



# 2016 Minerals Yearbook

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## AFGHANISTAN [ADVANCE RELEASE]

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# THE MINERAL INDUSTRY OF AFGHANISTAN

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Afghanistan has a wide range of mineral resources, including metals, industrial minerals, and mineral fuels and related materials. In recent years, however, deterioration of the security situation, political uncertainty, and delays in planned infrastructure development prevented the development of most of these resources. Afghanistan has deposits of bauxite, copper, iron ore, lithium (spodumene), and rare earths; however, in 2016, the primary minerals mined in Afghanistan were aragonite, chromite, coal, fluor spar, gypsum, lime, marble, natural gas, salt, and precious and semiprecious stones. The mineral-processing industry produced cement and secondary steel. According to Global Witness, local warlords, insurgents, and the local population continued to mine some of those mineral resources illegally. In 2016, marble, gemstones, semiprecious stones, and talc continued to be smuggled to China and Pakistan. In 2016, a Global Witness group classified lapis lazuli as a “conflict mineral” owing to the predominantly illegal mining of the mineral (table 1; U.S. Geological Survey, 2014; O’Donnell, 2016; Rasmussen, 2016; TOLO News, 2016; Zahid, 2017).

## Minerals in the National Economy

Afghanistan’s real gross domestic product (GDP) increased by 2.0% in 2016 compared with 0.8% (revised) in 2015, and the nominal GDP was \$18.9 billion. Owing to decreased investment, an unfavorable business outlook, and a sense of pessimism within the general public, industrial sector output decreased. The value of output by the industrial sector decreased by 0.8% owing to the 2.6% decrease in construction activity (Hansen, 2016; International Monetary Fund, 2017, p. 1, 3; World Bank, The, 2017).

## Government Policies and Programs

In 2016, the control of the mining sector was moved from the Ministry of Mines and Petroleum (MoMP) and was placed under the Office of the President. The president stated that the High Economic Council would be responsible for approving and evaluating new mining contracts according to the Mining Law of 2014 and that the National Procurement Commission would be responsible for tendering the licenses. The MoMP had previously been the main entity responsible for the administration of mining policy and the oversight and regulation of the mining sector, including mineral exploration and extraction (Hansen, 2016).

In 2011, amendments to the Minerals Law (2005) were drafted by the MoMP; the amendments were approved by the President of Afghanistan in 2014 and were passed into law by the Parliament in the fourth quarter of 2014. In 2015, Global Witness and a board of other Afghan and international civil organizations suggested amendments to the Minerals Law of 2014 to the Government, including adding new articles to improve the transparency of mining data and provide for

beneficial ownership, and amending existing articles dealing with community monitoring, consultation for type of license, granting processes and authorities, and procurement of local goods and services (Global Witness, 2015).

## Production

Afghanistan’s mineral production data were not readily available because the numerous artisanal and small- to medium-scale mining operations throughout Afghanistan were not well documented. As a consequence, the Central Statistics Organization and MoMP Cadastre Directorate provided only partial output data for 2016. According to the Central Statistics Organization, Afghanistan’s production of secondary steel increased by 749%; cement, by 44%; crushed marble, by 27%; and fluor spar (estimated) and nitrogen (N content of ammonia), by 9% each. Production of petroleum condensate decreased by 13%; lime, by 12%; mine output of coal (bituminous), by 10%; and cast iron products, by 8% (table 1; Central Statistics Organization, 2016b, p. 184, 187, 191).

## Structure of the Mineral Industry

In 2016, such mineral commodities as chromite, coal, gypsum, lime, marble, natural gas, precious and semiprecious stones, salt, and talc continued to be extracted through artisanal and small-scale mining. Table 2 is a list of major mineral production facilities operating in 2016.

## Commodity Review

### Metals

**Copper and Gold.**—In 2016, Metallurgical Corp. of China Ltd. (MCC) and the Afghan Government continued to discuss amendments to the Aynak mining contract, which was initiated in July 2015. The Government canceled the four copper-gold prospects tendered—the Badakhshan gold prospect, the Balkhab copper prospect, the Shaida porphyry copper prospect, and the Zarkashan copper-gold prospect. The reason for the cancellation was that the projects had been awarded using a nontransparent process (Hansen, 2016; Metallurgical Corp. of China Ltd., 2016, p. 31; Special Inspector General for Afghanistan Reconstruction, 2016, p. 188).

### Industrial Minerals

**Cement.**—In 2016, cement production increased to 101,000 metric tons (t) from 70,000 t in 2015. In 2016, two cement plants were operating in Afghanistan—the Ghorī I cement plant in Baghlan Province and the Jabal-e Saraj cement factory in Parwan Province. In April 2016, the Jabal-e Saraj cement plant resumed production after 20 years of halted operations. The Government invested \$1 million to help

restart operations at the cement plant. Jabal-e Saraj, which was a one-kiln operation, had the capacity to produce up to 35,000 metric tons per year (t/yr) of clinker. The country's leading cement import partners were Pakistan, Iran, and Tajikistan, which supplied 1.03 million metric tons (Mt), 748,178 t, and 133,602 t of cement to Afghanistan in 2016, respectively (table 1, 2; Central Statistics Organization, 2016a; Global Cement, 2016).

