



2013 Minerals Yearbook

BURMA

THE MINERAL INDUSTRY OF BURMA

By Yolanda Fong-Sam

From July 2012 to July 2013, the United States lifted many sanctions against Burma (also known as Myanmar) although some sanctions were retained. The lifting of many of the sanctions resulted in U.S. companies being able to invest in some businesses in the country as well as to import goods from Burma.

In 2013, Burma produced a variety of mineral commodities, including cement, coal, copper, lead, natural gas, petroleum, petroleum products, precious and semiprecious stones, tin, tungsten, and zinc. In August, intense floods affected various states and regions in the country and displaced over 20,000 people. The most affected was Kayin State, which is located in the south of the country (table 1; United Nations Office for the Coordination of Humanitarian Affairs, 2013).

In June 2013, a new pipeline was commissioned and began transporting natural gas from Burma to China. The pipeline, which stretches for 794 kilometers (km), connects the Bay of Bengal (located on the southwest coast of Burma) to Yunnan Province of China (located to the northeast of Burma). According to China National Petroleum Corp. (CNPC), the pipeline has an estimated transportation rate of 12 billion cubic meters of natural gas per year. During 2013, a parallel pipeline measuring 771 km in length was under construction; when commissioned, it would transport crude oil from the Middle East, which was originally planned to be shipped from the Indian Ocean. For the construction of the pipelines, CNPC formed a joint venture with Myanmar Oil and Gas Enterprise and four other companies from India and the Republic of Korea (Watt, 2013).

On November 19, the Italian-Thai Development Plc. (ITD), a construction company based in Thailand, announced that it had stopped the construction of the deep-sea port and industrial zone in Dawei, Tanintharyi Division, in southern Burma, which is located about 186 km west of Thailand's capital city of Bangkok. The 75-year concession granted to ITD remained in place while the participation of foreign investors was arranged. The project was halted because of the lack of progress and delays in construction as well as insufficient economic commitments (DVB Multimedia Group, 2013).

Minerals in the National Economy

According to the Asian Development Bank, in 2013, the mining sector (at current prices) contributed 6% to Burma's gross domestic product (GDP) compared with about 6.2% in 2012. The construction sector contributed 5.3% to the GDP compared with 4.9% in 2012 (Asian Development Bank, 2015).

Burma's total trade value for 2013 was \$18.05 billion, of which exports totaled \$8.98 billion, and imports, \$9.07 billion. The total value of exports represented 49.75% of total trade, whereas that of imports represented 50.25% (Central Statistical Organization, 2014).

In 2013, the value of natural gas exports was about \$3.67 billion, which was equivalent to 40.8% of total exports. Exports of base metals and ores were valued at \$92 million, which represented about 1% of total exports. The primary mineral products imported by Burma in 2013 were base metals and manufactured goods, which represented 11.3% of total imports and were valued at \$1.03 billion; cement imports represented 1.7% of total imports and were valued at \$157.5 million; and coal and coke imports represented less than 1% of total imports and were valued at \$22.8 million (Central Statistical Organization, 2014).

Thailand was Burma's main export partner in 2013 followed by China, India, and Japan. The total value of Burma's exports to Thailand was \$4 billion (about 45% of the country's total exports); China, \$2.2 billion (25%); India, \$1 billion (11%); and Japan, \$406.5 million (4.5%). Burma's major import partners were China (30% of total imports), Singapore (28%), Japan, (12%), and Thailand (7.7%). The imports from these countries were valued at \$2.7 billion, \$2.5 billion, \$1.1 billion, and \$697 million, respectively (Central Statistical Organization, 2014).

In 2013, foreign direct investment in Burma totaled \$1.25 billion distributed among 94 projects, which included projects from China, Singapore, the United Kingdom, and Vietnam. Burma's major investors were China, which invested about \$407.3 million; Vietnam, \$329.4 million; Singapore \$247.8 million; and the United Kingdom, \$232.7 million (Central Statistical Organization, 2014).

