

2016 Minerals Yearbook

TAJIKISTAN

THE MINERAL INDUSTRY OF TAJIKISTAN

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In 2016, Tajikistan ranked second and fifth in world production of antimony and mercury, respectively, and accounted for 10% and 1% of world production, respectively. In addition, aluminum, cement, coal, crude petroleum, gold, gypsum, lead, natural gas, salt, sand and gravel, silver, and zinc were produced (table 1; George, 2018; Klochko, 2018).

Minerals in the National Economy

In 2016, the real gross domestic product (GDP) increased by 6.9% compared with 6.0% in 2015. The nominal GDP was \$7.0 billion. Industrial production (including energy, gas, and water) increased by 16.0% in 2016 compared with 11.2% in 2015. Within the industrial sector, manufacturing production increased by 12.8% compared with that of 2015. In 2016, the value of mineral sector output increased to 2.99 billion somoni (\$368 million)¹ from 1.64 billion somoni (\$235 million) in 2015 and accounted for 20% of the total value of the industrial sector. The value of output of the manufacturing sector increased to 9.3 billion somoni (\$1.2 billion) in 2016 from 8.0 billion somoni (\$1.15 billion) in 2015 and accounted for 62.2% of the total value of the industrial sector (Agency on Statistics Under the President of the Republic of Tajikistan, 2016, p. 147, 151; 2017, p. 147, 151; Asian Development Bank, 2017, p. 236; World Bank, The, 2017).

In 2016, Tajikistan's exports totaled \$898.7 million compared with \$890.6 million in 2015, and its imports totaled \$3.0 billion compared with \$3.4 billion in 2015. In 2016, the export value of precious and semiprecious stones and metals decreased by 52.2% to \$99.3 million from \$207.6 million in 2015 and accounted for 11% of total exports. The export value of nonprecious metals decreased by 2.9% to \$225.4 million from \$232.1 million in 2015 and accounted for 25.1% of total exports. Tajikistan exported 162,000 metric tons (t) of cement to neighboring countries, including Afghanistan, Kyrgyzstan, and Uzbekistan. The country's main export partners were Kazakhstan and Turkey (each of which received 22% of Tajikistan's exports), Switzerland (11%), Afghanistan (8%), and Russia (6%) (Agency on Statistics Under the President of the Republic of Tajikistan, 2016, p. 236, 238, 241–245; Global Cement, 2016).

In 2016, the import value of precious and semiprecious stones and metals decreased by 93% to \$7.0 from \$101.0 million in 2015 and accounted for 0.2% of total imports; the import value of nonprecious metals increased by 4.1% and accounted for 11.5% of total imports; that of chemical products increased by 2.9% to \$336.9 million and accounted for 11.1% of total imports; and that of alumina oxide increased by 1.2%. The country's main import partners were Russia (which supplied 33% of Tajikistan's imports), China (28%), and Kazakhstan (16%)

(Agency on Statistics Under the President of the Republic of Tajikistan, 2016, p. 239, 241–245).

Production

In 2016, the mine output of antimony (gross weight) increased by 107%; antimony (Sb content), by 100%; gold (Au content), by 66%; zinc concentrate (gross weight), by 47%; zinc (Zn content of ore), by 44%; lead (gross weight), by 43%; and lead (Pb content) by 42%. The mine output of silver (Ag content) decreased by 25%, and the production of natural gas decreased by 24%; lignite, by 12%; and primary aluminum, by 8%. Data on mineral production are in table 1.

Structure of the Mineral Industry

Table 2 is a list of major mineral industry facilities.

