM).⁶ The BNRM and BRGM exploration team sampled gold anomalies east of Bassar as well as investigating diamond indications on the d'Akposso Plateau and in the surrounding alluvial basins, about 50 km north of Palimé. The exploration team also located chromite, rutile, and uranium mineralization in the northwestern part of the country.

Most of Togo's mineral requirements were imported through the port at Lomé. OTP shipped phosphate through the port at Kpeme. Togo had long been a regional trade center, and its highway network facilitated trade between Lomé and Benin, Burkina Faso, and Ghana. However, the roads were deteriorating rapidly owing to the lack of maintenance. All of the developed mineral deposits were accessible by the railway that connected Lomé with the cities

of Anecho, Blitta, and Palimé. Exploitation of the iron, manganese, and phosphate deposits in the northern part of the country would require transportation improvements.

Togo's mineral economy is expected to continue to be dominated by the phosphate industry well into the next century. The extremely politically sensitive restructuring of debt-burdened OTP should continue to be discussed with international financial organizations. New industry attracted to the country by the Government's economic policies could provide an important economic buffer during periods of low phosphate prices. However, even with optimistic growth projections, the industrial sector is not diverse enough to

isolate Togo from economic slowdowns when commodity prices are low. The National Environmental Action Plan is expected to be released in 1995, supplementing the 1988 environmental code.

¹Text prepared July 1995.

²Unclassified U.S. Department of State telegram, Lomé 00977, Togo Phosphate Industry—Challenges Ahead, Mar. 22, 1995.

³Phosphorus & Potassium, The Cadmium Issue, Jan.-Feb. 1996, pp. 27-33.

⁴U.S. Department of Commerce, Country Commercial Guide—Togo, 1994.

⁵A. Nothold, Togo, Mining Journal (London), Mining Annual Review 1995, in press.

⁶Mining Magazine. Togo Mineral Programme. June 1984, p. 521.

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

(Metric tons unless otherwise specified)

Commodity 3/	1990	1991	1992	1993	1994 e/	
Cement 4/	399,000	380,000	350,000	350,000 e/	350,000	
Iron and steel, semifinished 5/	8,400	6,000 e/	--	--	500	
Phosphate rock, beneficiated product:						
Gross weight	thousand metric tons	2,310	2,970	2,080	1,500 r/	2,250 6/
P2O5 content e/	do.	840	108	760	540 r/	800
Stone, marble:						
Dimension	square meters	6,500	--	--	--	--
Blocks		357	250 e/	--	--	--
Crushed		912	600 e/	--	--	--

e/ Estimated.

1/ Previously published and 1994 data are rounded by the U.S. Bureau of Mines to three significant digits.

2/ Includes data available through July 6, 1995.

3/ In addition to the commodities listed, Togo presumably produced a variety of crude construction materials (clays, sand and gravel, and stone) but output is not reported, and available information is inadequate to make reliable estimates of output levels.

4/ Produced from imported clinker.

5/ Iron rod production from semifinished metal.

6/ Reported.