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# Opportunities for Danish offshore companies within the Nigerian oil and gas sector

**ifu**

INVESTMENTS FOR DEVELOPMENT



Offshore Center Danmark



Center for Development of Enterprises

## Foreword

Nigeria is the largest oil producer in Africa, the eleventh largest producer of crude oil in the world and a member of the Organization of Petroleum Exporting Countries (OPEC). In 2006, total Nigerian oil production averaged 2.45 million barrels per day (bbl/d).

Based on this potential The Industrialisation Fund for Developing Countries (IFU) and Offshore Centre Denmark (OCD) has further investigated the Nigerian context and the specific opportunities for the Danish oil and gas offshore sector.

Many Nigerian business operations are in demand for Danish know-how and technology and are looking to form JV's with Danish companies. One of the most important single factors to ensure a successful entrance on the Nigerian oil and gas market is to form a Joint Venture together with the right local company.

The Nigerian oil and gas market is complex – but also with large opportunities for Danish companies who understands to team up with the right local partner and mitigate existing risks. Nigeria has a poor reputation in terms of corruption and security, but to a large extent this can be successfully mitigated thus creating opportunities with limited competition for the Danish company.

This report provides information on the Nigerian context and explores the specific opportunities for the Danish offshore industry.



## **Executive summary**

Nigeria's economy is struggling to leverage the country's vast wealth in fossil fuels in order to displace poverty that affects a large part of its population. Nigeria's exports of oil and natural gas have enabled the country to post merchandise trade and current account surpluses in recent years. Reportedly, 80 % of Nigeria's energy revenues flows to the government, 16 % cover operational costs, and the remaining 4 % go to investors.

European investments are increasing and companies interested in long-term investment and joint ventures, especially those that use locally available raw materials, are able to find opportunities in the large national market. However, to improve prospects for success, potential investors must educate themselves extensively on local conditions and business practices, establish a local presence, and choose their partners carefully.

The major threat to Nigeria in terms of its security situation lies in its fragile political and economic unity. Much of the political intrigue in Nigerian politics is contained within the framework of Nigeria's federalist politics, however, destabilizing influences exist within the country and one of the most serious of these is the ongoing conflict with the marginalized minorities who live in the Niger River Delta.

Oil was discovered in Nigeria in 1956 at Oloibiri in the Niger Delta after half a century of exploration. The discovery was made by Shell-BP, at the time the sole concessionaire. Of the 606 oil fields in the Niger Delta area, 355 are on-shore while the remaining 251 are offshore. Of these, 193 are currently operational while 23 have been shut in or abandoned as a result of poor prospects or total drying up of the wells. Outside the Niger Delta, a total of 28 exploratory oil wells have been drilled all showing various levels of prospects.

Nigeria is the world's eighth largest exporter of crude oil and the country is a major oil exporter to the United States. In 2006, Nigeria's total oil exports reached an estimated 2.15 million bbl/d.

In 1977, Nigeria created the Nigerian National Petroleum Corporation (NNPC). At that time, the NNPC's primary function was to oversee the regulation of the Nigerian oil industry, with secondary responsibilities for upstream and downstream developments.

The Oil and Gas Journal estimates that Nigeria had an estimated 182 trillion cubic feet (Tcf) of proven natural gas reserves as of January 2007, which makes Nigeria the seventh largest natural gas reserve holder in the world and the largest in Africa. A significant portion of Nigeria's natural gas is processed into LNG. Nigeria's most ambitious natural gas project is the \$3.8 billion Nigeria Liquefied Natural Gas (NLNG) facility on Bonny Island. Partners including NNPC, Shell, Total and Agip completed the first phase of the facility in September 1999.

There are eighteen international oil companies operating in the country. Some of them are new entrants who have an interest in the deep offshore blocks in

partnership with other operators. The oil majors account for about 99% of crude oil production in Nigeria.

Nigeria's refining capacity is currently insufficient to meet domestic demand, forcing the country to import petroleum products. Nigeria is trying to privatize state entities by selling NNPC's four oil refineries, petrochemicals plants, and its Pipelines and Products Marketing Company (PPMC).

Since the discovery of oil in Nigeria in 1956, the government, through its agencies like Nigerian National Petroleum Corporation (NNPC), Ministry of Petroleum Resources and Federal Environmental Protection Agency (FEPA), has put in place a number of policies, agreements and regulations for the control and supervision of the oil industry for the overall economic development of the country.

The requirements of Local Content are specific only to the Oil and Gas industry. There is supposed to be a gradual goal achievement where the quantum of composite value added to or created in, the Nigerian economy through the utilization of Nigerian resources and services in the petroleum industry increase, resulting in the development of indigenous capabilities, within acceptable quality health, safety and environmental standards.

A cursory look at the Local Content growth is the gradual expatriate substitution with Nigerian staff with the aim of capturing 45% of the \$8 billion annual spending in oil and gas industry in 2006, and achieves a target of 70% by 2010. Please see appendix 7.3 for further requirements on Local Content

Nigeria is very dependant on crude oil for its foreign exchange earnings. The National Energy Policy, approved by the Energy Commission of Nigeria in 2003, states that the nation shall encourage indigenous and foreign companies to fully participate in both upstream and downstream activities of the oil industry.

Investment opportunities exist in the establishment of manufacturing facilities to produce most of the inputs for oilfield operations e.g. oil well drilling clays, chemical and materials, pipes bolts and nuts, screw gaskets, valves and other accessories, pans and plastics including other components.

Opportunities also exist for engineering construction and contracting companies willing to establish locally to boost the Nigerian content in the operation, activities and growth of the oil and gas industry. Nigeria has put in place a petroleum and gas policy with the following objectives:

- Increasing oil reserve base and productivity through vigorous exploration and ensuring judicious exploitation of the resource.
- Allowing for private sector participation in all the facets of the industry through attractive fiscal measures. Government is giving serious consideration to selling its equity shares in joint venture operation.
- Acquiring reasonable market shares for the crude oil and its derivatives and achievement of domestic refining self-sufficiency.
- Expanding the utilisation of natural gas.

A non-Nigerian may invest and participate in the operation of any enterprise in Nigeria. However, a foreign company wishing to set up business operations in Nigeria should take all steps necessary to obtain local content of the Nigerian branch or subsidiary as a separate entity in Nigeria for that purpose. Until so incorporated, the foreign company may not carry on business in Nigeria or exercise any of the powers of a registered company.

With proven oil and gas reserves of 32.5 billion barrels and 187 trillion cubic feet respectively, numerous investment opportunities abound in upstream operations of the petroleum industry as categorized below:

- Surveying - planimetric data and sea bottom survey
- Civil works - mud pit construction, concrete works at rig sites, site surveys preparation of drilling locations, supplies of cement, chemicals, sands, gravel, iron rods, labour, road mat, timber, etc.
- Seismic data acquisition and interpretation – such as data on soil, land, rock samples together with geological and geochemical studies.
- Drilling operations - field transportation and equipment for rig movements,
  - o general and specialised service such as casing running, cementation, welding, diving and catering;
  - o provision of mud and other chemicals.
- Crude oil - construction and maintenance of crude oil storage tanks and pipelines.
- Exploration and production of oil and gas products
- Manufacturing of consumable materials in exploration such as explosives, detonators, steel casting, magnetic tapes etc.
- Search for development of local substitutes for items such as medium pressure valves, pumps, shallow drilling equipment, drilling mud, bits fittings, drilling cement etc.

The overall investment opportunities in the downstream sector include:

- Domestic production and marketing of Liquefied Natural Gas (LNG).
- Domestic manufacturing of LNG cylinders, valves and regulators, installation of filling plants, retail distribution and development of simple, flexible and less expensive gas burners to encourage the use of gas instead of wood.
- Establishment of processing plants and industries for the production of:
  - o refined mineral oil, petroleum jelly and grease
  - o bituminous based water/damp proof building materials e.g. roofing sheets, floor tiles, tarpaulin, and
  - o building of asphalt storage, packaging and blending that may export these products.

- Establishment of chemical industries e.g. distillation units for the production of Naphtha and other special boiling point solvents used in food processing.
- Linear alkyl benzene, carbon black and polypropylene producing industries.
- Development of Phase II in Nigeria's Petrochemical Program (Phase III to commence later).
- The Nigerian Liquefied Natural Gas (NLNG) projects.
- Small-scale production of chemicals and solvents e.g. chlorinated methane, Formaldehyde, Acetylene etc. from natural gas.
- Crude oil refining with efficient export facilities. Companies with the technology can undertake turnaround maintenance of refineries.
- Large scope for small-scale joint venture manufacturing concerns with foreign technical partners. Such ventures can start warehousing arrangements that will ensure continuity of supply at competitive prices.
- Products transportation and marketing associated with products distribution.

There exists many investment opportunities in the natural gas sector of the Nigerian petroleum industry. Government's aspirations for the gas sector include creating new industries out of the old oil industry; capturing economic value and generating as much revenue from gas as from oil by 2010. Others are developing the domestic gas market and, ending gas flaring by 2008. In view of the large potentials of this sector fiscal incentives have been put in place to promote the gas industry:

The Nigerian oil and gas sector provides large opportunities to foreign investors with know-how and technical capacity to contribute with added value in joint ventures. However, Nigeria is a difficult market to operate in and thorough preparation and investigation is the key to success together with proper risk management and mitigation.

One of the most important single factors to ensure a successful entrance on the Nigerian oil and gas market is to form a JV together with the right local company. Many Nigerian business operations are in demand for Danish know-how and technology and are looking to form JV's. The right local business will have a thorough understanding of the market and access to specific business opportunities that can materialize together with Danish know-how and technology. Also, because of the official legal requirements of Local Content a JV with a local business is a necessity. However, it is important to stress that any potential local partner must go through a careful due diligence, checking the legal status and the historical business performance. Additionally, it is important to further investigate references and previous track record of the company.

The Nigerian oil and gas market is complex – but with large opportunities for the Danish company who understands to team up with the right local partner and mitigate existing risks. Nigeria has a poor reputation in terms of corruption and

security, but to a large extent this can be successfully mitigated thus creating opportunities with limited competition for the Danish company.

In this relation IFU has 40 years of experience in establishing JV's in difficult markets, such as Nigeria, and identifying and screening local partners. The experience from more than 1000 JV's with Danish companies in difficult markets, shows that sound business can be conducted in such places. IFU can contribute with share- or loan capital, together with knowledge about how to establish a business and mitigate risks.

