THE MINERAL INDUSTRIES OF

BHUTAN AND NEPAL

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Bhutan

Bhutan's economy was predominantly agricultural; industrial activity was limited. Annual economic growth of gross domestic product (GDP) was forecast to be 6% in 2000. Per capita income in the country was around \$1,000. Bhutan's mineral industry was very small with production of cement, coal, dolomite, ferrosilicon, gypsum, and limestone. The country's mineral exports were cement, ferrosilicon, and gypsum; Bhutan also exported electricity, fruit, spices, and timber. The Bhutanese authorities restricted the export of semifinished wood products and processed timber to prevent suffering from a devastated level of deforestation (Far Eastern Economic Review, 2001a, p. 85). The country imported fabrics, fuel and lubricants, grain, machinery, and rice.

Bhutan Ferro Alloys, which was a producer of ferrosilicon, was reevaluating a plan to install a second furnace with a capacity of 7,000 metric tons per year (t/yr) at its plant at Phuentsholing. The cost of the installation would be \$6.4 million. The company expected to make a decision on the new furnace during the first quarter of 2001. A landslide and floods struck the plant in August, and the company lost 3 months of production. The plant operated a furnace supplied by Elkem A/S of Norway with an installed capacity of 15,000 t/yr. The furnace, which had been operating above capacity, produced 18,000 t/yr of ferrosilicon. In addition, Bhutan began producing small quantities of magnesium ferrosilicon and microsilica (Metal Bulletin, 2000a).

From its one facility, Bhutan exported to India 15,000 t/yr of ferrosilicon free of customs and countervailing duties. There were talks of starting the above-mentioned second furnace sooner to capture more of the Indian market (Metal Bulletin, 2000b). The Indian Ministry of Commerce planned to introduce antidumping duties on imports of ferrosilicon. This would not affect Bhutan, which has a free-trade agreement with India.

Cement was produced by the Government-owned 150,000-t/yr-capacity plant at Gomtu near Thimphu. Its output was for domestic consumption and met all national needs.

Bhutan has no significant reserves of coal, natural gas, or petroleum. Commercial energy consumption consisted of small amounts of imported petroleum products, such as diesel, gasoline, jet fuel, and kerosene; imported coal; and hydroelectricity. The country's main energy resources were hydropower (97%) and thermal power (3%). Bhutan's installed electric generating capacity was around 400 megawatts (MW). Because only a small percentage of its hydroelectric power was being exploited, Bhutan could be a large net power exporter to India in the future (U.S. Energy Information Administration,

February 2000, Bhutan, Country Analysis Briefs, accessed December 6, 2000, at URL http://www.eia.doe.gov/emeu/cabs/bhutan.html). In July, Government agencies discussed the implementation of two important expansion schemes—the Tala (1,020-MW) and the Kurichhu (60-MW) projects. Another project was the Wang Chhu basin where four hydroelectric powerplants were expected to generate 2,500 MW.

Nepal

Nepal's economic growth in terms of the GDP was about 6% in 2000; this continued the recovery from the slowdown of 1998. The country, which remained one of the world's poorest, showed strong growth in manufacturing (a 5% increase) and agricultural (a 9% increase) output, as well as external trade. Agriculture continued to be the mainstay of the economy by contributing 42% of the GDP. Exports grew by 44.7% compared with those of 1999 owing to larger shipments of ready-made garments. Imports were up by 22.2%. Inflation was brought under control; the annual average national urban consumer-price index rose by 3.3%. Total reserves stood at \$1.3 billion (Far Eastern Economic Review, 2000).

The small minerals sector employed less than 1% of Nepal's labor force. The most important mineral commodities produced were cement, clay, coal, limestone, and magnesite.

Owing to rising international oil prices, the Government raised the retail prices of various petroleum products on the recommendation of Nepal Oil Corp., which had a monopoly on the import and sale of petroleum products. The move sparked protests from opposition political parties and various consumer groups. The fuel price hikes could ripple through the economy immediately (U.S. Embassy, Kathmandu, Nepal, 2000).

The Ministry of Finance allocated \$87.3 million for the construction and maintenance of the Kathmandu-Kodari highway that will connect Tibet and other national highways. The Government commissioned the Royal Nepal Army to construct the strategic 210-kilometer Surkhet-Jumla road that will connect five districts. Six airports in remote districts would be improved to boost tourism (Far Eastern Economic Review, 2001b, p. 169).

Nepal's Privatization Cell was inviting offers for the purchase of 75% of shares in the Butwal Power Co. The bid closing date was in November 2000. The company's assets included two hydropower plants with a total installed capacity of 17 MW. The company also owned 14.9% of Himal Power Ltd. The \$453 million 144-MW Kaligandaki power project launched in 1997 was delayed beyond its November 2000 deadline (Far Eastern Economic Review, 2001, p. 169).

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Major Sources of Information

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${\bf TABLE~1}\\ {\bf BHUTAN~AND~NEPAL:~PRODUCTION~OF~MINERAL~COMMODITIES~1/}$

(Metric tons unless otherwise specified)

Country and commodity 2/	1996	1997	1998	1999	2000 e/
BHUTAN e/ 3/					
Cement	160,000	160,000	150,000	150,000	150,000
Coal	68,000	70,000	69,000	68,000	67,000
Dolomite	260,000	250,000	255,000	250,000	260,000
Ferrosilicon	13,000	15,000	18,000	18,000	15,000
Gypsum	55,000	50,000	53,000	54,000	54,000
Limestone	275,000	270,000	272,000	275,000	278,000
Marble square meters	4,000	4,000	4,000	4,000	4,000
Quartzite	50,200	50,000	51,000	52,000	52,000
Slate square meters	9,000	9,000	9,000	9,000	9,000
Talc	3,500	3,000	3,200	3,400	3,700
NEPAL 3/					
Cement e/	309,466 4/	225,000	280,000	290,000	300,000
Clay, red	1,000	5,129	4,664	3,119 r/	3,500
Coal:					
Bituminous	5,979	8,163	15,770	10,954 r/	11,500
Lignite	200	785	350	312 r/	300
Total	6,179	8,948	16,120	11,266 r/	11,800
Gemstones:					-
Quartz kilograms	1,500	3,000	2,000	3,200 r/	2,500
Tourmaline do.	(5/)	5	21	11 r/	15
Total do.	1,500	3,000	2,000	3,200 r/	2,520
Lime, agricultural e/	13,000 4/	26,000	25,000	24,000	23,000
Magnesia, dead-burned e/	25,000	25,000	26,000	26,000	24,000
Salt thousand tons	7	7	6	6 e/	6
Steel, rolled e/	100,000	110,000	130,000	130,000	120,000
Stone:					
Limestone	488,800	368,666	484,154	401,700 r/	450,000
Marble:					
Chips	548	636	613	660 r/	650
Slab, cut square meters	688,841	769,400	656,230	704,750 r/	700,000
Craggy do.	2,690	5,400	2,680	2,092 r/	2,500
Quartzite e/	2,600	2,600	2,700	2,700	2,800
Talc	5,323	6,809	5,553	6,157 r/	5,500
-/ E-tit-1/ Di1					

e/ Estimated. r/ Revised.

 $^{1/ \} Includes \ data \ available \ through \ July \ 13, \ 2001.$

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

^{3/} Estimated data are rounded to no more than three significant digits; may not add to totals shown.

^{4/} Reported figure.

^{5/} Less than 1/2 unit.