Government Policies and Programs

In April 2012, Burma started seeing the easing of decades of sanctions imposed by Western countries after more than 50 years of military rule in the country. Those that agreed to suspend sanctions were Australia, Canada, the European Union (EU), Japan, and the United States. The decision was made as Burma's Government started to implement democratic reforms (Pawlak and Moffett, 2012; Spetalnick, 2012).

The U.S. Government, however, kept some of the sanctions in place, at least for the immediate future, as a precaution and to observe the development of Burma and how it welcomed the new democratic administration. The ban on investments and visa permits to individuals accused of human rights violations was retained and extended until 2014; the National Emergencies Act prohibits U.S. entities from investing or conducting business with Burmese individuals identified as having an involvement with the antidemocracy rule in the 1990s. On August 7, 2013, the President of the United States also announced the extension of an Executive order that prohibits the importation of any jadeite, rubies (extracted or mined), and any article of jewelry containing any of those mineral commodities from Burma, mainly because of the involvement of the militia

in the production of those mineral commodities (Eckert and Cooney, 2013; Mahtani, 2013; Myanmar Today News, 2013; Obama, 2013).

In April 2013, the foreign ministers of the countries of the EU announced the permanent easing of sanctions imposed against Burma. The decision came as the result of the progress of Burma's transition from a militia-based junta into a civilian-ruled and democracy-based Government. Changes included improved freedom of expression, the release of political prisoners, and a commitment to avoid clashes with armed ethnic minority groups. The EU, however, planned to maintain an arms embargo for another year (Mahtani, 2013).

On October 1, the Myanmar Ministry of Mines announced that it had submitted to the Parliament the draft of a new mining law. The new law, if approved, would ease the process for foreign stakeholders to invest in the mining sector. The Ministry of Mines anticipated the enactment of the law by spring 2014 (Burton and Raybould, 2013).

Production

During 2013, Burma's mineral industry reported sharp increases and decreases in the production of minerals compared with that of 2012. In the metals mining sector, the production of tin (tin ores and concentrate) increased by more than 325%, followed by increases in the production of nickel (86%), copper (32%), and antimony (22%). In the industrial minerals sector, increases were reported for dolomite (135%), limestone (56%), and barite (45%); however, decreases were reported for ruby (54%), jade (33%), and sapphire (22%). In the mineral fuels sector, a slight increase in production was reported for natural gas (3%), although decreases were reported for coal (19%), crude petroleum (6%), and refinery products (less than 1%) (table 1).

Structure of the Mineral Industry

The mineral sector in Burma includes mining and mineral processing industries, which are mainly Government owned. Table 2 is a list of Burma's major mineral industry facilities.

Commodity Review

More-extensive coverage of the mineral industry of Burma can be found in the U.S. Geological Survey Minerals Yearbook 2012, volume III, Area reports—International—Asia and the Pacific, which is available at <http://minerals.usgs.gov/minerals/pubs/country/asia.html#bm>.

