



2015 Minerals Yearbook

EQUATORIAL GUINEA [ADVANCE RELEASE]

THE MINERAL INDUSTRY OF EQUATORIAL GUINEA

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Offshore crude petroleum and natural gas production dominated Equatorial Guinea's mineral industry activity. In 2015, Equatorial Guinea's real gross domestic product (GDP) decreased by 12.2% compared with a 0.3% decrease in 2014. For 2015, hydrocarbons were projected to account for about 70% of the GDP, 80% of Government revenue, and 88% of exports. The heavy reliance on hydrocarbon revenues and the low price of oil prevalent throughout 2015 were the main factors in the large negative GDP growth for the year. Most of the country's hydrocarbon production was exported, although some liquefied petroleum gas (LPG) output was consumed locally. Mined clay, gravel, rock, and sand were used by the domestic construction industry. In addition to the presence of gold (which was mined by artisanal miners), sampling had shown potential for the occurrence of diamond and tantalite (International Monetary Fund, 2015, p. 5, 24–25; 2016, p. 174; Ministry of Mines, Industry, and Energy, undated).

Mineral resources are the property of the Government, and contracts for hydrocarbon and mineral exploration and production are administered by the Ministry of Mines, Industry and Energy. Mineral exploration and production activities are governed by the Mining Law (law No. 9/2006), and hydrocarbon exploration and production activities are covered under the Hydrocarbon Law (law No. 8/2006). All extractive activities are governed under law No. 7/2003 and amendments contained within the Environmental Law, which is administered by the Ministry of Mines, Industry, and Energy (Ministry of Mines, Industry, and Energy, undated).

Production

The country's mineral industry was dominated by the production of mineral fuels from offshore fields, such as condensate, crude petroleum, and natural gas. In 2015, the production of methanol and natural gas decreased by 14% and 7%, respectively. Together, the production of condensate and crude petroleum increased by 3%. Equatorial Guinea produced a variety of crude construction materials (clay, gravel, rock, and sand), as well as gold produced by artisanal mining, but the information available was inadequate to make reliable estimates of output (table 1).

Structure of the Mineral Industry

Hydrocarbon exploration and production activity was governed by production-sharing contracts held by the Government and joint ventures with international oil companies. Guinea Ecuatorial de Petróleos (GEPetrol), which was the national oil company, operated some exploration-stage projects under production-sharing contracts and managed the Government's interest in other crude petroleum exploration and production operations. Sociedad Nacional de Gas de Guinea Ecuatorial (Sonagas), which was the Government-owned natural

gas company, managed the Government's interest in products derived from natural gas output, such as liquefied natural gas (LNG), LPG, and methanol (Ministry of Mines, Industry, and Energy, undated; Sociedad Nacional de Gas de Guinea Ecuatorial, undated).

Commodity Review

Mineral Fuels

Natural Gas and Petroleum.—The consortium of GEPetrol, Marathon Oil Co. of the United States, and Noble Energy Equatorial Guinea Ltd. produced condensate and natural gas from the Alba field. Condensate and LPG were removed by Alba Plant LLC at the LPG processing plant located on Bioko Island. The dry gas was sold to Atlantic Methanol Production Co. L.L.C., which produced methanol, and to Equatorial Guinea LNG Holdings Ltd., which liquefied the natural gas for shipment. Marathon reported that in the third quarter of 2015, production from the Alba field increased as a development well came online with higher than expected yields. Marathon's construction of a natural gas compression platform continued and was expected to be operational by midyear 2016. The natural gas compression platform would be the third platform on the Alba field, and it was expected to extend the life of the field by 8 years. Under production-sharing contracts, Noble Energy, Inc., GEPetrol, Glencore plc of Switzerland, Atlas Petroleum International Ltd. of Nigeria, and Osborne Resources (subsidiary of Gunvor Group of Switzerland) produced condensate and natural gas from the Alen field and crude petroleum from the Aseng field. At the Alen field, condensate was stripped from the natural gas stream and the natural gas was reinjected into the reservoir. The Aseng floating production storage and offloading vessel acted as both a production hub for crude petroleum, and facility for processing and storing condensate from natural gas in surrounding fields, including Alen (Marathon Oil Corp., 2016, p. 9; Noble Energy, Inc., 2016, p. 14).

In 2015, Exxon Mobil Corp. of the United States reported that crude petroleum production from the Zafiro field on Block B was about 34,000 barrels per day (bbl/d), which was about a 6% increase compared with output in 2014. ExxonMobil was awarded an 80% interest in Block EG-06 and was reviewing newly acquired three-dimensional seismic data of the block. The Ceiba field and the Okume complex were under production by the joint venture of GEPetrol, Hess Corp. of the United States, and Tullow Oil plc of the United Kingdom. In 2015, Hess reported that crude petroleum output from the Ceiba field and the Okume complex rebounded to 44,000 bbl/d, which was the same level as in 2013. Two new wells were brought online, and an efficiency improving well infill drilling program was completed at Okume. An initial review was begun on four-dimensional seismic data from the Okume complex in an

effort to restart drilling at the Elon and the Oveng fields in 2017 (Exxon Mobil Corp., 2015, p. 37; 2016; p. 23, 37; Hess Corp., 2016, p. 4, 25; Tullow Oil plc, 2016, p. 38).

