



2017–2018 Minerals Yearbook

BURMA [ADVANCE RELEASE]

THE MINERAL INDUSTRY OF BURMA

By Ji Won Moon

In 2017 and 2018, the production of mineral commodities—primarily antimony, cement, coal, copper, ferronickel, jade, lead, manganese, natural gas, nickel, petroleum, petroleum products, precious and semiprecious gemstones, rare earths, tin, tungsten, and zinc—represented only a minor part of the economy of Burma (Anderson, 2020; Central Statistical Organization, 2020; Gambogi, 2020; Klochko, 2020). The legislative framework for the mineral sector in Burma is provided by Myanmar Mines Law No. 72/2015 enacted in December 24, 2015, which amended the Myanmar Mines Law of 1994. 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 Burma 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>.

References Cited

- Anderson, C.S., 2020, Tin: U.S. Geological Survey Mineral Commodity Summaries 2020, p. 172–173.
- Central Statistical Organization, 2020, Gross domestic product at constant prices by sector of activity—Myanmar Statistical Information Service: Central Statistical Organization, January 10. (Accessed April 30, 2020, via http://www.mmsis.gov.mm/sub_menu/statistics/statDbList.jsp?vw_cd=MT_ZTITLE&self_id=195_004.)
- Gambogi, Joseph, 2020, Rare earths: U.S. Geological Survey Mineral Commodity Summaries 2020, p. 132–133.
- Klochko, Kateryna, 2020, Antimony: U.S. Geological Survey Mineral Commodity Summaries 2020, p. 22–23.

TABLE 1
BURMA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons, gross weight, unless otherwise specified)

Commodity ²	2014	2015	2016	2017	2018
METALS					
Antimony, mine, Sb content	3,600	3,000	2,780 ^r	3,060	2,641
Copper:					
Mine, solvent extraction ³	33,200	46,900	75,000	115,100	153,000
Refinery, electrowon	33,200	46,900	75,000	115,100	153,000
Ferroalloys, ferronickel:					
Gross weight	59,000 ^e	60,000 ^e	64,462 ^r	62,366	58,000 ^e
Ni content	15,300 ^e	15,600 ^e	16,800 ^r	16,200	15,000 ^e
Gold, mine, Au content ⁴	kilograms 1,312 ^r	1,692	1,446 ^r	1,620	1,600 ^e
Lead:					
Mine, Pb content	18,000 ^e	13,600 ^e	14,000	20,900 ^e	35,000
Refinery, primary ^e	200	600	5,900	12,000	12,000
Manganese, mine:					
Gross weight	241,800	70,200 ^r	293,000	346,000	518,000
Mn content	96,700	28,100	117,000	138,000	207,000
Nickel, mine, laterite ore, Ni content	21,000	23,000 ^r	20,000 ^r	20,000	21,000
Rare earths, mineral concentrate, rare-earth-oxide equivalent ^e	200	300	3,300	15,000	19,000
Tin, mine, Sn content ^e	30,000 ^r	41,000 ^r	57,000 ^r	67,500	54,600
Tungsten, mine, W content: ^{e, 4}					
Tin-tungsten concentrate	244 ^r	139 ^r	181 ^r	212	212
Tungsten concentrate	3	5	2	3	3
Zinc, mine, Zn content	6,100	4,800	6,500	13,100	12,000
INDUSTRIAL MINERALS					
Barite	25,931 ^r	4,535 ^r	2,627 ^r	3,206	2,935
Cement, hydraulic	1,317,163	989,047 ^r	2,520,477 ^r	5,480,094	6,000,000 ^e
Clay, bentonite ⁴	NA	700	600 ^r	600	600 ^e
Fluorspar: ^e					
Acid grade	--	--	--	--	20,000
Metallurgical grade	12,000	13,000	7,000	3,000	50,000
Gemstones:					
Jade	kilograms 12,746,000 ^r	29,880,000 ^r	36,755,000 ^r	37,986,000	28,136,000
Pearl	do. 1,579	1,556	1,619	1,766	1,630
Other precious and semiprecious stones	do. 2,002	3,659	2,411	1,486	1,279
Gypsum, mine	70,196 ^r	94,395 ^r	245,789 ^r	361,015	309,343
Nitrogen, ammonia, N content	79,000	67,000	37,000	48,000	53,000
Salt, rock salt	162,089 ^r	133,815 ^r	212,041 ^r	158,499	189,146
Stone, construction:					
Crushed, limestone ^e	thousand metric tons 7,900	5,900 ^r	15,100 ^r	32,800	35,900
Dimension, dolomite	1,800 ^r	2,200	2,200	2,200	2,200
MINERAL FUELS AND RELATED MATERIALS					
Coal, lignite	407,103 ^r	373,596 ^r	506,262 ^r	677,774	1,200,619
Coke	12,566	13,617	10,815	18,105	11,284
Natural gas	million cubic meters 16,759 ^r	19,545 ^r	18,971 ^r	18,105	17,080
Petroleum:					
Crude	thousand 42-gallon barrels 5,838 ^r	5,017 ^r	4,384 ^r	4,105	3,655
Refinery:					
Diesel	do. 911	1,022	823	930	731
Furnace oil	do. 200	209	334	468	340
Gasoline	do. 1,764	1,262	1,019	599	493
Jet fuel	do. 106	118	98	74	60
Kerosene	do. 3	1	1	1	2
Liquefied petroleum gas	do. 69	99	85	71	80
Total	do. 3,053	2,711	2,360	2,143	1,706

