

November 1992

NIGERIAN OIL

Issues Affecting U.S.
Investment in the
Petroleum Sector

**RESTRICTED--Not to be released outside the
General Accounting Office unless specifically
approved by the Office of Congressional
Relations.**

RELEASED

555952

1. The first part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

2. The second part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

3



United States
General Accounting Office
Washington, D.C. 20548

General Government Division

B-250806

November 20, 1992

The Honorable John Glenn
Chairman, Committee on
Governmental Affairs
United States Senate

The Honorable Joseph I. Lieberman
United States Senate

This report responds to your request that we review certain aspects of Nigeria's petroleum industry and issues affecting U.S. investment in Nigeria's petroleum sector. Specifically, in this report we provide information on (1) the recent trends in Nigeria's oil production, exports, and reserves; (2) the primary factors affecting Nigeria's ability to meet its 1990-1995 production capacity and reserve goals; (3) the petroleum-related investment reforms Nigeria has made and U.S. oil companies' response to those reforms; (4) the factors discouraging or encouraging U.S. investment in Nigeria's petroleum sector; and (5) the efforts of the U.S. government and international organizations to support trade with and investment in Nigeria's petroleum sector.

Results in Brief

From 1987 to 1991, Nigeria's oil production increased 54 percent, from 1.3-million barrels per day to 2-million barrels per day. During this same period, Nigeria's crude oil exports also increased. During the 1980s, Nigeria's crude oil reserves averaged about 16.5-billion barrels. However, since 1990, Nigeria has raised its reserves 25 percent, from 16-billion barrels to 20-billion barrels.

In 1990, Nigeria established these goals for the oil industry: to increase crude oil reserves to 20-billion barrels and production capacity to 2.5-million barrels per day by 1995. In the third quarter of 1992, Nigeria announced that it had attained its 20-billion barrel reserve target and has adopted a new target of 25-billion barrels of oil reserves. The government's success in achieving these goals will depend primarily on obtaining needed investment capital. It will also be affected by world oil prices.

Nigeria has recently made two key petroleum-related investment reforms. In 1990 and 1991, the government allocated new acreage for exploration and production by foreign oil companies. In 1991, it revised the memoranda of understanding (MOU) with foreign oil companies that establish the obligations and returns for exploring and developing current

oil fields. The revised MOUS provide various monetary incentives for increased exploration and production. Three of the four U.S. oil companies that responded to our survey have been allocated new acreage but, to date, none has signed production-sharing contracts to explore for and produce oil on the new acreage. The four U.S. oil companies that responded to our survey signed revised MOUS with the Nigerian National Petroleum Corporation (NNPC) in 1991.

U.S. oil companies identified several factors that discourage foreign investment in Nigeria's oil sector: inadequate incentives to enter into proposed production-sharing contracts with NNPC for new acreage, a Nigerian-imposed limitation on the use and hire of foreign workers, and a number of bureaucratic delays in getting supplies into and out of Nigeria.

U.S. government agencies have also reported investment barriers. For example, according to the U.S. Trade Representative's 1991 National Trade Estimate Report, investment barriers affecting U.S. investors in Nigeria include (1) limits on using and hiring foreign workers, (2) bureaucratic delays in repatriating profits, and (3) a 40-percent limit on foreign oil companies' participating interest in petroleum-producing partnerships.

Nevertheless, the U.S. companies with whom we spoke said they continue to be interested in investing in Nigeria's oil sector because of (1) the attractive profit incentives for investors to explore and develop existing oil fields under the revised MOUS; (2) the coastal location of Nigerian oil fields that makes it easier to export to U.S. and European markets; (3) the abundance of light sweet crude oil;¹ (4) the established petroleum infrastructure, with pipelines and ports; (5) the favorable producing environment with relatively shallow water and a tropical climate; and (6) the oil companies' history of a stable relationship with the government of Nigeria.

U.S. and international agencies are supporting trade with and investment in Nigeria's oil sector by financing an \$885-million gas condensate project.² The project is expected to come on line in late 1992.

¹Light sweet crude oil is a low sulfur, high density crude oil that can be more easily refined into higher-valued products than alternative crude oils.

²Gas condensate is a liquid hydrocarbon recovered at the surface that results from condensation due to reduced pressure or temperature of petroleum hydrocarbons existing initially in a gaseous phase in the reservoir.