## Acronyms

ACP	African, Caribbean and Pacific
bbl/d	Barrels per day
Bcf	Billion cubic feet
CAC	Corporate Affairs Commission
CDE	Centre for Development of Enterprises
CITA	Companies Income Tax Act
CNG	Compressed natural gas
DD	Directional drilling
EGTL	Escravos gas-to-liquid
EIA	Energy Information Administration
FEMMP Act	Foreign Exchange Monitoring and Miscellaneous Provisions Act
FEPA	Federal Environmental Protection Agency
FID	Final investment decision
FPSO	Floating production, storage and offloading
IFU	The Industrialisation Fund for Developing Countries
IPP	Independent power plant
JOA	Operating agreement
JV	Joint Venture
LNG	Liquefied natural gas
LWD	Logging while drilling
MMcf/d	Million cubic feet per day
MOU	Memorandum of Understanding
MPP	Master Procurement Plan
MWD	Measurement while drilling
NEEDS	National Economic Empowerment Development Strategy
NEPA	National Electric Power Authority
NEPAD	New Partnership for African Development
NIPC	Nigerian Investment Promotion Commission
NLNG	Nigeria Liquefied Natural Gas
NNPC	Nigerian National Petroleum Company
OCD	Offshore Centre Denmark
OCTG	Oil country tubular goods
OEL	Oil Exploration Licence
OGJ	Oil and Gas Journal
OMLs	Oil Mining Leases
OPEC	Organization of Petroleum Exporting Countries
OPL	Oil Prospecting Licence
PHRC	Port Harcourt Refinery Company
PPMC	Pipelines and Products Marketing Company
PPT	Petroleum Profit Tax
PPTA	Petroleum Profit Tax Act
PSC	Production sharing contract
RP	Realisable price
SNEPCO	Shell Nigeria Exploration and Production Company Limited
SPDC	Shell Petroleum Development Company
Tcf	Trillion cubic feet
TP	Technical cost
VLCC	Very large crude carriers
WAGP	West African Gas Pipeline



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# 1 Introduction

Nigeria is the largest oil producer in Africa, the eleventh largest producer of crude oil in the world and a member of the Organization of Petroleum Exporting Countries (OPEC). In 2006, total Nigerian oil production, including lease condensates, natural gas liquids and refinery gain, averaged 2.45 million barrels per day (bbl/d). Current development strategies are aimed at increasing production to 4 million bbl/d by the year 2010. Nigeria had a total of 36.2 billion barrels of proven oil reserves as of January 2007. The Nigerian government plans to expand its proven reserves to 40 billion barrels by 2010.

Based on this potential The Industrialisation Fund for Developing Countries (IFU) and Offshore Centre Denmark (OCD) has further investigated the Nigerian context and the specific opportunities for the Danish oil and gas offshore sector.

Field work for the study was conducted in the latter part of 2007 with economical support from Centre for Development of Enterprises (CDE), which is an African, Caribbean and Pacific (ACP) and EU joint institution.

## 1.1 The Nigerian background

Nigeria's economy is struggling to leverage the country's vast wealth in fossil fuels in order to displace poverty that affects a large part of its population. Nigeria's exports of oil and natural gas have enabled the country to post merchandise trade and current account surpluses in recent years. Reportedly, 80 % of Nigeria's energy revenues flows to the government, 16 % cover operational costs, and the remaining 4 % go to investors.

However, the World Bank has estimated that as a result of corruption 80 % of energy revenues benefit only 1 % of the population. During 2005 Nigeria achieved a milestone agreement with the Paris Club of lending nations to eliminate all of its bilateral external debt. Under the agreement, the lenders will forgive most of the debt, and Nigeria will pay off the remainder with a portion of its energy revenues. Outside of the energy sector, Nigeria's economy can be considered inefficient and Nigeria ranked 151 out of 177 countries in the United Nations Development Index in 2004.

Due to inflation, per capita GDP today remains lower than in 1960 when Nigeria declared independence. About 57 % of the population lives on less than US\$1 per day. In 2005 the GDP was composed of the following sectors: agriculture, 27 %; industry, 49 %; and services, 24 %.

In 2005 Nigeria's inflation rate was an estimated 15.6 %. Nigeria's goal under the National Economic Empowerment Development Strategy (NEEDS) program is to reduce inflation to the single digits. In 2005 Nigeria's central government had expenditures of US\$13.54 billion but revenues of only US\$12.86 billion, resulting in a budget deficit of 5 %. Nigerian tax authorities face the challenge of widespread tax evasion, which is motivated by complaints about corruption and the poor quality of services.

## **1.2 Investment Climate**

Although Nigeria must grapple with its decaying infrastructure and a poor regulatory environment, the country possesses many positive attributes for carefully targeted investment and will expand both as a regional and international market player. Additional to the energy sector, profitable niche markets, like specialized telecommunication providers, have developed and there is a growing Nigerian consensus that foreign investment is essential to realizing Nigeria's vast but squandered potential.

European investments are increasing and companies interested in long-term investment and joint ventures, especially those that use locally available raw materials, are able to find opportunities in the large national market. However, to improve prospects for success, potential investors must educate themselves extensively on local conditions and business practices, establish a local presence, and choose their partners carefully.

According to the NEEDS program and the World Bank, giant strides in policy, regulatory and institutional reforms have been made, thereby improving Nigeria's investment climate. The Customs reform, the Tax reform and establishment of One-stop-shop in Nigerian Investment Promotion Commission (NIPC) have been completed. The one-stop shop has reduced drastically the time in business registration.

## **1.3 Security situation**

The major threat to Nigeria in terms of its security situation lies in its fragile political and economic unity. This is exacerbated by the twin factors of widespread poverty on the one hand and an abundance of oil in the territory on the other - both of which factors lead to an intense competition for resources between Nigerians and foreigners alike.

Political divisions tend to correspond to the country's regional make-up. The ruling People's Democratic Party, which controls about 60% of the vote, is strong in the northern and south-eastern regions. The All Peoples Party is dominated by conservative politicians many of whom have enjoyed close links with the late General Abacha in the past. It too draws its support mainly from the North. The Alliance for Democracy is a predominantly Yoruba party which controls all six south-western states. Considerable political divisions thus play themselves out in Nigeria's multi-party politics.

Much of the political intrigue in Nigerian politics is contained within the framework of Nigeria's federalist politics, however, destabilizing influences exist within the country and one of the most serious of these is the ongoing conflict with the marginalized minorities who live in the Niger River Delta.

The current travel advice (valid on February 14<sup>th</sup>, 2008) from the Foreign Commonwealth Office, advice against all travel to the Delta States (Delta, Bayelsa and River States, including Port Harcourt) and advice British nationals in these States to leave. They also advise against all travel to riverine areas of Cross River State (i.e., the river and swamp locations on or close to the coast accessible by boat but not by road). Additionally, they advise against all but essential travel to Akwa Ibom State. This is because of the very high risk of

kidnapping, armed robbery and other armed attacks in these areas. Since January 2006, 36 British nationals, and more than 180 other foreign nationals have been kidnapped in the Niger Delta area, with one British national being killed. (<http://www.fco.gov.uk/>)

The possibility of a further coup d'etat in Nigeria seems unlikely in future. Relations with the EU have improved since 1999 and France and Britain still remain the most important of the EU donors. Relations with the USA have also improved markedly and all the bans imposed by the USA on Nigeria have been lifted to date.

## **2 The Nigerian oil and gas industry**

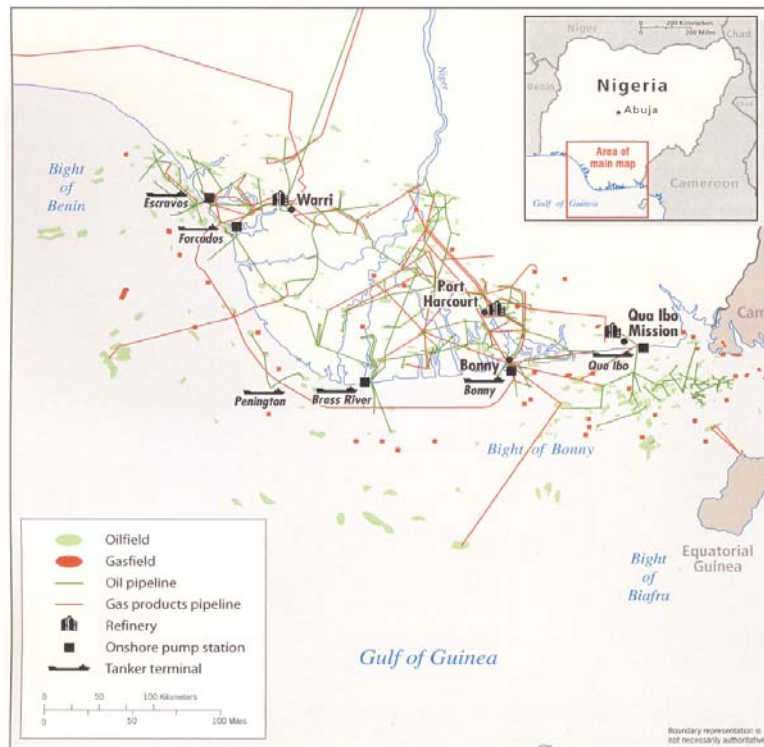
Oil was discovered in Nigeria in 1956 at Oloibiri in the Niger Delta after half a century of exploration. The discovery was made by Shell-BP, at the time the sole concessionaire. Nigeria joined the ranks of oil producers in 1958 when its first oil field came on stream producing 5,100 bbl/d. After 1960, exploration rights in onshore and offshore areas adjoining the Niger Delta were extended to other foreign companies. In 1965 the EA field was discovered by Shell in shallow water southeast of Warri.

In 1970, the end of the Biafran war coincided with the rise in the world oil price, and Nigeria was able to reap instant riches from its oil production. Nigeria joined the Organisation of Petroleum Exporting Countries (OPEC) in 1971 and established the Nigerian National Petroleum Company (NNPC) in 1977, a state owned and controlled company which is a major player in both the upstream and downstream sectors.

Following the discovery of crude oil by Shell D'Arcy Petroleum, pioneer production began in 1958 from the company's oil field in Oloibiri in the Eastern Niger Delta. Nigeria has since made its mark as Africa's leading producer of oil and ranks in the top ten oil producers in the world. In 2004, Nigeria's OPEC's quota increased to 8.2%.

By the late sixties and early seventies, Nigeria had attained a production level of over 2 million bbl/d of crude oil. Although production figures dropped in the eighties due to economic slump, 2004 saw a total rejuvenation of oil production to a record level of 2.5 million bbl/d.