See footnotes at end of table.

TABLE 1—Continued
BURMA: PRODUCTION OF MINERAL COMMODITIES¹

⁶Estimated. ⁵Revised. do. Ditto. NA Not available. -- Zero.

¹Table includes data available through December 11, 2019. All data are reported unless otherwise noted. Estimated data are rounded to no more than three significant digits.

²In addition to the commodities listed, copper matte, diamond, feldspar, iron and steel, lead (antimonial), sand and gravel, and silica may have been produced, but available information was inadequate to make reliable estimates of output.

³The copper content of solvent extraction output at the mine level is the same as electrowon refinery output because copper produced in the solvent extraction and electrowinning process is typically reported only at the refinery level.

⁴Production is based on fiscal year, with a starting date of April 1 of the year shown.

TABLE 2
BURMA: STRUCTURE OF THE MINERAL INDUSTRY IN 2018

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity ^c
Antimony:			
Ore	Tha Byu Mining Co. Ltd. (Star Sapphire Group)	Tha Byu Mine, Kayin State	NA
Refinery	Myanmar Shin Shin Metal Antimony Co.	Myanmar Shin Shin Antimony refinery plant, Mawlamyine Industrial Zone	NA
Do.	Northeast Sin Phyu Taw Mineral Exploration Co.	Northeast Sin Phyu Taw Antimony refinery plant, Mawlamyine Industrial Zone	NA
Cement	AAA Cement International Co. Ltd.	Cement plant, Kyaukse and Patheingyi Township, Mandalay Region	230
Do.	Dragon Cement Co. Ltd.	Cement plant, Pinlaung, Shan State	180
Do.	Mandalay Cement Industries Co. Ltd. (MCICL) (Royal Hi-Tech Group Co.)	Cement plant, Kyaukse Township, Mandalay Region	170
Do.	Mawlamyine Cement Ltd. (Siam Cement Group, 70%, and Pacific Link Cement Industries, 30%)	Mawlamyine cement plant, Kyaikmayaw, Mon State	500
Do.	Max Myanmar Manufacturing Co. Ltd. (Max Myanmar Holding Co. Ltd., 100%)	Max cement plant, Leiway Township, Nay Pyi Taw Region	693
Do.	Max Myanmar Manufacturing Co. Ltd. (operator), Yangon City Development Committee (owner) (Union of Myanmar Economic Holdings Ltd., 100%)	Max cement plant II (leased Pyi Nyaung plant), Tharzi, Mandalay Region	170
Do.	Myanmar Ceramic Industry (Government, 100%)	Kayan wet-process plant, Ayeyarwady Region	130
Do.	Myanmar Conch Cement Co. Ltd. (Myint Investment Group and Anhui Conch Cement Co. Ltd.)	No. 33 cement plant, Kyaukse, Mandalay Region	1,650
Do.	Myanmar Economic Corp. Co. Ltd.	No.(1) and No.(2) Myaingglay cement plants, Hpa An, Kayin State	1,620
Do.	Myanmar Thandaw Myat Co. (Thandaw Myat Co. Ltd., and Yun Nan Jian Sheng In-vestment Co. Ltd.)	Double Rhinos cement plant, Kyaukse township, Mandalay	1,650
Do.	Naypyidaw Development Committee (Union of Myanmar Economic Holdings Ltd., 100%)	Cement plant, Naypyidaw, Mandalay Region	170
Do.	No 31 Heavy Industry (No. 2 Heavy Industrial Enterprise, 100%)	No. 31 cement plant, Thayet, Magway Region	130 ¹
Do.	No 32 Heavy Industry (No. 2 Heavy Industrial Enterprise, 100%)	No. 32 cement plant, Kyangin, Ayeyarwady Region	363 ¹
Do.	Shwe Taung Cement Co. Ltd. (STC) (Shwe Taung Mining, 100%)	Apache cement plant, Pyin Nyaung, Mandalay Region	932
Do.	Sinminn Cement Industry Co. Ltd. (Union of Myanmar Economic Holdings Ltd., 60%, and Shwe Cement Co. Ltd., 40%)	Sinminn 3 cement plant, Kyaukse, Mandalay Region	300
Do.	Tiger Head Cement (Myanmar)	Cement plant, Kyaukse, Mandalay Region	100
Do.	Tun Thwin Mining Co. Ltd.	Kalay cement plant, Kalay, Sagaing Region	NA
Do.	Union of Myanmar Economic Holdings Ltd.	Cement plant, Kyaukse, Mandalay Region	360
Coal	Eden Group Co. Ltd.	Coal mine, Tigyt, Shan State	913
Do.	Tun Thwin Mining Co. Ltd., and No. 1 Mining Enterprise	Paluzawa coal mine, Kalewa, Sagaing Region	100
Copper	Myanmar Wanbao Mining Copper Ltd. [No. 1 Mining Enterprise, 51%; Wanbao Mining Ltd., 30%; Union of Myanmar Economic Holding Ltd. (UMEH), 19%]	Letpadaung copper mine, Salinggyi, Sagaing Region	100
Do.	Myanmar Wanbao Mining Copper Ltd. (operator), and Myanmar Yang Tse Copper Ltd. (owner) [No. 1 Mining Enterprise, 51%; Wanbao Mining Ltd., 30%; Union of Myanmar Economic Holding Ltd. (UMEH), 19%]	Sabetaung and Kyisintaung copper mine and Monywa solvent extraction electrowinning plant, Monywa, Sagaing Division	50