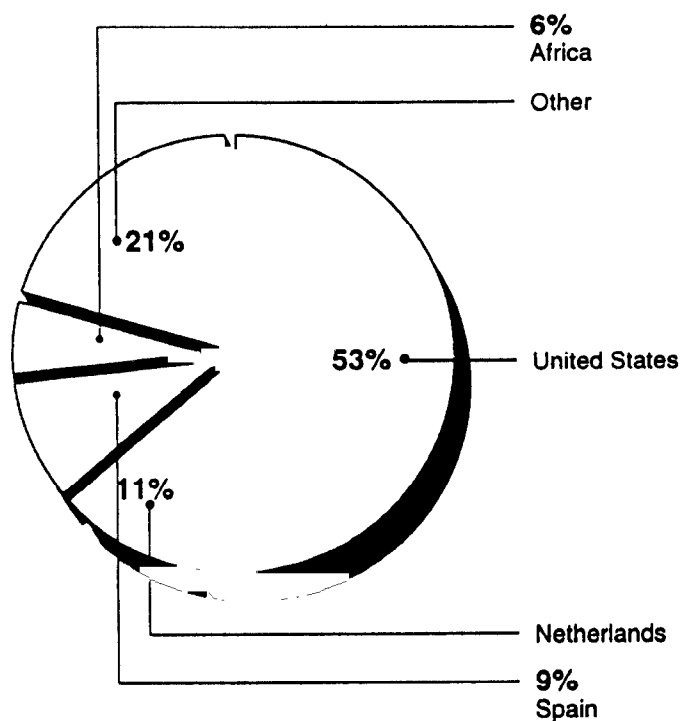
Appendix I provides further information on the Nigerian petroleum industry and conditions affecting U.S. investment in that industry.

Background

The uncertainties of Middle East oil production and the rising U.S. demand for foreign oil have increased national interest in sources of oil outside the Persian Gulf. The Department of Energy's February 1992 report entitled National Energy Strategy calls for the diversification of U.S. oil sources, a greater reliance on imports from countries outside the Persian Gulf, and the promotion of a higher degree of cooperation in energy trade with and investment in foreign countries.

During 1991, Nigeria provided about 12 percent of the crude oil imported by the United States; it ranked fourth behind Saudi Arabia, Mexico, and Canada as a source of crude oil imports. In previous years, Nigeria has ranked as high as second. The United States is Nigeria's largest crude oil export market. In 1991, Nigeria exported over 50 percent of its crude oil exports to the United States. Figure 1 shows the percent of Nigerian crude oil exports by trade partner.

Figure 1: Principal Markets for Nigerian Crude Oil, 1991 (Percent of Nigerian Exports)



Note: "Other" includes Austria, Brazil, Canada, France, Germany, Italy, Portugal, Sweden, Yugoslavia, and the United Kingdom.

Source: U.S. embassy in Nigeria.

The oil industry is the mainstay of the Nigerian economy. According to the Department of Commerce, in 1991 crude oil sales produced 97 percent of all Nigerian export earnings and over 80 percent of all federal revenues.

In 1991, the United States exported \$187 million in oil field machinery, parts, and attachments to Nigeria, accounting for 5 percent of those exports worldwide.

Nigeria's oil industry is, for the most part, run by the government through NNPC, which is a government-owned corporation. NNPC is responsible for managing the state-owned oil industry on behalf of the Federal Government of Nigeria. Its management includes exploring, producing,

refining, and exporting oil. However, most of Nigeria's oil exploration, development, and production is conducted by foreign oil companies, which do so as operating partners of NNPC.

Agency Views

We discussed the information contained in this report with program officials from the Department of State and the U.S. embassy in Nigeria. They generally agreed with the information presented. We included their comments where appropriate.

Scope and Methodology

We obtained information for this report from the following sources: the Departments of State, Energy, Commerce, and the Treasury; the Office of the U.S. Trade Representative; the U.S. Export-Import Bank; the U.S. Geological Survey; the U.S. embassy in Nigeria; the International Finance Corporation; the International Monetary Fund; the World Bank; and representatives of U.S. oil companies. We also obtained information on Nigerian decrees and legislation governing foreign investment in the oil industry. The information on Nigerian legal matters is based on secondary sources and does not reflect GAO's independent legal analysis.

