2010 Minerals Yearbook

TAJIKISTAN [ADVANCE RELEASE]

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The Mineral Industry of Tajikistan

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Tajikistan has a wide range of mineral resources. Reportedly, there are more than 400 mineral deposits of anthracite coal, antimony, bismuth, boron, copper, gemstones, gold, iron ore, lead, manganese, molybdenum, natural gas, nickel, petroleum, phosphorus, salt, silver, strontium, tin, tungsten, uranium, zinc, and other minerals. Mining that successfully developed in the 1980s had recently declined because of economic and political crises in the country. Aluminum production was the main source of export revenue for Tajikistan in 2010 (Embassy of the Republic Tajikistan in Japan, The, 2012; U.S. Central Intelligence Agency, 2012; U.S. Department of State, 2012).

Although Tajikistan has coal, oil, and natural gas reserves, the main energy source of the country is hydroelectric power. Hydroelectric power accounted for more than 75% of the country's total energy output. Moreover, Tajikistan has vast hydroelectric potential. At present, only about 6% of hydroelectric potential of the country was being used (European Bank for Reconstruction and Development, 2010).

Minerals in the National Economy

In 2010, Tajikistan's gross domestic product (GDP) was estimated to be $5.64 billion, and GDP growth was 6.5%. Industrial production accounted for 22.4% of the GDP and increased over the course of the year by 7.5%; Tajikistan was ranked 30th in the world in terms of its industrial growth rate. Production of mineral products constituted a significant portion of the national economy. In 2010, Tajikistan exported 338,000 million metric tons (Mt) of aluminum, or 96.9% of all the aluminum the country produced. The export revenue from aluminum was $735.7 million, or 56.4% of all national export revenues (Agency on Statistics Under President of the Republic of Tajikistan, 2011; Polpred.com, 2011; U.S. Central Intelligence Agency, 2012). The increase in the price of aluminum on the world market was an important contributor to the revenue growth. Even though aluminum production decreased from 2009 by almost 3%, the market value of aluminum produced in the country increased by 27% (to $761 in 2010 from $559.3 in 2009) (United Nations Development Programme, 2011).

Production

In 2010, Tajikistan increased its production of gold by 50.6%; cement, by 47.8%; natural gas, by 18.8%; and coal, by 13.4%. At the same time, gypsum production decreased by 44.7%. Other production data are in table 1.

Structure of the Mineral Industry

Table 2 is a list of major mineral industry facilities.

Commodity Review

Metals

Aluminum.—Central Asia GUP TALCO (Tajik Aluminum Co.) (TALCO) was Tajikistan's only aluminum producer; it had the capacity to produce 517,000 metric tons per year (t/yr). During the past several years the company was operating at 70% to 80% of capacity. In 2010, aluminum production fell short of its 2010 target of 442,000 metric tons (t) and was only 348,850 t, which was a 3% decrease compared with that of 2009. The decrease in production was attributed to aging equipment and a shortage of qualified personnel. Some of TALCO's best engineers had gone abroad to seek employment; in 2010, the monthly pay of metallurgists at TALCO was only between $300 and $400 per month (Metaltorg.ru, 2011; Tajik Aluminum Co., 2012; Zhavoronkova, 2012).

Gold.—In 2010, Tajikistan produced 2,049 kilograms (kg) of gold, which was an increase of more than 50% compared with that of 2009. In 2010, the enterprises that produced gold in Tajikistan were the Tajik-Canadian joint venture Aprelevka, the Tajik-British joint venture Darvaz, the Tajik-Chinese joint venture SP Zerafshan, and Government-owned Tilloi Tochik [Tajik Gold].

The main gold producer in Tajikistan, SP Zerafshan, produced 1,115.2 kg of gold in 2010. SP Zerafshan also worked on modernization and construction of new facilities during the year. The Chinese partner ZiJin Mining Group Co. Ltd. invested $50 million in the joint venture and was planning to invest an additional $10 million in 2011 in modernization efforts. SP Zerafshan was planning to increase gold production to 1,500 kg in 2011 (Ergasheva, 2011).