Ophir Energy plc of the United Kingdom continued to develop the Fortuna floating liquefied natural gas (FLNG) facility. The plant would process natural gas produced from the Block R field. In July, Ophir announced that the FLNG project had entered into the front-end engineering and design phase and that the company expected first production in 2019. Ophir came to an agreement with Golar LNG Ltd. of Bermuda in which Golar would be the midstream provider with a 20-year tolling contract commencing in 2019. The Fortuna gasfield was expected to produce 2.2 million metric tons per year of LNG (Golar LNG Ltd., 2016; Ophir Energy plc, 2016a, p. 4, 22–23, 25; 2016b).

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TABLE 1
EQUATORIAL GUINEA: ESTIMATED PRODUCTION OF MINERAL COMMODITIES^{1,2}

(Thousand 42-gallon barrels unless otherwise specified)

Commodity ³	2011	2012	2013	2014	2015	
Liquefied petroleum gas	7,500	7,500	7,500	6,900	6,900	
Methanol	thousand metric tons	1,000	1,000	1,010	885	760
Natural gas ⁴	million cubic meters	7,100	6,900	7,200	7,100	6,600
Petroleum, crude and condensate		92,000	99,000	97,000	102,000	105,000

¹Estimated data are rounded to no more than three significant digits.

²Table includes data available through May 20, 2016.

³In addition to the commodities listed, Equatorial Guinea presumably produced gold and a variety of crude construction materials (clay, gravel, rock, and sand), but available information was inadequate to make reliable estimates of output.

TABLE 2
EQUATORIAL GUINEA: STRUCTURE OF THE MINERAL INDUSTRY IN 2015

(Thousand 42-gallon barrels unless otherwise specified)

Commodity		Major operating companies and major owners	Location of main facilities	Annual capacity
Gold	kilograms	Artisanal placer operations	Aconibe, Coro, and Mongomo	NA
Liquefied natural gas	metric tons	Equatorial Guinea LNG Holdings Ltd. [Marathon Equatorial Guinea Production Ltd., 60%; Sociedad Nacional de Gas de Guinea Ecuatorial (Sonagas), 25%; Mitsui & Co. Ltd., 8.5%; Marubeni Corp., 6.5%]	Punta Europa	3,700,000
Liquefied petroleum gas		Alba Plant LLC [Marathon Oil Co., 52%; Noble Energy Equatorial Guinea Ltd., 28%; Sociedad Nacional de Gas de de Guinea Ecuatorial (Sonagas), 20%]	do.	7,700
Methanol	metric tons	Atlantic Methanol Production Co. L.L.C. [Noble Energy, Inc., 40%; Samedan Methanol, 50%; Sociedad Nacional de Gas de Guinea Ecuatorial (Sonagas), 10%]	do.	1,100,000
Natural gas	million cubic meters	Marathon Oil Co., 63%; Noble Energy Equatorial Guinea Ltd., 34%; Guinea Ecuatorial de Petr�leos (GEPetrol), 3%	Alba field, Alba Block	8,000
Do.		do.	Alen field	NA
Petroleum:				
Condensate		Marathon Oil Co., 63%; Noble Energy Equatorial Guinea Ltd., 34%; Guinea Ecuatorial de Petr�leos (GEPetrol), 3%	Alba field, Alba Block	24,000
Do.		Noble Energy, Inc., 44.65%; Guinea Ecuatorial de Petr�leos (GEPetrol), 28.75%; Glencore Exploration (EG) Ltd., 24.94%; Atlas Petroleum International Ltd., 1.38%; Osborne Resources Ltd., ¹ 0.28%	Alen field, Block O	13,000
Crude		Hess Equatorial Guinea, Inc., 80.75%; Tullow Equatorial Guinea Ltd., 14.25%; Guinea Ecuatorial de Petr�leos (GEPetrol), 5%	Ceiba field, Block G	12,500
Do.		do.	Okume complex (includes the Akom North, the Ebano, the Elon, the Okume, and the Oveng fields), Block G	20,000
Do.		Mobil Equatorial Guinea Inc., 71.25%; Guinea Ecuatorial de Petr�leos (GEPetrol), 23.75%; Equatorial Guinea Government, 5%	Zafiro field, Block B	102,000
Do.		Noble Energy, Inc., 40% working interest; Atlas Petroleum International Ltd., 29% working interest; Glencore Exploration (EG) Ltd., 25% working interest; Osborne Resources Ltd., ¹ 6% working interest; Guinea Ecuatorial de Petr�leos(GEPetrol), 5% carried interest	Aseng field, Block I	23,000

Do., do. Ditto. NA Not available.

¹A subsidiary of Gunvor Group.