With respect to representatives from U.S. oil companies, we contacted the six U.S. oil companies that were investors in Nigeria's oil sector as of 1991. Our goal was to determine their response to Nigeria's investment reforms and the factors that discourage and encourage their investment in Nigeria's oil sector. We then sent a questionnaire to the six companies. Of these companies, four provided information included in this report. We got our original list of the six U.S. oil companies investing in Nigeria from the 1992 report entitled Industrial Outlook for Petroleum and Natural Gas—Nigeria, 1990 provided by the U.S. embassy in Nigeria.

We did our work between March 1992 and August 1992 in accordance with generally accepted government auditing standards.

As agreed with you, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after its issue date. At that time, we will send copies to the Secretaries of State, Commerce, Energy, and the Treasury; the U.S. Trade Representative; the Chairman of the U.S. Export-Import Bank; and other interested congressional committees. We will also make copies available to other interested parties upon request.

Please contact me on (202) 275-4812 if you have any questions concerning this report. The major contributors to this report are listed in appendix II.

Allan I. Mendelowitz

Allan I. Mendelowitz, Director
International Trade and
Finance Issues

Contents

Letter		1
Appendix I		10
Nigerian Petroleum Industry and Conditions Affecting U.S. Investment	Trends in Nigeria's Oil Production, Exports, and Reserves	10
	Nigeria's Success in Meeting Its Oil Industry Goals Depends on Obtaining Investment Capital	13
	Nigeria's Petroleum-Related Investment Policy	15
	Nigeria's Recent Petroleum-Related Investment Reforms	17
	Factors That Discourage or Encourage Investment in Nigeria's Oil Sector	19
	U.S. and International Efforts to Promote Trade With and Investment in Nigeria's Petroleum Sector	20
Appendix II		22
Major Contributors to This Report	General Government Division, Washington, D.C.	22
	Resources, Community, and Economic Development Division, Washington, D.C.	22
Tables		
	Table I.1: Nigeria's Crude Oil Reserves, 1980-1992	13
	Table I.2: Financing for Nigeria's Oso Gas Condensate Development Project	21
Figures		
	Figure 1: Principal Markets for Nigerian Crude Oil, 1991	4
	Figure I.1: Daily Nigerian Oil Production and Exports, 1980-1991	11

Abbreviations

MOU	Memorandum of Understanding
MPN	Mobil Producing Nigeria
NNPC	Nigerian National Petroleum Corporation
OEL	Oil Exploration License
OML	Oil Mining Lease
OPEC	Organization of Petroleum Exporting Countries
OPL	Oil Prospecting License

Nigerian Petroleum Industry and Conditions Affecting U.S. Investment

Trends in Nigeria's Oil Production, Exports, and Reserves

In recent years, Nigeria has increased its oil production, exports, and reserves. The Nigerian government did so as oil companies operating in Nigeria increased their drilling efforts to respond to recovering oil prices, to the Nigerian National Petroleum Corporation's (NNPC) new profit incentives for increases in oil exploration and recovery, and to the Organization of Petroleum Exporting Countries' (OPEC) removal of oil production quotas during the 1990 Persian Gulf crisis.¹

