



2007 Minerals Yearbook

BOSNIA AND HERZEGOVINA

THE MINERAL INDUSTRY OF BOSNIA AND HERZEGOVINA

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According to its Constitution, Bosnia and Herzegovina comprises two distinct entities—the Federation of Bosnia and Herzegovina (the Federation) and the Republika Srpska (RS). Establishment of the two entities was a result of the Dayton Peace Agreement signed in December 1995, which ended the war fought in Bosnia between 1992 and 1995. Because each entity had different resources and a certain degree of political and economic autonomy, their industrial capacities were developing at different rates. The Federation accounted for a larger share of mineral industry activity, whereas the RS was a more important agricultural region.

Minerals in the National Economy

In 2007, Bosnia and Herzegovina's gross domestic product (GDP) at constant prices increased by 6.8% compared with the GDP in 2006. The Federation produced about 63% of the total GDP. The value of mining and quarrying output increased by 5.3% at constant prices and accounted for 1.8% of the GDP (Agency for the Statistics of Bosnia and Herzegovina, 2008b). In the Federation, the total value of industrial production at constant prices increased by 9.1% compared with output in 2006, and that of mining and quarrying increased by 10.2% (Federation of Bosnia and Herzegovina Federal Office of Statistics, 2008, p. 8). In the RS, the value of mining and quarrying production at constant prices increased by 2.1% compared with that of 2006 and made up 2.1% of the GDP (Republika Srpska Institute of Statistics, 2008). In terms of export revenue, metals and metal products made up 30.2% of the total in 2007; coke, refined oil products, and nuclear fuel, 3.5%; mining and quarrying, 3.2%; and nonmetallic mineral products, 1.7% (Agency for the Statistics of Bosnia and Herzegovina, 2008a, p. 17). Mining and quarrying and nonmetallic mineral products were not defined, but it is assumed that mining and quarrying includes unprocessed metallic and nonmetallic minerals and that nonmetallic mineral products includes industrial minerals, such as cement, although this could not be confirmed.

Production

Bosnia and Herzegovina had important aluminum and steel production facilities and major local mineral resources of bauxite, iron ore, and lead-zinc ore. During the war in Bosnia from 1992 to 1995, most major mineral production facilities were damaged significantly, and pre-war levels of production had only recently been achieved by some producers. In 2007, Bosnia and Herzegovina increased production of lead concentrates by 306%; crude steel, by 9.5%; aluminum, by 8.1%; and bauxite, by 1.5% compared with production in 2006. Lead metal production decreased by 97%; alumina

production, by 22.8%; iron ore, by 14.4%; and ferroalloys, by 9.8%. For industrial minerals, there were significant increases in the production of dolomite (40.9%), bentonite (33.5%), salt (20.7%), crude gypsum (16.9%), and lime (8.7%). Significant production decreases were seen for barite concentrate (80.5%) and crude kaolin (51%). Coal production decreased by 2%, and production of petroleum refinery products increased by 5.4% (table 1).

Structure of the Mineral Industry

The mineral industry of Bosnia and Herzegovina was mostly privatized, with an important exception being aluminum producer Aluminij d.d. Mostar, which was still undergoing privatization. Aluminij and ArcelorMittal Zenica were the most economically important companies in the mineral industry in terms of the value of their output. Table 2 is a list of the major mineral industry facilities in Bosnia and Herzegovina.

Commodity Review

Metals

Aluminum.—In 2007, Bosnia and Herzegovina's only significant aluminum producer and its leading exporter, Aluminij, achieved record output of 121,750 metric tons of aluminum metal, which was more than 80% of the country's total aluminum production. In 2006, Aluminij had invested \$15 million in its aluminum cast-house, which allowed for increases in its production capacity. The company planned to spend an additional \$45 million to modernize its anode plant and further increase its output capacity (Aluminij d.d. Mostar, 2008). Following multiple delays, the Government selected a winning bid of about \$178 million¹ by a consortium led by Glencore International AG of Switzerland for the privatization of 88% of Aluminij. According to the terms of the bid, Glencore was expected to invest between about \$275 million and \$550 million in Aluminij (Economist Intelligence Unit Views Wire, 2007). The deal was still far from certain as Glencore and all other bidding firms expressed concern about the cost of electricity and made a guaranteed supply of electricity at a reduced rate a condition of the deal. In late 2007, Government power company Elektroprivreda HZHB announced that Aluminij would face a 40-megawatt reduction in its power supply in 2008, which could make closing the deal more difficult (Jelin, 2008).

