



# 2015 Minerals Yearbook

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**FRENCH GUIANA [ADVANCE RELEASE]**

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# THE MINERAL INDUSTRY OF FRENCH GUIANA

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In 2015, French Guiana's leading mineral commodity export continued to be gold; other mineral commodities produced were cement, laterite, common sand, and crushed stone. French Guiana also had mineral resources that included bauxite, clay, copper, diamond, lead, nickel, platinum, uranium, and zinc. French Guiana is an overseas Department of France. It is located in the northeastern part of the South American subcontinent (table 1; Institut d'Emission des Départements d'Outre-Mer, 2016, p. 82–83, 95).

## Minerals in the National Economy

In 2015, the economy was characterized as sluggish and grew by less than the nearly 3% rate of growth of the past several years. The nominal gross domestic product was estimated to be about \$5 billion, and the space industry was one of the driving forces for the economy. Gold mining was an important component of the economy, as gold exports accounted for an estimated 20% to 25% of the total value of exports in 2015 compared with 28% in 2014. Gold exports have ranged between 1,100 and 1,800 kilograms (kg) since 2010 and were estimated to be 1,500 kg in 2015. Gold mining has been affected by problems related to illegal gold panning, by regulatory constraints, and by higher production costs in recent years. In 2015, the value added of the construction industry continued to decline after having recently peaked in 2013; decreases in the construction of residential housing and in the number of new projects have resulted in decreased demand for cement, crushed stone, and sand (Institut d'Emission des Départements d'Outre-Mer, 2014; 2015b; 2016, p. 83, 95).

## Government Policies and Programs

The exploration and exploitation of minerals in French Guiana is regulated by the Mining Code that was adopted under Act No. 98–297 of 1998. According to the Mining Code, four types of licenses and permits can be granted for exploration and mining and other mineral extraction activities. Exploration permits allow exploration activities for up to 5 years (renewable two times) to characterize a deposit. An operating authorization is designed to meet the specific characteristics of artisanal mining, is applicable to deposits with a maximum area of 1 square kilometer for a period of 4 years, and may be renewed only once. Operating permits have an operating life of 5 years and may be renewed twice without competition for up to 5 years each time. Concessions allow the longest operating life (up to 50 years) and may be extended for an additional 25 years. Licenses and permits are granted on a competitive basis unless they are the extension of a research permit or operating permit (Institut d'Emission des Départements d'Outre-Mer, 2016, p. 81–82).

The Schéma Départemental d'Orientation Minière (SDOM) [Framework on Mining] was approved in 2011 and entered into force on January 1, 2012. The objectives of the SDOM

are to promote mining activity, to create a mining technical hub in French Guiana, and to assess the environmental impacts of mining activities. According to the framework, mining is prohibited on 45% of the Department. Of the remaining area, 20% is subject to specific constraints, and 35% is subject to common laws (Institut d'Emission des Départements d'Outre-Mer, 2016, p. 82).

Between 4,000 and 10,000 illegal immigrants were estimated to be engaged in illegal gold panning, mainly in the area of the Amazon Park. The Government had conducted several operations since 2004 to reduce illegal gold-panning activities. By the end of 2015, the estimated number of clandestine sites had decreased to 204, down from 479 in early 2014. In late 2014, an agreement between Brazil and France to improve cross-border cooperation in the fight against illegal gold panning was implemented. The measures in the agreement included the strengthening of judicial cooperation and better monitoring of gold mining and trading activities on both sides of the Oyapock River. The agreement had been adopted by the French National Assembly in April 2011 and approved in December 2013 by the Government of Brazil (Institut d'Emission des Départements d'Outre-Mer, 2015a, p. 90; 2016, p. 84).

## Production

In 2015, the country's mineral production decreased significantly. Owing to a decrease in construction activity, laterite production decreased by 80%; common salt, by 76%; and crushed stone, by 60%. Gold mine output decreased by an estimated 12% owing largely to decreased gold prices and increased enforcement of laws against illegal mining (table 1).

## Structure of the Mineral Industry

Cement production and gold mining in French Guiana were conducted mainly by international companies. International companies from Canada and France focused mainly on primary gold mining, whereas the smaller operators mined alluvial gold, which required less engineering and investment. Table 2 is a list of major mineral facilities operating in French Guiana in 2015 (Institut d'Emission des Départements d'Outre-Mer, 2016, p. 82–83).

