



2011 Minerals Yearbook

BOSNIA AND HERZEGOVINA

THE MINERAL INDUSTRY OF BOSNIA AND HERZEGOVINA

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Bosnia and Herzegovina was not a major world or regional producer of minerals or mineral products. The gross domestic product (GDP) of Bosnia and Herzegovina increased in real terms by 1.26% compared with the GDP in 2010. The mineral industry contributed only a relatively small amount of value to the GDP. The value of mining and quarrying output made up only 2.3% of the GDP; the manufacture of unfabricated metal products, 1.0%; and the manufacture of coke and refined petroleum products, 0.3%. Although the value of mineral commodity production made up a small percentage of the GDP, unfabricated metals were the single largest export item in terms of value. Exports of unfabricated metals were valued at \$930 million, and made up about 16% of the total value of exports. Fabricated metal products (except machinery and equipment) made up another 6% of the value of exports (Agency for Statistics of Bosnia and Herzegovina, 2012a, p. 50; 2012b, p. 2, 3).

Production

Production of kaolin increased by 455%; silica sand, by 117%; ferrosilicon, by 107%; lime, by 44%; iron ore, by 35%; sodium bicarbonate, by 33%; salt, by 25%; zinc ores, by 24%; coal, by 16%; lead ores, by 14%; and primary aluminum, gypsum and anhydrite, and petroleum refinery products, by 11% each. Output of crude steel and pig iron increased by 10% each as steel consumption in Bosnia and Herzegovina increased significantly and North African demand remained strong. Demand for steel products in the rest of Europe remained depressed. Barite production decreased by 77%; dolomite, by 56%; and bauxite, by 16% (table 1; Zuvela, 2011).

Structure of the Mineral Industry

Aluminij d.d. Mostar was Bosnia and Herzegovina's leading producer of mineral commodities in terms of export value and was also a significant employer. By the end of 2013, the company planned to complete the installation of a new casting furnace that could increase its primary aluminum production capacity by up to 30,000 metric tons. High electricity prices and low aluminum prices were a challenge for Aluminij in 2011, and the company expected to operate at a loss in 2012 after posting

a modest profit in 2011. In September, JSC Zarubezhneft of Russia announced that it was starting a second process line at the Bosanski Brod refinery as a result of investments made in the refinery since it was purchased by Zarubezhneft in 2008. The new process line increased the refinery's production capacity to 3 million metric tons per year (Mt/yr) of refinery products from 1.2 Mt/yr. Table 2 is a list of the major mineral industry facilities (Aluminij d.d. Mostar, 2011; JSC Zarubezhneft, 2011; Sito-Sucic, 2011).

Outlook

Bosnia and Herzegovina's mineral industry will most likely continue to be a relatively minor producer of mineral commodities. Metals are expected to remain valuable export products for the country.

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TABLE 1
BOSNIA AND HERZEGOVINA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2007	2008	2009	2010	2011	
METALS						
Alumina	303,799	294,455	191,792	269,414	261,874	
Aluminum:						
Primary	121,750	123,000	96,000	118,000	130,875	
Unwrought aluminum, including alloys	147,193	155,903	130,042	150,488	163,654	
Bauxite	866,933	1,018,333	555,820	844,027 ^r	707,712	
Iron and steel:						
Ore and concentrate:						
Gross weight	1,613,963	1,481,730	1,614,890	1,401,000	1,891,000	
Fe content ^e	678,000	622,000	678,000	588,000	794,000	
Metal:						
Ferroalloys, ferrosilicon ^e	860	640	470	870	1,800	
Pig iron	-- ^e	243,000	482,469	620,935	684,734	
Crude steel	533,000	608,000	519,000	590,757 ^r	648,560	
Lead:						
Ores and concentrate, gross weight	4,677	6,029	3,781	5,811	6,648	
Pb content ^e	2,600	3,300	2,100	3,200	3,700	
Metal, smelter, secondary ^e	1	46	35	5 ^r	4	
Silicon, metal ^e	11,600	12,400	11,000	17,300	17,500	
Zinc:						
Ores and concentrate, gross weight	4,799	8,595	6,228	10,025	12,477	
Zn content ^e	2,600	4,700	3,400	5,500	6,900	
INDUSTRIAL MINERALS						
Barite	37	54	30	57	13	
Cement	1,283,357	1,406,373	1,073,762	948,513	893,017	
Clays:						
Bentonite	32,912	30,504	16,042	314	--	
Ceramic clay, crude ^e	-- ^r	-- ^r	-- ^r	-- ^r	--	
Kaolin, crude	188,033	259,325	148,384	41,808	232,147	
Dolomite, crude	154,518	134,991	79,104	199,757	87,635	
Graphite	393,762	272,084	133,819	45,079	-- ^e	
Gypsum and anhydrite	154,294	150,039	74,302	64,570	71,870	
Lime	237,190	215,787	280,939	339,429	488,577	
Salt, all sources	502,487	555,122	556,089	662,631	831,501	
Sand and gravel:						
Gravel	1,790,913	1,475,433	938,253	979,472 ^r	913,129	
Sand, construction	98,267	175,527	156,128	258,886	124,430	
Silica sand	671,336	702,018	524,752	494,568	1,074,846	
Sodium compounds, sodium bicarbonate	13,287	19,441	21,944	35,986	47,847	
Stone:						
Dimension:						
Marble and travertine	6,049	5,785	6,358	2,674	1,836	
Ecaussine and other calcareous stone	96,943	181,493	64,186	66,133	141,245	
Granite	24,512	23,764	18,755	--	-- ^e	
Porphyry, basalt and other stone	188,822	188,410	95,498	137,372	113,285	
Slate	2,572	2,181	3,561	525	252	
Crushed	2,901,891	4,370,598	3,577,927	3,776,726 ^r	4,350,543	
Limestone, crushed and powdered	1,639,430	2,403,270	1,829,989	1,817,450	1,771,445	
MINERAL FUELS AND RELATED MATERIALS						
Brown coal and lignite	thousand metric tons	9,765	11,244	11,515	10,976	12,732
Coke		592,471	576,785	609,377	919,962	886,911
Petroleum refinery products ^{e, 3}	42-gallon barrels	91,000	853,000	8,240,000	8,920,000	9,880,000

