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August 2004

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Nigeria

An *OPEC* member, Nigeria is the world's seventh largest oil producer. Nigeria is a major oil supplier to *Western Europe* and was the 5th largest supplier of crude oil to the *United States* in 2003.

Note: The information contained in this report is the best available as of August 2004 and can change. Also, please click [here](#) for a complete chronology of events pertaining to Nigeria from the year 2002 through 2004.



GENERAL BACKGROUND

The election and inauguration of President Olusegun Obasanjo's administration in 1999 returned Nigeria to civilian rule. In April, 2003 Obasanjo was reelected with 61% of the vote, affording Nigeria a basic level of political stability. Obasanjo's party also won the majority of seats in both houses of Nigeria's National Assembly. Nigeria had not held successful elections under a civilian government since independence from the United Kingdom in 1960, with attempts in 1966 and 1983 ending in violence and military coups.

Nigeria's economy is heavily dependent on hydrocarbons extraction, which accounts for 90-95% of export revenues, over 90% of foreign exchange earnings and nearly 80% of government revenues. Real GDP grew at around 4.2% in 2003. In its 2004 Article IV Consultation, the International Monetary Fund (IMF) expressed hope because the government seems to have adopted tighter fiscal policies and saved revenues from recent oil earnings -- a change from the widely expansionary fiscal policies of 2002 and early 2003. International reserves are up in 2004 and the Nigerian government is making progress in negotiations to reschedule Paris-club debt.

In 2003, a resolution of the dispute between the federal government and the littoral states over the allocation of offshore oil and gas revenues was reached and signed into law in February 2004. The Obasanjo government had asked Nigeria's Supreme Court to intervene in its argument with regional state governments over control of the country's offshore oil and gas resources. The federal government's position was that all natural resources within the territorial waters of Nigeria are derived from the federation and not from any one state. The compromise between President Obasanjo and the governors of the six South-South region states (Akwa Ibom, Bayelsa, Cross River, Delta, Ondo, and Rivers) increased the amount of revenue the states will get from oil and gas

extraction -- from 3% of revenues to 13% -- and provided for federal control of all deepwater exploration. In this way, future deep-water developments will generate revenues that will be subject to direct federal control. Currently, the vast majority of Nigeria's current producing fields are located within water depths of 200 meters or less.

The Obasanjo administration is working on a number of economic reforms, including privatizing state-owned refineries and phasing out the annual \$1 billion subsidy of petroleum products. Privatization of the National Electric Power Authority (NEPA), a part of the Obasanjo privatization program, failed in 2003. Following the previous failure of the Nitel telecommunications monopoly, prospects for future privatization success are dim.

The Nigerian National Petroleum Corporation's (NNPC) four oil refineries, petrochemicals plants, and the Pipelines and Products Marketing Company (PPMC) are due to be sold. In July 2004, the Group Managing Director of NNPC announced that a two-year program was underway with Accenture and Shell Global Solutions to reengineer the company and position it to compete in global markets among companies such as Statoil of Norway or Petronas of Malaysia. Considerable opposition to the proposed measures have been voiced by the National Union of Petroleum and Natural Gas Workers (NUPENG) and the Petroleum and Natural Gas Senior Staff Association of Nigeria (PENGASSAN), who fear job losses and sharply higher product prices resulting from the privatizations.

