Energy Information Administration

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# COUNTRY ANALYSIS BRIEFS

# **Equatorial Guinea**

Last Updated: May 2006

# **Background**

Equatorial Guinea's economy has grown rapidly since the country began exporting oil in 1995.

Equatorial Guinea is a sub-Saharan African country consisting of a mainland area (Rio Muni province) and a series of islands. The country's capital, Malabo, is located on Bioko Island, approximately 25 miles off the coast of Cameroon. Equatorial Guinea is the only Spanish-speaking country in Africa, having gained independence from Spain in 1968. The country's first elected President, Francisco Marcias Nguema, assumed the title of President-for-Life and began a reign of terror that led to the death or exile of one-third of all Equatoguineans. In 1979, Teodoro Obiang Nguema became President after a successful coup. The Equatoguineans have re-elected President Obiang twice; however, political opponents withdrew from the races prior to the elections and international observers cited ballot irregularities.



Since 1995, oil exports (currently 97 percent of total export earnings) have caused the Equatoguinean economy to grow rapidly. In 2005, the country's real gross domestic product (GDP) grew 15.4 percent, and it is expected to grow 6.9 percent in 2006. Despite the rapid growth in real GDP, allegations abound over how the Equatoguinean government has misappropriated its oil revenues. While the government has made some infrastructure improvements to bolster the oil industry, the average Equatoguinean has yet to experience a higher standard of living from the oil revenues. The government has attempted to privatize the state-run businesses and continues to promote foreign investment.

The International Monetary Fund (IMF) has held regular Article IV consultations since 1996. Following the 2003 Article IV consultation, the IMF commended the Equatoguinean government for its improved administrative capacity and fiscal performance, but stressed the need for greater transparency and structural reforms to bolster the non-oil sector. Equatorial Guinea has also maintained consistent relations with the African Development Bank (AfDB), which has financed 24 loans and grants to the country. Individual countries that have continued to give aid to Equatorial Guinea include Spain, France, China and Cuba, as well as the European Union. In January 2005, Equatorial Guinea pledged to increase transparency in its oil revenues.

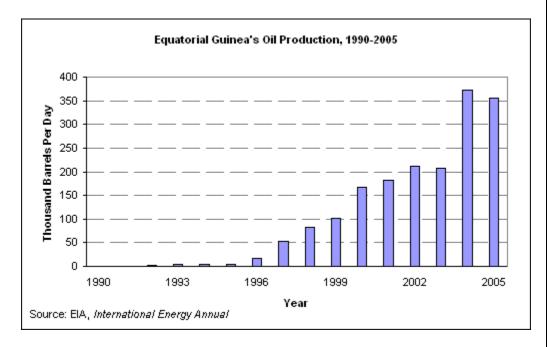
#### Territorial Disputes

In recent years, Equatorial Guinea and its neighbors have expanded their offshore oil exploration, which has increased the importance of maritime borders. In March 1999, President Obiang unilaterally adopted an equidistant median line that defined territorial boundaries as stipulated under the U.N. Convention on the Law of the Sea. Cameroon, Sao Tome & Principe, and Nigeria accepted the decision as an improvement over the often disputed traditional boundaries.

Since the 1970's, Equatorial Guinea and Gabon have disputed the ownership of three islands in the Gulf of Guinea, including Mbagne Island. In July 2004, the two countries reached an agreement allowing joint oil exploration in the disputed territories. In February 2006, the presidents of both countries met in Geneva, Switzerland and under U.N. mediation they agreed to resolve any major outstanding border issues by 2007.

# Oil

Equatorial Guinea is the third largest oil producer in Africa. According to *World Oil*, Equatorial Guinea had total proven oil reserves of 1.77 billion barrels as of January 2005. The majority of these reserves are located in the oil-rich Gulf of Guinea. Since the 1995 discovery of the Zafiro field, Equatorial Guinea's oil production has increased more than tenfold. In 1995, average oil production was 5,000 barrels per day (bbl/d), which increased to an average oil production of 356,000 bbl/d in 2005. In October 2004, Equatorial Guinea requested that oil companies operating in the country cap production at 350,000 bbl/d, due to concerns that oil revenues from increasingly high prices could destabilize the economy.