Commodity Review

Metals

Gold.—In 2016, Tajikistan's production of gold increased by 66% to 6,987 kilograms (kg) from 4,200 kg in 2015. The producers of gold were the following companies: JV Zarafshon Gold Co. LLC [a subsidiary of Zijin Mining Group Co. Ltd. (ZGC) of China and the leading gold producer in Tajikistan], which produced 3,300 kg of gold in 2016; the Tajik-Canadian joint venture Aprelevka, 590 kg; Tilloi Tochik [Tajik Gold] (owned by the JV Zarafshon Gold, 75%, and the Government, 25%), 570 kg; China Nonferrous Gold Ltd. (CNG) of China, 162 kg; the private company Odina; and artisanal miners (Zijin Mining Group Co. Ltd., 2015c, p. 12; Asia-Plus, 2017).

In 2016, ZGC's licensed area was composed of the Jilau, the Khirskhona, the Olympic, and the Taror deposits, and other small occurrences. In 2015 (the latest year for which detailed data were available), the resources of Jilau were estimated to be 43,000 kg (1.38 million troy ounces) of gold at a grade of 0.88 gram per metric ton (g/t) gold. The resources of Taror were estimated to be 58,000 kg (1.87 million troy ounces) of gold at a grade of 5.28 g/t gold. At Taror, ZGC tested a new ammonium cyanide leaching process for gold extraction from oxidized copper-bearing ores. This method would decrease processing time by four to eight times (Mineral.ru, 2015; Minerjob.ru, 2015; Zijin Mining Group Co. Ltd., 2015a, p. 39; 2015b, p. 7; Chorshanbiyev, 2017).

In 2016, CNG operated the Pakrut Mine through its subsidiary LLC Pakrut and produced 5,500 t of gold concentrate containing 162 kg of gold. The Pakrut license area consisted of the Pakrut gold deposit and a 63-square-kilometer exploration area, which was located in the metalliferous southern Tien Shan Gold Belt (China Nonferrous Gold Ltd., 2014, p. 7; 2015a, b; 2016a, p. 5; 2016b, p. 2).

¹Where necessary, values have been converted from Tajikistani somoni (TJS) to U.S. dollars (US\$) at an annual average exchange rate of TJS7.88=US\$1.00 for 2016 and TJS6.98=US\$1.00 for 2015.

Lead and Zinc.—In 2016, lead concentrate production increased by 43% to 84,749 t, and lead content of ore increased to 51,000 t. Production of zinc concentrate increased by 47% to 145,965 t from 99,621 t, and that of zinc content of ore increased by 44% to 72,000 t from a revised 50,000 t. According to the agreement between the Governments of China and Tajikistan, Xinjiang Tacheng International Resources Ltd. of China was expected to invest \$500 million in development of the north Zarnisor deposit and construction of the China-Tajikistan industrial zone in Istikol city. The construction of a new lead-zinc metallurgical plant started (the date was not specified) in the city of Istikol in Sughd Province with the capacity to process 100,000 metric tons per year of ore and was expected to be completed at the end of 2017. The cost of construction was estimated to be \$200 million; the plant would employ 1,300 people, 90% of whom would be local (Chorshanbiyev, 2013; Ministry of Industry and New Technologies of the Republic of Tajikistan, 2013; Kazakhstan Today, 2014; Asian, The, 2016; Muhammadradjab and Bakozoda, 2016).

Outlook

Tajikistan relies heavily on foreign investments and loans for infrastructure development and mineral enterprises. In 2016, foreign companies were engaged in the production of gold, lead, and zinc and are projected to continue to increase production and to invest in new production projects of these commodities in the coming years. Tajikistan also plans to increase cement production and export. The future of Tajikistan's economy will most likely continue to depend on economic strength in Russia and other trading partners (Asian Development Bank, 2017, p. 10).