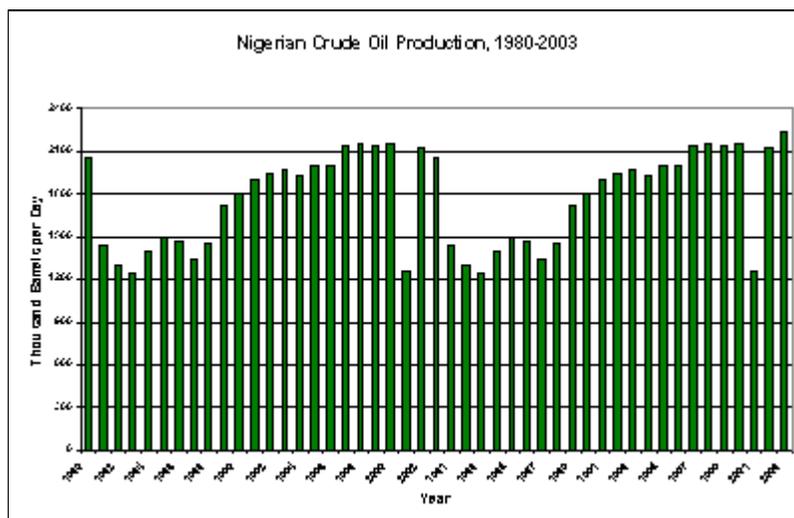
OIL

Estimates of Nigeria's proven oil reserves range from 25 billion (*Oil and Gas Journal*) to 35.2 billion barrels (OPEC). The majority of these reserves are found in relatively simple geological structures along the country's coastal [Niger River Delta](#), but newer reserves have been discovered in deeper waters offshore Nigeria. The majority of the oil lies in about 250 small (i.e., less than 50 million barrels each) fields. At least 200 other fields are known to exist and contain undisclosed reserves. Nigeria's crude oil reserves have gravities ranging from 21° API (American Petroleum Institute) to 45° API. Nigeria's main export crude blends are Bonny Light (37° API) and Forcados (31° API). Approximately 65% of Nigerian crude oil production is light (35° API or higher) and sweet (low sulfur content).

Production

Nigerian crude oil production averaged 2.1 million barrels per day (bbl/d) in 2003. In June 2004, Nigeria's OPEC [crude oil production quota was raised](#) to 2.14 million bbl/d as of August 1, 2004, as part of OPEC's two-stage plan to increase production in the face of record-high crude oil prices.

Production from [joint ventures \(JVs\)](#) accounts for nearly all (about 95%) of Nigeria's crude oil production. The largest JV, operated by Shell, produces nearly 50% of Nigeria's crude oil. State-owned oil firm, NNPC has a 55% interest in the Shell JV. NNPC also has 60% stakes in JVs with ExxonMobil (U.S.), ChevronTexaco (U.S.), ConocoPhillips (U.S.), Eni



S.p.A (Italy), and Total S.A.(France).

In early 2004, Shell recategorized its worldwide oil reserves according to new standards set by the U.S. Securities and Exchange Commission (SEC), resulting in a downward adjustment of 1.3 billion barrels to its proven reserves in Nigeria.

A major problem facing Nigeria's upstream oil sector has been insufficient government funding of its JV commitments. The Nigerian government has two major funding arrangements for oil production in the country -- JV and production sharing contract (PSC) arrangements. Under the JV arrangements, the Nigerian government and its partners contribute to projects according to their equity holding. Under the terms of PSCs, oil companies fund the operations and the profits are shared according to the agreed terms after the company has recouped its expenditure.

NNPC and its JV partners have proposed an operating budget of \$6.5 billion for 2004, subject to approval by the National Assembly. NNPC is to spend \$3.7 billion during 2004 and the partners are to provide \$2.8 billion. Of the \$2.8 billion, \$2 billion will go toward oil exploration and extraction. However, the legislature finally approved an NNPC budget of only \$3.2 billion, leaving a significant shortfall. NNPC is chronically indebted, and will have difficulty making up the difference. Measures were introduced in August 2004 to liberalize Nigeria's gas and oil refining sectors with the hope of improving NNPC's finances. Many of NNPC's properties are due to be spun off and privatized.

Exploration and Field Development

In August 2004, a new oil licensing round for 2005 was announced for rights to explore deepwater blocks in the Gulf of Guinea. The licenses were expected to be distributed in 2004, but ongoing sector-wide reforms reportedly made the delay necessary. The new licenses are a possible way for the Nigerian federal government to attract new foreign investment -- essential for meeting its production goal of 4.5 million bbl/d by 2010. Nigeria's new deepwater projects could represent the future of petroleum extraction in the country because they allow multinational operators to avoid the security and operational risks of working in the Niger Delta itself. Besides Shell's giant Bonga field project, ExxonMobil is developing its 150,000-bbl/d Ehra field and ChevronTexaco is working on its 250,000-bbl/d Agbami field.