## **Section Organization**

The Ministry of Mines, Industry and Energy is the overall regulatory body for the petroleum industry in Equatorial Guinea. However, to better manage the oil sector, the Equatoguinean government created a national oil company (GEPetrol) that became operational in 2002. GEPetrol's primary focus is to manage the interest stakes of the Equatoguinean government in various production sharing contracts (PSAs) with foreign oil companies. The company can also participate in oil exploration and production activities outside Equatorial Guinea.

#### **Production**

#### Zafiro Field

In 1995, ExxonMobil and Ocean Energy discovered the Zafiro field, which is located northwest of Bioko Island. The field contains estimated recoverable reserves of over 400 million barrels, and is Equatorial Guinea's largest oil producer, with initial output rising from 7,000 bbl/d in 1996 to approximately 270,000 bbl/d in 2005. The Zafiro export blend that is produced from the Zafiro field is low in sulfur content with an API ranging between 34° - 38°. In recent years, ExxonMobil has focused on increasing production from Zafiro by expanding drilling capacity. A new floating production, storage and offloading (FPSO) vessel introduced in 2003 also increased production capability.

#### Ceiba Field

Ceiba, Equatorial Guinea's second major producing oil field, is located just offshore of Rio Muni in exploration Block G and contains an estimated 300-800 million barrels of oil. The field began production in December 2000 and currently produces around 40,000 bbl/d. The field is operated by Amerada Hess, with partners Tullow Oil and GEPetrol. Adjacent to Ceiba field is the Okume Complex, which Amerada Hess is expanding after having received government approval in 2004. The expansion project includes two tension leg platforms, four fixed platforms and the drilling of 43 wells. Amerada Hess, Tullow Oil and GEPetrol will invest approximately \$1.1 billion, with production output expected to reach 60,000 bbl/d. First oil from the project is expected to come online in 2007.

#### Alba Field

Alba, Equatorial Guinea's third significant field, is located 12 miles north of Bioko Island. It was discovered in 1991 by Water International. Original estimates of combined proven and probable reserves at Alba were around 68 million barrels of oil equivalent (BOE), which includes both oil and natural gas, but recent exploration has increased estimates to almost 1 billion BOE. Unlike the Zafiro or Ceiba fields, exploration and production at Alba has focused on condensates and natural gas. Recent production improvements at Alba resulted in average production of 65,000 bbl/d of condensates. Marathon Oil Corporation serves as operator of Alba field, with a 63 percent interest and is joined with partners Noble Energy (34 percent) and GEPetrol (three percent).

#### **Exploration and Field Development**

In June 2006, the Equatoguinean government plans to begin a new licensing round for offshore acreage, including parts of Blocks F, G and B. Asian firms from China and India are especially interested in gaining exploration rights in the upcoming licensing round. In February 2006, the China National Offshore Oil Company (CNOOC) signed a PSA for offshore acreage in Equatoguinean waters. Under the contract, CNOOC and GEPetrol will have the rights to explore the acreage over the next five years. Additional international companies that have interest in the upcoming round include Chevron, U.S.; Vanco Energy, U.S.; Atlas Petroleum International, U.S.; Devon Energy, U.S.; Petronas, Malaysia; Sasol Petroleum, South Africa and Glencore, Switzerland.

In 2004, the Equatoguinean government signed a PSA with a consortium of companies that included Noble Energy (45 percent), GEPetrol (30 percent), and Glencore Exploration (25 percent) for the exploration of Block O. In September 2005, Noble Energy drilled its first exploration well on the Belinda prospect in Block O, which is estimated to contain 75 million BOE. Noble Energy plans to drill one more exploration well on the block.

