

# THE MINERAL INDUSTRY OF

# BHUTAN

By Chin S. Kuo

During 1998, Bhutan's gross domestic product grew by 6% and inflation remained below 10%. There was no budgetary deficit and the balance of payments continued to register a surplus. Bhutan had \$215 million in foreign exchange reserves. The country had been shielded from the Asian currency crisis because the ngultrum had the same value as the Indian rupee, which circulated at par with it.

The country continued to be dependent on foreign aid. India provided \$54 million in grants and aid, other foreign donors gave \$40.5 million, and international agencies contributed \$67.5 million. Internal revenue covered current expenditure, while the financing of capital expenditure remained donor-driven. The hydroelectric power sector accounted for 25% of all government revenue.

Bhutan is known to have some metallic mineral resources such as beryllium, copper, iron ore, lead-zinc, precious metals, and tungsten. Its industrial mineral resources include asbestos, clay, dolomite, graphite, gypsum, limestone, phosphate rock, quartzite, and talc. Some exploration for hydrocarbons was being carried out in the southern border areas. Mining activities were insignificant to its economy. (See table 1.) Economically exploitable hydroelectric potential was estimated to be more than 16,280 megawatts (MW) (Far Eastern Economic Review, 1999, p. 80).

Bhutan Ferro Alloys was considering whether to diversify its product range or to expand its production facilities. The company could begin producing around 10,000 metric tons per year (t/yr) of silicon. Alternatively, it would build a new furnace and finance the investment from existing operations at companies belonging to its parent, Tashi Group. Bhutan Ferro Alloys produced ferrosilicon at full capacity with low energy costs and high costs of imported raw materials. The company would sell 18,000 t/yr of ferrosilicon to India and aim predominantly for export markets. The company would prefer to diversify its products.

Associated Cement Corp. of India has a 20% stake in the Dungsam cement project at Nganglam in Bhutan to utilize its marketing network and expertise. The project included a 50-

kilometer road between Pathshala in India and Nganglam in Bhutan and a railway siding at Pathshala. Power Grid Corp. of India was expected to take up work on a powerline from the Gelephu substation to Nganglam via Tingtibi.

The disrupted supply of liquefied petroleum gas (LPG) to the domestic market persisted in 1998. A strike at Bongaigaon, Assam, affected Indian Oil Corp. which supplied LPG to Bhutan through Bhutan Oil Distributors. The dealers received only a truckload of LPG per day, down from three truckloads per day. Druk Petroleum also supplied LPG to the country.

Work on the 1,020-MW Tala hydroelectric project had already started and release of funds of \$700,000 was made for preliminary expenses. The project would go into operation in 4 years. The Kurichu hydroelectric project involved the strengthening of the road and bridges between Rangia in Assam and Gyepshing in Mongar. National Hydro Power Corp. of India was in the process of awarding the main contracts for the dam and power house. The 370-meter diversion tunnel was being constructed by Asiotech. The powerplant project with an installed capacity of 60 MW was expected to be completed by 2001. A third 60.8-MW hydroelectric project was under construction at Basochu to provide electricity to western Bhutan and export it to India.

## Reference Cited

Far Eastern Economic Review, 1999, Bhutan, in Asia 1999 yearbook: Far Eastern Economic Review, 216 p.

## Major Source of Information

Ministry of Trade and Industry  
Division of Geology and Mines  
Thimphu, Bhutan  
Telephone: 975-22-3013/22-2879  
Fax: 975-22-3507

TABLE 1  
BHUTAN: PRODUCTION OF MINERAL COMMODITIES 1/

(Metric tons unless otherwise specified)

Commodity 2/	1994	1995	1996 e/	1997 e/	1998 e/
Cement e/	120,000	140,000	160,000	160,000	150,000
Coal	63,912	71,112	68,000	70,000	69,000
Dolomite	212,629	249,253	260,000	250,000	255,000
Ferrosilicon e/	2,000	12,000	13,000	15,000 r/	18,000
Gypsum	45,097	52,102	55,000	50,000	53,000
Limestone	232,317	266,591	275,000	270,000	272,000
Marble	square meters	2,841	3,946	4,000	4,000
Quartzite		15,647	49,900	50,200	51,000
Slate	square meters	1,030	8,560	9,000	9,000
Talc		169	3,332	3,500	3,000

e/ Estimated. r/ Revised.

1/ Table includes data available through March 23, 1999.

2/ In addition to the commodities listed, crude construction materials, such as sand and gravel and a variety of stone, presumably are produced, but information is inadequate to make reliable estimates of output levels.