Industrial Minerals

Cement.—Although not a leading cement producer, Tajikistan increased production of cement from 2000 to 2010 by sixfold. In 2000, Tajikistan produced 50,000 t of cement (Levine and Wallace, 2000). In 2010, the country produced 288,200 t of cement. In 2010, Tajikistan had about 10 plants that produced cement. The largest one, state-owned OAO Tajikcement, specialized in the production of portland cement and had a capacity of 1.1 million metric tons per year (Mt/yr). In recent years, however, the plant was operating at a fraction of its capacity, mostly because of technological obsolescence and lack of energy to power the plant. Tajikistan had to import natural gas for its cement plants from Russia, and intended eventually to switch to locally produced coal. In January 2011, it was announced that an Iranian company would invest about $300 million in building two new cement plants in Tajikistan. When completed, the new coal-powered plants were expected to produce 2 Mt/yr of cement (Nezavisimyi Stroitel'nyi Portal, 2011; Sodiqov, 2011).

Mineral Fuels and Other Sources of Energy

Hydropower.—The largest hydropower plants in the country were the Nurek plant, which had a production capacity of 3,000 megawatts (MW), the Sangtuda 1 plant (670 MW), and the Baipaza plant (600 MW). The electric transmission and distribution system of the country was largely outdated (European Bank for Reconstruction and Development, 2010).

Outlook

Tajikistan has significant undeveloped mineral resources, including a large number of metals, rare earths, and uranium. Despite a high rate of economic growth during the 2000s, developing those resources is likely to be difficult. Tajikistan's biggest challenge in the coming years is expected to be increasing the rate of private investment in the national economy. The World Bank's 2011 Doing Business report ranked Tajikistan 147 of 183 countries because of high levels of bureaucracy, corruption, and Government inefficiency. Lack of infrastructure, the country's remote location, and mountainous terrain together led to extremely high costs of moving goods within the country and abroad and are likely to serve as an additional deterrent to the country's economic development. Tajikistan's energy sector will be critical not only for the power it provides to the domestic industry but as a potential source of energy exports to neighboring countries (World Bank, The, 2011).

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TABLE 1

TAJIKISTAN: PRODUCTION OF MINERAL COMMODITIES[1]

(Metric tons unless otherwise specified)

Commodity[2]		2006	2007	2008	2009	2010[e]
METALS						
Aluminum, primary		413,800	419,060	339,450	359,385	348,850 [3]
Antimony, Sb content[e]		3,480 [3]	2,000	2,000	2,000	2,000
Gold	kilograms	1,920	2,000	1,672	1,361	2,049 [3]
Lead, Pb content[e]		800	800	800	800	800
Mercury, Hg content[e]		30	30	30	30	30
Silver, Ag content[e]	kilograms	3,110 [r]	3,110 [r]	3,110 [r]	3,110 [r]	3,110
INDUSTRIAL MINERALS						
Cement		281,500	313,100	190,400	195,000 [r]	288,200 [3]
Fluorspar[e]		8,500	8,500	8,500	8,500	8,500
Gypsum		8,500	8,500 [e]	8,500 [e]	26,400 [r]	14,600
Nitrogen, N content of ammonia		32,300 [r]	24,500 [r]	23,000 [r]	-- [r]	NA
Salt[e]		52,459 [3]	52,000	52,000	52,000	52,000
MINERAL FUELS AND RELATED MATERIALS						
Coal:						
Bituminous		104,600 [r]	181,400 [r]	198,500 [r]	176,100 [r]	199,700 [3]
Lignite[e]		(4)	(4)	(4) [r]	(4) [r]	(4)
Total		104,600	181,400	198,500	176,100	199,700 [3]
Natural gas	thousand cubic meters	20,000 [r]	17,400 [r]	16,100	19,200 [r]	22,800 [3]
Petroleum, crude:						
In gravimetric units		21,700 [r]	23,700 [r]	25,900 [r]	26,200 [r]	27,000 [3]
In volumetric units[e]	42-gallon barrels	110,000	102,000	85,900	79,600	78,500

[e]Estimated; estimated data are rounded to no more than three significant digits. [r]Revised. NA Not available. -- Zero.

[1]Table includes data available through March 20, 2012.

[2]In addition to the commodities listed, Tajikistan had produced a number of other mineral commodities in the past, but available information is inadequate to determine if production was still taking place.

[3]Reported figure.

[4]Available information is not adequate to make a reliable estimate of output.

