Energy Information Administration

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# COUNTRY ANALYSIS BRIEFS

# **Congo-Brazzaville**

Last Updated: May 2006

## **Background**

Congo's economy is driven by the hydrocarbon industry. The Republic of Congo (not to be mistaken with the Democratic Republic of Congo) is a West African country that gained its independence from France in 1960. For 43 years after independence, Congo experienced intermittent civil war until a 2003 signing of a peace accord by Congolese President Sassou, which brought relative political stability to the country. Despite civil strive, Congo began developing its hydrocarbon industry in the 1980s, which today, is the country's primary source of economic growth, accounting for 94 percent of total export earnings. The timber industry makes up the majority of the remaining Congolese export earnings. In 2005, Congo's real gross domestic product (GDP) grew 8.5 percent and is expected to grow 4.6 percent in 2006.



During 2002-2003, the Congolese government privatized various parastatals including banks, telecommunication networks and transportation monopolies to improve the country's infrastructure and the investment climate. In addition to an improved infrastructure, the International Monetary Fund (IMF) noted in 2004 that the Congolese government had shown greater fiscal responsibility in handling government revenues. The IMF agreed to supply a Poverty Reduction and Growth Facility (PRGF) of \$84.4 million to Congo as long as the country consistently made its arrears payments to bilateral and multilateral creditors. In 2004, The World Bank and the African Development Bank (ADB) also agreed to loan Congo \$30 million and \$51.1 million, respectively. In January 2006, Congo admitted to hiding oil revenues from "vulture creditors" who had previously purchased the country's debt, which, in turn, has tainted Congo's transparency in oil revenue management.

### Oil

Congo is the sixth largest oil producer in sub-Saharan Africa. According to 2006 estimates by the *Oil and Gas Journal* (*OGJ*), Congo has 1.5 billion barrels of proven oil reserves. The majority of these reserves are located offshore; however, one of the most recent oil discoveries in Congo (2004) is the onshore M'Boundi field, with estimated proven reserves of 250 million barrels. Congo was the sixth largest oil producer in 2005 in sub-Saharan Africa following Nigeria, Angola, Sudan, Equatorial Guinea and Gabon in total oil production.

Congo's crude oil types are typically medium and sweet, with API gravities ranging from 22° - 33°. The country's main export blend, Djeno, has an API gravity of 27.6° and a sulfur content of 0.23 percent.

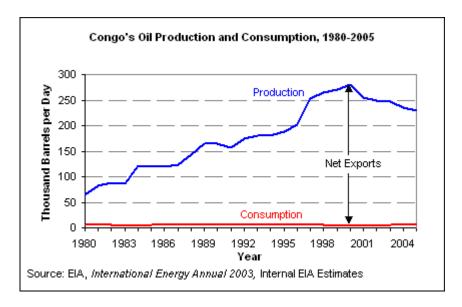
#### **Sector Organization**

Congo's national oil company, the Société Nationale des Pétroles du Congo (SNPC), regulates all oil production and exploration activities in the country. SNPC develops production sharing agreements (PSAs) with each foreign company that operates in Congo to ensure a constant minimum flow of revenue to the government. Under the PSA contracts, foreign companies carry out exploration and development during an agreed upon period of time, while financing all investment costs which are recovered when production begins. The PSAs also offer tax breaks and a royalty system to operating companies. Because all major operators in Congo have signed PSAs for their respective field developments, approximately one-third of the oil produced goes directly to the government and is sold by SNPC on behalf of the state. Primary foreign operators in Congo include Total (France), Agip (Italy), Perenco (UK) and Maurel and Prom (France).

In March 2005, the Congolese government announced the signing of two offshore exploration and production agreements with Sinopec (China) for the Marine XII and High Sea C blocks. In August 2005, Soco International (75 percent) signed a PSA with SNPC (15 percent) and Africa Oil and Gas Holdings (10 percent) for the offshore Marine XI Block. The block is located in the Lower Congo basin.

#### **Production**

Oil production in Congo peaked during 2000 at 280,000 barrels per day (bbl/d). Since that time, oil production has steadily declined to the 2005 average of 227,000 bbl/d. The declining production is largely due to maturing fields and delays in bringing new fields online. However, during the first quarter of 2006, Congo's oil production averaged 245,000 bbl/d, which is expected to further increase as new fields (including the Libondo, Tchibeli, Litanzi, and Yanga-Sud fields) come online. In 2005, Congo's oil consumption averaged 5,000 bbl/d, which is supplied by Congo's small refinery. Total is the leading oil producer in Congo, accounting for approximately 40 percent of oil production, while Agip, as Congo's second largest oil producer, accounts for approximately 25 percent of oil production.