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TABLE 1
TAJIKISTAN: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons, gross weight, unless otherwise specified)

Commodity ²	2012	2013	2014	2015	2016
METALS					
Aluminum metal, primary	272,500	216,369	125,000	140,000 ^r	129,000
Antimony, mine output:					
Gross weight, concentrate	24,100 ^e	31,700 ^e	35,000 ^e	29,036	60,000
Sb content of concentrate	5,545	7,308 ^r	8,058	7,000 ^r	14,000
Gold, mine output, Au content kilograms	2,400	2,774	3,477	4,200	6,987
Lead, mine output, concentrate:					
Gross weight	27,000 ^{e,r}	28,000 ^{e,r}	50,000 ^{e,r}	59,295 ^r	84,749
Pb content of ore	16,000 ^r	17,000 ^r	28,000 ^r	36,000 ^r	51,000
Mercury, Hg content of ore ^e	32	30	35	30	30
Silver, mine output, Ag content kilograms	1,767	1,800	3,000	4,000	3,000
Zinc, mine output, concentrate:					
Gross weight	60,000 ^e	48,000 ^e	96,000 ^e	99,621	145,965
Zn content of ore	30,000 ^r	24,000	48,000 ^r	50,000 ^r	72,000
INDUSTRIAL MINERALS					
Cement, hydraulic thousand metric tons	232	384	1,150	1,418 ^r	1,999
Gypsum	14,000	12,200	12,455	8,500 ^r	8,750
Salt	27,954	30,971	34,553	35,704 ^r	35,516
Sand and gravel, construction, unspecified	3,200 ^r	442,000 ^r	494,000 ^r	1,066,000 ^r	1,130,000
MINERAL FUELS AND RELATED MATERIALS					
Coal:					
Bituminous	318,148	411,521	821,931	985,019	1,311,161
Lignite	93,641	103,954	56,200	57,472	50,414
Gas, natural thousand cubic meters	11,170	3,928	3,216	3,800 ^r	2,900
Petroleum, crude 42-gallon barrels	218,000	199,000	179,000	180,000	183,000

^eEstimated; estimated data are rounded to no more than three significant digits. ^rRevised.

¹Table includes data available through November 28, 2017. All data are reported unless otherwise noted.

²In addition to the commodities listed, a number of other mineral commodities, including clay (loam), fluorspar, limestone, marble, and refined petroleum products were thought to have been produced, but available information was inadequate to make reliable estimates of output.

TABLE 2
TAJIKISTAN: STRUCTURE OF THE MINERAL INDUSTRY IN 2016¹

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity ^e
Aluminum	Tajik Aluminum Co. (TALCO) (Government, 100%)	Tursunzade smelter	520
Antimony:			
Ore, gross weight	Anzob mining-beneficiation complex (Comsup Commodities Inc., 100%)	Dzhizhikrutskiye antimony-mercury (Sb-Hg) deposit	60
Sb content of ore	Isfara hydrometallurgical plant (Government, 100%)	Isfara	14
Cement	JSC Tajikcement Ltd.	Dushanbe	1,200
Do.	Huaxin Gayur Cement Co. Ltd., 75%, and Gayur LLC, 25%	Yovon Cement, Yovon district, Khatlon Province	1,000
Do.	Ghayur-Sughd Cement (Tajik Ghayur Co. and Hauksin Central Asia Investment)	Ghafur district	1,200
Do.	Chjuntsay-Taboshar Cement	NA	600
Do.	LLC Tojikiston	Kharangon village, Varzob district	70
Do.	Isfarinsky Cement	Isfarinsky region	1,000
Do.	Sarabansky Cement	NA	70
Do.	Toj-China cement plant, JV Tajikistan-China Co.	Vahdat Distinct	1,200
Do.	Chzhungtsai Mohir Cement Co.	Yovon district, Khatlon Province	1,200