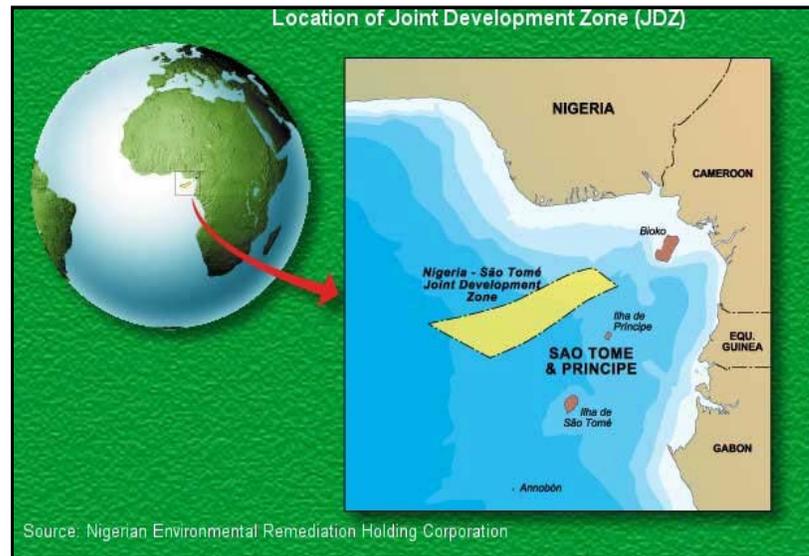
Shell Petroleum Development Company of Nigeria Ltd. (SPDC) currently supplies about 52% of Nigeria's daily production, with average daily production between 910,000 bbl/d and 1.1 million bbl/d. SPDC reportedly will scale back its operations in the Niger River Delta and focus more on deepwater exploration and extraction. According to the presidential advisor on energy, Dr. Edmund Daukoru, Shell's \$2.7 billion deepwater Bonga field is due to begin production in 2005. Shell is the operator (55%), partnered with ExxonMobil (20%), Agip (12.5%), and Total (12.5%). The field will be serviced by a 2.0-million-barrel Floating Production Storage and Offloading (FPSO) vessel. Bonga was delayed because the FPSO vessel could not be completed by its UK manufacturer in time for the planned late-2004 start-up. The Bonga field reportedly holds 1.2 billion barrels of oil reserves, located about 75 miles off the Niger Delta coast.

ExxonMobil is currently producing around 600,000 bbl/d. ExxonMobil has announced plans to invest \$11 billion in exploration and production between 2003 and 2011, and foresees increasing production to 1.2 million bbl/d. ExxonMobil is also developing the 400-million-barrel Yoho field in the shallow waters of Block OML-104. ExxonMobil holds 40% and NNPC 60% in the \$1.2 billion project. Initial production of 90,000 bbl/d began in February 2003. Yoho utilizes an FPSO vessel to allow oil production almost two years ahead of the full-field production capacity. When full-field output of 150,000 bbl/d is achieved in late 2004, the FPSO will be replaced by a floating storage

and offloading (FSO) vessel. Associated gas will be re-injected to maintain field pressures and to eliminate flaring.

In February 2003, the ChevronTexaco/NNPC JV announced plans to spend \$4 billion on developing three oil and gas projects in Nigeria, including the deepwater Agbami field. Tests confirm that Agbami contains nearly 1 billion barrels of recoverable hydrocarbons. The field covers 45,000 acres and is located about 70 miles from Nigeria's coast. The majority of the Agbami field lies in Block OPL 216, where ChevronTexaco holds a 32% interest along with partners NNPC (40%) Petrobras (8%) and the Nigerian firm, Famfa Oil (20%). Approximately one-third of Agbami lies in the adjacent Block OPL 217 where ChevronTexaco (46%) works with operator Statoil (54%). In July, 2004 Nigeria's National Petroleum Investment Management Services (NAPIMS) announced that a minimum of 25% of contracts for the Agbami field's development are to be awarded to local firms.

In 2004, the **Joint Development Zone (JDZ)**, shared by Nigeria and neighboring Sao Tome, moved closer to development when the first exploration license was issued to ChevronTexaco and ExxonMobil to explore Block 1. ChevronTexaco will control 51% of the venture and have operating rights, and ExxonMobil will have a 40% stake. The remaining 9% is to be held by Equity Energy Resources of Norway. Nigeria's Environmental Remediation Holding Corporation (ERHC) holds between 15% and 30% each in Blocks 2, 3, 4, 5, 6, and 9 and is reportedly seeking out potential partners, expecting Blocks 2 and 4 to be awarded soon. The JDZ reportedly holds reserves of 11 billion barrels and could potentially yield up to 3 million bbl/d in the next two to three years, if it is fully operational.



Refining and Downstream

In August 2004, the Nigerian government announced a new refining policy as part of its development plan to improve the solvency of NNPC. Nigeria will require crude oil producers operating in the country to refine at least 50% of their production in country by 2006. The plan is supposed to save NNPC the \$2 billion per year that it currently spends on oil imports and guarantee supply to Nigeria's four state-owned refineries. It is thought that guaranteed feedstock will also improve domestic employment prospects, alleviating the concerns of oil industry labor unions that have resisted privatization plans and their attendant job losses.