#### **Exports**

Congolese oil is exported through the country's main port, Pointe-Noire, which has little spare capacity and is in need of expansion. Most of Congo's crude oil exports are destined for Western Europe (mainly France) and the United States. In 2005, crude exports to the US averaged 31,000 bbl/d; however, this was a decrease from the 2000 average of 52,000 bbl/d. Congo has also sought to increase its crude exports to Asian markets. In 2001, the Congolese government agreed to supply Djeno blend crude to China.

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

Total, as the leading oil producer and foreign investor in Congo, plans to double its current production of approximately 91,000 bbl/d, once the Moho and Bilondo oilfields come online in 2008. In 2005, Total received government approval to begin developing the two fields, which will include the construction of 12 subsea wells. Once the fields come online, their estimated production output is a combined 90,000 bbl/d. The fields are located in the Haute Mer permit area and contain probable reserves of 400 million barrels. Oil from the fields will be piped to the Djeno terminal via the Likouala platform. Total operates the project with a 53.5 percent interest and is joined with partners Chevron (31.5 percent) and SNPC (15 percent). Total also plans to develop two N'Kossa satellite fields: N'Kossa Sud and N'Soko. To date, Total has drilled four subsea wells in the N'Kossa Sud field, which is located south of the main N'Kossa field.

The M'Boundi field is considered by Maurel and Prom Corporation (France) to be one of West Africa's biggest onshore oil fields, with estimated proven and probable reserves of 1.3 billion barrels. In 2005, total field production averaged 57,000 bbl/d. Burren Energy (UK) drilled an additional three wells in the M'Boundi field in 2005, which tested at 4,500 bbl/d, 1,600 bbl/d and 3,500 bbl/d respectively. Maurel and Prom (57 percent interest) is operator of the field and is joined with partners Burren Energy (35 percent) and SNPC (8 percent).

In 2005, Heritage Oil (Canada) announced that its first commercial well in the Kouakouala field, Well KKL 401, tested at an initial flow rate of 1,600 bbl/d. Plans include connecting the well to the field's existing production facilities, and the 12,000-bbl/d export pipeline from the field to the Djeno Export Terminal. Kouakouala, which began production in May 2000, has an average output of 1,500 bbl/d at the four wells currently in operation. However, output on the field is expected to increase following the completion of a water injection program.

Also in 2005, Murphy Oil (U.S.) discovered oil in the Azurite Marine No. 1 well in the Block Mer Tres Profonde Sud (MTPS). Murphy drilled two additional wells on the block, which both proved unsuccessful. Murphy, as operator of the block with an 85 percent interest and partner SNPC (15 percent), has plans to explore the block more extensively in the future.

#### Common Interest Zone

In March 2003, Angola and the Republic of the Congo created the Zone d'Interet Commun (ZIC, Common Interest Zone). The ZIC joint development area, based in Brazzaville, includes portions of Block 14 (Angola), operated by Chevron and the Haute Mer Block (Congo), operated by Total. Congo and Angola share revenues equally from all oil production and exportion occurring in the ZIC. In December 2004, Chevron announced a "significant discovery" in the joint development zone, with the Lianzi-1 exploration well encountering two oil bearing reservoirs, one flowing at a rate of more than 5,000 bbl/d. Chevron is in the process of appraising the Lianzi-1 well's commercial potential.

#### **Refining and Downstream**

Although the nameplate capacity of Congo's sole refinery, Congolaise de Raffinage (CORAF), is 21,000 bbl/d, it often operates at less than half capacity, with prolonged periods of inactivity. Despite the Congolese government's intention to privatize the refinery, investors have shown little interest in the facility. The government has since been working to expand and modernize the refinery in an effort to make it more attractive to investors.

For over 25 years, state-owned Hydro-Congo held a monopoly over the sale and distribution of oil products in Congo until it was purchased in 2001 by Total and Shell. In 2002, Chevron bought out Shell and with partners Total, Tacoma/Puma-Energy (UK) and the Congolese government the consortium formed a new company, Société Commune de Logistique Petroliere (SCLOG) to transport oil products throughout the country. Currently, the roads, railways and pipelines that comprise Congo's distribution infrastructure is in need of repair. Approximately 100 service and filling stations are located throughout the country, and they provide bottled liquefied petroleum gas (LPG), petrol, illuminating kerosene and automotive diesel. The majority of service stations are also in need of repair and investment.