**Fluorspar.**—In 2016, Amania Mining Co. produced an estimated 6,000 t of fluorspar (metspar). Amania Mining was established in 2010 and was involved in exploration, development, mining, and processing of the Bakhud fluorite deposit in Nesh District, Kandahar Province. In 2014, the reserves were estimated to be 8.8 Mt at an average grade of 47% CaF<sub>2</sub> and 4.1 Mt of fluorite. A pilot acid-grade fluorspar plant was designed in August 2014 and was expected to be commissioned with a minimum production capacity of 120,000 t/yr in early 2018 (tables 1, 2; Amania Mining Co., 2014, p. 2, 4, 7, 16, 26, 32, 43; 2015; 2016; Wong, 2017).

## Outlook

Afghanistan's mining industry, if efficiently developed, could contribute at an enhanced level to economic growth for the country. Afghanistan might be far removed from being able to sustainably develop its mining sector, however, owing to several factors, such as deterioration of the security situation, political uncertainty, and insufficient infrastructure. Illegal mining and insurgents' control over mining sites will likely continue to be critical challenges for mineral sector development in the near future. Two of the leading projects in Afghanistan—the Aynak copper project and the Haji-Gak iron ore project—were stalled. The licenses for four projects—the Badakhshan gold prospect, and the Balkhab copper prospect, the Shaida porphyry copper prospect, and the Zarkashan copper-gold prospect—were canceled by the Government, although a new tender process is expected in coming years.

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

(Metric tons, gross weight, unless otherwise specified)

Commodity <sup>2</sup>	2012	2013	2014	2015	2016	
<b>METALS</b>						
<b>Iron and steel:</b>						
Secondary	NA	24,580	24,000	2,826	24,000	
Products, cast iron	--	9,000	9,009	5,030	4,620	
<b>INDUSTRIAL MINERALS</b>						
Cement, hydraulic	37,000	52,000	87,000 <sup>r</sup>	70,000 <sup>r</sup>	101,000	
Chromite, mine production	6,000 <sup>e</sup>	3,309	6,369	6,400 <sup>e</sup>	6,400 <sup>e</sup>	
Fluorspar	--	--	2,507 <sup>r</sup>	5,520 <sup>r</sup>	6,000 <sup>e</sup>	
<b>Gemstones:</b>						
Precious stones	kilograms	NA	NA	46,184 <sup>r</sup>	31,896 <sup>r</sup>	32,000 <sup>e</sup>
Semiprecious stones	do.	NA	NA	4,745 <sup>r</sup>	5,000	5,030 <sup>e</sup>
Gypsum <sup>e</sup>		570,000 <sup>r</sup>	570,000 <sup>r</sup>	600,000 <sup>r</sup>	400,000 <sup>r</sup>	570,000
Lime		5,332 <sup>r</sup>	10,684 <sup>r</sup>	14,784 <sup>r</sup>	89,000	78,000
Nitrogen, N content, ammonia		51,000 <sup>r</sup>	76,000	60,000	44,000 <sup>r</sup>	48,000
Salt, rock		146,700 <sup>r</sup>	145,303 <sup>r</sup>	40,992 <sup>r</sup>	87,014 <sup>r</sup>	88,183
Stone, crushed, marble <sup>e</sup>		400,000 <sup>r</sup>	410,000 <sup>r</sup>	400,000 <sup>r</sup>	550,000 <sup>r</sup>	600,000
<b>MINERAL FUELS AND RELATED MATERIALS</b>						
Coal, mine production, bituminous		1,479,600 <sup>r</sup>	1,239,900 <sup>r</sup>	1,347,000 <sup>r</sup>	1,517,400 <sup>r</sup>	1,364,800
<b>Natural gas:</b>						
Gross volume	million cubic meters	161	160 <sup>r</sup>	155 <sup>r</sup>	142 <sup>r</sup>	146
Marketable <sup>e</sup>	do.	145	144 <sup>r</sup>	140	128 <sup>r</sup>	131
Petroleum, condensate	thousand 42-gallon barrels	81 <sup>r</sup>	113 <sup>r</sup>	96 <sup>r</sup>	96 <sup>r</sup>	84

<sup>e</sup>Estimated. <sup>r</sup>Revised. do. Ditto. NA Not available. -- Zero.

<sup>1</sup>Table includes data available through November 28, 2017. All data are reported unless otherwise noted. Estimated data are rounded to no more than three significant digits.

<sup>2</sup>In addition to the commodities listed, aluminum, aragonite, barite, gold, lapis-lazuli, sand and gravel, and talc were produced in Afghanistan, but available information was inadequate to make reliable estimates of output.