## Commodity Review

### Metals

**Gold.**—In 2015, investments in the gold mining sector decreased to about \$13 million, or by 19% compared with that of 2014, owing to the lower price of gold on the world market. The gold mining sector employed approximately 550 registered workers in 2015. The leading gold-mining company was Auplata S.A. of France, which owned (through its subsidiary) the Dorlin Mine and the Yaou Mine located in Maripasoula,

and the Dieu Merci Mine located near Saint-Elie (Institut d'Emission des Départements d'Outre-Mer, 2016, p. 82).

The Paul Isnard project, which is located between Apatou and St. Laurent-du-Maroni, was under development by Columbus Gold Corp. of Canada (100% interest). Columbus Gold continued to develop the Montagne d'Or gold deposit at this site, which was estimated to have indicated resources of 121,000 kg of gold [83.2 million metric tons (Mt) at an average grade of 1.45 grams per metric ton (g/t) gold], and inferred resources of 35,000 kg of gold (22.4 Mt at an average grade of 1.55 g/t gold). The cutoff grade was 0.4 g/t gold. The life of the mine was expected to be 13 years with production of 8,490 kilograms per year of gold. The project was funded by Nord Gold N.V. of Russia, which could earn a 50.01% interest in the project by investing a minimum of \$30 million and completing a bankable feasibility study by March 2017. In October 2015, it was announced that Lycopodium Minerals Pty Ltd. of Australia had won the tender to complete the feasibility study and that the study would be completed with the participation of SRK Consulting Inc. of Denver, Colorado (Columbus Gold Corp., 2016, p. 2, 8; Nord Gold N.V., 2016).

Auplata S.A. received final approval to construct and operate a centralized cyanide plant to treat gold concentrates from its Dieu Merci Mine as well as various other mining sites in French Guiana. The cyanide plant was projected to increase the gold recovery rate to 95%, which was a significant increase from the 25% and 30% achieved using gravity leaching methods. The plant was expected to be completed by the end of 2016 (Finanzwire.com, 2015).

## Outlook

During the next few years, the economy of French Guiana is expected to grow at a moderate rate owing to the Ariane 6 space program that is planned to be commissioned in 2020. The construction of the new Ariane 6 launch pad will boost the construction sector in the coming years, which will likely

result in moderate increases in consumption of cement and other building materials. Gold output is expected to increase owing to the commencement of a cyanide plant that will increase gold production and result in increased gold exports. In the long term, gold production has upward potential if the Paul Isnard project is implemented and other identified deposits are developed (Institut d'Emission des Départements d'Outre-Mer, 2015b, 2016, p. 14–15).

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TABLE 1  
FRENCH GUIANA: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

(Thousand metric tons unless otherwise specified)

Commodity <sup>2</sup>		2011	2012	2013	2014	2015
Cement, hydraulic	metric tons	90,000 <sup>c</sup>	100,000 <sup>c</sup>	94,000 <sup>r,c</sup>	87,233 <sup>r</sup>	83,388
Gold, mine output, Au content	kilograms	1,298	1,147	1,220	1,700 <sup>r,c</sup>	1,500 <sup>c</sup>
Laterite		396	207	805	534	108
Sand, common		365	365	1,176	1,086	263
Stone, crushed		846	1,010	1,600	1,940	774

<sup>c</sup>Estimated; estimated data are rounded to no more than three significant digits. <sup>r</sup>Revised.

<sup>1</sup>Table includes data available through August 1, 2016.

<sup>2</sup>In addition to the commodities listed, columbite, clay, and tantalite were produced, but available information was inadequate to make reliable estimates of output.

TABLE 2  
FRENCH GUIANA: STRUCTURE OF THE MINERAL INDUSTRY IN 2015

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity <sup>c</sup>
Cement		Ciments Guyanais S.A. (Cementos Argos, 100%)	Clinker grinding plant at Degrad des Cannes, about 10 kilometers southeast of Cayenne	200
Gold	kilograms	Auplata S.A., 100%	Dieu Merci Mine, near Saint-Elie, about 120 kilometers west of Cayenne	600
Do.		Société Minière Yaou Dorlin S.A.S. (Auplata S.A., 100%)	Yaou underground mine, about 225 kilometers southwest of Cayenne	NA
Do.	kilograms	Compagnie Minière Dorlin S.A.S. (Auplata S.A., 100%)	Dorlin placer mine, in Maripasoula 190 kilometers southwest of Cayenne	100
Do.	do.	Numerous legal and illegal placer mines	Various locations	1,000
Niobium (columbium) and tantalum		do.	Various location in northwestern French Guiana	NA
Sand		About 10 sand pits	Various locations	NA
Stone, crushed		About 9 rock quarries	do.	NA

<sup>c</sup>Estimated. Do., do. Ditto. NA Not available.