### **Natural Gas**

Congo contains the fourth largest proven natural gas reserves in sub-Saharan Africa. As estimated by the *OGJ*, Congo contained 3.2 trillion cubic feet (Tcf) of proven natural gas reserves as of January 2006. These reserve deposits constitute the fourth largest found in sub-Saharan Africa behind Nigeria, Mozambique and Cameroon. The majority of Congo's natural gas reserves are associated (found alongside oil deposits). However, the country contains some non-associated fields, including the offshore Banga Marine and Litchendjili Marine fields. Currently, most of the natural gas output in Congo is vented or flared due to a lack of infrastructure; the

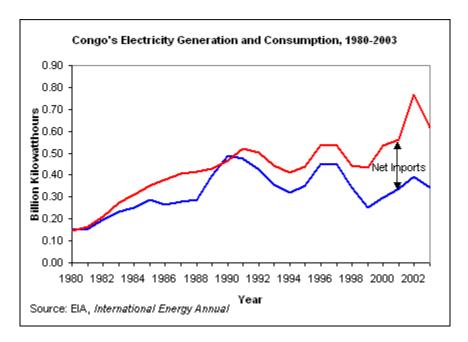
government plans to reduce the vented and flared natural gas by utilizing it for electric power production in the future.

## **Electricity**

Congo has huge hydroelectric capacity potential. However, the country currently imports electricity from the Democratic Republic of Congo (DRC) to satisfy consumption demand.

In 2003, Congo had total electric generation capacity of 120 megawatts (MW), which primarily came from hydropower (92 MW). Congo is estimated to have hydroelectric capacity potential up to 30 times (3,000 MW) the current capacity if it can be developed. The mainstays of Congo's generating capabilities are the 74-MW capacity Bouenza (Moukoukoulou) and the 15-MW capacity Djoué hydroelectric plants. However, since the early 1980s, Moukoukoulou's actual productive capacity has been closer to 55 MW due to attacks occurring during the Congolese civil war in 1997-1999. State-run, Societe Nationale d'Electricite (SNE), estimates the cost of necessary repairs to the generating facilities at more than \$20 million.

In 2003, Congo generated 0.34 billion kilowatthours (Bkwh) of electricity, while total electricity consumption for that year was 0.62 Bkwh. The electricity generation deficiency forced the country to import electricity from the DRC. Even so, most Congolese in rural areas still rely on wood as their primary source of fuel as electricity transmission links are non-existent in many parts of the country. If funding can be attained, the Congolese government plans to reduce its reliance on electricity imports in the future by expanding current facilities and constructing additional generation facilities.



#### **Projects**

In 2002, Agip and Chevron completed a 25-megawatt (MW) natural gas-fired power plant in Djeno. The power plant is fueled by associated natural gas from the Kitina, Djambala and Foukanda offshore fields, which is separated onshore at the Djeno oil terminal and piped to the nearby power plant. The plant cost \$32 million to build.

In 2003, Chinese companies, CMEC and CIEMCO, began constructing the 120-MW Imboulou hydroelectric dam. The dam is located on the Lefini River and is expected to be completed in 2009. The Congolese government paid \$42 million of the \$280 million project cost, with the remainder being paid through a low-interest loan.

In 2005, Anglo Belgian Corporation (Belgium) began constructing a 32.5-MW thermal power plant in Brazzaville. Anglo Belgian Corporation will complete the plant late in 2006, which will provide partial relief for Congolese, who are plagued with electricity shortages in the capital city. The Belgian government helped finance the project with a \$12.8 million loan.

### **Profile**

### Country Overview

President	Denis Sassou-Nguesso (since October 25,1997)
Location	Western Africa, bordering the South Atlantic Ocean, between Angola and Gabon
Independence	15 August 1960 (from France)
Population (2005E)	3,039,126
Languages	French (official), Lingala and Monokutuba (lingua franca trade languages), many local languages and dialects (of which Kikongo is the most widespread)
Religion	Christian 50%, animist 48%, Muslim 2%
Ethnic Group(s)	Kongo 48%, Sangha 20%, M'Bochi 12%, Teke 17%, Europeans and other 3% note: Europeans estimated at 8,500, mostly French, before the 1997 civil war; may be half that in 1998, following the widespread destruction of foreign businesses in 1997

### **Economic Overview**

Minister of Economy, Finance and Budget	Pacifique Issoibeka
Currency/Exchange Rate (5/18/06)	1 Communauté Financière Africaine Francs BEAC = US\$0.0019
Inflation Rate	(2005E): 2.5% (2006F): 2.0%
Nominal Gross Domestic Product	(2005E): \$4.7 billion (2006F): \$5.3 billion
Real GDP Growth Rate	(2005E): 8.5% (2006F): 4.6%
Exports	(2005E): \$2.21 billion (f.o.b.)
<b>Exports - Commodities</b>	petroleum, lumber, plywood, sugar, cocoa, coffee, diamonds
Exports - Partners (2004E)	China 30.8%, US 18.2%, Taiwan 16.8%, South Korea 11.2%, Trinidad and Tobago 5.6%
Imports	(2005E): \$806.5 million (f.o.b.)
Imports - Commodities	capital equipment, construction materials, foodstuffs
Imports - Partners (2004E)	France 20.2%, China 6.6%, Italy 6.5%, India 4.8%, Belgium 4.7%, US 4.6%
<b>Current Account Balance</b>	(2005E): \$195.6 million