Map of Nigerian oil and gas fields:



(Source EIA)

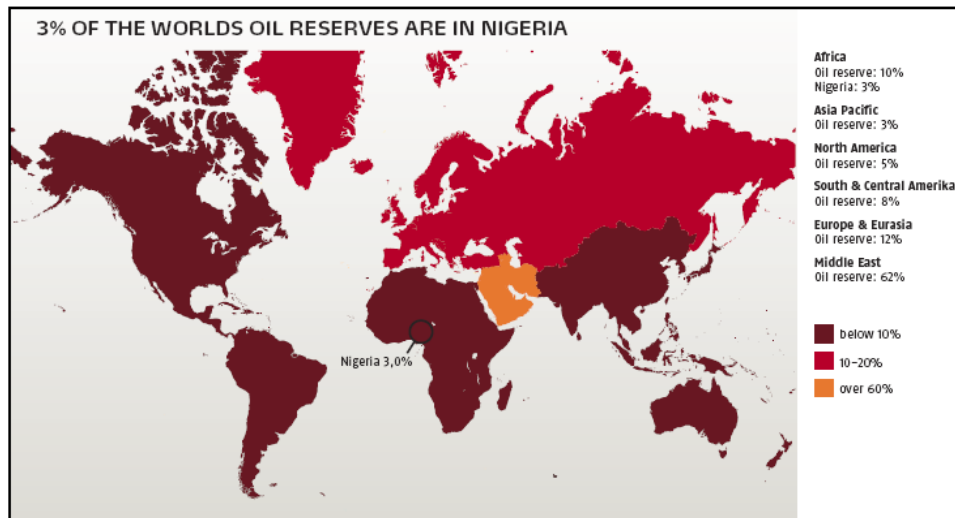
Petroleum production and export play a dominant role in Nigeria's economy and account for about 90% of the gross earnings. This dominant role has pushed agriculture, the traditional mainstay of the economy, from the early fifties and sixties, to the background.

Of the 606 oil fields in the Niger Delta area, 355 are on-shore while the remaining 251 are offshore. Of these, 193 are currently operational while 23 have been shut in or abandoned as a result of poor prospects or total drying up of the wells. Outside the Niger Delta, a total of 28 exploratory oil wells have been drilled all showing various levels of prospects.

Under the Petroleum Act of 1969 as amended, the entire ownership and control of oil and gas in Nigeria (including under its territorial waters and continental shelf) is vested in the state of Nigeria. The ownership of oil and all minerals in Nigeria is further reinforced in the 1979 constitution of the Federal Republic of Nigeria.

According to Oil and Gas Journal (OGJ), Nigeria had 36.2 billion bbl/d barrels of proven oil reserves as of January 2007. The Nigerian government plans to expand its proven reserves to 40 billion barrels by 2010. The majority of reserves are found along the country's Niger River Delta, in southern Nigeria and offshore in the Bight of Benin, Gulf of Guinea and Bight of Bonny. Nigeria has total production capacity of 3 million bbl/d, of which 2 million bbl/d is onshore and 1 million bbl/d offshore.

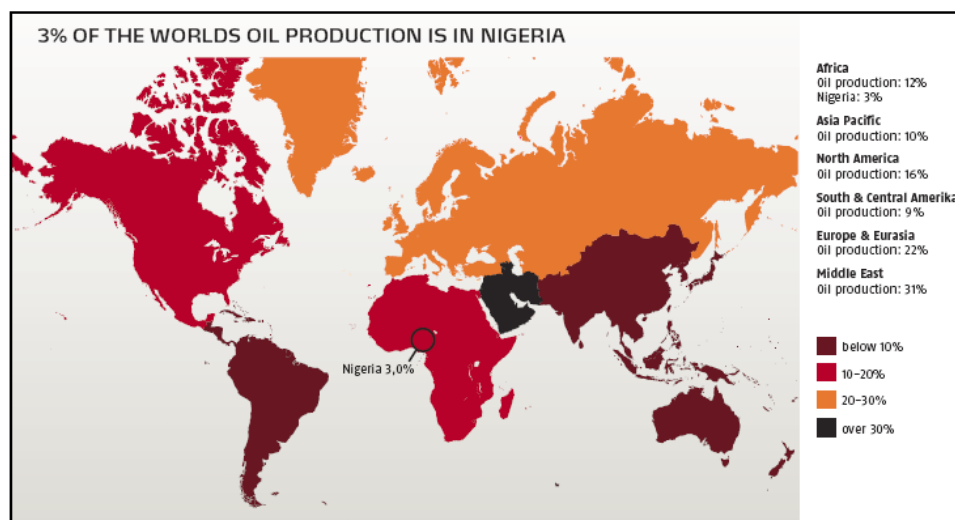
Map global oil reserves



(Source BP)

Nigeria is the largest oil producer in Africa, the eleventh largest producer of crude oil in the world and a member of the Organization of Petroleum Exporting Countries (OPEC). In 2006, total Nigerian oil production, including lease condensates, natural gas liquids and refinery gain, averaged 2.5 million bbl/d (of which 2.3 million bbl/d was crude oil). If Nigeria could bring back online all oil currently shut-in, EIA estimates that Nigeria could reach crude oil production capacity of 3 million bbl/d. With the help of new projects coming online, the Nigerian government hopes to increase oil production capacity to 4 million bbl/d by 2010.

Map global oil production

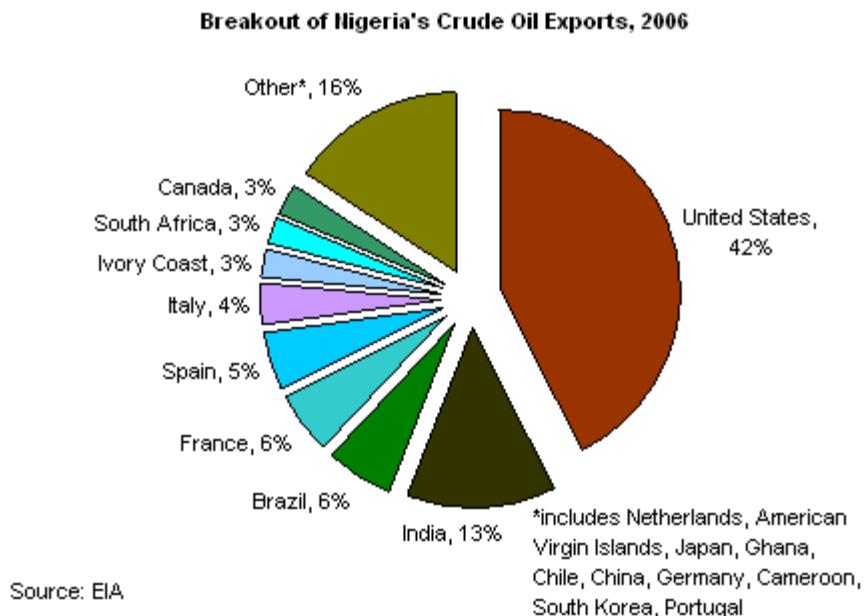


(Source BP)

## 2.1 Exports

Nigeria is the world's eighth largest exporter of crude oil and the country is a major oil exporter to the United States. In 2006, Nigeria's total oil exports reached an estimated 2.15 million bbl/d. Nigeria shipped approximately one million bbl/d or 42 % of its crude exports to the United States in 2006 (see figure below). Despite shut-in production, major importers of Nigerian crude have experienced little to no decrease in Nigerian crude imports over the past 15 months.

Nigeria has six export terminals including Forcados and Bonny (operated by Shell); Escravos and Pennington (Chevron); Qua Iboe (ExxonMobil) and Brass (Agip). According to the International Crude Oil Market Handbook, Nigeria's export blends are light, sweet crude, with gravities ranging from API 29 – 36 degrees and low sulphur contents of 0.05 – 0.2 %. Forcados Blend is considered one of the best gasoline-producing blends in the world.



## 2.2 Sector Organization

In 1977, Nigeria created the Nigerian National Petroleum Corporation (NNPC). At that time, the NNPC's primary function was to oversee the regulation of the Nigerian oil industry, with secondary responsibilities for upstream and downstream developments. In 1988, the Nigerian government divided the NNPC into 12 subsidiary companies in order to better manage the country's oil industry. The majority of Nigeria's major oil and natural gas projects (95 %) are funded through joint ventures (JVs), with the NNPC as the major shareholder.

The largest JV is operated by Shell Petroleum Development Company (SPDC). Additional foreign companies operating in JVs with the NNPC include ExxonMobil, Chevron, ConocoPhillips, Total, Agip and Addax Petroleum. The remaining funding arrangements are comprised of Production Sharing

Contracts (PSCs), which are mostly confined to Nigeria's deep offshore development program.

## **2.3 Natural gas**

The Oil and Gas Journal estimates that Nigeria had an estimated 182 trillion cubic feet (Tcf) of proven natural gas reserves as of January 2007, which makes Nigeria the seventh largest natural gas reserve holder in the world and the largest in Africa. The majority of the natural gas reserves are located in the Niger Delta. In 2004, Nigeria produced 770 billion cubic feet (Bcf) of natural gas, while consuming 325 Bcf. The government plans to raise earnings from natural gas exports to 50 % of oil revenues by 2010. However, NNPC estimates that \$15 billion in private sector investments is necessary to meet its natural gas development goals by 2010.

Because many of Nigeria's fields lack the infrastructure to produce natural gas, it is flared. According to NNPC, Nigeria flares 40 % of its annual natural gas production, while the World Bank estimates that Nigeria accounts for 12.5 % of total flared natural gas in the world. Nigeria is working to end natural gas flaring by 2008. However, Shell indicated in its 2005 annual report that it would not be able to eliminate routine natural gas flaring until 2009. Shell listed reduced funding and poor contractor performance on some projects as barriers to eliminating natural gas flaring.

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 by-products 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.

### *2.3.1 Liquefied Natural Gas (LNG)*

A significant portion of Nigeria's natural gas is processed into LNG. Nigeria's most ambitious natural gas project is the \$3.8 billion Nigeria Liquefied Natural Gas (NLNG) facility on Bonny Island. Partners including NNPC, Shell, Total and Agip completed the first phase of the facility in September 1999. In 2006, NLNG completed its fifth train increasing annual production capacity to 17 million tons per year of LNG.

NLNG has initiated a sixth train in 2007, raising production capacity to 22 million tons per year. A seventh train could come online in 2011. The facility is currently supplied from dedicated (non-associated) natural gas fields, but it is anticipated that within a few years half of the natural gas feedstock will consist of associated (currently flared) natural gas from existing oil fields.

Additional LNG facilities in Nigeria are also being developed. In January 2005, Chevron announced the possibility of constructing the \$7 billion OK-LNG plant at Olokola (OK) in western Nigeria. The plant would have an initial capacity of 11 million tons per year and a maximum capacity of 33 million tons per year. In March 2007, NNPC awarded a contract to France-based Technip for construction of the OK-LNG plant.



The project includes connecting the LNG plant to oil and natural gas reserves in the Niger Delta through a network of pipelines. OK-LNG is expected to produce its first LNG in 2011. In December 2005, ConocoPhillips, Chevron and Agip met with NNPC to sign a shareholders agreement for the establishment of the \$3.5 billion Brass River LNG plant. The project, which includes two LNG trains, could be operational by late 2009 depending on a final investment decision (FID) to be made in 2007.