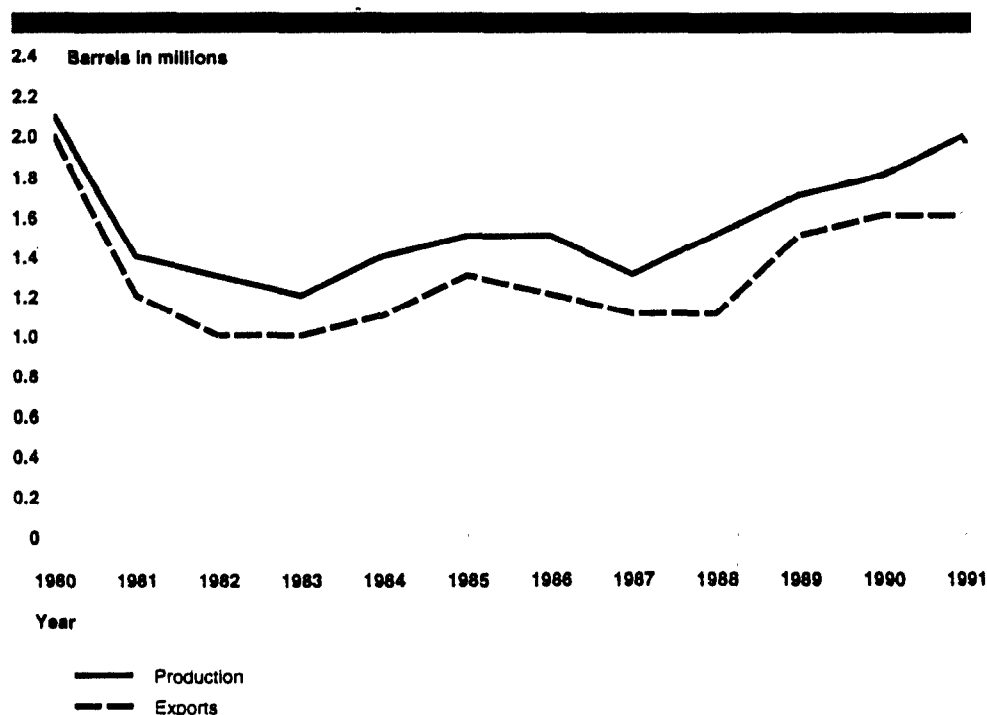
Oil Production

Nigeria's crude oil production increased 54 percent, from 1.3-million barrels per day in 1987 to 2-million barrels per day in 1991. During the same period, Nigeria's crude oil exports generally rose as well. Crude oil exports increased 46 percent, from 1.1-million barrels per day in 1987 to 1.6-million barrels per day in 1991. Figure I.1 shows Nigerian crude oil production and export trends from 1980 to 1991.

¹OPEC was established in 1960 to negotiate with oil companies on matters of oil production, price, and future concession rights. It is currently comprised of the following oil producing and exporting countries: Algeria, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

Appendix I
Nigerian Petroleum Industry and Conditions
Affecting U.S. Investment

**Figure I.1: Daily Nigerian Oil
Production and Exports, 1980-1991**



Source: U.S. Department of Energy.

According to the U.S. embassy in Nigeria and the Department of Energy, Nigeria was able to increase crude oil production between 1987 and 1991 because NNPC and the oil companies operating in Nigeria expanded their oil drilling investments to take advantage of (1) recovering oil prices, (2) the 1986 and 1990/1991 memoranda of understanding (MOU) between NNPC and foreign oil companies that offered profit incentives for increases in oil recovery, and (3) the removal of production quotas during the Persian Gulf crisis.

With regard to oil prices, according to the U.S. Department of Energy, the constant dollar price for Nigerian crude oil increased by 17 percent from 1986 to 1991.

In 1986, NNPC developed and signed an MOU with each of the foreign oil companies already engaged in a joint venture with NNPC. The MOUs offered

incentives to increase oil exploration, development, and exports. These agreements guaranteed the companies a profit margin of \$2 per barrel as long as (1) each company adhered to its work program for enhanced oil recovery and development projects and controlled its production costs and (2) prices remain between approximately \$12 and \$23 per barrel of oil.² In 1991, NNPC revised its MOUs with each of the foreign oil companies by increasing the guaranteed profit margins and adding bonuses for net additions to oil reserves.

Separately, in August 1990, OPEC removed production quotas to allow countries to make up for lost production from Kuwait and Iraq during the Persian Gulf crisis. In response to the removal of quotas, the government of Nigeria allowed the foreign companies to increase production up to full capacity. According to U.S. embassy reports, Nigeria then raised its crude oil and lease condensate production 17 percent, from 1.67-million barrels per day in June 1990 to 1.95-million barrels per day in December, when Nigeria was producing at full capacity.³

Crude Oil Reserves

During the 1980s, Nigeria's crude oil reserves averaged approximately 16.5-billion barrels. However, since 1990, Nigeria has raised its reserves 25 percent, from 16-billion barrels to 20-billion barrels. Table I.1 shows Nigeria's crude oil reserves from 1980 to 1992.

²According to U.S. oil company representatives, the lower price in the range can be \$12 per barrel or \$12.50 per barrel depending on the way the formula established by the MOU is applied.

³Lease condensate is a natural gas liquid recovered from gas-well gas in lease separators or natural gas field facilities.