See footnotes at end of table.

TABLE 2—Continued
BURMA: STRUCTURE OF THE MINERAL INDUSTRY IN 2018

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity ^c
Ferroalloy, ferronickel	China Nonferrous Metal Mining Nickel Co. (CNICO) [China Nonferrous Metal Mining Co. Ltd. (CNMC), 60%, and Taiyuan Iron & Steel (Group) Co. Ltd. (TISCO), 40%]	Tagaung Taung (Dagongshan) nickel ore project (mine and smelter), Thabeikying, Mandalay Region	85
Gemstone	Taung Tan Yadandar Gems Co. Ltd.	Kachin State	NA
Do.	NA	Hpakant jade mining region	NA
Gold, mine, Au content kilograms	National Prosperity Gold Production Group Ltd.	Moehiti Moemi gold mine, Yamethin, Mandalay Region	1,700
Lead:			
Mine, Pb content	Bawdwin joint venture (Myanmar Metals, 51%; Win Myint Mo Industries Co. Ltd., 24.5%; East Asia Power (Mining) Co. Ltd., 24.5%)	Bawdwin lead-zinc mine, Namtu, Kyaukme, Shan State	NA ²
do.	No. 1 Mining Enterprise and GPS Joint Venture Co. Ltd.	Mine in Kalaw, Taunggyi, Shan State	35
Refinery	Myanmar Smelting & Refining Co. Ltd. (MYSARCO)	Myaung Da Kar Special Foundry Industrial Zone, Hmawbi, Yangon Region	NA
Do.	Yangon Metal Industry Co. Ltd.	do.	NA
Manganese, ore and concentrate	East Asia Power (Mining) Co. Ltd.	NA	NA
Natural gas million cubic meters	Daewoo International (POSCO, 100%), 51%; Oil and Natural Gas Corp. (ONGC) Videsh Ltd., 17%; Myanmar Oil and Gas Enterprise (MOGE), 15%; Gas Authority of India Ltd. (GAIL), 8.5%; Korea Gas Corp. (KOGAS), 8.5%	Shwe gasfield (Block A1) and Shwe Phyu and Ngwe gasfield (Block A3) off of Rakhine State coast	3,850
Do.	do. Myanmar Petroleum Resources Ltd. (MPRL) E&P, and Myanma Oil and Gas Enterprise (MOGE)	Mann oilfield, south of Yangon, Yangon Region	520
Do.	do. Petroleum Authority of Thailand Exploration and Production International (PTTEP International), 80%, and Myanmar Oil and Gas Enterprise (MOGE), 20%	Zawtika natural gas project (Gawthaka, Kakonna, and Zawtika offshore gasfields), Gulf of Martaban	3,100
Do.	do. Petronas Carigali Myanmar Inc., 40.91%; Myanmar Oil and Gas Enterprise (MOGE), 20.45%; PTT Exploration and Production Plc., 19.32%; Nippon Oil Exploration (Myanmar) Ltd. (NOEM), 19.32%	Yetagun gasfield (Blocks M12, M13, and M14), Tanintharyi, Gulf of Martaban	4,600
Do.	do. Total E&P Myanmar (TEMP), 31.24%; Unocal Myanmar Offshore Co. Ltd. (subsidiary of Chevron Corp.), 28.3%; PTT Exploration and Production Plc., 25.5%; Myanmar Oil and Gas Enterprise (MOGE), 15%	Yadana, Badamayar, and Sein gasfields (Blocks M5 and M6), Andaman Sea	8,600
Nickel	China Nonferrous Metal Mining Nickel Co. (CNICO) [China Nonferrous Metal Mining Co. Ltd. (CNMC), 60%, and Taiyuan Iron & Steel (Group) Co. Ltd. (TISCO), 40%]	Tagaung Taung (Dagongshan) nickel ore project (mine and smelter), Thabeikying, Mandalay Region	25
Nitrogen, ammonia	Myanma Petrochemical Enterprise (Government, 100%)	No. 1 fertilizer plant, Sa Le, Mandalay Region	36 ¹
Do.	do.	No. 2 fertilizer plant, Kyun Chaung, Magway	36 ¹
Do.	do.	No. 3 fertilizer plant, Kyaw Zwa, Magway	108 ¹
Do.	do.	No. 4 fertilizer plant, Myaungdaga, Yangon	98
Do.	do.	No. 5 fertilizer plant, Kangyidaunt, Ayeyarwady Region	98
Petroleum:			
Crude thousand 42-gallon barrels	Myanmar Petroleum Resources Ltd. (MPRL), and Myanmar Oil and Gas Enterprise (MOGE)	Mann oilfield, south of Yangon, Yangon Region	3,700
Refined	do. Myanma Petrochemical Enterprise (Government, 100%)	No. 1 refinery, Thanlyin (near Yangon)	7,300 ¹
Do.	do.	No. 2 refinery, Chauk, Magway Region	840