TABLE 2  
AFGHANISTAN: STRUCTURE OF THE MINERAL INDUSTRY IN 2016

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity <sup>e</sup>
<b>Aluminium, secondary:</b>			
Extrusion and powder coating	Qader Najib Ltd.	Kabul	NA
Manufacture	Salam Bilal Ltd.	Kandahar Province	360
Do.	Javed Waziri PVC and Aluminium Production Ltd.	Pol-e-Charkhi, Kabul	NA
Do.	Khalil Najeeb Steel Mills Ltd.	Bagrami industrial area, Kabul	36,000
Cement	Ghori I [Afghan Cement L.L.C. (subsidiary of Government-owned Afghan Investment Co.)]	Pul-e-Khomri, Baghlan Province	144,000
Do.	Jabal-e Saraj cement plant	Parwan Province	37,000
Chromite	Hashemi	Dado Khil Deh Naw Area, Logar	400,000
Coal	Ensaf Lal	Saighan District, Bamyan Province	57,000
Do.	Abkhorak Mine (Misaq Sharq Ltd.)	Samangan Province	70,000
Do.	Dara-e-Suf (Khushak Brothers Co.)	do.	20,000
Do.	Sabzak Mine (Khushak Brothers Co.)	Herat Province	15,000
Do.	Maloma coal mine (Arya Popal Co.)	Karkh District, Herat Province	NA

See footnotes at end of table.

TABLE 2—Continued  
AFGHANISTAN: STRUCTURE OF THE MINERAL INDUSTRY IN 2016

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity <sup>c</sup>	
Fluorspar	Amania Mining Co.	Bakhud fluorite mine in Kandahar Province	6,000	
Gypsum	Emsatullah Asem	Daimiradad, Maidan Wardak	10,000	
Do.	Ahmad Yar Jangan	Nawar, Ghazni	10,000	
Do.	Almas Ghaznawyan	do.	417,000	
Do.	Ahmad Yar Daikundi Co.	Seyah Reeg Nahoor, Ghazni	136,000	
Lapis-lazuli	Sar-e-San (Ljewardeen Mining Co.)	Sar-e-Sang, Kuran Wa Munjan District, Badakhshan Province	NA	
Do.	NA	Jurim District, Badakhshan Province	NA	
Do.	NA	Zebak District, Badakhshan Province	NA	
Marble	Equity Capital Group	Herat Province	12,000	
Do.	Helal Co.	Khak Jabar	6,300	
Do.	Astana Dar Muhmand	Pachergam, Nangrahar	3,000	
Do.	Adil Brothers	Chesht Sharif, Herat	2,000	
Do.	Bahar Herat Stone Process	Ouba, Herat	64,000	
Do.	Sarmaya Guzari Maaden	Chesht Sharif, Herat	52,500	
Do.	Afghan Herat Marble Co.	do.	67,000	
Do.	Mica Stone Processing Co.	do.	30,000	
Do.	Jamal Asia Co.	do.	35,000	
Do.	Murwarid Herat Co.	do.	37,500	
Do.	Atta Ullah	do.	80,000	
Do.	Oqaab Sang Asia	do.	32,000	
Natural gas	thousand cubic meters	Afghan Gas Ltd. (Government-owned)	Jawzjan	70,000
Do.	do.	do.	Sheberghan	14,000
Do.	Dragon Oil plc, 40%; Türkiye Petrolleri A.O., 40%; Ghazanfar Group, 20%	Sanduqli and Mazar-i-Sharif blocks	NA	
Petroleum, condensate	42-gallon barrels	Kam International Oil	Hairatan oil refinery, Hairatan Town	186,000
Salt	Qarizada Tomatopest Production Co.	Andkhoy, Faryab Province	150,000	
Do.	Dondar Co.	Ghowak Walayat, Herat Province	20,000	
Do.	Westco International FZE	Kalfagan Mine, Kalfagan area, Takhar Province	70,000	
Do.	Nasir Omid	Herat Province	125,000	
Sand and gravel	Estimad Qarabagh Co.	Estalif, Kabul	40,000	
Do.	Technologist Co.	Tanhi Gharo, Kabul	31,000	
Do.	do.	do.	730,000	
Do.	Sehar Perez Company	Qala Haider Khan, Kabul	96,000	
Do.	Kawoon Construction Co. (Sultan Mohammad Khil)	Khuaja Musafer Paghman, Kabul	160,000	
Do.	Bakhtar Cristal	Dehdadi, Balkh Province	80,000	
Do.	Fordbamika	do.	48,000	
Steel, crude	Sino-Afghan Steel Co. (Watan Group)	Kabul	NA	
Steel, secondary	Afghan Folad Steel Mill Corp. Ltd.	Herat Province	29,000	
Talc	Afghan Shirzad	Shirzad, Nangrahar Province	17,500	
Do.	Afghan Mineral Co.	do.	12,000	
Do.	Amin Karimzi Ltd.	do.	200,000	
Do.	Muhibullah Brothers	do.	50,000	
Do.	Bilal Musazai	do.	51,000	
Do.	do.	Achin, Nangrahar Province	50,000	
Do.	Pasaran Alhaj Muhamad Rasul	Shirzad, Nangrahar Province	50,000	
Do.	Habib Shahaab	do.	50,000	
Do.	Khalid Ayaaz	do.	70,000	
Do.	Riahan Yunes	do.	163,000	
Tourmaline	NA	Deodarra, Jurim District	NA	

<sup>c</sup>Estimated; estimated data are rounded to no more than three significant digits. Do., do. Ditto. NA Not available.