Appendix I
Nigerian Petroleum Industry and Conditions
Affecting U.S. Investment

**Table I.1: Nigeria's Crude Oil Reserves,
1980-1992**

Year	Barrels of oil (in billions)
1980	17.4
1981	16.7
1982	16.5
1983	16.8
1984	16.6
1985	16.7
1986	16.6
1987	16.0
1988	16.0
1989	16.0
1990	16.0
1991	17.1
1992	20.0

Sources: U.S. embassy in Nigeria and U.S. Department of Energy.

According to the U.S. embassy in Nigeria and the Department of Energy, Nigeria was able to increase its reserves in the past 2 years because both NNPC and the oil companies operating in Nigeria began to expand their exploration programs. These companies sought to take advantage of the added incentives for exploration under the 1991 revisions of the MOUs and recovering oil prices.

Nigeria's Success in Meeting Its Oil Industry Goals Depends on Obtaining Investment Capital

According to the U.S. embassy in Nigeria, Nigeria's goals concerning its national oil reserves and production capacity for 1990 through 1995 are to (1) increase its oil reserves 25 percent, from 16-billion barrels to 20-billion barrels by 1995, and (2) increase its production capacity 39 percent, from 1.8-million barrels per day to 2.5-million barrels per day by 1995.⁴ In the third quarter of 1992, Nigeria claimed that it had reached its oil reserve target of 20-billion barrels and announced a new goal of 25-billion barrels of oil reserves. Our review indicates that Nigeria's success in meeting its 1995 oil industry goals will be primarily affected by the NNPC's ability to obtain the needed investment capital. It will also be affected by world oil prices.

Since 1990, both NNPC and its foreign joint venture partners have increased the level of their investment in oil exploration and production capacity. As

⁴Oil production capacity is the maximum amount of oil that can be produced from existing developed oil reserves, in barrels per day.

a result, Nigeria has achieved its goal of increasing oil reserves from 16-billion barrels to 20-billion barrels and has increased its production capacity 11 percent, from 1.8-million barrels per day to 2-million barrels per day.

According to 1991 U.S. embassy estimates, Nigeria's oil sector needs \$15 billion to \$20 billion in investment capital for the period 1990 through 1994 in order to achieve its initial oil production capacity and reserve goals. Some of this investment has already been made, but more is needed to reach current 1995 targets for oil production capacity. Funding for these increases will come from the investments made by foreign oil companies and NNPC under the current joint venture arrangements, according to the U.S. embassy in Nigeria. Under the joint venture arrangements, the foreign oil companies are responsible for 40 percent of the investment capital, and NNPC is responsible for 60 percent.

All of the U.S. oil companies expect production increases in 1993, some by significant percentages, according to the U.S. embassy in Nigeria. However, the NNPC's ability to fund its share of production expenses could be affected by Nigeria's funding priorities. According to the U.S. embassy in Nigeria, the single greatest risk in meeting 1995 targets is that NNPC would fall behind in paying its share of oil development expenditures because the government preferred to use the funds elsewhere.

Although the government earns approximately \$10 billion per year from oil exports and has the funds available to finance the NNPC's share of joint venture expenditures, it may have other priorities for those funds. Currently NNPC is having difficulties meeting its share of expenditures for some of its joint ventures. Several U.S. oil company representatives said that they are experiencing delays in receiving payments from NNPC for its share of expenditures.

Nigeria's oil revenues depend both on the volume of its oil exports and on world oil prices. At Nigeria's 1991 export level of 1.6-million barrels of oil per day, each \$1 change in the price of crude oil will add or subtract \$584 million from total annual revenues. For the first quarter of 1992, the price of Nigeria's crude oil was an average of \$18.60 per barrel—a decline of \$1.67 per barrel from the 1991 average annual price of \$20.27 per barrel. Falling oil export revenue reduces Nigeria's available revenue for funding further investments in the oil industry.

Nigeria's Petroleum-Related Investment Policy

Foreign investment is permitted in all sectors of Nigeria's petroleum industry except refining. Nigerian law vests ownership and control of all oil reserves, both offshore and onshore, in the government of Nigeria. Foreign oil companies must obtain specific licenses or leases to explore and produce oil in Nigeria. In addition, foreign oil companies must obtain a contract with NNPC to produce oil in Nigeria.

