



At the end of this chapter, students should be able to:

- trace the development of the petroleum industry particularly in Nigeria;
- list and explain the contributions of petroleum industry to Nigeria's economic development;
- state the contributions of OPEC and NNPC to the production, refining and marketing of petroleum.

6.1 Introduction

The term 'Petroleum' is the combination of two Latin words 'Petra' and 'Oleum' meaning 'rock' and 'oil', respectively. Petroleum can therefore be described as oil coming from the rock. Petroleum is also called crude oil, though some people refer to it as black gold. It has, since the end of the civil war, in the early 1970s, been playing an increasingly important role in the Nigerian economy. In fact, oil has been the prime mover of the economy. It is today the largest traded commodity in the international market and provides over 90% of the country's foreign exchange earnings.

This chapter shall examine the development of petroleum industry, contributions of petroleum industry to Nigerian economy (positive and negative) and roles of NNPC/OPEC in petroleum exploration, production, marketing and distribution in the Nigerian economy.

6.2 Development of the Petroleum Industry

Historically, the first oil industry in the world was found in the United States of America where the first oil well was drilled in 1859. From this, we can conclude that the oil industry is over 150 years old. Later, in 1908, oil was

discovered in the Middle East, Bahrain and around the Gulf in 1932, with the Middle East countries having the largest amount of oil.

On the Nigerian scene, the story of black gold dates back to 1908 when the Nigerian Bitumen Corporation, a German company, started exploration in Araromi, Ondo State, because of the presence of oil seepages in the area. This was interrupted by the outbreak of First World War in 1914. However, in 1937, exploration activities started again as a consortium of Royal Dutch Shell and British Petroleum (Shell Petroleum Development Corporation of Nigeria) began their search for oil, after it was awarded the sole concession rights covering whole Nigeria.

Although Shell&BP hit an oil rock in Akata, Cross River State, in 1953, much was not achieved until 1956 when the first large oil discovery was made in Oloibiri (Bayelsa State). The production in Oloibiri went into a commercial state with a recorded output of 5,100 barrels per day in 1958. Since the several oil fields both on land especially in the Delta areas of River Niger and in the offshore locations near the port of Bonny have been reported, other discoveries have been in Delta State, Edo, Ondo, Cross River, Akwa Ibom, Imo and Abia States of the federation.

The first offshore oil was discovered at the Okan structure of Delta State by the Gulf Company in 1964.

Crude oil refining is the process of breaking down oil into fractions consisting of the different liquids and other materials by separating the different hydrocarbons in oil. This simply means taking out bits of rocks, dirt and other chemical elements. The first refinery in Nigeria was built in Port Harcourt in 1965 with a capacity of 35,000 barrels per day. It was owned 50% by the Nigerian Government and 25% each by Shell and British Petroleum. This was damaged during the civil war and later restored with a capacity of 60,000 barrels per day. In 1978, the Warri refinery was commissioned with a capacity of 100,000 barrels per day and in 1980, the Kaduna refinery was commissioned also with a capacity of 100,000 barrels per day. Therefore, the gross capacity of the three refineries is at 260,000 barrels per day.

6.3 Contributions of the Petroleum Industry to the Nigerian Economy

Petroleum industry has made a variety of contributions to the Nigerian economy since the late 1960s. We shall divide these contributions into positive and negative contributions.

(A) Positive Contributions

(i) Revenue Generation to Government: The oil sector of the Nigerian economy since 1973 is still the leading source of the country's revenue although its contributions have dropped considerably over the years.

(ii) Employment and training: Nigerians have not only been employed but also joined the management of oil firms. They are also sent to local and overseas training courses by oil firms.

A greater number of workers are employed in the ancillary firms that are dependent on the oil industry.

(iii) Foreign exchange earning: The oil sector since 1974 has accounted for an average of 80% of our foreign exchange earnings.