Chevron is working on the Escravos gas-to-liquids (EGTL) project, which is located in the western Niger Delta, and is expected to have production capacity of 33,000 bbl/d. Completion of the GTL project was scheduled for 2009. However, in January 2007, work on the EGTL project came to a halt after a breakdown in salary negotiations. A year earlier, the Nigerian government halted the implementation of the EGTL project due to high costs. Plans for the project include linking the Escravos pipeline system with the West African Gas Pipeline (WAGP) for natural gas export to Benin, Togo and Ghana.

## 2.4 International oil companies

There are eighteen international oil companies operating in the country. Some of them are new entrants who have an interest in the deep offshore blocks in partnership with other operators. The oil majors account for about 99% of crude oil production in Nigeria. Below table shows the International oil companies operating in Nigeria and their dates of establishment.

Company	Year
Shell Petroleum Development Company Ltd	1937
Mobil Producing Nigeria Unlimited	1955
Chevron Nigeria Ltd	1961
Texaco Overseas Nig. Petroleum Co. Unltd	1961
Elf Petroleum Nigeria Limited	1962
Philip (1964); Pan Ocean Oil Corporation	1972
Ashland Oil Nigeria Limited	1973
Agip Energy & Natural Resources	1979
Statoil/BP Alliance	1992
Esso Exploration & Production Nig. Ltd.	1992
Texaco Outer Shelf Nigeria Limited	1992
Shell Nig. Exploration & Production Co.	1992
Total (Nig.) Exploration & Prod. Co. Ltd.	1992
Amoco Corporation	1992
Chevron Exploration & Production Co.	1992
Conoco	1992
Abacan	1992

### 2.4.1 Shell

Shell Petroleum Development Company (SPDC) is a joint venture operation, managed by Shell Petroleum. The shareholding structure comprises NNPC (80%) together with Shell International, Elf Petroleum, and Agip Oil. This is the largest producing operation in Nigeria, and accounts for almost half of the country's daily production (app. 1.0 million bbl/d) and reserves. The company

has two operating units - the eastern division, based in Port Harcourt, and the western division based in Warri. SPDC's corporate headquarters is in Port Harcourt.

The company has more than 100 producing oil fields, and a network of more than 6,000 kilometres of pipelines, flowing through 87 flow stations. SPDC operates 2 coastal oil export terminals, Forcados and Bonny.

SPDC has also recently incorporated 2 subsidiary operations - Shell Nigeria Exploration and Production Company Limited (SNEPCO), and the Shell Nigeria Gas Limited. SNEPCO was incorporated to operate the deepwater blocks, which were granted to Shell in 1993. These are production-sharing contracts, and the blocks are located in water depths of between 400 and 1,400 metres. SNEPCO also operates 3 onshore blocks located in the north of Nigeria.

Despite the recent attacks on Shell's oil facilities, the company's deepwater Bonga field began producing oil at the end 2005, reaching production of 225,000 bbl/d in April 2006. Bonga is estimated to hold recoverable oil reserves of 600 million barrels. Oil from the field is stored in a floating production, storage and offloading (FPSO) unit, with capacity of two million barrels. In August 2008, Shell plans to bring online its Gbaran/Ubie field (220,000 bbl/d), located offshore of the eastern delta.

#### *2.4.2 ExxonMobil*

Mobil Producing Nigeria Unlimited - (now ExxonMobil), is a joint venture that is now the second largest operation in the country. The JV also has the only condensate operation in Nigeria, and is owned by NNPC (60%), and Mobil Oil (40%).

Exxon Mobil produces around 750,000 bbl/d of oil in Nigeria. The company plans to invest \$11 billion in the country's oil sector through 2011, with the hope of increasing production to 1.2 million bbl/d. In March 2006, ExxonMobil brought online its Erha development, which is located offshore of the western delta. Erha reached peak production of 200,000 bbl/d in July 2006. Oil from Erha is stored in a FPSO, with capacity of 2.2 million barrels of oil. Very Large Crude Carriers (VLCC), capable of holding up to 300,000 deadweight tons are used for exporting the oil from the terminal.

ExxonMobil also operates the Yoho field, with current output of around 150,000 bbl/d. Yoho contains around 400 million barrels of oil reserves. Yoho will be re-injected with natural gas to maintain field pressure. The \$1.2 billion field is located in the shallow waters of the eastern delta. In June 2008, ExxonMobil plans to bring online its Bosi field (110,000 bbl/d) located offshore of the western delta.

#### *2.4.3 Chevron Nigeria Limited*

The joint venture is owned by NNPC (60%) and Chevron Texaco (40%). The JV has its head office in Lagos, while its operational base is in Escravos, producing a crude stream of the same name.

Chevron's offshore Agbami field is scheduled to come online in 2008, with peak production estimated at 250,000 bbl/d. The majority of Agbami lies in Block 127, while one-third of it lies in the adjacent Block 128. In February 2005, the Nigerian National Petroleum Corporation (NNPC) awarded Chevron a \$1.1 billion contract for the construction of a FPSO for the field, which will be undertaken by Daewoo Shipping and Maritime Engineering (South Korea). The FPSO is expected to export up to 250,000 bbl/d of oil and 450 million cubic feet per day of natural gas.

#### *2.4.4 Total*

Output at Total's Amenam field reached 120,000 bbl/d in January 2005. The Amenam field contains reserves of around one billion barrels of oil equivalent. In January 2009, Total plans to bring online its offshore Akpo field (180,000 bbl/d) and in January 2010, its offshore Usan field (150,000 bbl/d).

## **2.5 Refining**

Nigeria's refining capacity is currently insufficient to meet domestic demand, forcing the country to import petroleum products. According to Oil and Gas Journal (OGJ), Nigeria's state-held refineries (Port Harcourt I and II, Warri, and Kaduna) have a combined nameplate capacity of 438,750 bbl/d, but problems mainly due to poor management and a lack of regular maintenance contribute to the current operating capacity of around 214,000 bbl/d. To increase refining capacity, the Nigerian government is granting permits to build several independently-owned refineries. Oando, a leading petroleum-marketing company in Nigeria, is considering building a refinery in Lagos. The refinery would be built in two phases, with each phase providing 180,000 bbl/d of refining capacity.

Nigeria is trying to privatize state entities by selling NNPC's four oil refineries, petrochemicals plants, and its Pipelines and Products Marketing Company (PPMC). International oil companies have shown little interest in investing in refinery privatization. However, the Nigerian government recently opened negotiations with Libyan, Indian, and Chinese investors. As of March 2007, Mittal Steel of India was looking to purchase a controlling stake in the Port Harcourt Refinery Company (PHRC), although, no deal has officially been signed.

## **3 Legal framework for investments**

Since the discovery of oil in Nigeria in 1956, the government, through its agencies like Nigerian National Petroleum Corporation (NNPC), Ministry of Petroleum Resources and Federal Environmental Protection Agency (FEPA), has put in place a number of policies, agreements and regulations for the control and supervision of the oil industry for the overall economic development of the country. Notable policies and agreements in place include: Joint Ventures (JV), Production Sharing Control (PSC), Service Contract, and Memorandum of Understanding (MOU).

### 3.1 Policies and agreements

#### 3.1.1 Joint Ventures

In a Nigerian petroleum Joint Venture (JV), two or more oil companies enter into an agreement for joint development of jointly held oil prospecting licences or Oil Mining Leases (OMLs) and facilities. Each partner in the joint venture contributes to the costs and shares the benefits or losses of the operations in accordance with its proportionate equity interest in the venture. Each JV operates under Operating Agreement (JOA) with the NNPC and a Memorandum of Understanding (MOU) with the Federal Government. The JOA defines relation-ships regarding:

- operator and obligations;
- work programme, plans and expenditure;
- authority of operating (management) committee and its sub-committees (exploration, technical, finance, services, engineering, production, and public affairs);
- right of assignment by either party;
- off-take, scheduling and lifting procedures;
- accounting procedures;
- project, contract procedures; and
- communication procedures.

NNPC operates seven joint venture partnerships with companies, equities and details as listed below:

Partners	Equity Interest	Operator	No. of OMLs
Shell, NNPC	20%, 80%	Shell	58
Mobil, NNPC	40%, 60%	Mobil	4
Chevron, NNPC	40%, 60%	Chevron	16
Agip, Philips, NNPC	20%, 20% ,60%	Agip	N/A
Elf, NNPC	40%,60%	Elf	14
Texaco, Chevron, NNPC	20%, 20%, 60%	Texaco	6
Pan Ocean, NNPC	40%, 60%	Pan Ocean	1

#### 3.2 Memorandum of understanding

This is a package of incentives offered by government to joint venture partners to encourage them to step up exploration efforts to increase the country's oil reserves and production. The MOU provides an overall structure for allocating oil income among the JV partners, including payment of taxes and royalties as well as the industry profit margin.

The Federal Government is working on a new MOU proposal; representatives of NNPC, Ministry of Petroleum Resources and Ministry of Finance are to fashion out government negotiation position prior to renegotiating a new JOA. This may result in changes along the lines of increased guaranteed profit margins and introduction of new set of incentives to operators.

### 3.2.1 Production Sharing Contract

The Production Sharing Contracts (PSC) is an agreement born in response to the funding problems faced by the old JV arrangement as well as the desire of government to open up the sector for more foreign participation. The policy is designed to transfer exploration risks and funding of exploration and development efforts on new acreage to the interested oil companies.

The PSC arrangement governs the understanding between the NNPC and all new participants in the new inland deep ultra deep water acreages. The contractor bears all costs of exploration and production without such costs being reimbursable if no find is made in the acreage. Cost is recoverable with crude oil in the event of commercial find.

The essence of PSC is that NNPC engages a competent contractor to carry out petroleum operations on NNPC's wholly held acreage. The contractor undertakes the initial exploration risks and recovers his costs if and when oil is discovered and extracted. Currently, Statoil, Snepco, Esso, Elf, Nigerian Agip Exploration Limited, Addax, Conoco and Petrobas, Star Deep Water, Chevron and Oando are operating the PSC in the country. Examples below detail the number of blocks held by named operators operating PSC with NNPC.