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TABLE 1
BURMA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2009	2010	2011 ^e	2012	2013 ^e
METALS					
Antimony, Sb content ^e	3,700	5,900	7,000	7,400	9,000
Copper:					
Mine output, Cu content	3,500	9,000	9,000	19,000 ^e	25,000
Metal, refined	3,500	9,000	9,000	19,000 ^e	25,000
Gold, refined kilograms	NA	NA	NA	787 ³	893 ³
Lead:					
Mine output, Pb content ^{e,4}	5,000	7,000	8,700	9,800	11,700
Metal, refined	200	--	--	200 ⁵	200
Manganese, mine output, Mn content	242,900	299,900	234,400 ⁵	157,000 ^{r,5}	160,000
Nickel:					
Mine output, Ni content ^e	10	--	800	5,000 ^p	9,300 ^p
Ferronickel:					
Ni content	NA	NA	NA	--	7,000 ^p
Gross weight	NA	NA	NA	--	27,046 ^p
Silver, mine output, Ag content ⁴ kilograms	249	--	--	--	--
Tin, mine output, gross weight: ^{6,7}					
Of tin ores and concentrates	1,000	4,000	11,000	10,600	45,200
Metal, refined ^e	30	30	30	30	30
Tungsten, mine output, W content: ⁴					
Of tungsten concentrate	4	2	--	-- ⁷	--
Of tin-tungsten concentrate	83	161	140	130 ^{r,7}	130
Total	87	163	140	130 ^{r,7}	130
Zinc, mine output, Zn content ^{e,4}	6,000	8,600	9,300 ^r	4,800 ^r	5,000
INDUSTRIAL MINERALS					
Barite	7,623	8,975	30,000	21,539 ^{r,3}	31,295 ^{3,5}
Clay, bentonite	NA	NA	NA	--	1,552 ⁵
Cement, hydraulic	669,941	534,034	538,000	600,000 ^{r,3}	600,000
Gypsum	97,518	81,051	50,000	64,079 ^{r,3}	60,510 ^{3,5}
Precious and semiprecious stones:					
Jade kilograms	25,427,237	38,990,035	45,000,000	19,080,442 ^{r,3}	12,800,000 ³
Ruby do.	1,674,579	1,612,070	870,000	852,033 ^{r,3}	396,000 ³
Sapphire do.	795,228	1,311,327	1,500,000	1,351,916 ^{r,3}	1,060,000 ³
Spinel do.	296,956	618,730	620,000	514,052 ^{r,3}	417,000 ³
Salt:					
Brine	133,358	97,136	100,000	NA ^r	NA
Crude, rock salt	NA	NA	NA	207,261 ^{r,3}	210,000
Stone:					
Dolomite	4,390	3,119	2,000	170 ^{r,3}	400 ³
Limestone, crushed and broken ^e thousand metric tons	4,000	3,200	3,200	428 ^{r,3}	665 ³
MINERAL FUELS AND RELATED MATERIALS					
Coal, lignite	245,418	217,650	300,000	471,022 ^{r,3}	380,272 ^{3,5}
Gas, natural, marketed million cubic meters	11,555	12,425	12,500	12,557 ^r	12,900
Petroleum:					
Crude thousand 42-gallon barrels	6,881	6,806	6,400	6,197 ^{r,3}	5,860 ³
Refinery products ⁸ do.	4,139	4,851	5,000	4,029 ^{r,3}	4,000

See footnotes at end of table.

TABLE 1—Continued
BURMA: PRODUCTION OF MINERAL COMMODITIES¹

⁶Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. ^PPreliminary. ^rRevised. NA Not available. -- Zero.

¹Table includes data available through January 23, 2015.

²In addition to the commodities listed, copper matte, construction aggregates, diamond, feldspar, iron and steel, lead (antimonial), nitrogen (ammonia), sand and gravel, and silica sand are produced, but available information is inadequate to make reliable estimates of output.

³Data are for fiscal year ending March 31 of the following year.

⁴Data are for production by the state-owned mining enterprises under the Ministry of Mines.

⁵Reported figure.

⁶Production of tin, mine output, Sn content production as reported by the Government, in metric tons, was 2009—518; 2010—374; 2011—350, 2012—576 (revised), and 2013—443.

⁷Data compiled from the United Nations Comtrade database for tin ores and concentrates imported from Burma by China, Malaysia, and Thailand.

⁸Includes diesel, distillate fuel oil, gasoline, jet fuel, kerosene, and residual fuel oil.

Sources: Ministry of Mines and Central Statistical Organization (Yangon), Statistical Yearbook 2009; Selected Monthly Economic Indicators, January 2009, January 2010, December 2010, September 2011, May 2014.