Nigeria's refineries (Port Harcourt I and II, Warri, and Kaduna) have a combined nameplate capacity of 438,750 bbl/d, but problems including sabotage, fire, poor management and lack of regular maintenance contribute to a low current capacity of around 218,000 bbl/d, according to World Markets Research Center. In **March 2003**, NNPC officials completed maintenance work at its Port Harcourt refinery and increased production capacity to approximately 90,000 bbl/d.

While Nigeria's state-held refineries are slated for privatization, plans for several small, independently-owned refineries are being developed. Nigeria awarded 18 private refinery licenses

after opening up the country's downstream sector to private investment. Progress made toward the eventual privatization of the Port Harcourt refineries stalled in late 2003 after organized labor objections forced a review of the entire process.

Phase 1 of the Akwa Ibom refinery project is, so far, the only plant of the 18 that has received the required technical and financing approvals. The U.S. Export-Import Bank will provide a loan guarantee for \$10 million of the \$29.8 million total cost. In 2001 the Akwa Ibom state government announced that it had concluded plans to build a 12,000-bbl/d refinery and U.S.-based Ventech announced that it had begun the refinery's design and construction -- based on prefabricated modules to be constructed in the United States and shipped to Nigeria for assembly. The facility will be located in Eket, adjacent to the Qua Iboe crude terminal and is expected to begin production by February 2005. As of mid-2004, five more companies were awaiting approval for construction, according to an official with the Department of Petroleum Resources.

Exports

The majority of Nigeria's [crude exports](#) are destined for markets in the United States and Western Europe, with [Asia](#) and Latin America becoming increasingly important as well. In 2003, Nigerian crude exports to the United States averaged 838,000 bbl/d (8.7% of U.S. imported crude oil) an increase from 589,000 bbl/d in 2002 (6.5% of U.S. imported crude oil). Nigeria was the fifth largest crude exporter to the United States in 2003, behind [Saudi Arabia](#), [Mexico](#), [Canada](#) and [Venezuela](#). EIA estimates Nigeria earned \$20.9 billion from crude oil export revenue in 2003, up from \$16.5 billion in 2002.

Shell's 40-year-old Bonny Island oil export terminal is being upgraded and expanded. When completed, the facility will export 1.5 million bbl/d. The \$600 million project is expected to be completed in 2006.

Crime and Ethnic Unrest

Political and ethnic strife in the Niger Delta region, including violence, kidnapping, sabotage and the seizure of oil facilities, often disrupts Nigerian oil production. Several acts of vandalism occurred between [May](#) and [July 2004](#), including: a serious fire at a Shell oil well in May caused by fuel thieves; a major oil spill in June caused by thieves using drills and hacksaws on an 18-inch pipeline in Imo state; a second June spill in Bayelsa state causing damage to farmland and streams; and a deadly fire that killed 10 villagers "scooping" oil from a vandalized pipeline in Agbani in late July. Local communities are claiming millions of dollars in compensation for environmental damage that results from the pipeline vandalism, as well as recourse for the numerous deaths resulting from fuel-theft-related accidents.

Illegal fuel siphoning to supply a thriving black market for fuel products has increased the number of oil facility explosions and fires in recent years. The most serious disaster was the October 1998 Jesse fire in which over 1,000 people died. In March 2004, the NNPC announced that losses from vandalism and theft since mid-2003 were around 145,000 bbl/d, down from the 386,000 bbl/d announced in 2003. Based on current crude oil prices, fuel theft equates to a loss for Nigeria of about \$2 billion per year. Illegal oil siphoning and subsequent black market refining and sales are said to fund the activities of local militia groups in the Niger Delta and to provide funds for arms purchases.

In [April 2004](#), two American employees of ChevronTexaco were killed when their boat was attacked near Warri. A recent upsurge in violence between Ijaw groups in Warri is thought to be part of a struggle over which group will receive compensation from an oil spill that occurred in 2003. Youths have also taken violent action when denied employment with multinational oil

companies, and kidnappings have been undertaken to demand payments from the firms.

The execution of Ogoni environmental activist Ken Saro-Wiwa in November 1995 attracted international attention to the plight of the [various ethnic groups](#) in the oil-producing areas of Nigeria. In addition to inter-ethnic tension, there have been persistent attacks against oil companies by youths protesting environmental degradation and demanding their share of federal resource allocation. The attacks have resulted in disruptions of oil production, domestic supply and exports.