In January 2006, Petrobras acquired a 50 percent stake in Block L, which is located in the Muni basin. The block's first exploration well is expected to be drilled in 2006. The Brazilian company is joined with partners Chevron (22.5 percent stake and operator), Amerada Hess (12.5 percent), Energy Africa (10 percent) and Sasol (5 percent).

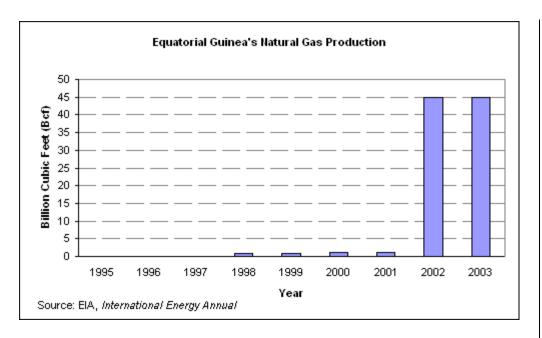
## **Downstream**

Equatorial Guinea's domestic petroleum consumption is estimated at 2,000 bbl/d, primarily in the form of motor fuel. Getotal, jointly owned by Total and the government of Equatorial Guinea, has a monopoly on the distribution of petroleum products, all of which are imported due to a lack of refining capability.

The <u>Luba oil port</u>, constructed by Incat Petroleum Services (IPS), became operational in 2002. The Equatoguinean government hopes that offshore oil and gas companies will use the Luba port as their transportation hub. In addition, a new oil port in Malabo is currently being constructed to relieve congestion. Oil companies located on the Island of Bioko are expected to use the port once it is completed. Pils (Netherlands) will operate the port for 15 years, after which the Equatoguinean government will become its operator.

# **Natural Gas**

Equatorial Guinea's natural gas production continues to increase. According to the *Oil and Gas Journal* (OGJ), Equatorial Guinea had 1.3 trillion cubic feet (Tcf) of proven natural gas reserves as of January 1, 2006. The majority of the reserves are located offshore Bioko Island, primarily in the Alba and Zafiro associated natural gas fields. From 2001 - 2002, Equatoguinean natural gas production increased rapidly as new projects came online; in 2003, natural gas production was 45 billion cubic feet (Bcf), and natural gas consumption was the same.



#### **Sector Organization**

Following a decree signed by President Obiang in January 2005, the government announced the creation of a state natural gas company, Sociedad Nacional de Gas de Guinea Ecuatorial (Sonagas, G.E.). The responsibilities of Sonagas include managing gas assets and developing an industrial and residential natural gas market, as well as the treatment, distribution, marketing, and exportation of natural gas reserves. In addition, the Equatoguinean government required that Sonagas take part ownership in all natural gas related projects in Equatorial Guinea, which currently includes the Bioko Methanol Plant (10 percent ownership), the Punta Europa Liquefied Petroleum Gas Plant (10 percent ownership) and the Equatorial Guinea Liquefied Natural Gas Plant (25 percent ownership).

#### **Exploration and Production**

Natural gas and condensate production in Equatorial Guinea has expanded rapidly in the last five years in response to new investments by major stakeholders in the Alba field. Alba, the country's largest natural gas field, contains 1.3 trillion cubic feet Tcf of proven reserves, with probable reserves estimated at 4.4 Tcf or more. Throughout the 1990s, oil companies primarily produced condensate and flared the associated natural gas. Currently, the Alba field produces around 250 million cubic feet per day (Mmcf/d) of wet natural gas. Marathon Oil (operator) has a 63 percent interest in the field, while Noble Energy holds 34 percent interest and GEPetrol has the remaining three percent.

In October 2005, Noble Energy made a natural gas discovery in Block O. The company is currently deciding whether or not to drill additional exploration wells on the block. Noble Energy holds a 45 percent interest in Block O and is joined with partners GEPetrol (30 percent) and Glencore Exploration (25 percent).

