

## 2016 Minerals Yearbook

## PARAGUAY AND URUGUAY

# THE MINERAL INDUSTRIES OF PARAGUAY AND URUGUAY

#### By Yadira Soto-Viruet

#### **PARAGUAY**

In 2016, the production of mineral commodities—notably cement, lime, pig iron, and steel—represented only a minor part of the economy of Paraguay (World Steel Association, 2017a, b; Industria Nacional del Cemento, 2018; Yguazú Cementos S.A., 2018). The legislative framework for the mineral sector in Paraguay is provided by the Mining Law (law No. 31.180/2007), which was modified by law No. 4.269/11 of 2011 and by law No. 4.935/2013 of 2013. Data on mineral production are in table 1. Table 2 is a list of major mineral industry facilities. More-extensive coverage of the mineral industry of Paraguay can be found in previous editions of the U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Latin America and Canada, which are available at https://www.usgs.gov/centers/nmic/south-america.

#### **References Cited**

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#### **URUGUAY**

In 2016, the production of mineral commodities—notably cement, clay and shale, gemstones, gold, iron ore, steel, stone (such as dolomite, granite, and limestone), talc, and petroleum refinery products—represented only a minor part of the economy of Uruguay (Instituto Nacional de Estadística, 2017, p. 185). The legislative framework for the mineral sector in Uruguay is provided by the Mining Code (law No. 15.242 of January 8, 1982), which was modified by law No. 18.813 of September 23, 2011. Data on mineral production are in table 1. Table 2 is a list of major mineral industry facilities. More-extensive coverage of the mineral industry of Uruguay can be found in previous editions of the U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Latin America and Canada, which are available at https://www.usgs.gov/centers/nmic/south-america.

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Instituto Nacional de Estadística, 2017, Anuario estadístico [Statistical yearbook]: Montevideo, Uruguay, Instituto Nacional de Estadística, January, 288 p. (Accessed May 8, 2018, at http://www.ine.gub.uy/documents/10181/439637/Anuario+2016/e5895390-7f3d-449d-b395-574872ae6d0d.)

 $\label{table 1} \textbf{PARAGUAY AND URUGUAY: PRODUCTION OF MINERAL COMMODITIES}^{\textbf{I}}$ 

(Metric tons, gross weight, unless otherwise specified)

Country and commodity <sup>2</sup>		2012	2013	2014	2015	2016
PARAGUAY						
Cement, hydraulic <sup>e</sup>	thousand metric tons	800 <sup>r</sup>	960 <sup>r</sup>	1,000 <sup>r</sup>	1,200 <sup>r</sup>	1,200
Iron and steel: <sup>3</sup>						
Pig iron		67,000	69,000	71,000	73,000 <sup>r</sup>	50,000
Raw steel		44,000	45,000	47,000	48,000	35,000
Lime <sup>e</sup>		90,000	90,000	90,000	90,000	90,000
URUGUAY <sup>4</sup>						
Cement, hydraulic	thousand metric tons	872 5	850 e	820 e	730 °	740 e
Clay and shale:						
Bentonite		5,530	8,990	7,800	4,250 <sup>r</sup>	4,300 e
Other		26,670	19,558	23,120	29,990 r	30,000 e
Gemstones, agate, including amethyst		20,380	20,900	15,620 <sup>r</sup>	14,690 <sup>r</sup>	14,700
Gold, mine production, Au content <sup>6</sup>	kilograms	1,725	2,022	1,875	1,664	1,113
Iron and steel, raw steel <sup>3</sup>		78,000	91,000	94,000 <sup>r</sup>	97,000 <sup>r</sup>	61,000

See footnotes at end of table.

