THE MINERAL INDUSTRIES OF

BHUTAN AND NEPAL

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BHUTAN

Bhutan's economic development plan targeted a gross domestic product (GDP) growth of 8.2% in 2002; however, a growth rate of 7.7% was achieved. Per capita income was $640. The country's major industries were hydropower and ferrosilicon. Tourism, which was another key industry, provided 35% of Government revenues; the tourism policy was based on a "high value and low volume" practice that limited visitor numbers and minimized environmental impact. The high interest rates stalled business development. External trade with India dominated Bhutan's commerce (Far Eastern Economic Review, 2002).

Bhutan has abundant natural resources, mainly hydroelectric-power potential that could exceed 30,000 megawatts (MW). Hydroelectricity accounted for 11.6% of the GDP. The country tapped only 1.4% of this potential; hydroelectricity exports to neighboring India contributed 45% of Government revenues. The Government encouraged the private sector to develop this resource.

Bhutan Ferro Alloys planned to install a second furnace with a capacity of 7,000 metric tons per year (t/yr) at its plant at the end of 2003. The expansion plan was stalled by floods and landslides in 2000. The plant had been producing at a rate of 18,000 t/yr of ferrosilicon, which was well above the 15,000-t/yr design capacity. Ferrosilicon output was sold to northern and eastern India. Supplies of ferrosilicon from Bhutan to India were disrupted by the monsoon in 2002 (Metal Bulletin, 2002).

The 1,020-MW Tala hydropower project, which was set to launch in 2005, was expected to generate revenues of $145 million per year. The small 336-MW Chuckha hydropower plant was tagged for future privatization (Far Eastern Economic Review, 2002).

NEPAL

A Maoist insurgency and political instability caused the country's GDP to shrink by 0.6% in 2002. These factors had a large impact on foreign trade, industry, and tourism. The manufacturing sector shrank by 10%, and tourism and trade dropped by 10.8%. Local development projects, such as powerplants and roads, were suspended. Excessive rain in the eastern part of the country and a delayed monsoon in the west also disrupted crop production. The bad weather reduced agricultural output by 6%. Inflation was controlled at 2.9% in 2002. Growing military costs and a fall in revenue drove the budget deficit up to 6% of the GDP. Nepal's economy was largely sustained by the remittances of $90 million per year sent to their families by about 700,000 Nepalese working in 19 foreign countries (Far Eastern Economic Review, 2003). Exports to India accounted for 40% of Nepal's total.

Foreign aid accounted for more than 50% of the development budget and the Government began to prioritize its development projects. Swift rivers that flow south through the Himalayas could have massive hydroelectric potential. The most significant privately financed hydropower projects in operation were the Khimti Khola, with a generating capacity of 60 MW, and the Bhote Koshi, with 36 MW. Domestic demand for electricity was increasing at a rate of from 8% to 10% per year. Surplus electricity would be exported to India (U.S. Department of State, 2003).

Nepal has small deposits of cobalt, copper, iron, lead, limestone, magnesite, mica, and zinc. Exploitation of mineral resources was difficult because of steep mountainous terrain. For more extensive coverage of the mineral industry of Nepal, additional information can be found in the 2001 Minerals Yearbook, volume III, Mineral Industries of Asia and the Pacific.

References Cited

Far Eastern Economic Review, 2002, Economic monitor: Far Eastern Economic Review, v. 165, no. 41, October 17, p. 52.
Far Eastern Economic Review, 2003, Economic monitor: Far Eastern Economic Review, v. 166, no. 8, February 27, p. 47.
Metal Bulletin, 2002, Bhutan Ferro Alloys to revisit expansion plan next year: Metal Bulletin, no. 8715, October 14, p. 8.
U.S. Department of State, 2003, Nepal: U.S. Department of State Background Note, July, p. 7.

Major Sources of Information

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TABLE 1
BHUTAN AND NEPAL: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons unless otherwise specified)

Country and commodity[2]		1998	1999	2000	2001	2002
BHUTAN[e]						
Cement		150,000	150,000	150,000	160,000	160,000
Coal		69,000	68,000	67,000	65,000	65,000
Dolomite		255,000	250,000	260,000	265,000	270,000
Ferrosilicon		18,000	18,000	15,000	16,000	16,000
Gypsum		53,000	54,000	54,000	55,000	55,000
Limestone		272,000	275,000	278,000	280,000	282,000
Marble	square meters	4,000	4,000	4,000	4,000	4,000
Quartzite		51,000	52,000	52,000	53,000	53,000
Slate	square meters	9,000	9,000	9,000	9,000	9,000
Talc		3,200	3,400	3,700	3,800	3,900
NEPAL						
Cement[e]		280,000	290,000	300,000	285,000	290,000
Clay, red		4,664	3,119	2,304	2,700 [e]	2,600 [e]
Coal:						
Bituminous		15,770	10,954	17,530	16,589 [r]	9,612
Lignite		350	312	52	-- [r]	--
Total		16,120	11,266	17,582	16,589 [r]	9,612
Gemstones:						
Quartz	kilograms	2,000	3,200	2,830	1,135 [r]	1,720
Tourmaline	do.	21	11	1 [r]	-- [r]	--
Total	do.	2,021	3,211	2,831 [r]	1,135 [r]	1,720
Lime, agricultural[e]		25,000	24,000	19,360 [r, 3]	15,587 [r, 3]	20,000
Magnesia, dead-burned		26,000 [e]	26,000 [e]	1,640 [r]	-- [r]	--
Salt	thousand tons	6	1	2	5 [r]	5
Steel, rolled[e]		130,000	130,000	120,000	110,000	100,000
Stone:						
Limestone		484,154	401,700	352,060 [r]	287,810 [r]	356,218
Marble:						
Chips		613	660	655	607 [r]	537
Slab, cut	square meters	656,230	704,750	79,700 [r]	54,834 [r]	46,156
Craggy	do.	2,680	2,092	1,530	1,333 [r]	2,279
Quartzite[e]		2,700	2,700	2,800	2,800	2,800
Talc		5,553	6,157	5,852	3,923 [r]	2,621

[e]Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. [r]Revised. -- Zero.

[1]Includes data available through August 19, 2003.

[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]Reported figure.