Border Disputes

The governments of Sao Tome and Principe (STP) and Nigeria have agreed to exploit petroleum reserves jointly in a once-disputed offshore region. The JDZ will be overseen by a joint commission. On February 21, 2001, the two countries signed an agreement under which Nigeria will receive 60% of JDZ revenues and STP will receive the remainder. In [February 2003](#), both parties agreed on a territorial definition of the JDZ, with future oil revenues from the zone split on a 60-40 basis.

On [March 17, 2003](#), Environmental Remediation Holding Corporation (ERHC), announced the signing of a Memorandum of Understanding (MOU) with STP settling all outstanding disputes. Under terms of the MOU, ERHC increased its rights to participate in the JDZ from a total of 30% paid working interest in two blocks to a total of 125% working interest spread over six other exploration blocks.

In [October 2002](#), the International Court of Justice (ICJ) awarded the Bakassi peninsula to [Cameroon](#). Both Cameroon and Nigeria had claimed the Bakassi peninsula, a 1,000-square-kilometer (400-square-mile) area located in the Gulf of Guinea that is believed to contain significant reserves of oil. The territory is due to be ceded to Cameroon by September 15, 2004. Both Nigerian and Cameroon troops have been pulling back from disputed areas, but popular opposition to the handover to Cameroon among Nigerians on the Bakassi peninsula is strong, according to local leaders.

NATURAL GAS

Nigeria has an estimated 159 trillion cubic feet (Tcf) of proven natural gas reserves, giving the country one of the top ten natural gas endowments in the world. Due to a lack of utilization infrastructure, Nigeria still flares about 40% of the natural gas it produces and re-injects 12% to enhance oil recovery. Official Nigerian policy is to end gas flaring completely by 2008. The World Bank estimates that Nigeria accounts for 12.5% of the world's total gas flaring. Shell estimates that about half of the 2 Bcf/d of associated gas -- gaseous byproducts of oil extraction -- is flared in Nigeria annually. The new industry strategy is to collect the associated gas and process it into liquefied natural gas (LNG), greatly enhancing Nigerian natural gas revenues while simultaneously reducing carbon dioxide emissions.

Nigeria's most ambitious natural gas project, the \$3.8 billion LNG facility on Bonny Island, was completed in September 1999. The facility processes 397 billion cubic feet (Bcf) of LNG annually. The consortium behind the project --Nigeria Liquefied Natural Gas Corporation (NLNG) -- is comprised of the NNPC (49%), Shell (25.6%), Total (15%), and Agip (10.4%). Initially, the facility was supplied from dedicated natural gas fields, but within a few years it is anticipated that half of the input gas will consist of associated (currently flared) natural gas, including gas from Akri/Oguta, Otumara, Utapate and offshore blocks as well. Total currently supplies about 23% of the gas feed to the Bonny Island plant. When the planned enlargement of the plant is completed, NLNG envisions Shell supplying 56% of feed gas, Agip 25% and Total 19%.

The Bonny Island LNG facility currently has three trains in operation. Fourth and fifth trains are under construction and expected to start up by mid-2005. The total cost of the fourth and fifth trains is \$2.1 billion, excluding ship acquisition costs. Shell will supply 11.35 Bcf of gas annually for the five trains. Plans have been approved for a sixth train, which is expected to add 194.8 Bcf to the plant's capacity, bringing the total to 1.1 Tcf per year. NLNG officials hope to have the sixth train operational by 2007.

In [March 2003](#), NLNG obtained \$460 million in loans to expand its fleet of vessels. An additional eight vessels are needed to meet the shipping requirements for the fourth and fifth trains. Since the development of the NLNG plant, Nigeria has become the only sub-Saharan African country to produce and export LNG.

Customers located in Italy, France, Turkey, Spain and Portugal have signed long-term [purchase agreements](#) with NLNG. Partners in the plant are planning to supply customers in their traditional markets -- for example, Total will supply customers in Europe and North American from NLNG output for a 20-year period. Shell is due to take 53.6 Bcf per year of LNG from the unfinished trains 4 and 5, and has made agreements to purchase 146 Bcf per year of LNG from the sixth train to supply customers in North American and Europe. NLNG and BG Plc.(formerly British Gas) have agreed on a 22-year contract for NLNG to supply LNG to BG's Lake Charles Louisiana facility in the United States, beginning in 2005 or 2006.

Plans for additional LNG facilities are being developed. ConocoPhillips, ChevronTexaco and Agip signed an agreement with the NNPC for the establishment of the Brass River LNG plant. The \$3 billion facility, which is expected to be operational in 2008, will be a two-train operation with a capacity of 974 Bcf per year.