Unless otherwise noted, the following information on the legal and tax requirements for investment in Nigeria's oil sector was obtained from a paper entitled "Nigerian Petroleum Legislation and Model Petroleum Contracts," presented by a legal adviser to NNPC.⁵

Licenses and Leases Are Needed to Explore and Produce Oil in Nigeria

All foreign companies interested in participating in Nigeria's oil sector must obtain an oil exploration license (OEL) to conduct surface exploration for oil, an oil prospecting license (OPL) to conduct surface and subsurface exploration for oil, or an oil mining lease (OML) to produce oil commercially. Companies must have obtained an OEL or OPL, have discovered oil in commercial quantities, and have obtained a contract with NNPC before they can apply to convert their license to an OML.⁶

Foreign Investors Must Contract With NNPC to Produce Oil in Nigeria

Nigeria has allowed foreign participation in its oil sector through joint ventures, production-sharing contracts, service contracts, and concession arrangements with NNPC.⁷

According to the U.S. embassy in Nigeria, to date, most foreign oil companies exploring and producing oil in Nigeria have joint ventures with NNPC. One foreign oil company has a production-sharing contract with NNPC, and one foreign oil company has a risk service contract with NNPC. Since 1990, however, the government of Nigeria has required that all new acreage awarded to foreign or private Nigerian oil companies be developed under a production-sharing contract with NNPC. According to U.S. oil company representatives, the proposed production-sharing contract for the new acreage awardee differs from the former

⁵This paper was presented at the Promotional Seminar on Nigerian Offshore Geophysical Studies Conducted by TGSi and Mabon Geophysical Company Limited.

⁶Nigeria defines commercial production as the output of over 10,000 barrels of oil a day.

⁷According to the U.S. embassy in Nigeria and U.S. oil company representatives, foreign oil companies must operate through subsidiaries incorporated in Nigeria to engage in oil exploration, development, and production.

production-sharing contract and will be negotiated with each company on a case-by-case basis.

According to U.S. oil company representatives, under the joint venture arrangement, the foreign oil company is limited to a 40-percent equity share and the Nigerian partner a 60-percent equity share in the OML, the company assets, the operating capital, and the oil produced by the venture.⁸ Each joint venture partner pays venture costs commensurate with its equity share of the venture. These costs include annual concession rent (i.e., OML or OPL acreage rentals) and operating expenses such as royalty and any other related fees.⁹ Each partner also pays its own taxes.

According to U.S. oil company representatives, under the proposed production-sharing contracts, NNPC holds the title to the OPL/OML and appoints a foreign oil company, called "the contractor," to explore for, develop, and produce oil on the OPL/OML acreage. NNPC and the foreign oil company divide the profit oil in an agreed proportion that varies with cumulative and daily production levels.¹⁰

The foreign oil company is responsible for paying a nonrecoverable fee termed a "signature bonus"; all the cost of exploration; and, if oil is found in commercial quantities, the cost of the subsequent development and production operations. If no oil is found, the foreign oil company is not reimbursed for its exploration expenses. If oil is found in commercial quantities, the foreign oil company is reimbursed for the capital and operating costs it incurred during exploration and production. Issues concerning foreign companies' payment of royalties and taxes are currently under negotiation.

Under the service contracts, NNPC holds the title to the OPL and employs the services of a foreign oil company to undertake all exploration and development at its own cost. If oil is found, the foreign oil company is

⁸According to the U.S. embassy in Nigeria, as of July 1991, all foreign oil companies participating in oil production and exploration agreements with NNPC had to sign joint operating agreements with NNPC. The joint operating agreements establish the working relationship between the partners, including approval of expenditures, resolution of employee matters, and the right of NNPC to assume operatorship of all aspects of oil operations.

⁹The royalty is calculated as a certain percentage of the official selling prices of petroleum production.

¹⁰According to U.S. oil company representatives, Nigeria has defined "profit oil" as the amount of oil in barrels after deducting for the royalty, petroleum profits tax, cost recovery, and expenses. Under the current production-sharing contract negotiations between NNPC and foreign oil companies, this definition may be revised.

reimbursed for its exploration, development, and operation costs and given a fee for each barrel of oil produced.