### Liquefied Natural Gas (LNG)

The \$1.4 billion LNG facility on Bioko Island is expected onstream in late 2007. The plant's output capacity is estimated at 3.4 million tons per year, and all LNG produced will be sold to British Gas (BG) under a 17-year purchase agreement. BG, in turn, is expected to supply the majority of the LNG to the United States terminal at Lake Charles, Louisiana. Currently, a feasibility study is being performed on the possibility of constructing an additional LNG train at the Bioko facility. Marathon Oil (60 percent) is the operator of the facility and is joined with partners Sonagas (25 percent), Japan's Mitsui (8.5 percent), and Marubeni (6.5 percent).

# **Electricity**

Equatorial Guinean's electricity generation is unreliable due to poor management and aging equipment. In 2003, Equatorial Guinea's total installed electricity generating capacity was 12 megawatts (MW). However, results of a Department of Energy (DOE) questionnaire, official interviews and local site visits in 2004 have indicated that the actual installed generating capacity may be larger than what is currently reported, approximately 131 MW. On both Bioko Island and the mainland, electricity is generated by a combination of thermal and hydroelectric plants. The country's total

electricity generation in 2003 was 0.03 billion kilowatthours (Bkwh), and electricity consumption was the same.

### **Sector Organization**

Equatorial Guinea's electricity sector is owned and operated by the state-run monopoly, Sociedad de Electricidad de Guinea Ecuatorial S.A. (SEGESA). SEGESA operates the country's two small electricity transmission networks, which comprise approximately 80 miles of high tension lines. The network on the mainland serves the suburban area of Bata, while the second, older distribution system on Bioko Island connects Malabo to the port of Luba. The government has plans to expand this grid by 2010. SEGESA's power supply is unreliable due to poor management and aging equipment, and consumers often experience prolonged blackouts. Small diesel and gasoline powered generators are widely used as a back-up source of power supply. The Equatoguinean government has attempted to privatize SEGESA in an effort to increase competition and efficiency in the electricity sector; however, foreign companies have shown little interest in the state company.

The expansion of natural gas production at the Alba field in recent years has provided a convenient fuel source for new power generation in the country. The 10.4-MW, natural gas-fired Punta Europa plant began operation in 1999, supplying electricity to Bioko Island. After upgrades in 2000, the potential total capacity of Punta Europa rose to 28 MW, yet output remains constrained by the original capacity of the outgoing transmission line. An additional 4-6 MW of generation capacity is currently under construction at the Atlantic Methanol Production Company (AMPCO) complex on Bioko Island.

# **Profile**

# **Country Overview**

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President	Teodoro Obiang Nguema Mbasogo (since August 3, 1979)
Prime Minister	Miguel Abia Biteo Borico
Location	Western Africa, bordering the Bight of Biafra, between Cameroon and Gabon
Independence	12 October 1968 (from Spain)
Population (2005E)	535,881
Languages	Spanish (official), French (official), pidgin English, Fang, Bubi, Ibo
Religion	nominally Christian and predominantly Roman Catholic, pagan practices
Ethnic Group(s)	Bioko (primarily Bubi, some Fernandinos), Rio Muni (primarily Fang), Europeans less than 1,000, mostly Spanish

## **Economic Overview**

Minister of Economy	Jaime Ela Ndong
Currency/Exchange Rate (5/8/06)	1 Communauté Financière Africanine CFA Fr (XAF) = US \$0.0019
Inflation Rate	(2005E): 7.9% (2006F): 7.7%
<b>Nominal Gross Domestic Product</b>	(2005E): \$6 billion (2006F): \$6.8 billion
Real GDP Growth Rate	(2005E): 15.4% (2006F): 6.9%
Exports	(2005E): 6.727 billion (f.o.b.)
<b>Exports - Commodities</b>	petroleum, methanol, timber, cocoa
Exports - Partners (2004E)	US 34%, China 23.7%, Spain 21.1%, Canada 8.6%
Imports	(2005E): \$1.864 billion (f.o.b.)
Imports - Commodities	petroleum sector equipment, other equipment
Imports - Partners (2004E)	US 32.1%, Cote d'Ivoire 16.9%, Spain 13.7%, France 8.6%, UK 7.4%
<b>Current Account Balance</b>	(2005E): \$1.364 billion

