

# THE MINERAL INDUSTRY OF THE PHILIPPINES

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The Republic of the Philippines, which is a developing democratic republic, is located just north of the equator about 1,100 kilometers (km) east of the coast of the mainland of Southeast Asia. The country is an archipelago that comprises 7,000 islands, of which fewer than 900 are inhabited by the country's 85 million people; the major islands are Luzon in the north, Visayas in the middle, and Mindanao in the south. The archipelago is within the Pacific "Rim of Fire," which is so-called because of the intense volcanic activity at the margins of the tectonic plates, and is well-known for its epithermal gold, porphyry copper-gold, and volcanic-hosted massive sulfide deposits.

In 2003, the Philippines was a significant producer of chromite, copper, gold, and nickel and had in the recent past ranked among the world's top 10 producers. Other important mineral commodities were coal, gypsum, silver, and sulfur. Significant deposits of clay, limestone, marble, phosphate, and silica also occur.

More-extensive coverage of the mineral industry of the Philippines can be found in the 2002 U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Asia and the Pacific.

TABLE 1  
PHILIPPINES: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons unless otherwise specified)

Commodity <sup>2</sup>	1999	2000	2001 <sup>e</sup>	2002 <sup>e</sup>	2003 <sup>e</sup>
METALS					
Chromium, chromite, gross weight	19,566	861	1,932 <sup>3</sup>	2,000	2,600
Copper:					
Mine output, Cu content	34,600	129,768	20,322 <sup>3</sup>	18,364 <sup>3</sup>	20,414 <sup>3</sup>
Metal:					
Smelter	162,000	160,000	216,634 <sup>r,3</sup>	137,800 <sup>r,3</sup>	111,600 <sup>3</sup>
Refined	147,982	150,000	164,530 <sup>r,3</sup>	144,315 <sup>r,3</sup>	171,152 <sup>3</sup>
Gold, mine output, Au content kilograms	31,050	36,540	33,840 <sup>3</sup>	35,850 <sup>3</sup>	37,840 <sup>3</sup>
Iron and steel, steel, crude thousand tons	530	530	530 <sup>3</sup>	530	550
Lead, metal, secondary refined	12,389	16,218	24,000	24,000	24,000
Nickel, mine output, Ni content	20,689	17,388	23,100 <sup>r,3</sup>	24,148 <sup>r,3</sup>	27,000 <sup>3</sup>
Silver, mine output, Ag content kilograms	18,210	23,534	33,600	8,800	9,580 <sup>3</sup>
INDUSTRIAL MINERALS					
Cement, hydraulic thousand tons	12,566	11,959	8,653 <sup>3</sup>	9,000	8,500
Clays:					
Bentonite	1,844	2,800	5,128 <sup>3</sup>	5,500	5,500
Red	--	-- <sup>e</sup>	4,983 <sup>3</sup>	5,000	5,000
White	5,465	1,598	5,111 <sup>3</sup>	5,000	5,000
Other	--	771	800	800	800
Feldspar	16,909	3,440	33,122 <sup>3</sup>	30,000	30,000
Lime	7,829	9,000	9,000	9,000	9,000
Perlite	10,265	5,650	6,000	6,000	6,000
Phosphate rock thousand tons	181,000	434,000	450,000	400,000	400,000
Pyrite and pyrrhotite, including cuprous, gross weight <sup>e</sup>	320,000	300,000	300,000	300,000	300,000
Salt, marine	704,347	589,528	600,000	600,000	429,160 <sup>3</sup>
Sand and gravel:					
Silica sand thousand tons	64	70	70	70	70 <sup>3</sup>
Other <sup>e,3</sup> thousand cubic meters	15,000	15,000	15,000	15,000	15,000
Stone:					
Dolomite	839,102	823,302	802,189 <sup>3</sup>	800,000	750,000
Limestone <sup>4</sup> thousand tons	16,738	22,244	23,000	20,000	16,432 <sup>3</sup>
Marble, dimension, unfinished cubic meters	9,826	14,804	15,000	15,000	15,000
Volcanic cinder <sup>e</sup> do.	2,000	2,000	2,000	2,000	2,000
Tuff	1,460	1,662	1,500	1,500	1,500
Quartz <sup>e</sup>	50,000	50,000	50,000	50,000	50,000
Crushed, broken, other <sup>5</sup> thousand cubic meters	2,388	2,684	2,500	2,500	2,500
Sulfur, all forms <sup>e</sup>	133,000 <sup>3</sup>	134,000 <sup>3</sup>	170,000	180,000	180,000
MINERAL FUELS AND RELATED MATERIALS					
Coal, all grades thousand tons	1,205	1,218	1,230 <sup>3</sup>	1,665 <sup>3</sup>	2,029 <sup>3</sup>
Petroleum:					
Crude thousand 42-gallon barrels	400	400 <sup>e</sup>	475 <sup>3</sup>	2,020 <sup>3</sup>	2,000
Refinery products: <sup>e</sup>					
Liquefied petroleum gas do.	5,500	5,500	6,000	25,200	25,200
Gasoline do.	18,500	18,500	19,000	79,800	79,800
Jet fuel do.	6,500	6,500	7,000	29,400	29,400
Kerosene do.	4,500	4,500	5,000	21,000	21,000
Distillate fuel oil do.	40,000	40,000	40,000	168,000	168,000
Residual fuel oil do.	47,000	47,000	47,000	215,000	215,000
Refinery fuel and losses do.	5,000	5,000	5,000	230,000	230,000
Other do.	10,000	10,000	10,000	225,000	225,000
Total do.	137,000	137,000	139,000	993,400 <sup>3</sup>	993,000

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

<sup>1</sup>Table includes data through October 1, 2004.

<sup>2</sup>Reported.

<sup>3</sup>Included "pebbles" and "soil" not further described.

<sup>4</sup>Excluded limestone for road construction.

<sup>5</sup>Included materials described as rock, crushed or broken; stones, cobbles, and boulders; rock aggregates; and broken adobe.