

DEVELOPMENT OF NIGERIA'S OIL INDUSTRY

The advent of the oil industry can be traced back to 1908, when a German entity, the Nigerian Bitumen Corporation, commenced exploration activities in the Araromi area, West of Nigeria. These pioneering efforts ended abruptly with the outbreak of the First World War in 1914.

Oil prospecting efforts resumed in 1937, when Shell D'Arcy (the forerunner of Shell Petroleum Development Company of Nigeria) was awarded the sole concessionary rights covering the whole territory of Nigeria. Their activities were also interrupted by the Second World War, but resumed 1947. Concerted efforts after several years and an investment of over N30 million, led to the first commercial discovery in 1956 at Oloibiri in the Niger Delta.

This discovery, opened up the Oil industry in 1961, bringing in Mobil, Agip, Safrap (now Elf), Tenneco and Amoseas (Texaco and Chevron respectively) to join the exploration efforts both in the onshore and areas of Nigeria. This development was enhanced by the extension of the concessionary rights previously a monopoly of Shell, to the newcomers. The objective of the government in doing this, was to he pace of exploration and production of Petroleum. Even now more companies, both foreign and indigenous have won concessionary rights and are producing. Actual oil production and export from the Oloibiri field in present day Bayelsa State commenced in 1958 with an initial production rate of 5,100 barrels of crude oil per day. Subsequently, the quantity doubled the following year and progressively as more players came onto the oil scene, the production rose to 2.0 million barrels per day in 1972 and a peaking at 2.4 million barrels per day in 1979. Nigeria thereafter, attained the status of a major oil producer, ranking 7th in the world in 1972, and has since grown to become the sixth largest oil producing country in the world.

CURRENT STATUS OF THE PETROLEUM INDUSTRY IN NIGERIA

Sedimentary Basins

Table 1, lists Nigeria's 7 main sedimentary basins with some information on size and prospectivity, main reservoirs, exploration status etc. The core producing areas cover some 60% of the total acreage of about 31,105 sq. km. The outlying areas remain a significant asset yet to be exploited.

Oil and Gas Reserves

A 2003 estimate showed recoverable crude oil reserves at 34 billion barrels. The reserve base is expected to increase due to additional exploration and appraisal drilling. Already, over 900 million barrels of crude oil of recoverable reserves have been identified. The government has also set a target to achieve a reserve of 40 billion barrels by 2010.

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 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

Oil Fields

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 prospectivity 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 prospectivity as seen in Table 2. These wells include two (2) discovery wells in Anambra State, one (1) discovery well each in Edo State and Benue State each and Twenty-four (24) wells in the Chad Basin. However, production is yet to commence from any of the wells.

Nigerian liquefied Natural Gas

The Nigerian LNG project is being implemented in phases with an initial production from two trains. The plant is situated at Bonny Island. NLNG has successfully secured market for its moderate production volume from its base project which now at train

three. Final Investment Decision with the JV partners on the Train Seven project is still being finalized.

Sources of Gas:

The bulk of the gas for base project is mainly NAG supplied from the following gas supplier fields:

SPDC - SOKU;
NAOC - OBIAFU OBIKROM;
EPNL - OBITE;

The bulk of gas for train three will contain more of associated gas from which both LNG and LPG will be produced.

Gas Supply Contract:

The NLNG had signed Gas Supply Agreements (GSAs) with three upstream gas producers in 1992. This is aimed at securing adequate and regular supply of gas for the project. These gas producers are:

The Shell Petroleum Development Company of Nigeria Limited (SPDC) - NNPC/SPDC/NAOC/EPNL JV: operator & sellers' representative - SPDC (Shell affiliate);
Nigerian Agip Oil Company limited (NAOC) - NNPC/NAOC/POCNL JV: operator & sellers' representative - NAOC (Agip affiliate);
ELF Petroleum Nigerian limited (ELF), (then Elf Nigerian Limited) - NNPC/EPNL JV: operator & sellers' representative - EPNL (Elf affiliate).

These three joint ventures are expected to supply the gas requirement for the project for the next 221/2 years.

Gas Supply Contract Quantities:

The joint venture will supply a total of 302.17 billion standard cubic metres (BSCM) of feed-gas required for the NLNG's three trains. The feed-gas for the three trains will be a combination of associated and non-associated gas. When NLNG's train three becomes fully operational, a total of about 41.83 million standard cubic metres will be required by the plant daily.

Licenses and Leases.

There are two types of licenses issued to oil producers in Nigeria namely: the Oil Prospecting License (OPL) and the Oil Mining License (OML) with validity periods ranging from 5 to 20 years respectively.

As at February 1999, there were a total of 48 OML's and OPL's issued mainly to Joint Ventures with government participation.