The Escravos gas project, in which the NNPC holds a 60% share and ChevronTexaco a 40% share, is another project that has expanded Nigeria's natural gas industry. The gas is currently used domestically, but plans are that gas from the project will be exported to Benin, Togo and [Ghana](#) through the [West African Gas Pipeline \(WAGP\)](#). The main Escravos plant is expected to process 400 Mmcf/d of natural gas from ChevronTexaco's northern offshore fields. Gas processed at the Escravos plant will serve as feedstock for the \$1.3 billion, Escravos gas-to-liquids (GTL) facility, scheduled to come online in 2005. The Escravos GTL facility will utilize technologies developed by ChevronTexaco to produce about 176.5 Mmcf/d of LNG. Other U.S. and Canadian firms also are considering establishing GTL plants in Nigeria.

Several distribution schemes are planned to help promote domestic consumption of natural gas. The proposed \$580 million Ajaokuta-Abuja-Kaduna pipeline will supply natural gas to central and northern Nigeria, while the proposed Aba-Enugu-Gboko pipeline will deliver natural gas to portions of eastern Nigeria. The Lagos State government and Gaslink Nigeria Limited (Gaslink), a local gas distribution company, are developing a pilot program to deliver natural gas to nine residential neighborhoods in the state. Gaslink, which supplies natural gas to nearly 30 industrial customers in Lagos' Ikeja industrial district, plans to expand operations to include 150 industrial customers, 250,000 residential/commercial customers and 25 independent power plants. In January 2003, Shell and its partner, Nigerian Gas Company (NGC), connected 30 firms in the Agbara/Ota industrial areas of Ogun State to gas supplies.

Nigeria and Algeria continue to discuss the possibility of constructing a "Trans-Saharan Gas Pipeline". The 2,500-mile (4,000-kilometer) pipeline would carry gas from oil fields in Nigeria's Delta region via Niger to Algeria's Beni Saf export terminal on the Mediterranean. It is estimated that construction of the \$7 billion project would take six years.

ELECTRICITY

Nigeria has approximately 5,900 megawatts (MW) of installed electric generating capacity -- three hydroelectric plants and five thermal power stations. However, the power sector as a whole was generating only 1,600 MW at the start of the Obasanjo administration in 1999 because of the chronic problems affecting the power industry such as mismanagement, lack of infrastructure maintenance, vandalism and power theft. Nigeria faces a serious energy crisis due to declining electricity generation from domestic power plants. Power outages are frequent and the power sector operates well below its estimated capacity.

The Nigerian power sector is dominated by state-owned National Electric Power Authority (NEPA). The eventual privatization of NEPA is planned under the National Electricity Reform Policy, but has been repeatedly delayed. Under the plan, NEPA's transmission network will remain a single entity -- the Nigeria Transmission Company -- but the generation sector will be split into six independent companies. Eleven companies will be created from NEPA's current distribution operations. No timetable on the creation of the new companies has been announced.

Currently, only 10% of rural households and approximately 40% of Nigeria's total population have access to electricity. NEPA has announced plans to boost this share to 85% by 2010. NEPA's plan calls for an additional 15,000 kilometers (9,000 miles) of transmission lines, 16 new power plants, and new distribution and marketing facilities. According to NEPA's own information, 13.9% of NEPA's installed capacity is more than 20 years old, 57.1% of installed capacity is more than 15 years old, and 79.6% of installed capacity is over 10 years old. Despite endemic blackouts, customers are billed for services rendered, partially explaining Nigeria's widespread vandalism and power theft and NEPA's problems with payment collection.

The Nigerian government is hoping to increase foreign participation in the electric power sector and is looking for **independent power producers** to generate and sell electricity to NEPA. Several oil majors have shown interested in entering the Nigerian power generation sector. In December 2001, Shell was awarded a 15-year refurbish-operate-and-transfer (ROT) contract for units 1-4 of the Afam power plant, and a lease-operate-and-transfer contract for Afam's fifth unit. Shell was to refurbish the Afam power plant at a cost of about \$550 million, and with its partner, Eskom of South Africa, was to expand capacity from 400 MW to 900 MW. However, the deal collapsed over protests from NEPA workers and their insistence that Shell assume Afam's \$98 million in debt. In 2004, talks resumed between Shell and the Nigerian government to salvage the ROT contract.

In May 2004 the Nigerian government announced that it would fund \$138.9 million of an estimated \$397 million for three power plant projects. Chinese firms CMEC and SEPCO will build plants in in the Ondo and Ogun States to be co-financed by the China ExIm Bank. Siemens will build one plant in Ajaokuta in Kogi State and Marubeni of Japan will replace a generating unit at one plant in Delta State.

