

2005 Minerals Yearbook

BHUTAN AND NEPAL

THE MINERAL INDUSTRIES OF BHUTAN AND NEPAL

By Chin S. Kuo

BHUTAN

Bhutan's small and underdeveloped economy was based on agriculture, forestry, and hydroelectricity. Rugged terrain provides sites to harvest hydroelectric power. Hydroelectricity and construction were the two major industries of growth in the country. The economic growth of 6.5% in terms of the gross domestic product (GDP) was the result of subregional economic cooperation efforts with Bangladesh and India. Bangladesh was Bhutan's second ranked trade partner after India. Bhutan's per capita GDP based on purchasing power parity was \$3,921 and inflation was 5.2% in 2005 (International Monetary Fund, 2006§¹). The country produced cement, coal, dolomite, ferrosilicon, gypsum, and limestone and exported cement, ferrosilicon, and gypsum.

The Department of Geology and Mines under the Ministry of Trade and Industry has two divisions. The Geological Survey of Bhutan is responsible for geologic mapping, mineral exploration, geotechnical investigations, and other services related to the geosciences. The Mining Division is responsible for the inspection and regulation of various mines to ensure that mining practices in the country are environmentally friendly. The Ministry's Department of Energy is responsible for the formulation of energy and power sector policy, plans, programs, guidelines, regulations, and the feasibility studies related to hydropower development (Ministry of Trade and Industry, 2004§).

Bhutan Ferro Alloys Ltd. was a joint venture of the Government, Marubeni Corp., and Tashi Commercial Corp. Its plant near Phuentsholing had a 28.5-megavoltampere (MVA) submerged electric arc furnace and was capable of producing 18,000 metric tons per year (t/yr) of ferrosilicon, 4,200 t/yr of micro silica, and 2,400 t/yr of magnesium ferrosilicon. The company had its own captive mines to produce quartzite for the plant. The company finalized the order for procuring an 18-MVA smelting furnace to produce other silicon and manganese alloys. The proposed expansion was commissioned at the end of 2005 (Bhutan Ferro Alloys Ltd., 2005§).

Internet References Cited

Bhutan Ferro Alloys Ltd., 2005, About us, accessed August 15, 2006, at URL http://www.bhutanferroalloys.com/aboutus1.htm.

International Monetary Fund, 2006 (April), Bhutan, World Economic Outlook Database, accessed May 31, 2006, via http://www.imf.org/external/pubs/ft/ weo/2006/01/data/index.htm.

Ministry of Trade and Industry, 2004, Ministry of Trade and Industry, Royal Government of Bhutan, Home Page, accessed August 15, 2006, via http://www.mti.gov.bt.

Major Source of Information

Ministry of Trade and Industry
Department of Geology and Mines
Thimphu, Bhutan

Telephone: 975-22-3013/22-2879

Fax: 975-22-3507

NEPAL

Nepal, which was among the world's poorest countries, had a per capita GDP of \$1,675 based on purchasing power parity. The real GDP growth was only 2.7%. Agricultural production, particularly of rice and wheat, remained Nepal's principal economic activity, employing more than 76% of the population and contributing 39% of the GDP. Declining tourism was affected by a worsening internal security situation and a global economic slowdown. The mineral industry was small and contributed little to the country's economy. The most economically important mineral commodities produced were cement, clay, coal, limestone, marble, and talc. Although the trade deficit was growing, the balance of payments was in surplus owing to remittances by Nepalis working abroad and foreign assistance. Inflation was quite high at 9.1% (International Monetary Fund, 2006§).

Nepal has small deposits of cobalt, copper, iron ore, lead, limestone, magnesite, mica, and zinc, but exploration and exploitation were difficult. The country's swift rivers that flow through the steep mountain terrain provide massive hydroelectric potential. The privately financed hydroelectric projects that provided the most power for domestic use were the Khimti Khola, with 60 megawatts (MW) of installed capacity, and the Bhote Koshi, with 36 MW. The privately owned West Seti project, with 750 MW of installed capacity, exported electricity to neighboring India (U.S. Department of State, 2006).

Reference Cited

U.S. Department of State, 2006, Nepal, Background note: U.S. Department of State, May, p. 10.

Internet Reference Cited

International Monetary Fund, 2006 (April), Nepal, World Economic Outlook Database, accessed May 31, 2006, via http://www.imf.org/external/pubs/ft/ weo/2006/01/data/index.htm.

Major Source of Information

Ministry of Industry
Department of Mines and Geology
Lainchaur, Kathmandu, Nepal
Telephone: 977-1-414740

Fax: 977-1-414806

BHUTAN AND NEPAL—2005 5.1

¹References that include a section mark (§) are found in the Internet Reference(s) Cited sections.

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

(Metric tons unless otherwise specified)

Country and commodity ²	2001	2002	2003	2004	2005
BHUTAN					
Cement ^e	160,000	160,000	160,000	170,000	170,000
Coal	84,596 ^r	88,567 ^r	66,324 ^r	29,631 ^r	85,279
Dolomite	338,846 ^r	388,056 ^r	367,402 ^r	452,336 ^r	388,711
Ferrosilicon ^e	16,000	21,000	21,000	21,147 r, 3	20,000
Granite square meters		516	1,076	200	877
Gypsum	100,907 ^r	105,658 ^r	122,829 ^r	131,236 ^r	150,585
Iron ore					5,679
Limestone	514,976 ^r	506,268 ^r	551,525 ^r	560,807 ^r	536,030
Marble square meters	464 ^r	298 ^r	579 ^r	314 ^r	372
Quartzite	47,511 ^r	47,464 ^r	52,058 ^r	42,599 ^r	52,694
Shale, green and pink	136	937			363
Slate square meters	r	567 ^r	5,386 ^r	11,779 ^r	270
Stone	10,375	319,702	316,068	246,508	146,767
Talc	13,528 ^r	23,118 ^r	23,101 ^r	39,797 ^r	42,791
NEPAL					
Cement ^e	285,000	290,000	295,000	285,000 ^r	290,000
Clay, red	2,700 ^e	2,600 ^e	32,966	29,234	35,484
Coal:					
Bituminous	16,589	9,612	11,848	10,459	9,259
Lignite				58	39
Total	16,589	9,612	11,848	10,517	9,298
Gemstones:					
Quartz kilograms	1,135	1,720	1,765	1,215	1,092
Tourmaline do.					7
Total do.	1,135	1,720	1,765	1,215	1,099
Lime, agricultural	15,587	20,000	13,025		
Magnesia, dead-burned				50	56
Salt thousand metric tons	5	5	5	4	2
Steel, rolled ^e	110,000	100,000	100,000	95,000	90,000
Stone:					
Limestone	287,810	356,218	269,379	388,109	263,701
Marble:					
Chips	607	537	395	481	436
Slab, cut square meters	54,834	46,156	46,197	56,014	23,850
Craggy do.	1,333	2,279	681	728	
Quartzite ^e	2,800	2,800	2,900	2,900	3,000

^eEstimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. ^rRevised. -- Zero.

¹Table includes data available through August 15, 2006.

²In 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.

³Reported figure.