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

¹Table includes data available through August 29, 2012.

²In addition to commodities listed, calcined gypsum, common clay, magnesite, manganese ore, soda ash, and steel semimanufactures may have been produced, but available information is inadequate to make reliable estimates of output.

³Data were converted to barrels from metric tons and were reported as follows: 2007—11,379; 2008—106,568; 2009—1,029,585; 2010—1,114,669; and 2011—1,235,519.

TABLE 2
BOSNIA AND HERZEGOVINA: STRUCTURE OF THE MINERAL INDUSTRY IN 2011

(Thousand metric tons)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Alumina	Alumina Factory Birac a.d. (Ukio Banco Investment Group)	Plant at Zvornik	600
Aluminum	Aluminij d.d. Mostar	Smelter at Mostar	135
Bauxite	A.D. Boksit Milici	Mine at Milici, west of Srebrenica	NA
Do.	Rudnici Boksita Jajce d.d.	Mine at Jajce	NA
Cement	Tvornica Cementa Kakanj d.d. (Heidelberg)	Plant at Kakanj	700 ^e
Do.	Fabrika Cementa Lukavac, d.o.o.	Plant in Lukavac	800
Coal:			
Brown	RMU Banovici	Opencast mines Cubric, Grivice, and Turija; and underground mines Omazici and Separacija at Banovici	NA
Do.	Zenica Group	Stara Jama, Raspotocje, and Stranjani Mines at Zenica	NA
Do.	Durdevik Group	Potocari and Visca II opencast mines and Durdevik underground mine south of Zivinice	NA
Do.	Kakanj Group	Vrtliste opencast mine at Kakanj	NA
Do.	do.	Haljinic underground mine about 5 kilometers southeast of Kakanj	NA
Do.	Breza Group	Sretno and Kamenice underground mines 20 kilometers northwest of Sarajevo	NA
Do.	Abid Lolic Group	Grahovcici underground mine 10 kilometers west of Zenica	NA
Do.	Tusnica Mine	Drage opencast mine at Livno	NA
Do.	Rudnik i Termoelektrana Ugljevik (Elektrokrajina a.d.)	Opencast mine at Ugljevik	NA
Lignite	Kreka Group	Opencast mine at Dubrave	NA
Do.	do.	Opencast mine at Sikulje	NA
Do.	do.	Underground mines at Mramor, about 5 kilometers northeast of Lukavac, and Bukinje, located between Tuzla and Lukavac	NA
Do.	EFT Rudnik i Termoelektrana Stanari d.o.o. (EFT Group)	Stanari opencast mine 20 kilometers west of Doboj	NA
Do.	Rudnik I Termoelektrana Gacko (Elektrokrajina a.d.)	Opencast mine at Gacko	NA
Do.	Gracanica Group	Dimnjace opencast mine at Gornji Vakuf-Uskoplje	NA
Do.	Tusnica Mine	Opencast mine at Livno	NA
Coke	Global Ispat Koksa Industrija d.o.o.	Lukavac	700
Do.	ArcelorMittal Zenica (ArcelorMittal, S.A.)	Plant at Zenica	NA
Ferroalloys, ferrosilicon	Elektrobosna, Elektrohemijska i Elektrotermijska Industrija	Plant at Jajce	NA
Do.	B.S.I. d.o.o. (Metalleghe S.p.a.)	do.	15
Iron ore	ArcelorMittal Prijedor (ArcelorMittal S.A., 51%)	Jezero and Buvac open pit mines at Ljubija	NA
Lead-zinc ore	NA	Mine and mill at Srebrenica	NA
Manganese ore	Rudnik Mangana Buzim (LM IMPEX)	Mine and concentrator at Buzim	NA ¹
Petroleum, refined	Bosanski Brod Refinery (JSC Zarubezhneft)	Oil refinery at Bosanski Brod	3,000
Do.	do.	Oil refinery at Modrica	NA
Pig iron	ArcelorMittal Zenica (ArcelorMittal, S.A.)	Blast furnace at Zenica	NA
Salt	Rudnik Soli Tusanj d.d.	Tuzla	NA
Steel, crude	ArcelorMittal Zenica (ArcelorMittal, S.A.)	Plant at Zenica	1,000
Steel, crude, secondary	Jelsingrad Livar Steel Foundry a.d.	Banja Luka	NA

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

¹There is not enough information available about Rudnik Mangana Buzim to determine whether it is still an active operation.