ENVIRONMENT

Nigeria's main environmental challenges result from oil spills, gas flaring and deforestation. Oil extraction in the Niger Delta region, especially, has caused severe environmental degradation, owing to the legacy of oil spills, lax environmental regulations, and government complicity during previous military regimes that governed the country. Although the situation is improving with more stringent environmental regulations for the oil industry, **marine pollution** is still a serious problem, and **air pollution** from gas flaring, exhaust emissions from the explosion in car ownership, and electricity generators continues to leave Lagos shrouded in smog.

Nigeria's total primary **energy consumption** has more than doubled since 1980 as the country's

population has multiplied. Nevertheless, both its energy consumption and its [energy intensity](#) are still far below other African countries such as Egypt and Algeria, and Nigeria's carbon dioxide emissions are still below the OPEC average. Nigeria's plan to end the process of gas flaring by 2008 should cut the country's level of carbon emissions, further reducing the country's carbon dioxide intensity.

The use of solid biomass, such as fuel wood, is prevalent and constitutes a major energy source for rural Nigerians. The production and consumption of [commercial renewable energy](#) in Nigeria remains quite limited. With Nigeria's population continuing to increase, the pressure on the country's environment appears likely to increase as well, even with the added focus on cleaning up the Niger Delta and tightening environmental laws and regulations. The [outlook](#) for Nigeria's environment will depend on the country's ability to balance the desire to boost oil production in order to generate additional revenue with its needs to provide a clean and healthy living climate for its growing population.

Sources for this report include: Africa Energy and Mining, Africa News, Africa Oil and Gas, Agence France Presse, Alexander's Gas and Oil Connections, AP Worldstream, BBC Summary of World Broadcasts, CIA World Factbook 2003 and 2004, Dow Jones, Economist Intelligence Unit (EIU) Viewswire, Financial Times African Energy, Hart's Africa Oil and Gas, International Monetary Fund, Oil and Gas Journal, OPEC Statistical Bulletin, Panafrican News Agency, Petroleum Intelligence Weekly, U.S. Energy Information Administration, Global Insight Middle East and Africa Economic Outlook, World Bank, World Markets Online.

COUNTRY OVERVIEW

President: Olusegun Obasanjo (since May 29, 1999)

Vice President: Atiku Abubakar

Independence: October 1, 1960 (from United Kingdom)

Population (2004E): 137.3 million

Location/Size: West Africa, bordering the Atlantic Ocean (on the south and west), Cameroon (on the south), Chad (on the east), Benin (on the west) and Niger (on the north)/923,770 square kilometers (356,700 square miles), slightly more than twice the size of California

Major Cities: Abuja (capital), Lagos, Ibadan, Kano, Kaduna, Port Harcourt

Languages: English (official), Hausa, Yoruba, Ibo (Igbo), Fulani

Ethnic Groups: Hausa, Fulani, Yoruba, Ibo, and over 250 others

Religion (2004E): Islam (50%), Christianity (40%), traditional beliefs (10%)

ECONOMIC OVERVIEW

Finance Minister: Ngozi Okonjo-Iweala

Currency: Naira

Market Exchange Rate (8/03/04): US\$1 = 133.5 Naira

Gross Domestic Product (2003E): \$48.4 billion **(2004F):** \$53.2 billion

Real GDP Growth Rate (2002E): 3.5% **(2003E):** 4.2% **(2004F):** 4.4%

Inflation Rate (2002E): 12.9% **(2003E):** 14% **(2004F):** 16.9%

Current Account Balance: (2003E): \$2.0 billion **(2004F):** \$3.5 billion

Major Trading Partners: United States, France, India, United Kingdom, Spain, Germany, Brazil

Merchandise Trade Balance (2002E): \$5.1 billion **(2003E):** \$2.4 billion

Merchandise Exports (2002E): \$15.5 billion **(2003E):** \$18.0 billion

Merchandise Imports (2002E): \$10.4 billion **(2003E):** \$15.6 billion

Major Export Products: Crude oil, natural gas, cocoa, rubber, timber, manufactured goods