<b>Company</b>	<b>Number of blocks</b>
Statoil/BP	3 Blocks
Ashland	2 Blocks
Abacan	1 Block
Esso Expt	1 Block
Agip	1 Block
Shell	5 Blocks
Elf	2 Blocks
Mobil	1 Block
Chevron	7 Blocks
Conoco	1 Block
Allied Energy	1 Block operated by Statoil

### 3.3 Procedures by foreign investors

#### 3.3.1 Legal structures

All business enterprises must be registered with the Corporate Affairs Commission. Business activities may be undertaken in Nigeria as a:

- Private or public limited liability company;
- Unlimited Liability Company;
- Company limited by guarantee;
- Foreign Company (branch or subsidiary of foreign company)
- Partnership/Firm;
- Sole Proprietorship;
- Incorporated trustees (religious, charitable, philanthropic or cultural);
- Representative office in special cases

The Companies and Allied Matters Act, 1990 (the Companies Act) is the principal law regulating the incorporation of businesses. The administration of the Companies Act is undertaken by the Corporate Affairs Commission (CAC).

### 3.3.2 *Shares*

The minimum authorised share capital is N 10,000 (USD 86.0) in the case of private companies or N 500,000 (USD 4,323) in the case of public companies. All categories of company shares should carry one vote. Shares with “weighted” voting right are prohibited. All shares (i.e. whether ordinary or preferential) issued by a company must carry one vote in respect of each share. Consequently, preference shareholders are entitled to receive notices and attend all general meetings of the company and may speak and vote on any resolution before the meeting.

### 3.4 **Local content**

Local content means the development of local skills, technology transfer, use of local manpower and local manufacturing. In October 1996 it was political decided that foreign suppliers, to a certain extent will have to bid and supply through a local subsidiary or agent. Today, the major oil operators in Nigeria have included a Nigerian Content percentage as required in their bidding process.

The requirements of Local Content are specific only to the Oil and Gas industry. There is supposed to be a gradual goal achievement where the quantum of composite value added to or created in, the Nigerian economy through the utilization of Nigerian resources and services in the petroleum industry increase, resulting in the development of indigenous capabilities, within acceptable quality health, safety and environmental standards.

A cursory look at the Local Content growth is the gradual expatriate substitution with Nigerian staff with the aim of capturing 45% of the \$8 billion annual spending in oil and gas industry in 2006, and achieves a target of 70% by 2010. Please see appendix 7.3 for further requirements on Local Content

A non-Nigerian may invest and participate in the operation of any enterprise in Nigeria. However, a foreign company wishing to set up business operations in Nigeria should take all steps necessary to obtain local content of the Nigerian branch or subsidiary as a separate entity in Nigeria for that purpose. Until so incorporated, the foreign company may not carry on business in Nigeria or exercise any of the powers of a registered company.

The foreign investor may incorporate a Nigerian branch or subsidiary by giving a power of attorney to a qualified solicitor in Nigeria for this purpose. The incorporation documents in this instance would disclose that the solicitor is merely acting as an “agent” of a “principal” whose name(s) should also appear in the document. The power of attorney should be designed to lapse and the appointed solicitor ceases to function upon the conclusion of all registration formalities.

The locally incorporated branch or subsidiary company must then register with the Nigerian Investment Promotion Commission (NIPC) before commencing formal operations. The new company may also apply to NIPC for other investment approvals (e.g. expatriate quota) and other incentives.

Where exemption from local content is desired, a foreign company may apply to the National Council of Ministers for exemption from incorporating a local subsidiary if such foreign company belongs to one of the following categories:

- foreign companies invited to Nigeria by or with the approval of the Federal Government of Nigeria to execute any specified individual project;
- foreign companies which are in Nigeria for the execution of a specific individual loan project on behalf of a donor country or international organisation;
- foreign government-owned companies engaged solely in export promotion activities; and
- engineering consultants and technical experts engaged on any individual specialist project under contract with any of the governments in the Federation or any of their agencies or with any other body or person, where such contract has been approved by the Federal Government.

Foreign companies may set up representative offices in Nigeria. A representative office however, cannot engage in business or conclude contracts or open or negotiate any letters of credit. It can only serve as a promotional and liaison office and its local operational expenses have to be funded by the foreign company. A representative office has to be registered with the CAC.

### **3.5 Exploration and production**

Exploration and production involves applying for block(s) for exploration through the oil prospecting licence (OPL) and the Oil Mining Lease (OML). Currently, emphasis is shifting from Production Sharing Contract (PSC) to Service Contract.

Pursuant to the above, the Oil Exploration Licence (OEL) confers on the licensee, non-exclusive right to explore and investigate by surface geological and geophysical methods within an area of about 12,944.4sq. km; for an initial period of one year, renewable on expiration.

The Oil Prospecting Licensee (OPL) confers upon the licensee the exclusive rights of surface and subsurface exploration for petroleum in an area not more than 2,588.8 sq. km. for an initial period of three years, renewable for two years and for PSC, a period of 10 years.

If a commercial discovery of hydrocarbon is made, then the licensee is eligible to apply for conversion of not more than half of the area into an OML. The OML confers on the holder exclusive rights to explore, win, produce and transport petroleum for the delineated area. The maximum duration of lease is 20 years, renewable for another 20 years on expiration.

### **3.6 Foreign exchange regime**

The Foreign Exchange regime is regulated by the Foreign Exchange monitoring and Miscellaneous Provisions Act (FEMMP Act). The FEMMP Act abolished the regime of exchange controls, especially for capital importation and repatriation.

Under the new Act, foreign investors can now bring in investment capital by wire transfer through bankers, which will issue the necessary certificate of capital importation, without seeking any approval from Government. Foreign investors may also repatriate dividends/profit arising from their investment in Nigeria.

The Act also permits the repatriation of capital in the event of equity transfer or business liquidation. What is necessary in the event of profit or capital repatriation is proof of capital importation upon the evidence of a duly issued certificate of capital importation.

The FEMMP Act does not, however, authorise unrestrained trading in foreign exchange by unauthorised persons. Thus only authorised dealers (banks and registered bureau de change) can trade in foreign exchange. Foreign investors may also contribute equity in Nigerian companies through the provision of physical assets such as machines and equipment. Such investors are also entitled to a certificate of capital importation reflecting the value of the physical assets.

## **4 Opportunities in the oil and gas sector**

Nigeria is very dependant on crude oil for its foreign exchange earnings. The National Energy Policy, approved by the Energy Commission of Nigeria in 2003, states that the nation shall encourage indigenous and foreign companies to fully participate in both upstream and downstream activities of the oil industry.

Investment opportunities exist in the establishment of manufacturing facilities to produce most of the inputs for oilfield operations e.g. oil well drilling clays, chemical and materials, pipes bolts and nuts, screw gaskets, valves and other accessories, pans and plastics including other components.

Opportunities also exist for engineering construction and contracting companies willing to establish locally to boost the Nigerian content in the operation, activities and growth of the oil and gas industry. Nigeria has put in place a petroleum and gas policy with the following objectives:

- Increasing oil reserve base and productivity through vigorous exploration and ensuring judicious exploitation of the resource.
- Allowing for private sector participation in all the facets of the industry through attractive fiscal measures. Government is giving serious consideration to selling its equity shares in joint venture operation.
- Acquiring reasonable market shares for the crude oil and its derivatives and achievement of domestic refining self-sufficiency.
- Expanding the utilisation of natural gas.



#### **4.1 Upstream opportunities**

With proven oil and gas reserves of 32.5 billion barrels and 187 trillion cubic feet respectively, numerous investment opportunities abound in upstream operations of the petroleum industry as categorized below:

- Surveying - planimetric data and sea bottom survey
- Civil works - mud pit construction, concrete works at rig sites, site surveys preparation of drilling locations, supplies of cement, chemicals, sands, gravel, iron rods, labour, road mat, timber, etc.
- Seismic data acquisition and interpretation – such as data on soil, land, rock samples together with geological and geochemical studies.
- Drilling operations - field transportation and equipment for rig movements,
  - o general and specialised service such as casing running, cementation, welding, diving and catering;
  - o provision of mud and other chemicals.
- Crude oil - construction and maintenance of crude oil storage tanks and pipelines.
- Exploration and production of oil and gas products
- Manufacturing of consumable materials in exploration such as explosives, detonators, steel casting, magnetic tapes etc.
- Search for development of local substitutes for items such as medium pressure valves, pumps, shallow drilling equipment, drilling mud, bits fittings, drilling cement etc.

#### **4.2 Downstream opportunities**

The overall investment opportunities in the downstream sector include:

- Domestic production and marketing of Liquefied Natural Gas (LNG).
- Domestic manufacturing of LNG cylinders, valves and regulators, installation of filling plants, retail distribution and development of simple, flexible and less expensive gas burners to encourage the use of gas instead of wood.
- Establishment of processing plants and industries for the production of:
  - o refined mineral oil, petroleum jelly and grease
  - o bituminous based water/damp proof building materials e.g. roofing sheets, floor tiles, tarpaulin, and
  - o building of asphalt storage, packaging and blending that may export these products.
- Establishment of chemical industries e.g. distillation units for the production of Naphtha and other special boiling point solvents used in food processing.
- Linear alkyl benzene, carbon black and polypropylene producing industries.

- Development of Phase II in Nigeria's Petrochemical Program (Phase III to commence later).
- The Nigerian Liquefied Natural Gas (NLNG) projects.
- Small-scale production of chemicals and solvents e.g. chlorinated methane, Formaldehyde, Acetylene etc. from natural gas.
- Crude oil refining with efficient export facilities. Companies with the technology can undertake turnaround maintenance of refineries.
- Large scope for small-scale joint venture manufacturing concerns with foreign technical partners. Such ventures can start warehousing arrangements that will ensure continuity of supply at competitive prices.
- Products transportation and marketing associated with products distribution.

#### 4.2.1 *The downstream projects*

The Government has opened the sector to foreign investment and have put in place incentives for projects, such as:

- Natural Gas Pipeline Network - Plans are afoot to build and extend gas pipelines in view of the importance of gas. Investors wishing to set up energy intensive industries such as cement factories, iron smelting and foundries will have a significant cost saving if gas is used as fuel.
- The Liquefied Natural Gas Project (LNG) - This project, a two-train plant, is aimed at diversifying the petroleum sector. The plant is expected to yield about seven billion cubic meters of gas per annum. The second phase of the project will consist of an additional three-train plant. Therefore, there is room for investors wishing to participate by acquiring shares. Also, the LNG project provides business opportunities for pipe-laying, pipe coating, inspection of numerous related activities, maritime operations and civil works.
- The Butanisation Project - Here private sector investment is needed to acquire rolling stocks for bulk LPG (liquified petroleum gas) transport. Investors can also engage in the construction of storage and filling facilities and provision of accessories - valve regulators, filling head, and 'pig tail'. In addition, ample opportunities exist in cylinder manufacturing, installation of filling plants and retail distribution.
- Fertilizer Plants - With abundant natural gas and a teeming population of peasant farmers, enterprises of fertilizer plants will be viable ventures. Investors are welcome to complement the existing fertilizer plants in the country (which hardly meet domestic demand) and boost export trade.
- Vehicular Fuel - Opportunities exist in Compressed Natural Gas (CNG) cylinder manufacturing and CNG filling stations.
- Methanol/MTBE Plants - Currently, plans are being made to construct a methanol plant which is expected to provide 2,500 tons/day at a cost of \$442 million. It is a joint venture between the NNPC (60%), Nigerian investors (11%), a consortium of Penspen Group KTI Mannesmann and

Berge (15%). The remaining 14% have not been allocated. Interested foreign companies are welcome to take up the remaining equity.