## **Energy Overview**

Minister of Energy	Francisco Mabale Nseng
Proven Oil Reserves (1/1/05 – World Oil)	1.765 billion barrels

Oil Production (2005E)	355.3 thousand barrels per day, of which 92% was crude oil.
Oil Consumption (2005E)	1.3 thousand barrels per day
Net Oil Exports	354.0 thousand barrels per day
Proven Natural Gas Reserves (January 1, 2006E)	1.3 trillion cubic feet
Natural Gas Production (2003E)	44.9 billion cubic feet
Natural Gas Consumption (2003E)	44.9 billion cubic feet
Electricity Installed Capacity (2003E)	0.01 million kilowatts
Electricity Generation (2003E)	30 million kilowatthours
Electricity Consumption (2003E)	30 million kilowatthours
Total Per Capita Energy Consumption (2003E)	101 million Btus

## **Environmental Overview**

Energy-Related Carbon Dioxide Emissions (2003E)	3.9 million metric tons
Per-Capita, Energy-Related Carbon Dioxide Emissions (2003E)	8 metric tons
Environmental Issues	tap water is not potable; deforestation
Major Environmental Agreements	party to: Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Ship Pollution signed, but not ratified: none of the selected agreements

# Oil and Gas Industry

Organization	GE Petrol; downstream activities – Getotal (owned by Total, S.A. – 80% and the government of Equatorial Guinea – 20%
Foreign Company Involvement	Amerada Hess, Chevron, Devon Energy, Energy Africa, ExxonMobil, Marathon Oil, Noble Affiliates, Petronas
Major Oil Fields	Zafiro (270,000 bbl/d), Ceiba (45,000 bbl/d), Alba (65,000 bbl/d of condensates)

<sup>\*</sup> The total energy consumption statistic includes petroleum, dry natural gas, coal, net hydro, nuclear, geothermal, solar, wind, wood and waste electric power. The renewable energy consumption statistic is based on International Energy Agency (IEA) data and includes hydropower, solar, wind, tide, geothermal, solid biomass and animal products, biomass gas and liquids, industrial and municipal wastes. Sectoral shares of energy consumption and carbon emissions are also based on IEA data.

\*\*GDP figures from OECD estimates based on purchasing power parity (PPP) exchange rates.

# Links

## **EIA Links**

EIA - Country Information on Equatorial Guinea

CIA World Factbook - Equatorial Guinea

U.S. State Department's Country Page - Equatorial Guinea

U.S. State Department's Consular Information Sheet - Equatorial Guinea

U.S. Trade with Equatorial Guinea

#### **General Information**

Africa News Service: Equatorial Guinea

MBendi Information Service: Equatorial Guinea's oil and gas sector

Strategic Road: Equatorial Guinea

#### **Associations and Institutions**

African Development Bank: Equatorial Guinea
African Studies: University of Pennsylvania
Columbia University African Studies: Equatorial Guinea
Franc Zone Investment: Equatorial Guinea (In French)

Golden Gate University: Equatorial Guinea International Monetary Fund - Equatorial Guinea

Stanford University Africa South of the Sahara Country Pages: Equatorial Guinea

Transparency International – Equatorial Guinea World Bank - Equatorial Guinea

#### Oil and Natural Gas

Amerada Hess – Ceiba field ExxonMobil – Zafiro field GEPetrol Luba Oil Port Noble Energy – Alba field Sonagas Tullow Oil – Ceiba field

# Sources

Africa Energy and Mining African Energy Intelligence CIA World Factbook Dow Jones Newswire Economist Intelligence Unit ViewsWire **Energy Day** Factiva Financial Times African Energy Global Insight International Monetary Fund Lloyd's List International Natural Gas Week Oil and Gas Journal Petroleum Intelligence Weekly PR Newswire RigZone U.S. Energy Information Administration World Bank World Oil World Markets Analysis

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