Iron and Steel.—Reported crude steel production in Bosnia and Herzegovina increased by 9.5% compared with production in 2006. ArcelorMittal Zenica made significant progress on

¹Where necessary, values have been converted from European Union euros (€) to U.S. dollars (US\$) at the rate of €0.73=US\$1.00.

investments that could eventually increase its future annual production capacity to 2 million metric tons per year of steel (Bosnia News, 2008). Production of iron ore in Bosnia and Herzegovina decreased by about 14.4% compared with production in 2006 (table 3).

Industrial Minerals

Significant increases in production were seen for sodium bicarbonate (43.1%), dolomite (40.9%), salt (20.7%), gypsum (16.9%), lime (8.7%), and cement (4.7%). Barite, crude kaolin, and quartz production decreased by 80.5%, 51%, and 5.6%, respectively.

Mineral Fuels

Production of brown coal and lignite decreased by 2% and production of petroleum refinery products increased by 5.4% compared with production in 2006. The major development in Bosnia and Herzegovina's mineral fuels industry in 2007 was the privatization of Bosanski Brod, which was the nation's only oil refinery. Bosanski Brod, the Modrica motor oil plant, and the fuel retailer Petrol were sold to the Russian state-owned company Zarubezhneft for about \$88.4 million. The company was also obligated to make about \$730 million worth of investments in the three companies (AFX News Ltd., 2007; Stanic, 2007).

Outlook

Into the foreseeable future, aluminum and steel production and exports are expected to continue to be the most important economic activities in the mineral sector. Aluminum production could see increases if the Aluminij aluminum plant is successfully privatized, although negotiations are still tenuous. Overall, production in the mineral industry is likely to continue to grow at a modest pace if the economy grows and improvements in the country's infrastructure are made.

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TABLE 1
BOSNIA AND HERZEGOVINA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2003	2004	2005	2006	2007	
METALS						
Aluminum:						
Bauxite	573,000	916,928	1,031,618	854,047 ^r	866,933	
Alumina, metallurgical grade	35,011	356,844	447,260	393,580 ^r	303,799	
Metal, ingot, primary and secondary	112,503	121,296	131,232	136,190	147,193	
Iron and steel:						
Ore and concentrate:						
Gross weight	126,929	280,596	3,176,748	3,439,587	2,943,963	
Fe content ^c	63,000	140,000 ^r	1,500,000	1,450,000 ^r	1,240,000	
Metal:						
Ferroalloys	20,000 ^e	19,820	15,000 ^e	14,747 ^r	13,305	
Pig iron ^c	60,000	60,000	60,000	60,000	60,000	
Crude steel	166,368	117,170	283,111	469,122	513,867	
Semimanufactures ^c	113,000	150,000	150,000	200,000	200,000	
Lead:						
Concentrate, gross weight	--	1,668	2,309 ^r	1,152 ^r	4,677	
Metal, smelter, primary and secondary	100 ^e	35	79 ^r	33 ^r	1	
Manganese ore:^c						
Gross weight	2,000	2,000	2,000	2,000	2,000	
Mn content	500	500	500	500	500	
Zinc concentrate, Zn content	300 ^r	1,000 ^r	3,000 ^r	1,000 ^r	2,000	
INDUSTRIAL MINERALS						
Barite concentrate	80 ^e	65 ^e	160	190	37	
Cement	thousand metric tons	890,179	1,044,944	1,025,540	1,226,319	1,283,357
Clays:						
Bentonite	16,967	24,353	24,882	24,645 ^r	32,912	
Ceramic clay, crude	35,861	16,784	14,553	15,000 ^e	15,000 ^e	
Kaolin, crude	50,000	46,000 ³	45,000	42,422	20,767	
Dolomite, crude	96,776	223,378	128,639	109,693 ^r	154,518	
Gypsum:						
Crude	63,050	139,520	152,939	131,936 ^r	154,294	
Calcined ^c	6,042	6,000	6,000	6,000	6,000	
Lime	79,302	146,000	186,000	218,121 ^r	237,190	
Magnesite, crude ^c	2,000	2,000	2,000	2,000	2,000	
Nitrogen, N content of ammonia ^c	500	218 ^{r,3}	500	500	500	
Quartz, quartzite, glass sand	50,000 ^e	190,315 ^r	119,831	711,399 ^r	671,336	
Salt, all sources	200,000	260,500	392,240	416,305	502,487	
Sand and gravel:						
Gravel	600,000 ^e	614,222	1,471,857	1,593,553	1,790,913	
Sand, construction	80,000 ^e	90,581 ^r	574,490 ^r	20,835 ^r	98,267	
Sodium compounds:						
Soda ash ^c	11,804 ³	11,000	11,000	11,000	11,000	
Caustic soda	5,000 ^e	3,916 ^r	11,424 ^r	12,156 ^r	12,200 ^e	
Sodium bicarbonate	500 ^e	500 ^e	9,616 ^r	9,288 ^r	13,287	
Stone (excluding quartz and quartzite), dimension, crude:^c						
Ornamental	square meters	35,800	35,000	35,000	35,000	
Crushed and brown, n.e.s.	thousand cubic meters	153	150	150	150	
MINERAL FUELS AND RELATED MATERIALS						
Brown coal and lignite	thousand metric tons	9,006	8,896	9,144 ^r	9,965	9,765
Petroleum refinery products		72,000 ^e	110,000 ^e	109,782 ^r	10,797 ^r	11,379