TABLE 2

TAJIKISTAN: STRUCTURE OF THE MINERAL INDUSTRY IN 2010[1]

(Metric tons unless otherwise specified)

Commodity	Major operating companies, main facilities, or deposits	Location or deposit names	Annual capacity[e]
Aluminum	TALCO aluminum smelter [formerly the Tajikistan Aluminum Smelter (TadAZ)]	Tursunzade	517,000
Antimony, ore	Anzob mining-beneficiation complex	Dzhizhikrutskoye Sb-Hg deposit	700,000
Antimony, metal	Isfara hydrometallurgical plant	Isfara	500
Arsenic	Mosrif deposit	NA	NA
Bismuth	Isfara hydrometallurgical plant	Isfara	500
Do.	Leninabad mining-beneficiation complex	Yuzhno-Yangikanskiy deposit	25
Bismuth, copper, fluorspar, gold, silver, zinc (ore processing)	Adrasman mining-beneficiation complex	Kanimansurskoye deposit	650,000
Boron	Yakarkharskoye deposit	Badakhshon region	NA
Cement	OAO Tajikcement	Dushanbe	1,000,000
Coal	Fan-Yagnob hard coal deposits	Pyandzh region	50,000
Do.	Isfara hydrometallurgical plant	Isfara	300,000
Do.	Shurab brown coal deposit	Shurab region	NA
Copper-lead-zinc	Leninabad mining-beneficiation complex	Yuzhno-Yangikanskiy deposit	2,500
Dolomite	Yavan electrochemical complex	Pashkharvoskoye deposit	NA

See footnotes at end of table.

TABLE 2—Continued

TAJIKISTAN: STRUCTURE OF THE MINERAL INDUSTRY IN 2010[1]

(Metric tons unless otherwise specified)

Commodity		Major operating companies, main facilities, or deposits	Location or deposit names	Annual capacity[e]
Fluorspar, concentrate		Takob mining-beneficiation complex	Takob and Krasnye Kholmy deposits	60,000 [2]
Gold, in ore	kilograms	Aprelevka joint venture	Aprelevka deposit	200
Do.	do.	Darvaz joint venture	Yak-Suyskoye deposit, Khatlon Province	2,000
Do.	do.	Tajikzoloto mining-beneficiation complex, Pamir Artel	Darvazy and Rankul placer deposits, placers in central and southern parts of country	5,000 [2]
Do.	do.	Zerafshan Gold Co.	Dzhilau and Taror deposits, Sughd Province	2,500 [2]
Gold, ore processing	do.	Kansayskaya factory	Aprelevka, Burgunda, Kyzyl-Chek, and Shkol'noye deposits	165,000 [2]
Do.	do.	Vostokredmet refinery	Qizfaquz	NA
Lead-zinc		Adrasman mining-beneficiation complex	NA	NA
Do.		Altyn-Topkan mining directorate (China Global New Technology Export and Import)	Altyn-Topkan deposit (mining ceased in 1997)	NA
Do.		do.	Pay Bulak deposit (mining ceased in 1997)	NA
Do.		Kansayskoye mining complex	Karamazor region	NA
Do.		Takaeliyskiy metallurgical complex	NA	NA
Limestone		Dushanbe cement complex	Kharangonskoye deposit	NA
Loam		do.	Varzobskoye Ushchel'ye deposit	NA
Marble		Dal'yan Bolo deposit	Ganchinskiy region	NA
Do.		Dashtak deposit	Darvaz region	NA
Do.		Jilikul deposit	Pendzhikentskiy region	NA
Mercury		Anzob mining-beneficiation complex	Dzhizhikrutskoye deposit	150
Natural gas and petroleum:				
Natural gas	thousand cubic meters	Sixteen oil-gas deposits under exploration, which include Ayritanskoye, Madaniyatskoye, and Ravatskoye	Fergana depression	200,000 [2]
Petroleum		Beshtentyakskoye, Kichik-Belskoye, Shaambary, and Uzunkhorskoye deposits	Southern Tajik depression	200,000 [2]
Salt		Ashtskiy plant	Kamyshkurganskoye deposit	NA
Do.		Khoja-Sartez, Samanchi, and Tanabchi deposits	NA	NA
Do.		Voseyskiy plant	Khodzha-Muminskoye deposit	NA
Do.		Yavan electrochemical complex	Tut-Bulakskoye deposit	NA
Silver	kilograms	Adrasman mining-beneficiation complex	Bolshoy Kanimansur deposit	15,000
Strontium, ore		Chaltash, Chilkutan, and Davgir deposits	Khatlon Province	180,000
Tin-tungsten		Tafkon deposit	NA	NA
Tungsten ore		Maykhura deposit	Central Tajikistan	150,000

[e]Estimated; estimated data are rounded to no more than three significant digits. Do., do. Ditto. NA Not available.

[1]Many 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 that of locations.

[2]Capacity estimates are totals for all enterprises that produce that commodity.