- Mobil has initiated an independent power plant (IPP) to be sited at Bonny to generate electricity from associated gas which they will sell to National Electric Power Authority (NEPA). Other investors may consider similar investment.

### **4.3 Petrochemicals**

A three phased petrochemical development plan has been produced and phase one is currently producing:

- Linear alkyl-benzene, carbon black and polypropylene;
- Carbon black, used for manufacture of tyres, rubber products, pigments, printing inks, polish, etc;
- Linear alkyl-benzene, used as an active agent in the production of detergents and shampoos;
- Polypropylene, used as a raw material in the manufacture of injection moulding, fibres extrusion, shipping sacks, prayer mats, carpet underlay and cloth wrap;

The second phase, an olefin based complex has been commissioned; and investors can engage in products fabrication.

### **4.4 Gas investment opportunities**

A lot of investment opportunities abound in the natural gas sector of the Nigerian petroleum industry. Increasing attention is now being given to this vital sector. Government's aspirations for the gas sector include creating new industries out of the old oil industry; capturing economic value and generating as much revenue from gas as from oil by 2010. Others are developing the domestic gas market and, ending gas flaring by 2008.

Remarkable progress has been recorded towards the realization of these objectives. Of the current annual gas production of about 2,000 Bscf, about 40% is flared. This is a drastic drop from the 70% proportion flared before the advent of this administration. The flared gas is being channeled into gas powered projects for rapid utilization and monetization with a view to maximizing value addition to the nation's natural gas resource by 2010.

Domestic gas consumption is expanding as a result of the ongoing power sector reforms while gas export which was non-existent prior to 1999, has received a strong boost.

Comprehensive and integrated gas utilization Master plan/programs have been embarked upon, in which LNG and Independent Power Plant (IPP) developments are being given priority. The expected increased export earnings from LNG, coupled with adequate domestic power supply from IPPs, will strongly support and broaden economic expansion and urbanization.

#### *4.4.1 Domestic gas market expansion*

As a result of various projects established, total gas utilized in the country increased from about 197 million scf/d in 1999 to about 573 mmscf/d in 2004. Substantial demand growth is expected in this decade. Consequently, domestic demand for natural gas is expected to increase to about 1700mmscf/d by 2010.

#### *4.4.2 Independent Power Plants*

JV and PSC multinational oil companies are encouraged to operate in Nigeria and to embark on Independent Power Plants (IPPs), as part of the Power Sector reform. The Reform Act reviewed the generation, transmission and distribution of electricity in the country to improve its performance. The IPPs will not only boost electricity supply but also, provide necessary infrastructural support for economic growth, and also guarantee additional revenue to the participating JV/PSC companies.

The various IPPs are expected to contribute about 3000 MW to the national grid by 2007. The aim is to increase the national electricity generation from the current 4,000 MW to about 10,000 MW by 2010 to enhance economic activities.

#### *4.4.3 The Liquefied Natural Gas Projects*

Since production started from trains 1 & 2 in 1999, NLNG has been growing very fast. Train 3 was commissioned in November 2002 and 4 and 6 have been on stream since end of 2007. LNG output will total about 22 metric tons per annum.

In addition, the Brass LNG with 2 trains and an output of 10mtpa is expected to be on stream in the first quarter of 2009 while the Olokola (OK) LNG which is a 4 train plant with an output of 20mtpa will have the first 2 trains commissioned in 2009/2010.

#### *4.4.4 The West Africa Gas Pipeline*

The Final Investment Decision of the West Africa Gas Pipeline was signed on 16th December 2004. The initial capacity utilization of the pipeline which is 200 mmcf/d is expected to increase to about 460 mmcf/d by 2026 This project which is of strategic importance is expected to foster cooperation and economic development in the sub- region in the spirit of the New Partnership for African Development (NEPAD).

#### *4.4.5 The Tran Saharan Gas Pipeline*

A Tran Saharan gas pipeline running from Nigeria to Algeria is under preparation and the feasibility study has been completed (2008). The objective is to make Nigerian piped gas available to Europe. The technical and commercial viability of this project is however being studied through a feasibility study being undertaken by a consultant on behalf of NNPC and Sonatrach.

## ***Gas to Liquids & Natural Gas Liquids***

These include the Escravos Gas- to- Liquids with a capacity of 34,000 barrels per day, the Escravos Natural Gas Liquids 1, 2 & 3 as well as the Mobil Natural Gas Liquids 1& 2.

Ongoing gas transmission program would entail commercialization of about 14,750 mmscf/d of gas by 2011 (80% for LNG). However, about \$2.5billion will be required annually in stable investments (upstream and LNG plants) to capture opportunities in gas and power by 2010. The private sector therefore has a critical role to play in the realization of these and other projects.

With these developments in the gas sector as well as the transformation in the upstream, it is believed that energy sector driven initiatives could contribute up to 60% towards doubling of the nation's GDP over the next 10 years.

### **4.5 Fiscal incentives to gas industries**

In view of the large potentials of this sector fiscal incentives have been put in place to promote the gas industry:

#### ***4.5.1 Gas utilisation (Downstream operations)***

Gas utilisation involves the marketing and distribution of gas for domestic and industrial uses. This would include power generation, Liquefied Natural Gas (LNG), household and factory consumption. The incentives applicable for this purpose include:

- companies engaged in gas utilisation are to be subject to the provisions of Companies Income Tax Act;
- an initial tax holiday for three years, renewable for an additional two years, will be granted to such enterprises subject to satisfactory performance of the enterprises. The tax relief period of the company is to commence on the first production day of the company;
- accelerated capital allowances after a tax holiday are available as follows: investment in plant and machinery; 90% annual allowance with 1% retention;
- Additional Investment Allowance of 15% which will not reduce the value of the asset; the dividends distributed during tax holiday to investors in respect of investments in foreign currency or introduction of plant and machinery of not less than 30% of the equity of the company, shall be tax free.

Fully appreciating that the use of associated gas will prevent environmental hazards of air pollution caused by gas flaring, the Nigerian government provided additional incentives in 1998 to support the gas industry in the following areas:

- All gas development projects, including those engaged in power generation, liquid plants, fertilizer plants, gas transmission and distribution pipelines, are to be taxed under the provision of Companies Income Tax Act ("CITA") and not the Petroleum Profit Tax Act. For the avoidance of doubt, where there is an integrated oil and gas project, the

oil operation which is to be taxable under the PPT is to be separated from the gas operation project for the latter to enjoy the concession of being taxed under CITA. All expenditure pertaining to the integrated oil and gas project would be chargeable under the PPT.

- All fiscal incentives under the gas utilization downstream operations in 1997 are to be extended to industrial projects that use gas, i.e. power plant, gas to liquid plant, fertilizer plant, and gas distribution and transmission pipeline.
- The initial tax holiday period is to be extended from 3 to 5 years.
- Gas is transferred at 0% PPT and 0% Royalty.
- The "Investment Capital Allowance" is increased from 5% to 15%.
- Interest on loan for gas project is to be tax deductible provided that prior approval is obtained from the Federal Ministry of Finance before taking the loan.
- All dividends distributed during the tax holiday shall be tax free.

#### *4.5.2 Gas exploitation (upstream operations)*

This involves all operations necessary to separate gas from the reservoir into usable form at utilisation or designated custody transfer points, either through pipelines or tankers. This operation is to help reduce or completely eliminate gas flaring. Fiscal Arrangements are to be reviewed as follows:

- all investment necessary to separate oil and gas from the reservoir into usable products is considered part of the oil field development;
- capital investment facilities to deliver associated gas in usable form at utilisation or designated custody transfer points, will be treated for fiscal purposes as part of the capital investment for oil development;
- the capital allowances, operating expenses and basis of assessment will be subjected to the provisions of Petroleum Profit Tax ("PPT Act") and fiscal incentives under the revised MOU.

#### *4.5.3 Gas production phase*

- Applicable tax rate under Petroleum Profit Tax (PPT) Act to be at the same rate as company tax which is currently 30%.
- Capital allowance at the rate of 20% per annum in the first four years, 19% in the fifth year and the remaining 1% in the books.
- Investment tax credit of the current rate of 5%.
- Royalty at the rate of 7% on-shore and 5% off-shore.

#### *4.5.4 Gas transmission and distribution*

- Capital allowance as in production phase above;
- Tax rate as in production phase;
- Tax holiday under pioneering status;

#### 4.5.5 LNG project

- Applicable tax rate under PPT is 45%.
- Capital allowance is 33% per year on straight line basis in the first 3 years with 1% remaining in the books.
- Investment tax credit of 10%.
- Royalty of 7% on-shore, 5% off-shore tax deductible.

## 5 Conclusion

The Nigerian oil and gas sector provides large opportunities to foreign investors with know-how and technical capacity to contribute with added value in joint ventures. However, Nigeria is a difficult market to operate in and thorough preparation and investigation is the key to success together with proper risk management and mitigation.

One of the most important single factors to ensure a successful entrance on the Nigerian oil and gas market is to form a JV together with the right local company. Many Nigerian business operations are in demand for Danish know-how and technology and are looking to form JV's. The right local business will have a thorough understanding of the market and access to specific business opportunities that can materialize together with Danish know-how and technology. Also, because of the official legal requirements of Local Content a JV with a local business is a necessity. However, it is important to stress that any potential local partner must go through a careful due diligence, checking the legal status and the historical business performance. Additionally, it is important to further investigate references and previous track record of the company.

### 5.1 SWOT

Strengths	Weaknesses
<ul style="list-style-type: none"><li>• Biggest African oil producer</li><li>• Well-established oil and gas industry from 1956</li><li>• Business climate is favourable for the new entrees</li><li>• Governmental interest in the new international players</li><li>• No restrictions for repatriation of profits</li></ul>	<ul style="list-style-type: none"><li>• Lack of infrastructure</li><li>• Necessity of a trusted local partner</li><li>• Logistical challenges</li><li>• Technical difficulties working in deep and ultra-deep waters</li><li>• Expensive business start-up and high living costs</li></ul>
Opportunities	Threats
<ul style="list-style-type: none"><li>• Wide range of project opportunities within the key Danish competences in oil industry</li><li>• Export of know-how to the developing country</li><li>• Operational platform for access to the neighbouring African markets</li></ul>	<ul style="list-style-type: none"><li>• Political institutions are fragile and unstable</li><li>• Bureaucracy and corruption remain a challenge</li><li>• Safety issues in Niger Delta</li></ul>

As the SWOT reveals the Nigerian oil and gas market is complex – but with large opportunities for the Danish company who understands to team up with the right local partner and mitigate existing risks. Nigeria has a poor reputation in terms of corruption and security, but to a large extent this can be successfully

mitigated thus creating opportunities with limited competition for the Danish company.