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

¹Table includes data available through March 31, 2009.

²In addition to commodities listed, common clay was also produced, but available information is inadequate to make reliable estimates of output.

³Reported figure.

TABLE 2
BOSNIA AND HERZEGOVINA: STRUCTURE OF THE MINERAL INDUSTRY IN 2007

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Alumina		Ukio Banco Investment Group	Plants at Birac-Zvornik	600
Do.		Aluminij d.d. Mostar	Plant at Mostar	280
Aluminum		do.	Smelter at Mostar	250
Bauxite		Energoinvest	Mines at Vlasenica, Jajce, Bosanska Krupa, Posusje, Listica, Citluk, and other locations	2,000
Do.		A.D. Boksit Milici	Mine at Milici	1,500
Cement		Tvornica Cementa Kakanj d.d.	Plant at Kakanj	650
Do.		D.D. Fabrica Cementa Lukavac	Plant in Lukavac	500
Coal:				
Brown		SOUR Titovi Rudnici Uglja, Tuzla	Mines in BiH	12,000
Lignite		do.	do.	7,000
Ferroalloys		Elktrobosna, Elektrohemijska i Elektrotermijska Industrija	Plant at Jajce	80
Iron ore		ArcelorMittal Mines	Mines at Ljubija and Omarska	5,000
Lead-zinc ore		Energoinvest	Mine and mill at Srebrenica	300
Manganese ore		Mangan-Energoinvest	Mine and concentrator at Buzim	100
Petroleum, refined	thousand 42-gallon barrels per day	Zarubezhneft (through its Neftegazinkor unit)	Oil refinery at Bosanski Brod	100
Do.		do.	Oil refinery at Modrica	NA
Pig iron		B-H Steel-Zeljezara Ltd. (Kuwait Consulting and Investment, 50%, and Zeljezara Zenica Ltd., 50%)	Blast furnace at Zenica	2,250
Salt, rock	cubic meters per year	Hemijski Kombinat "Sodaso," Rudnik Soli i Solni Bunari	Mines at Tusanj	120,000
Do.	do.	do.	Production from brine at Tuzla, BiH	2,000,000
Steel, crude		ArcelorMittal Zenica (ArcelorMittal, 92%)	Plant at Zenica	1,000

Do., do. Ditto. NA Not available.