# **Energy Overview**

Minister of Hydrocarbons	Jean-Baptiste Tati Loutard
Proven Oil Reserves (January 1, 2006E)	1.5 billion barrels
Oil Production (2005E)	226.9 thousand barrels per day, of which 100% was crude oil.
Oil Consumption (2005E)	5.3 thousand barrels per day
Net Oil Exports (2005E)	221.6 thousand barrels per day
Crude Oil Refining Capacity (2006E)	21 thousand barrels per day
Proven Natural Gas Reserves (January 1, 2006E)	3.2 trillion cubic feet (Tcf)
Electricity Installed Capacity (2003E)	0.1 gigawatts
Electricity Production (2003E)	0.3 billion kilowatt hours
Electricity Consumption (2003E)	0.6 billion kilowatt hours
Total Energy Consumption (2003E)	None *, of which Oil (70%), Hydroelectricity (23%), Natural Gas (0%), Coal (0%), Nuclear (0%), Other Renewables (0%)
Total Per Capita Energy Consumption (2003E)	4.1 million Btus

### **Environmental Overview**

**Energy Intensity (2003E)** 4,471.2 Btu per \$2000-PPP\*\*

Minister of Forestry Economy and Environment	Henri Djombo
Energy-Related Carbon Dioxide Emissions (2003E)	3 million metric tons, of which Natural Gas (75%), Oil (25%), Coal (0%)
Per-Capita, Energy-Related Carbon Dioxide Emissions (2003E)	0.8 metric tons
Carbon Dioxide Intensity (2003E)	0.9 Metric tons per thousand \$2000-PPP**
Environmental Issues	air pollution from vehicle emissions; water pollution from the dumping of raw sewage; tap water is not potable; deforestation
Major Environmental Agreements	party to: Biodiversity, Climate Change, Desertification, Endangered Species, Ozone Layer Protection, Tropical Timber 83, Tropical Timber 94, Wetlands signed, but not ratified: Law of the Sea

### Oil and Gas Industry

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Organization	State-owned Société Nationale des Pétroles du Congo (SNPC) oversees offshore and onshore oil exploration and production; Hydro-Congo participates in downstream oil sector (marketing); Societe Commune de Logistique Petroliere (SCLOG) responsible for petroleum product distribution (SNPC, Total, Chevron and Tacoma/Puma Energy each hold 25 percent).
Major Oil Terminal	Pointe-Noire
Foreign Company Involvement	Agip, Anadarko, Chevron, Energy Africa, ExxonMobil, Heritage Oil, Maurel and Prom, Murphy Oil, Perenco, Sasol, Shell, Tacoma, Total
Major Oil Fields (production, bbl/d)	N'Kossa, Loango, Zatchi, Kitina
Major Refineries	Congoaise de Raffinage (CORAF) – Pointe Noire (21.000 bbl/d)

<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 Congo-Brazzaville

#### **U.S. Government**

CIA World Factbook - Congo-Brazzaville

U.S. Agency for International Development in Africa

U.S. Department of Commerce -- Trade Information Center

U.S. Information Agency -- Africa

U.S. State Department's Consular Information Sheet - Congo-Brazzaville

U.S. State Department's: Human Rights Report for Congo-Brazzaville

#### **General Information**

African Union
AllAfrica.com - Congo
Congo Online (in French)
MBendi Country Profile on Congo
NEPAD

#### **Associations and Institutions**

African Development Bank: Congo Page Harvard University: Africa Links Page International Monetary Fund (IMF) - Congo University of Pennsylvania Congo Page World Bank - Congo

### **Foreign Government Agencies**

Embassy of the Republic of Congo in the United States International Energy Agency: Congo

### **Sources**

Africa Energy and Mining Africa News Service African Energy AllAfrica.com Agence France Presse **BBC** Worldwide Monitoring CIA World Factbook CountryWatch.com Economist Intelligence Unit ViewsWire **Energy Day** Factiva Global Insight International Monetary Fund Oil Daily Panafrican News Agency Petroleum Intelligence Weekly U.S. Energy Information Administration World Bank World Markets Energy World Markets Research Centre

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