



# 2016 Minerals Yearbook

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**BHUTAN AND NEPAL [ADVANCE RELEASE]**

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# THE MINERAL INDUSTRIES OF BHUTAN AND NEPAL

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## BHUTAN

In 2016, the production of mineral commodities—notably coal, ferrosilicon, iron ore, and a variety of industrial minerals used locally for construction or for export, such as cement, dolomite, gypsum—represented a major part of the economy of Bhutan (Ministry of Finance, Department of Revenue and Customs, 2017). The legislative framework for the mineral sector in Bhutan is provided by the Mines and Minerals Management Act of the Kingdom of Bhutan, 1995, and the Mines and Minerals Management Regulations, 2002 (National Council of Bhutan, 1995; Ministry of Economic Affairs, 2017). Data on mineral production are in table 1. Table 2 is a list of major mineral industry facilities. More-extensive coverage of the mineral industry of Bhutan can be found in previous editions of the U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Asia and the Pacific, which are available at <https://www.usgs.gov/centers/nmic/asia-and-pacific>.

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## NEPAL

In 2016, the production of mineral commodities—notably cement, clay, coal, gemstones, iron ore, limestone, quartzite, and talc—represented only a minor part of the economy of Nepal (Central Bureau of Statistics, 2016). The legislative framework for the mineral sector in Nepal is provided by the Mineral Survey (Allowance and Privilege) Rules, 2024 (1967); the Mines & Minerals Act, 2042 (1985); and the Mines and Minerals Rules, 2056 (1999) (Nepal Law Commission, 1967, 1985, 1999). Data on mineral production are in table 1. Table 2 is a list of major mineral industry facilities. More-extensive coverage of the mineral industry of Bhutan can be found in previous editions of the U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Asia and the Pacific, which are available at <https://www.usgs.gov/centers/nmic/asia-and-pacific>.

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TABLE 1  
BHUTAN AND NEPAL: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons, gross weight, unless otherwise specified)

Country and commodity <sup>2</sup>	2012	2013	2014	2015	2016	
BHUTAN						
Cement, hydraulic	thousand metric tons	521	570	690	791	940
Clay and shale		7,353	15,166	10,209	--	--
Coal, bituminous		98,731	77,744	121,891	85,164	117,783
Gypsum		313,173	351,421	414,148	389,265	317,597
Iron ore, mine production:						
Gross weight		3,742	20,506	18,997	43,202	28,065
Fe content		2,300	12,700	11,800	26,800	17,400
Silicon, ferrosilicon <sup>3</sup>		82,091 <sup>r</sup>	82,992 <sup>r</sup>	79,485 <sup>r</sup>	104,406 <sup>r</sup>	106,186
Stone, sand, and gravel:						
Silica, mine production, quartzite		88,631	90,909	83,907	79,819	92,770
Stone, crushed:						
Dolomite		1,499,535	1,740,016	2,040,691	2,662,310	2,367,659
Granite		1,807	6,464	4,362	3,889	--
Limestone		677,129	1,006,235	1,122,825	850,431	1,257,101
Marble		59,542	60,708	61,921	97,648	75,031
Unspecified		1,494,467	38,542	1,474,395	2,203,065	3,414,215
Talc and related materials, talc		16,063	9,584	12,601	5,807	2,261
NEPAL						
Cement, hydraulic	thousand metric tons	2,720	2,990	3,100 <sup>e</sup>	3,100 <sup>r,e</sup>	3,100 <sup>e</sup>
Clay and shale, other, red <sup>4</sup>	cubic meters	13,400	18,070	15,486	10,300 <sup>r,e</sup>	13,890
Coal, bituminous <sup>4</sup>		14,084	8,051	7,399	2,900 <sup>r,e</sup>	7,270
Gemstones: <sup>4</sup>						
Quartz	kilograms	1,114	4,256	249	1,044 <sup>r</sup>	521
Tourmaline	do.	--	696	24	50 <sup>r</sup>	--
Iron ore, mine production: <sup>4</sup>						
Gross weight		--	--	--	--	772
Fe content		--	--	--	--	NA
Kyanite and related minerals <sup>4</sup>	kilograms	1,934	1,187	659	105 <sup>r</sup>	23
Magnesite <sup>4</sup>		--	225	60	--	--
Stone, sand, and gravel: <sup>4</sup>						
Stone, crushed:						
Limestone		2,605,287	3,371,071	3,769,174	4,703,056 <sup>r</sup>	4,893,587
Marble, chips		4,972	4,045	7,508	1,507 <sup>r</sup>	815
Stone, dimension, quartzite, slab		--	151	86	673 <sup>r</sup>	714
Talc and related materials, talc <sup>4</sup>		5,140	5,703	3,183	1,860 <sup>r</sup>	3,003

<sup>e</sup>Estimated. <sup>r</sup>Revised. do. Ditto. NA Not available. -- Zero.