In this relation IFU has 40 years of experience in establishing JV's in difficult markets, such as Nigeria, and identifying and screening local partners. The experience from more than 1200 JV's with Danish companies in difficult markets, shows that sound business can be conducted such places. IFU can contribute with share- or loan capital, together with knowledge about how to establish a business and mitigate risks.



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International Financing Institution: <http://www.ifc.org/>

National Energy Policy: Nigerian Energy Sources (2003)

National Petroleum Investment Management Services: <http://www.nigerianoil-gas.com/industryprofile/napims.htm>

Nigerian National Petroleum Corporation (NNPC): Nigerian National Petroleum Corporation

Nigerian Investments: <http://www.nigerianinvestments.com/index.php>

Nigerian Investment Promotion Commission (NIPC): <http://www.nipc.gov.ng/>

The World Bank Group: <http://www.worldbank.org/IFC>

## 7 Appendices

### 7.1 Appendix: Nigeria data

GDP: purchasing power parity - \$359.4 billion (2007 est.)

GDP: real growth rate: 7% (July 2006 est.)

GDP: per capita: purchasing power parity - \$1885 (2006 est.)

GDP: composition by sector: agriculture: 26.8%, industry: 48.8%, services: 24.4% (2005 est.)

Population below poverty line: 45% (2000 est.)

Household income or consumption by %age share: lowest 10%: 2.6%, highest 10%: 35.8% (1996-97)

Inflation rate (consumer prices): 7% (2006 est.)

Labour force: 57.21 million

Labour force: by occupation: agriculture 70%, industry 10%, services 20% (1999 est.)

Unemployment rate: 2.9% NA (2005 est.)

Budget: revenues: \$17 billion

expenditures: \$13.54 billion including capital expenditures of \$NA (2005 est.)

Industries: crude oil, coal, tin, columbite, palm oil, peanuts, cotton, rubber, wood, hides and skins, textiles, cement and other construction materials, food products, footwear, chemicals, fertilizer, printing, ceramics, steel, small commercial ship construction and repair

Industrial production growth rate: 2.4% (2005 est.)

Electricity production: 15.59 billion kWh (2003)

Electricity production by source: fossil fuel: 61.69%, hydro: 38.31%, nuclear: 0%, other: <.1% (1998)

Electricity consumption: 14.46 billion kWh (2003)

Electricity exports: 40 million kWh (2003)

Electricity imports: 0 kWh (1998)

Oil production: 2.35 million bbl/day (July 2006 est.)

Oil consumption: 310,000 bbl/day (2003 est.)

Agriculture products: cocoa, peanuts, palm oil, maize, rice, sorghum, millet, cassava (tapioca), yams, rubber; cattle, sheep, goats, pigs; timber; fish

Exports: \$52.16 billion f.o.b. (2005 est.)

Exports commodities: petroleum and petroleum products 95%, cocoa, rubber

Exports partners: United States 47.4%, Brazil 10.7%, Spain 7.1%(2004)

Imports: \$25.95 billion f.o.b. (2005 est.)

Imports commodities: machinery, chemicals, transport equipment, manufactured goods, food and live animals

Imports partners: the People's Republic of China 9.4%, United States 8.4%, United Kingdom 7.8%, Netherlands 5.9%, France 5.4%, Germany 4.8%, Italy 4% (2004)

Debt external: \$12 billion with London Club(2006 est.)

Economic aid recipient: IMF \$250 million (1998)

Currency: 1 Naira (NGN) = 100 kobo

Exchange rates: Naira (NGN) per US\$1 - 128 (2005), 132.89 (2004), 129.22 (2003), 120.58 (2002), 111.23 (2001)

External Reserves: \$49 billion (December 2006)

## 7.2 Appendix: Contact information

**The Industrialisation Fund for Developing Countries (IFU)** was founded by law in 1967. The objective of the IFU is to promote economic activity in developing countries in collaboration with Danish trade and industry. We work to achieve our objective by providing funding for investments in such countries in collaboration with Danish business partners.

Since then, IFU has invested in more than 600 projects in 77 countries. Total investments in these projects exceed DKK 70bn, of which the IFU's contributions amount to DKK 6.7bn. Additionally, IFU has managed The Investment Fund for Central and Eastern Europe (IØ) was created by act of Parliament in 1989. Since then IØ has invested in more than 400 projects in 18 countries. The total amount invested is more than DKK 4,770m.

IFU offers partnerships via co-financing by subscribing to shares and/or granting loans of up to DKK 50 million per project. IFU participates on the boards of project companies with experienced internal and external advisers who have excellent local knowledge.

IFU offers project companies several financing options, such as: share capital, mezzanine financing (loans resembling equity), and project loans. Normally financing cannot exceed 30 per cent of the total investment – for small projects; however, the limit is 50 per cent.

IFU has a sound international network that e.g. includes other financing institutions. Consequently, we can also suggest and help find supplementary financing options. IFU's head office is in Copenhagen, but we have offices and advisers covering most developing countries.

### Contact:

*Kasper Svarrer, Investment Manager*  
Danish International Investment Funds, IFU / IØ / IFV  
Project Development Department,  
Bremerholm 4, DK-1016 Copenhagen K, Denmark  
Phone: +45 33 63 75 00  
Email: [ksv@ifu.dk](mailto:ksv@ifu.dk)  
Homepage: [www.ifu.dk](http://www.ifu.dk)

**Offshore Center Danmark (OCD)** is a member based organization with a main purpose to strengthen the Danish offshore industry on the global market. The centre ties together the different parties of the offshore community: Industry companies, Consultants, Universities and Governmental institutions. OCD's main activities are centred towards:

- Network - OCD helps establishing contact between the different parties of the offshore industry. This is done through business forums, work shops, conferences etc.
- Knowledge - OCD collects, develops and disseminates knowledge within the Danish offshore industry.
- Projects - OCD coordinates development projects and helps companies establishing funding for projects.
- Education - OCD works close together with educational institutions and also provides offshore related courses for the offshore industry.

OCD works on behalf of the entire Danish offshore industry. Main activities are oil & gas, offshore wind, wave energy and the maritime area. OCD members count 170+ and include all key players on the Danish offshore market - from oil/gas operators over offshore wind farm developers to suppliers of equipment, tools and services.

### Contact:

*Peter Blach, Direktør*  
Offshore Center Danmark  
Niels Bohrs Vej 6  
6700 Esbjerg  
Tlf. +45 36973670  
Fax. +45 36973679  
E-mail: [pb@offshorecenter.dk](mailto:pb@offshorecenter.dk) [www.offshorecenter.dk](http://www.offshorecenter.dk) [www.OffshoreBase.dk](http://www.OffshoreBase.dk)

CDE Centre for the Development of Enterprise  
**52 avenue Herrmann-Debroux**  
**1160 Brussels**  
Tel: + 32 2 679 18 11  
Fax: + 32 2 675 26 03  
<http://www.cde.int/index.aspx>

**Lagos, Generalkonsulat**  
Royal Danish Consulate General  
Maersk House  
121 Louis Solomon Close  
P.O.Box 72554  
Victoria Island, Lagos, Nigeria  
Eksp.tid: 8-17 mandag-fredag,  
Pasudstedende  
Tlf.: 1 280 6101  
Fax: 1 262 6495  
E-mail: [ngaconsuldk@maersk.com](mailto:ngaconsuldk@maersk.com)

**Embassy of Sweden**  
Plot 1520, T.Y. Danjuma Street  
Asokoro District, Abuja  
Mail address:  
P.M.B. 569 Garki  
Abuja FCT Nigeria  
Phone: +234 9 314 39 36  
Telefax +234 9 314 33 98  
E-mail: [ambassaden.abuja@foreign.ministry.se](mailto:ambassaden.abuja@foreign.ministry.se)  
[abuja-visum/foreign/ministry@rk](mailto:abuja-visum/foreign/ministry@rk)

**IFC Nigeria, Lagos**  
Solomon Quaynor  
Country Manager  
International Finance Corporation  
Maersk House, 1st Floor  
Plot 121 Louis Soloman Close  
Off Ahmadu Bello Way  
Victoria Island  
Tel: (234 1) 271-8738-9 / 262-6455-64  
Fax: (234 1) 279-3618-9

**Nigerian National Petroleum Corporation**  
NNPC Towers, Herbert Macaulay Way  
Central Business District  
FCT - Abuja  
Nigeria. Website: [www.nnpc-nigeria.com](http://www.nnpc-nigeria.com)

**Nigerian Liquefied Natural gas**  
Nigeria LNG Limited,  
C & C Towers, Plot 1684 Sanusi Fafunwa Street,  
Victoria Island, P.M.B. 12774 (Marina), Lagos, Nigeria.  
Tel: +234-1-2624190-4, 2624556.  
Fax: +234-1-2616976.  
Website: [www.nigerialng.com](http://www.nigerialng.com)  
email: [feedback@nlng.com](mailto:feedback@nlng.com)

**African Petroleum (AP) PLC**

AP HOUSE, 54/56 BROAD STREET, P.O. BOX 512 LAGOS  
P.M.B. 12690 MARINA, LAGOS  
Tel: 234 - 1 - 2600050 – 7,  
Fax: 234 - 1 - 2634341  
<http://www.applcng.com>

**Agip Nigeria PLC**

National Agip Oil Company Limited  
Operator of the NNPC / NAOOC / Phillips Oil Joint Venture  
Nigeria Agip Oil Co. Ltd  
PC 23 Engineering Close, Victoria Island  
Lagos, Nigeria  
Tel: 234-1-2613862, 2613884, 26221107

**Chevron Nigeria Limited**

Operator of the NNPC / Chevron Joint Venture  
2, Chevron Drive  
Lekki Peninsula,  
P.M.B. 12825, Lagos, Nigeria  
<http://www.chevron.com/about/careers/>

**Elf Petroleum Nigeria Limited (EPNL)**

leading Oil and Gas exploration and production company and a subsidiary of Total Group.  
<http://www.careers.total.com>

**ExxonMobil**

[http://www.exxonmobilafrica.com/Africa-English/PA/Operations/AF\\_OP\\_Nigeria\\_Jobs.asp](http://www.exxonmobilafrica.com/Africa-English/PA/Operations/AF_OP_Nigeria_Jobs.asp)

**Mobil Producing Nigeria Unlimited**

Mobil House  
1, Lekki Expressway, Victoria Island  
P. M. B. 12054  
Lagos, Nigeria

**Linkso Nigeria Limited**

293 Akin Olugbade street  
Victoria Island  
Lagos, Nigeria  
Tel: 234-1-2616615, 2622330  
Fax: 234-1-2623375, 2616818, 2627911  
Email: [linkso.lagos@linksong.com](mailto:linkso.lagos@linksong.com)  
Service provider for the Nigerian oil and gas industry  
[http://www.linksong.com/job\\_opportunities/index.php](http://www.linksong.com/job_opportunities/index.php)

**National Association of Independent Petroleum Exploration Companies**

180, Moshood Olugbani Street,  
Victoria Island Annex,  
Lagos, Nigeria.