See footnotes at end of table.

TABLE 2—Continued
BURMA: STRUCTURE OF THE MINERAL INDUSTRY IN 2018

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity ^c
Petroleum:—Continued				
Refined—Continued	thousand 42-gallon barrels	Myanma Petrochemical Enterprise (Government, 100%)	Petrochemical Complex, Thanbayakan, Magway Region	3,140
Rare earths, mineral concentrates, rare-earth-oxide equivalent		Myanmar Ye Huang Mining Corp.	Mine in Kokang, Langkho, Shan State	20
Salt		NA	Shwebo District	NA
Steel, products		Millcon Thiha Co. (Millcon Steel Plc., 45%; General Engineering Co., 45%; Thiha Group, 10%)	Plant in Thiha Special Economic Zone, Yangon Region	54
Do		Min Dhama Steel Structures Co. Ltd. (Mottama Holdings Ltd.)	Plant in Shwe Pyi Thar Industrial Zone, Yangon City	60
Do		Myanmar Posco Steel Co. Ltd. (POSCO, 70%; Government, 20%; other, 10%)	POSCO steel plant, Mingalardon, Yangon Region	30
Tin, ore and concentrates		Myanmar Pongpipat Co. Ltd. (MPC), 65%, and No. 2 Mining Enterprise, 35%	Heindar tin mine, Myitta, Dawei, Tanintharyi Region	NA
Tin-tungsten, ore and concentrates		Developers Entrepreneurs Laison Construction Organizers Ltd. (DELCO)	Kanbawk Mine, Yay Phyu, Dawei, Tanintharyi Region	NA
Do.		Global South Industrial Co.	Tin-tungsten mine near the Kayah State-Shan State border	NA
Tungsten, ore and concentrates		Kayah State Mineral Production Co.	Mawchi Mine, Hpasawng, Bawlakhe, Kayah State	NA
Do		No. 2 Mining Enterprise	NA	NA
Zinc:				
Mine, Zn content	metric tons	Bawdwin joint venture (Myanmar Metals, 51%; Win Myint Mo Industries Co. Ltd., 24.5%; East Asia Power (Mining) Co. Ltd., 24.5%)	Bawdwin lead-zinc mine, Namtu Kyaukme, Shan State	NA ²
Do.	do.	East Asia Power (Mining) Co. Ltd. (operator), and Cornerstone Resources (Myanmar) Ltd. (owner) (Top End Minerals, 60%, and other, 40%)	Longh Keng zinc mine, Mong Pawn, Langkho District, Shan State	1,800
Do.	do.	No. 1 Mining Enterprise and Mayflower Mining Enterprise Ltd.	Mine in Myawaddy, Kayin State	9,600
Refinery	do.	East Asia Power (Mining) Co. Ltd. (operator), and Cornerstone Resources (Myanmar) Ltd. (owner)	Lashio zinc refinery, Shan State	10,000

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

¹Operation was suspended in 2018.

²Under care-and-maintanance status.