<sup>1</sup>Table includes data available through January 11, 2018. All data are reported unless otherwise noted. Estimated data are rounded to no more than three significant digits.

<sup>2</sup>In addition to the commodities listed, copper wire, lead, manganese, marble (aggregate and cut slab), zinc, and varieties of stone may have been produced in Bhutan and Nepal, but available information was inadequate to make reliable estimates of output.

<sup>3</sup>Data based on exports.

<sup>4</sup>Production is based on the fiscal year, which began on July 1 of the year stated and ended on June 30 of the following year.

TABLE 2  
BHUTAN AND NEPAL: STRUCTURE OF THE MINERAL INDUSTRIES IN 2016

(Thousand metric tons unless otherwise specified)

Country and commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity <sup>c</sup>
<b>BHUTAN</b>			
Cement	Dungsam Cement Corp. Ltd. (Druk Holding & Investments Ltd., 80%)	Nganglam, Pemagatshel District	1,300
Do.	Penden Cement Authority Ltd. (Druk Holding & Investments Ltd., 40.3%)	Gomtu, Samtse District	375
Coal	Goop Sonam Drukpa	Eastern Bhutan coalfields	120
Ferrosilicon	Bhutan Ferro Alloys Ltd. (Druk Holding & Investments Ltd., 25.7%) (Government of Bhutan, Marubeni Co., and Tashi Commercial Co.)	Phuentsholing, Lhukha District	34
Gypsum	Druk Satair Corp. Ltd.	Khothakpa Mine, Pemagatshel District	400
Stone:			
Dolomite	Jigme Mining Corp. Ltd.	Chunaikhola Mine, Samtse District	2,000
Limestone	Bhutan Coal Co. Ltd.	Haurikhola Mine, Samtse District	NA
Do.	Dungsam Cement Corp. Ltd. (Druk Holding & Investments Ltd, 100%)	Kangrezi Mine, Pemagatshel District	NA
Do.	do.	Marung Ri Mine, Pemagatshel District	NA
Do.	Penden Cement Authority Ltd.	Penden Mine, Samtse District	NA
Do.	do.	Uttare Mine, Samtse District	NA
Quartzite	Bhutan Ferro Alloys Ltd.	Pakchina Mine, Chukha District	NA
Do.	do.	Tintale Mine, Samtse District	NA
Other	Natural Resources Development Corp. Ltd.	Homdhar quarry, Zhemgang District	NA
Do.	do	Ngangsing quarry, Pemagatshel District	NA
Do.	do.	Tsangkhhar quarry, Monggar District	NA
<b>NEPAL</b>			
Cement	metric tons per day Agni Cement Industry	NA	300
Do.	Araniko Cement Industries	Jitpur factory	NA
Do.	metric tons per day Arghakhanchi Cement	Bhairahawa	1,200
Do.	Cosmos Cement	NA	800
Do.	Dang Cement Industries Pvt. Ltd. (Ambuja Cement Ltd., 85%)	NA	1,200
Do.	metric tons per day Chaudhary Group	Palpa, western Nepal	1,200
Do.	do. Jagdamba Cement	Bhairahawa	1,200
Do.	do. do.	Birgunj	1,000
Do.	Lhaki Cement Pvt. Ltd.	Bhawani Khola	660
Do.	Hetauda Cement Industries Ltd.	Hetauda, Makwanpur District	260
Do.	Manasa Cement Industry	Chandragadhi, Jhapa District	37
Do.	Maruti Cement	NA	NA
Do.	Saurabh Group	Sarbottam Cement Industries	400
Magnesite	metric tons Nepal Orind Magnesite Ltd. (Government, 75%; Khetan Group, 12.5%; Orissa Industries Ltd., 12.5%)	Dolkha District	50 <sup>1</sup>
Stone, marble	Godavari Marble Industries Ltd.	Godawari, Latitpur District	8

<sup>c</sup>Estimated. Do., do. Ditto. NA Not available.

<sup>1</sup>Inactive facility since 2015.