### TABLE 1—Continued PARAGUAY AND URUGUAY: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Metric tons, gross weight, unless otherwise specified)

Country and commodi	Country and commodity <sup>2</sup>		2013	2014	2015	2016
URUGUAY <sup>4</sup> —Continu	ied					
Iron ore, mine production:						
Gross weight		9,500	9,978	15,050	11,520 <sup>r</sup>	6,000 e
Fe content		3,802	3,994	6,022	4,608	2,500
Petroleum, refinery production <sup>7</sup>	thousand	14,564	15,731	14,891	14,862	16,645
•	42-gallon barrels					
Stone, size and shape unspecified:						
Dolomite		19,410	23,010	19,666	17,180 <sup>r</sup>	17,200 °
Granite		2,850	4,718	2,900	2,630 <sup>r</sup>	2,600 e
Limestone	thousand metric tons	1,458	1,506	1,474	1,542 <sup>r</sup>	1,500 °
Unspecified	do.	3,025	1,949	1,552	1,381 <sup>r</sup>	1,400 e
Talc and related materials, pyrophyllite, soapstone, steatite, talc		370	710	360	400 e	400 <sup>e</sup>

<sup>&</sup>lt;sup>e</sup>Estimated. <sup>r</sup>Revised. do. Ditto.

TABLE 2 PARAGUAY AND URUGUAY: STRUCTURE OF THE MINERAL INDUSTRIES IN 2016

(Thousand metric tons unless otherwise specified)

Country and commodity	Major operating companies and major equity owners	Location of main facilities	Annual
PARAGUAY	wajor operating companies and major equity owners	Location of main facilities	capacity
Cement	Industria Nacional del Cemento	Puerto Vallemi plant, about 350 kilometers northwest	1,060
Do.	do.	of Asuncion  Villeta plant, about 25 kilometers south of Asuncion	730
Do.	Yguazú Cementos S.A. (Intercement Brasil S.A., 51%, and Concret-Mix S.A., 49%)	Villa Hayes plant in Presidente Hayes Department	400
Steel	Aceros del Paraguay S.A. (ACEPAR)	Villa Hayes, about 25 kilometers northeast of Asuncion	150
URUGUAY			
Cement	Cementos Artigas S.A. (Votorantim Cimentos, 51%, and Cementos Molins S.A., 49%)	Minas plant in Lavalleja Department and Sayago plant in Montevideo	500
Do.	Cementos del Plata S.A. (Administración Nacional de Combustibles, Alcohol, y Portland, 99.74%)	Paysandu plant in Paysandu  Department and Minas plant in Lavalleja Department	530
Gold kilograms	Minera San Gregorio S.A. (Orosur Mining Inc., 100%)	Mina de San Gregorio in Rivera Department, about 450 kilometers north of Asuncion	2,000
Iron and steel	Gerdau Laisa S.A.	Montevideo	90
Petroleum, refinery thousand products 42-gallon barrels	, , , ,	La Teja oil refinery near Montevideo	18,000

<sup>&</sup>lt;sup>e</sup>Estimated. Do., do. Ditto.

<sup>&</sup>lt;sup>1</sup>Table includes data available through December 13, 2017. All data are reported unless otherwise noted. Estimated data are rounded to no more than three significant digits.

<sup>&</sup>lt;sup>2</sup>For Paraguay, in addition to the commodities listed, construction materials (clays, limestone, marble, and sand) were produced, but available information was inadequate to make reliable estimates of output. Production of crushed stone was estimated to be about 14.8 million metric tons per year from 2012 to 2015.

<sup>3</sup>Source: World Steel Association (worldsteel).

<sup>&</sup>lt;sup>4</sup>For Uruguay, in addition to the commodities listed, feldspar, marble, and quartz were produced in small quantities. Source: Ministerio de Industria, Energía y Minería (MIEM), Dirección Nacional de Minería y Geología (DINAMIGE). Data are for the fiscal year ending on March 31 of the year stated.

<sup>&</sup>lt;sup>5</sup>Source: Federación Interamericana del Cemento, Statistical Report 2013.

<sup>&</sup>lt;sup>6</sup>Source: Orosur Mining Inc. Data are for the fiscal year ending on May 31 of the year stated.

<sup>&</sup>lt;sup>7</sup>Source: Administración Nacional de Combustible, Alcohol y Portland (ANCAP).