(iv) Economic development: The increase in the revenue generated from the oil industry has led to the development of other sectors of the economy. The earnings from this sector have been used for the provision of infrastructures like construction of roads, bridges, airports, schools, hospitals, etc.

(v) Domestic use: The oil industry has been providing for the internal energy required in the country. The different petroleum products like fuel, oil, kerosene, gasoline and cooking gas are used for both industrial and domestic consumption in the country.

(vi) Increased income per capita: The level of income per capita in the country has experienced a tremendous increase resulting from the increase in the revenue generated by the oil sector.

The income per capita rose from N60 in 1960 to N575 in 1983. There has also been an increase in the salaries of public servants over the years. The minimum wage of N72 in 1974 rose to N100 in 1978 and N18,000 in 2011. This has led to an increase in the standard of living in the country.

(B) Negative Contributions

(i) Inflation: The presence of petroleum in Nigeria has provided excess money supply, which has accelerated the inflating pressure experienced in the economy. The increase in the

price of oil in the 1970s ushered in a period of boom and the increased pay with arrears to workers (Udoji Public Service Review Commission) without increase in productivity led to excess demand that resulted in inflation.

(ii) Overdependence on oil sector: The overdependence of the Nigerian economy on oil has brought about a neglect of other important sectors of the economy like agriculture. This has led to Nigerians importing food and a decline in the revenue generated from agricultural products.

(iii) Balance of payment problems: Since the country depends so much on oil revenue, the slightest disequilibrium in the sector is felt throughout the economy. For example, as a result of the glut in the oil market in 1981, Nigeria's foreign currency reserves slumped to \$3.8 billion at the end of the year from the previous year's \$10 billion. The reduction in price per barrel of oil from \$28 in 1986 to below \$15 brought about chaos in the Nigerian economy, and this seriously affected the country's external balance of payments position.

(iv) Environmental pollution: The production of petroleum has over the years led to series of environmental pollution problems. These are caused by oil spillages, explosions, gas flaring, etc. It has led to air, water and soil pollution, thereby creating hazards such as permanent disposition and loss of land, loss of aquatic life and loss of human life and property.

6.4 Role of NNPC in the Petroleum Exploration History

Prior to 1971, the exploration, production and marketing of crude oil was totally in the hands of multinational corporations. The Nigerian Government,

with the aim of controlling and participating in crude oil exploration, production and marketing, established the Nigerian National Oil Corporation (NNOC) by Decree No.18. This was established with the following functions:

(a) Explore and prospect for or otherwise acquire, process and dispose petroleum and its refined products

(b) Purchase petroleum and its products

(c) Construct and lay pipes for the carriage or conveyance of crude oil, natural gas, water or any other liquid NNOC was, however, not properly managed; so the federal government, based on the

recommendation of the panel that was set up to look into its affairs in 1977, reorganized it by Decree No.33. The decree transformed NNOC into the Nigerian National Petroleum Corporation (NNPC). NNPC is a merger of NNOC and the Ministry of Petroleum Resources, which was also established in 1971 to formulate oil policies.

The present NNPC combines the commercial functions of the defunct NNOC, i.e., exploration, production, transport, processing, refining and marketing of crude oil and its refined products, with the regulatory functions of the defunct ministry of petroleum resources. The NNPC was in 1988 commercialised into 12 strategic business units, covering the entire spectrum of oil industry: operations, exploration and production, gas development, refining, distribution, petrochemicals, engineering and commercial investment. Currently, the subsidiary companies include the following:

â€¢ National Petroleum Management Service (NAPMS)

â€¢ Nigerian Petroleum Development Company (NPDC)

â€¢ Nigerian Gas Company (NGC)

â€¢ Product and Pipeline Marketing Company (PPMC)

â€¢ Integrated Data Services Limited (IDSL)

â€¢ Nigeria Liquidified Natural Gas Limited (NLNG)

â€¢ National Engineering and Technical Company Limited (NETCO)

â€¢ Hydrocarbon Services Nigeria Limited (HYSON)

â€¢ Warri Refinery and Petrochemical Company Limited (WRPC)

â€¢ Kaduna Refinery and Petrochemical Company Limited (KRPC)

â€¢ Port Harcourt Refinery Company Limited (PHRC)

In addition to these subsidiaries, NNPC is also regulated by the Department of Petroleum Resources (DPR), a department within the ministry of petroleum resources.