Major Import Products: Petroleum products, food, machinery and equipment, manufactured

goods

Oil Export Revenues (2003E): \$20.9 billion **(2004F):** \$27.0 billion

Oil Export Revenues/Total Export Revenues (2003E): 96%

Total External Debt (2003E): \$30.2 billion

ENERGY OVERVIEW

Petroleum Advisor: Edmund Daukoru

Minister of Power and Steel: Liyel Imoke

Minister of Solid Minerals: Mangu Odion Ugbesa

Proven Oil Reserves (1/1/04E): 25.0 billion barrels (Oil & Gas Journal) **(2004E)** 35.2 billion barrels (OPEC Statistical Bulletin)

Oil Production (2003E): 2.2 million barrels per day (bbl/d), of which 2.1 million bbl/d is crude oil

OPEC Crude Production Quota (beginning August 1, 2004): 2.142 million bbl/d

Oil Consumption (2003E): 313,000 bbl/d

Net Oil Exports (2003E): 1.9 million bbl/d

Crude Refining Capacity (1/1/04E): 438,750 bbl/d

Major Crude Oil Customers (2003): United States, Brazil Spain, Indonesia, India

Natural Gas Reserves (1/1/04E): 159 trillion cubic feet (Tcf)

Natural Gas Production (2002E): 501 billion cubic feet (Bcf)

Natural Gas Consumption (2002E): 225 Bcf

Net Natural Gas Exports (2002E): 276 Bcf

Recoverable Coal Reserves: 209 million short tons (Mmst)

Coal Production (2002E): 0.07 Mmst

Coal Consumption (2002E): 0.07 Mmst

Electric Generation Capacity (1/1/02E): 5.9 gigawatts

Electricity Generation (2002E): 19.9 billion kilowatt hours

ENVIRONMENTAL OVERVIEW

Minister of Environment: Col. Bala Mande

Total Energy Consumption (2002E): 0.94 quadrillion Btu* (0.2% of world total energy consumption)

Energy-Related Carbon Dioxide Emissions (2002E): 91.94 million metric tons (0.4% of world carbon dioxide emissions)

Per Capita Energy Consumption (2002E): 7.8 million Btu (vs U.S. value of 339.1 million Btu)

Per Capita Carbon Dioxide Emissions (2002E): 0.76 metric tons (vs U.S. value of 19.97 metric tons)

Energy Intensity (2002E): 8,484 Btu/ \$ nominal-PPP (vs. U.S. value of 9,344 Btu/\$ nominal-PPP)

**

Carbon Dioxide Intensity (2002E): 0.70 metric tons/ \$ nominal-PPP (vs. U.S. value of 0.55 metric tons /\$ nominal-PPP)**

Fuel Share of Energy Consumption (2002E): Oil (67.2%), Natural Gas (25.5%), Coal (0.2%)

Fuel Share of Carbon Dioxide Emissions (2002E): Natural Gas (50.9% of which 38% was gas flaring), Oil (48.9%), Coal (0.2%)

Status in Climate Change Negotiations: Non-Annex I country under the United Nations Framework Convention on Climate Change (ratified August 29th, 1994). Not a signatory to the Kyoto Protocol

Major Environmental Issues: Soil degradation; rapid deforestation; desertification; recent droughts in north severely affecting marginal agricultural activities

Major International Environmental Agreements: A party to Conventions on Biodiversity, Climate Change, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Marine Dumping, Marine Life Conservation, Nuclear Test Ban, Ozone Layer Protection and Whaling

* The total energy consumption statistic includes petroleum, dry natural gas, coal, net hydro, nuclear, geothermal, solar and wind 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 based on CIA World Factbook estimates based on purchasing power parity (PPP) exchange rates

OIL AND GAS INDUSTRIES

Organizations: The Nigerian National Petroleum Corporation (NNPC) manages the state-owned oil industry. NNPC controls majority interests (between 55%-60%) in all joint ventures with foreign oil companies. The NNPC holds 49% in the Nigeria Liquefied Natural Gas (NLNG) Company.

Major Foreign Oil Company Involvement: British Gas, BP, ChevronTexaco, Conoco, Deminex, ENI/Agip, ExxonMobil, Petrobras, Shell, Statoil, Sun Oil, Tenneco, Total S.A.

Major Oil Fields: Cawthorn Channel, Edop, Ekulama, Escravos Beach, Forcados Yorke, Jones Creek, Meren, Nembe, Okan, Oso, Ubit

Refineries (nameplate capacity bbl/d) (1/1/04): Port Harcourt-Rivers State (150,000), Warri (118,750), Kaduna (110,000), Port Harcourt-Alesa Eleme (60,000),

Major Terminals: Bonny Island, Brass River, Escravos, Forcados, Odudu, Pennington, Qua (Kwa) Iboe

LINKS

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