See footnotes at the end of table

TABLE 2—Continued
TAJIKISTAN: STRUCTURE OF THE MINERAL INDUSTRY IN 2016¹

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners		Location of main facilities	Annual capacity ^e
Clay, loam		SP Anzob		Varzobskoye Ushchel'ye deposit	NA
Coal		Kaisun Energy Group Ltd.		UP Fong-Yagnob, Pyandzh region	50
Do.		Isfara hydrometallurgical plant		Isfara	300
Do.		OJSC Angisht		Shurob region	32
Do.		do.		Shurob brown coal deposit	NA
Do.		SP Anzob		do.	NA
Dolomite		Yavan electrochemical complex		Pashkharvoskoye deposit	NA
Fluorspar, concentrate		Takob mining-beneficiation complex		Takob and Krasnye Kholmy deposits	60
Gold, ore,	kilograms	Aprelevka joint venture (Government, 51%, and Central Asia Minerals and Resources through subsidiary Gulf International Minerals Ltd., 49%)		Aprelevka deposit	600
Au content					
Do.		Odina		NA	NA
Do.	kilograms	Darvaz joint venture		Yak-Suyskoye deposit, Khatlon Province	2,000
Do.		OOO Takom Gold		NA	NA
Do.	kilograms	Tilloi Tochik (Tajik Gold) [JV Zarafshon Gold Co. LLC (Zijin Mining Group Co. Ltd., 75%, and Government, 25%)]		Tilloi Tochik, Khatlon Province	600
Do.	do.	do.		Jilau, Khirskhona, Olympic, and Taror deposits, Sughd Province	4,000
Do.	do.	China Nonferrous Gold Ltd. (CNG), through subsidiary LLC Pakrut, 100%		Pakrut gold project, southern portion of the Tien Shan Gold Belt	700
Gold, ore processing		Kansayskaya factory		Aprelevka, Burgunda, Kyzyl-Chek, and Shkol'noye deposits	NA
Do.		Vostokredmet refinery		Qizfaquz	NA
Lead-zinc, ore, gross weight		Adrasman mining-beneficiation complex (Government, 100%)		Adrasman, Sughd Province	NA
Do.		Kansayskoye mining complex		Karamazor region	NA
Do.		Takaelyyskiy metallurgical complex		NA	NA
Do.		Zarnisor Shimoli (Tajik-China Mining Co. Ltd.)		Northern Altyn-Topkan and Pay Buloq	NA
Do.		Tibet Summit Industry Co.		Altyn-Topkan	NA
Limestone		Dushanbe cement complex		Kharangonskoye deposit	NA
Mercury, Hg content of ore		Anzob mining-beneficiation complex (Comsup Commodities Inc., 100%)		Dzhizhikrutskoye deposit	150
Petroleum:					
Crude	thousand 42-gallon barrels	Beshtentyakskoye, Kichik-Belskoye, Shaambary, and Uzunkhorskoye deposits		Southern Tajik depression	250
Refined	do.	NA		Turshzoda town, Shahrinav district	456
Do.	do.	OJSC Nafrason		Kanibadam City, Sughd Province	513
Salt		Ashtskiy plant		Kamyshkurganskoye deposit	NA
Do.		Khoja-Sartez, Samanchi, and Tanabchi deposits		NA	NA
Do.		Voseyskiy plant		Khodzha-Muminskoye deposit	NA
Sand and gravel		Anvar LLC		NA	58
Silver	kilograms	JV Zarafshon Gold Company LLC		Jilau, Sughd Province	4
Do.	do.	do.		Taror deposits, Sughd Province	800
Do.		Adrasman mining-beneficiation complex		Adrasman, Sughd Province	NA
Do.		Aprelevka joint venture (Government, 51%, and Central Asia Minerals and Resources through subsidiary Gulf International Minerals Ltd., 49%)		Aprelevka deposit	NA
Do.		Kanjol ore field [Nukrafom Co. (Silverhill Resources Ltd., 100%)]		Gafurov district, Sughd Province	NA
Do.		Kytco BV		Akjilga	NA
Stone, marble		Dal'yan Bolo deposit		Ganchinskiy region	NA
Do.		Dashtak deposit		Darvaz region	NA
Do.		Jilikul deposit		Pendzhikentskiy region	NA

^eEstimated; estimated data are rounded to no more than three significant digits. Do., do. Ditto. NA Not available.

¹Many location names have changed since the breakup of the Soviet Union. Many enterprises, however, are still named or commonly referred to based on the former location name, which accounts for discrepancies in the names of enterprises and locations.