DPR ensures compliance with industry regulations; processes application for licenses, leases and permits and establishes and enforces environmental regulations.

NNPC and Production of Oil in Nigeria

NNPC through its subsidiary, the Nigerian Petroleum Development Company (NPDC), is directly responsible for four oil and gas fields, with a production of 15,000 barrels per day. Nigeria produces only high-value, low-sulphur content, light crude oil, Atan Blend, Bonny light, Bonny Medium, Brass blend, Penrington light, Qua-iboe light and Ukpokiti. With a maximum crude oil

production capacity of 2.5 million barrels per day, Nigeria ranks as Africa's largest producer of oil and the sixth largest oil-producing country in the world. NNPC is committed to expand its production and has thus entered into strategic alliance with multinational companies to develop offshore production.

NNPC in Marketing and Distribution of Oil

NNPC has been in control of the marketing and distribution of oil through its subsidiary called the Pipeline and Product Marketing Company (PPMC).

PPMC is directly responsible for sourcing and distributing petroleum to all parts of the country at a uniform price. PPMC also ensures the availability of petroleum products to sustain the industrial and domestic demand.

PPMC receives crude oil from NNPC unit called the National Petroleum Investment Management Services (NAPIMS) and then supplies the crude oil to NNPC refineries for production. When the local production is not enough, products are imported and received by PPMC through pipelines to depots strategically located all over the country.

6.5 Role of Organisation of Petroleum Exporting Countries (OPEC)

OPEC was established at a conference held in Baghdad, Iraq, between the 10th and 14th of September 1960 by the five major oil-exporting countries of Middle East: Iran, Iraq, Kuwait, Saudi Arabia and Venezuela.

The five founding members were later joined by nine other members: Qatar (1961), Indonesia (1962; suspended its membership from January 2009), Libya (1962), United Arab Emirates (1967), Algeria (1969), Nigeria (1971), Ecuador (1973; suspended its membership from December 1991 to October 2007), Angola (2007) and Gabon (1973–1994). OPEC states its mission as “to coordinate and unify the petroleum policies of its member countries and ensure the stabilization of oil markets in order to secure an efficient, economic and regular supply of petroleum to consumers”. The membership of OPEC allows the member nations the following advantages:

- (a)** Full control over the pricing of their crude oil
- (b)** Control of oil management, for instance, in Nigeria through NNPC
- (c)** Increase in price and hence revenue, for instance, a barrel of crude oil that sold for only \$8.36 in 1973 increased to \$36.52 in 1982 and kept increasing and was \$110.45 in May 2011. This implies increased government revenue.
- (d)** Membership of OPEC has increased Nigeria's political status in the community of nations.

Disadvantages of Membership of OPEC

- (a)** Member nations cannot unilaterally determine the price of their crude oil. It must be in accordance with the market forces of demand and supply.
- (b)** Member nations cannot also unilaterally fix their oil production levels. This is why a member normally goes through OPEC when she wants to

increase her quota.

Role of OPEC in the Production and Marketing of Oil

(a) Prior to the establishment of OPEC in 1960, the seven sisters' club, i.e., the multinational oil companies, enjoyed monopoly of oil exploration and production in virtually all oil-producing countries. With the establishment of OPEC, member countries are playing bigger roles in price determination, oil production and marketing.

(b) OPEC allocates specific quota to member countries, thus determining the level of oil production so as to prevent overproduction that might lead to excess supply and fall in price.