HISTORY OF THE NIGERIAN PETROLEUM 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 bpd. 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. By the late sixties and early seventies, Nigeria had attained a production level of over 2 million barrels of crude oil a day. 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 barrels per day. Current development strategies are aimed at increasing production to 4million barrels per day by the year 2010.

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

Major Events in the history of the Nigerian Oil and Gas

1908

Nigerian Bitumen Co. & British Colonial Petroleum commenced operations around Okitipupa.

1938

Shell D' Arcy granted Exploration license to prospect for oil throughout Nigeria.

1955

Mobil Oil Corporation started operations in Nigeria.

1956

First successful well drilled at Oloibiri by Shell D'Arcy

1956

Changed name to Shell-BP Petroleum Development Company of Nigeria Limited.

1958

First shipment of oil from Nigeria. – February 17.

1961

Shell's Bonny Terminal was commissioned.
Shell's official opening of Port Harcourt office
Texaco Overseas started operations in Nigeria.

1962

Elf started operations in Nigeria. (As Safrap)
Nigeria Agip Oil Company started operations in Nigeria

1963

Elf discovered Obagi field and Ubata gas field
Gulf's first production

1965

Agip found its first oil at Ebocha
Phillips Oil Company started operations in Bendel State
Nigeria's First Refinery in Port Harcourt (60,000 bpd) commissioned by Shell-BP

1966

Elf started production in Rivers State with 12,000 b/d

1967

Phillips drilled its first well (Dry) at Osari –I
Phillips first oil discovery at Gilli-Gilli -I

1968

Mobil Producing Nigeria Limited) was formed.
Gulf's Terminal at Escravos was commissioned

1970

Mobil started production from 4 wells at Idoho Field
Agip started production
Department of Petroleum Resources Inspectorate started.

1971

Shell's Forcados Terminal Commissioned
Mobil's terminal at Qua Iboe commissioned

1973

First Participation Agreement; Federal Government acquires 35% shares in the Oil Companies
Ashland started PSC with then NNOC (NNPC)
Pan Ocean Corporation drilled its first discovery well at Ogharefe –I

1974

Second Participation Agreement, Federal Government increases equity to 55%.
Elf formally changed its name from "Safrap"
Ashland's first oil discovery at Ossu –I

1975

First Oil lifting from Brass Terminal by Agip
DPR upgraded to Ministry of Petroleum Resources

1976

MPE renamed Ministry of Petroleum Resources (MPR)
Pan Ocean commenced production via Shell-BP's pipeline at a rate of 10,800 b/d

1977

Government established Nigerian National Petroleum Corporation (NNPC) by Decree 33, (NNOC & MPR extinguished).

1979

Third Participation Agreement (throughout NNPC) increases equity to 60%
Fourth Participation Agreement; BP's shareholding nationalised, leaving NNPC with 80% equity and Shell 20% in the joint Venture.
Changed name from Shell-BP to The Shell Petroleum Development Company of Nigeria (SPDC)

1984

Agreement consolidating NNPC/Shel1 joint Venture.

1986

Signing of Memorandum of Understanding (MOU)

1989

Fifth Participation Agreement; (NNPC=60%, Shell = 30%, Elf=5%, Agip=5%).
Utorogu Gas Plant Commissioned
LNG Shareholders Agreement signed

1991

Signing of Memorandum of Understanding & joint Venture Operating Agreement (JOA)

1993

Production Sharing Contracts signed –SNEPCO Established
Sixth Participation Agreement; (NNPC=55%, Shell=30%, Elf= 10%, Agip=5%).
The coming on-stream of Elf's Ondudu blend, offshore OML 100.

1995

SNEPCO starts drilling first Exploration well.
NLNG's Final Investment Decision taken

1999

NLNG's First shipment of Gas out of Bonny Terminal.

2000

NPDC/NAOC Service Contract signed

Inauguration of Special Committee on the Review of Petroleum Products Supply and Distribution (SCRPPSD)

2001

Production of Okono offshore field.

Inauguration of Petroleum Products Pricing Regulatory Committee

2002

New PSCs agreement signed.

Liberalization of the Downstream Oil sector.

NNPC commences retail outlet scheme

Inauguration of 28-members EITI National Stakeholders' Working Group

2003

Total Liberalization of the Downstream Oil sector.

Shell Achievement of 1 million Barrels per day

Petroleum Products Pricing Regulatory Bill passed and signed into law.

2004

Shell Restructuring Exercise that change business approach and place Nigerian on Top positions

2005

Jan.-Basil Omiyi appointed as first Nigerian Managing Director and Headquarters of SPDC moved from Lagos to Port Harcourt. Sept.-Basil Omiyi appointed Country Chair Shell Companies in Nigeria

Oando became the first African company to be listed on the Johannesburg Stock Exchange