**Nigeria LNG (Liquified Natural Gas) Limited (NLNG)**

Nigeria LNG Limited  
Nigeria LNG is a joint venture company owned by the Federal Republic of Nigeria represented by the Nigerian National Petroleum Corporation (NNPC), Shell Gas B.V, TotalfinaElf and Agip.  
<http://www.nlng.com/NLNGnew/careers/default.htm>

**Nigerian National Petroleum Corporation (NNPC)**

NNPC Towers, Herbert Macaulay Way, Central Business District Garki,

FCT - Abuja, Nigeria

Phone: +234-9-523-9141 Fax: +234-9-234-0029.

[NNPC - Opportunities](#)

<http://www.nnpc-nigeria.com/>

**Nigeria Petroleum Development Company Ltd (NPDC)**

62/64, Sapele Road,

P.M.B 1262,

Benin City Edo State,

NIGERIA.

Tel: 234-52-251907, 2518

Fax: 234-52-259514, 255498

Nigeria Petroleum Development co. Ltd

**Oando Plc [www.oanoplc.com](http://www.oanoplc.com)**

emerged Nigeria's second largest company in the downstream sector of the oil industry

Careers at Oando <http://www.oandoplc.com/careers.htm>

Oando jobs recruitment [careers@oandoplc.com](mailto:careers@oandoplc.com)

Oil and Gas Career Opportunities [Oil&Gasvacancy@oandoplc.com](mailto:Oil&Gasvacancy@oandoplc.com)

**Paradigm Geophysical (Nigeria)**

Block 15, Plot 23 Admiralty Way

Lekki Phase 1

Victoria Island, Lagos, Nigeria

Tel: 2708471-3

Fax: +234-1-270-8469

**Schlumberger Oilfield Services**

17/19, Idowu Taylor Street

Victoria Island, Lagos, Nigeria

Tel: 234 1 2615275, 2612681, 2619200, 2614442, 2612679

Fax: 234 1 262 3669

<http://www.oilfield.slb.com/content/careers/index.asp>

**Shell Nigeria**

Shell Nigeria Exploration and Production Company Limited (SNEPCO)

The leader in Nigeria's Oil and Gas Sector

[Shell Nigeria - Jobs & Career Opportunities](#)

**Texaco Nigeria PLC**

8 McCarthy Street

Lagos, Nigeria

Tel: 234-1-2600540-9

<http://www.texaco.com/texaco/abouttexaco/careers.htm>

**Total Nigeria PLC**

Total House

4 Afribank St, Victoria Island

Lagos, Nigeria

Tel: 234-1-2621780-3

Fax: 234-1-262-1810

Total Upstream activities are carried out by three subsidiaries companies in Nigeria, EPNL and TUPNI for oil/gas and Total LNG Limited for gas.

[http://www.careers.total.com/careersFO/careers/home?\\$DTO\\_SESSION\\$LANGUE\\_0=EN](http://www.careers.total.com/careersFO/careers/home?$DTO_SESSION$LANGUE_0=EN)

**United Geophysical (Nigeria) Limited**

Nigerian Office

7 Remi Fani Kayode Avenue

G.R.A. Ikeja

Lagos

Nigeria

Tel: +23 (0)1 496 0701

Fax: +23 (0) 1 493 4892

Email: [lagos@unitedgeophysical.com](mailto:lagos@unitedgeophysical.com)

<http://www.unitedgeophysical.com>

**Nigerian Petroleum Exchange (NipeX)**

An electronic one-stop transaction centre that improves on value procurement in the industry and institutionalize a world-class contracting process in Nigeria.

No. 30, Oyinkan Abayomi Drive (former Queens Drive)

Ikoyi, Lagos

Nigeria.

Tel: +234 1 7731135, 7937911, 4615110

<http://www.nipex.com.ng>

**Society of Petroleum Engineers (Nigeria Council)**

# 4 Moscow Road

P. O. Box 4668

Port Harcourt, Nigeria

Tel: 234-84231138, 234-8037940204

E-mail: [spenigeria@spemail.org](mailto:spenigeria@spemail.org), [spenigeria@hotmail.com](mailto:spenigeria@hotmail.com), [adoa\\_spenc@yahoo.com](mailto:adoa_spenc@yahoo.com)

Web site: <http://www.spenigeria.spe.org>

### 7.3 Appendix: Local Content

#### **NIGERIAN CONTENT DEVELOPMENT SHORT TERM DIRECTIVES (October 13<sup>th</sup>, 2006)**

1. FEED and detailed engineering design for all projects is to be domiciled in Nigeria.
2. Project Management Teams and Procurement Centres for all projects in the Nigerian Oil and Gas industry must be located in Nigeria.
3. Henceforth, all operators and project promoters must forecast procurement items required for projects and operational activities and forward the Materials List NCD on or before 31st January of every year. Also, a Master Procurement Plan (MPP) for ongoing and approved projects should be submitted to the Nigerian Content Division of NNPC on or before 31st January of every year.
4. Fabrication and integration of all fixed (offshore and onshore) platforms weighing up to 10,000 Tons are to be carried out in Nigeria. For the fixed platforms (offshore and onshore) greater than 10,000 Tons, all items in directive 5, pressure vessels and integration of the topside modules are to be carried out in Nigeria.
5. Henceforth, fabrication of all piles, decks, anchors, buoys, jackets, pipe racks, bridges, flare booms and storage tanks including all galvanizing works for LNG and process plants are to be done in Nigeria.
6. Henceforth, all flow-lines and risers must be fixed and must be fabricated in Nigeria except for special cases to be demonstrated and approved by NCD.
7. Henceforth, Assembling, testing and commissioning of all Subsea valves, Christmas tees, wellheads and system integration tests are to be carried out in Nigeria.
8. All FPSO contract packages are to be bid on the basis of carrying out topside integration in Nigeria. A minimum of 50% of the total tonnage of FPSO topside modules must be fabricated in Nigeria.
9. All third party services relating to fabrication and construction including but not limited to NDT, mechanical tests, PWHT as well as certification of welding procedures and welders must be carried out in Nigeria. Nigerian Institute of Welding must certify all such tests in collaboration with international accreditation bodies.
10. All operators and project promoters must ensure that recommendations for contract awards in respect of all major projects being forwarded to NNPC/constituted boards of such oil and gas companies for approval must include evidence of binding agreement by the main contractor with Nigerian Content Subcontractor(s). Such agreements shall indicate the cost and detailed scope including total man-hours for engineering, tonnage and manhours of fabrication and relevant defining parameters for materials to be procured locally as well as other services.
11. Henceforth, all low voltage Earthing cables of 450/750 V grade and Control, Power, Lighting Cables of 600/1000 V grade must be purchased from Nigerian cable manufacturers.
12. Henceforth, all Line-pipes, sacrificial anodes, Electrical switchgear paints, ropes, pigs, heat exchangers and any other locally manufactured material and equipment must be sourced from in-country manufacturers.
13. All carbon steel pressure vessels shall be fabricated in Nigeria.



14. All seismic data acquisition projects, all seismic data processing projects, all reservoir management studies and all data management and storage services are to be carried out in Nigeria.
15. Henceforth, all waste management, onshore and swamp integrated completions, onshore and swamp well simulations, onshore fluid and mud solids control, onshore measurement while drilling (MWD), logging while drilling (LWD) and directional drilling (DD) activities are to be performed by indigenous or indigenous companies having genuine alliances with multinational companies.
16. Henceforth, coating of all Line-pipes and threading of all oil country tubular goods (OCTG) are to be carried out in Nigeria.
17. Henceforth, all concrete barges and concrete floating platforms are to be fabricated in-country.
18. Henceforth, operation and maintenance of offshore production units, FPSO and FSO in particular, are to be performed by Nigerian companies.
19. All international codes and standards used in the industry are to be harmonized to support utilization of locally manufactured products such as paints, cables, steel pipes, rods, sections, ropes etc and to improve capacity utilization in local industries. Clauses that create impediments for/exclude participation of local companies should not be included in any ITT
20. Operators and project promoters must ensure that recommendations for contract award for all drilling contracts shall include a binding agreement at Technical Evaluation stage for the sourcing of Barite and Bentonite from local manufacturers.
21. Henceforth, all projects and operations in the Oil and Gas industry must demonstrate strict compliance with provisions in the insurance Act 2003 and submit a certificate of compliance issued by NAICOM to NCD as part of technical evaluation requirements for insurance or reinsurance Contracts. In this respect, NAICOM verified Gross underwriting capacity of Nigerian Registered Insurance companies must be fully utilized to maximize Nigerian Content before ceding risk offshore.
22. Henceforth, all projects and operations in the Oil and Gas industry must demonstrate strict compliance with provisions of the Cabotage Act.
23. All operators and service providers must make provisions for targeted training and understudy programs to maximize utilization of Nigerian personnel in all areas of their operations. All operators must therefore submit detailed training plans for each project and their operations.

## **7.4 Appendix: Visa application process**

### **General Requirements**

- Evidence of Sufficient Fund for the duration of the visit or proof of other satisfactory arrangements for your support while in Nigeria.
- Applicants may be requested to come for an Interview as and when necessary
- Applicants must take along their Current Vaccination Certificate (Yellow Card)
- Completion of Visa Application form
- SEA MEN must submit a copy of the relevant pages of their seaman's book.

### **Business Visas**

- Valid passport (At least 6 months to expiration)
- One recent Colored Passport-sized Photograph
- A copy of round-trip ticket
- If going for business, letter of invitation from the company or business organization stating the reason must be submitted and also a guarantee letter from the applicants' Organization/Company.
- Vaccination Certificate (Yellow Fever Card)

### **Temporary Work Permit (TWP)**

- A Valid passport (at least 6 months to expiration)
- One recent Colored Passport Photograph
- Approval from Nigeria for Temporary Work Permit (TWP) (Original Copy)
- An invitation letter from company or business partner in Nigeria stating reason for the trip.
- Letter of sponsorship from their employer – Dutch Company
- Vaccination Certificate (Yellow Fever Card)