(c) OPEC is not involved in the direct sales of petroleum products but they restrict the quantity available for sale and hence increase the price.

(d) OPEC influences the roles of government in oil production among its member countries.

Summary

Development of the petroleum industry in Nigeria

It was in 1956 that the first large oil discovery was made in Oloibiri (Bayelsa State).

The production in Oloibiri went into a commercial state with a recorded output of 5,100 barrels per day in 1958. Since then several oil fields both on land, especially in the Delta areas of River Niger, and in the offshore locations, near the port of Bonny have been reported. Other discoveries have been in Delta State, Edo, Ondo, Cross River, Akwa Ibom, Imo and Abia states of the federation. The first offshore oil was discovered at the Okan structure of Delta State by the Gulf Company in 1964.

Contributions of crude oil to the Nigerian economy

Positive contributions

- (a)** Revenue generation to government
- (b)** Employment and training
- (c)** Investment
- (d)** Domestic use
- (e)** Provision of physical and social infrastructure
- (f)** Foreign exchange reserve

Negative contributions

- (a)** Inflation
- (b)** Over-dependence of the economy on oil and balance of payment problems
- (c)** Environmental pollution

Class Activities

1. The teacher should ask students to mention some petroleum products that they are familiar with. Students should write down the various oil-marketing firms they know and how many of such firms have agents in their town.
2. The teacher should divide the class into two groups to debate on the positive and negative contributions of the oil industry to Nigeria's economic development.

Revision Questions

Objective Questions

1. A major achievement of the Organisation of Petroleum Exporting Countries (OPEC) is that:
 - (a) Crude oil prices have increased tremendously
 - (b) Petroleum products' prices have remained low
 - (c) Oil-producing countries have become highly industrialized
 - (d) Price of crude oil has remained relatively stable **(SSCE 2004)**
2. Which of the following is not an objective of the Organisation of Petroleum Exporting Countries (OPEC)?
 - (a) Stabilisation of oil prices
 - (b) Coordination of oil prices
 - (c) Harmonisation oil prices
 - (d) Stagnation of developed economies **(SSCE 2005)**
3. The expansion of OPEC is:
 - (a) Oil and Petroleum Exporting Countries
 - (b) Original Petroleum Exporting Companies
 - (c) Organisation of Petrol Exporting Countries
 - (d) Organisation of Petroleum Exporting Countries **(SSCE 2006)**
4. The five countries that established the Organisation of Petroleum Exporting Countries (OPEC) are
 - (a) Nigeria, Iraq, Venezuela, Kuwait and Ghana
 - (b) Saudi Arabia, Kuwait, Sierra Leone, Iraq and Iran
 - (c) Algeria, Kuwait, Venezuela, Iran and Gambia
 - (d) Kuwait, Venezuela, Iraq, Iran and Saudi Arabia **(SSCE 2009)**
5. In order to stabilise oil price in the world market, there is the need for OPEC members to:
 - (a) Always have budget deficit
 - (b) Encourage competition among themselves
 - (c) Adhere to production quotas
 - (d) Fix the price of non-oil products **(SSCE 2010)**

Essay Questions

1. Give five reasons for the continued existence of Organisation of Petroleum Exporting Countries. **(SSCE 2009)**
2. Trace the development of the petroleum industry in Nigeria.
3. What contributions has the oil sector made to Nigerian economic development?
4. Explain the roles of NNPC in petroleum exploration.

Glossary

Crude oil refining: This is the process of breaking down oil into fractions consisting of the different liquids and other materials by separating the different hydrocarbons in oil.

Pipeline and Product Marketing Company: This is directly responsible

for sourcing and distributing petroleum to all parts of the country at a uniform price.

Organisation of Petroleum Exporting Countries: This is an organisation of oil-producing countries whose mission is to coordinate and unify the petroleum policies of its member countries and ensure the stabilisation of oil markets in order to secure an efficient, economic and regular supply of petroleum to consumers.