TABLE 2
BURMA: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity ^e
Cement	AAA Cement International Co. Ltd.	Cement plant in Kyaukse, Mandalay Region	180,000.
Do.	Dragon Cement Co., Ltd.	Cement plant in Pinlaung, Shan State	180,000.
Do.	Mandalay Cement Industries Co. Ltd.	Cement plant in Kyaukse, Mandalay Region	135,000.
Do.	Max Cement (subsidiary of Max Myanmar Holding Co. Ltd.)	Cement plant in Aung Nan Cho Village, Lewe, Naypyidaw Township, Mandalay Region	150,000.
Do.	Myanma Ceramic Industries	Cement plant in Kyangin, Ayeyarwady Region	363,000.
Do.	do.	Cement plant in Kyaukse, Mandalay Region	120,000.
Do.	do.	Cement plant in Thayet, Magway Region	170,000.
Do.	Myanmar Economic Corp. Myaing Galay 1	Cement plant in Hpa An, Kayin State	240,000.
Do.	Myanmar Economic Corp. Myaing Galay 2	do.	1,200,000.
Do.	Naypyidaw Development Committee	Cement plant in Naypyidaw Township, Mandalay Region	150,000.
Do.	Tiger Head Cement (Myanmar)	Cement plant in Kyaukse, Mandalay Region	90,000.
Do.	Union of Myanmar Economic Holdings Ltd. Sin Min 1	do.	330,000.
Do.	Union of Myanmar Economic Holdings Ltd. Sin Min 2	do.	NA.
Do.	Yangon City Development Committee	Myodaw cement plant in Thazi Mandalay Region	150,000.
Coal	Mining Enterprise No. 3 (ME-3)	Kalewa coal mine in Sagaing Division, near Kalewa in Sagaing Region.	NA.
Copper	Mining Enterprise No. 1, Myanmar Yang Tse Copper Ltd. (Wanbao Mining Ltd.)	Monywa copper project, S&K Mine, and Monywa solvent extraction-electrowinning plant in Monywa Region	40,000.
Natural gas	million cubic meters	Total E&P Myanmar, 31.2%; Chevron Corp., 28.26%; PTT Exploration and Production Public Co. Ltd. (PTTEP), 25.5%; Myanmar Oil and Gas Enterprise (MOGE), 15%	7,300.
Do.	do.	Petronas Carigali Myanmar Inc., 40.91%; Myanmar Oil and Gas Enterprise (MOGE), 20.45%; PTT Exploration and Production Public Co. Ltd. (PTTEP), 19.32%; Nippon Oil Exploration (Myanmar) Ltd., 19.32%	4,600.
Do.	do.	Myanmar Petroleum Resources Ltd. and Myanmar Oil and Gas Enterprise (MOGE)	Mann oilfield, south of Yangon, Yangon Region 40.
Nickel	China Nonferrous Metal Mining (Group) Co. Ltd. of China and Taiyuan Iron & Steel (Group) Co. Ltd. of China	Tagaung Taung nickel ore project (mine and smelter) at Thabeikying, Mandalay Region	20,000 (nickel), 85,000 (ferronickel).

See footnotes at end of table.

TABLE 2—Continued
 BURMA: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity ^c	
Nitrogen, N content of fertilizer	Myanma Petrochemical Enterprise (Government, 100%)	No. 1 fertilizer plant at Sales, 190 kilometers southwest of Mandalay Region	169,725.	
Do.	do.	No. 2 fertilizer plant at Kyun Chaug, Magway Division	75,600.	
Do.	do.	No. 3 fertilizer plant at Kyawzwa, Magway Division	219,000.	
Petroleum:				
Crude	thousand 42-gallon barrels	Myanmar Petroleum Resources Ltd. and Myanma Oil and Gas Enterprise (MOGE)	Mann oilfield, south of Yangon, Yangon Region	876.
Refined	do.	Myanma Petrochemical Enterprise (Government, 100%)	No. 1 refinery at Thanlyin (near Yangon)	7,300.
Do.	do.	do.	No. 2 refinery at Chauk, Magway Division	2,190.
Do.	do.	do.	No. 3 refinery at Thanbayakan	9,125.
Steel		Myanmar Posco Steel Co. Ltd. (POSCO, 70%, and Government, 20%)	POSCO steel plant at Mingalardon Township, Yangon Region	30,000.

^cEstimated. Do., do. Ditto. NA Not available.