Under the concession arrangements, which were Nigeria's earliest forms of oil exploration and production agreements, a foreign oil company obtained the right to explore and produce oil on specified acreage. The foreign oil company undertook the risk and cost of exploration, development, and production; acquired title to all the crude oil produced; and paid rent, royalty, and taxes on the profits from the operations. Concessions are no longer granted in Nigeria.

Nigerian Royalty and Tax Laws Apply to Foreign Investments in the Oil Sector

All foreign oil companies that produce oil in Nigeria have to pay a royalty and a petroleum profits tax to the Nigerian government. For all arrangements, the royalty is calculated as a certain percent of the realizable price of the oil produced.¹¹ Royalty rates are (1) 20 percent for land and swamp areas, (2) 18.5 percent for territorial waters and continental shelf up to 100 meters in water depth, and (3) 16.67 percent for territorial waters and continental shelf beyond 100 meters in water depth. According to U.S. oil company representatives, royalties are deducted from revenue before profits are computed.

The tax on petroleum profits is set at 85 percent. However, a reduced rate of 65.75 percent is payable within the first 5 years of operation until all preproduction and capital expenses have been fully amortized. The tax on petroleum profits may be calculated and applied differently for each type of contract with NNPC. According to U.S. oil company representatives, reductions in this tax rate, especially for profit earned on oil recovered from deep water acreage, are under consideration.

Nigeria's Recent Petroleum-Related Investment Reforms

Nigeria has recently made two key petroleum-related investment reforms. In 1990 and 1991, the government of Nigeria allocated new acreage for exploration and production by foreign oil companies. In 1991, the government of Nigeria revised existing MOUs with foreign oil companies to provide various monetary incentives for increased exploration and production.

¹¹According to U.S. oil company representatives, the realizable price is calculated by the government of Nigeria and approximates the dollar value of all the products derived from the crude oil produced in a given time.

**New Acreage for Foreign
Exploration and
Development**

According to the U.S. embassy in Nigeria, in 1990 and 1991, the Nigerian government announced the largest round of licensing of new exploration acreage in over 30 years. In 1990, Nigeria allocated a total of 13 blocks of acreage by designating specific companies to explore for and produce oil on the new acreage. In 1991, the government allocated 44 blocks of acreage on an open and competitive bidding basis.

According to the U.S. embassy in Nigeria, all acreage awarded to foreign oil companies in 1990 and 1991 is to be explored and developed under production-sharing contracts with NNPC. Under these contracts, the foreign oil companies bear 100 percent of the exploration and development costs. The production-sharing contract terms are being negotiated on a case-by-case basis. According to the U.S. embassy in Nigeria, NNPC is willing to consider recommending to the government reducing the taxes and royalties and revising the equity split arrangements for the production-sharing contracts on a case-by-case basis.

Three of the four U.S. oil companies that responded to our survey have been allocated acreage but, to date, none has signed production-sharing contracts to explore and produce oil on the new acreage. According to an official from the U.S. embassy in Nigeria, several U.S. companies that were not awarded acreage in 1990 or 1991 are attempting to negotiate contracts with the private Nigerian companies that were awarded acreage.

**Nigeria Revised MOUs to
Attract Greater Foreign
Investment**

In 1991, in order to attract more foreign investment to increase Nigeria's oil reserves and production capacity, the Nigerian government entered into a revised MOU with all foreign oil companies investing in Nigeria's oil sector.

The MOU is an arrangement between NNPC on behalf of the Federal Government of Nigeria and each of the foreign oil companies that defines incentives for encouraging investments in exploration and development to increase oil reserves and exports. The MOU was first introduced in January 1986 and revised in July 1991 to guarantee foreign oil companies a minimum profit margin, after tax and royalty, on their share of the oil produced. The minimum profit margin applies to oil prices ranging from approximately \$12 per barrel to \$23 per barrel.

Under the revised MOU of 1991, in return for increased exploration and development expenditures, Nigeria raised the guaranteed minimum profit margin from \$2 to \$2.30 or \$2.50 per barrel, depending on the amount of

capital a foreign company invests. In addition, the revised MOU provided a bonus of between 10 cents and 50 cents per barrel, in the form of a tax credit, for companies that increase their oil reserves by more than they produce in any given year. While the MOUs have been applied to the joint venture contracts, it is not clear how they will apply to the production-sharing contracts.

All of the four U.S. oil companies that responded to our survey signed revised MOUs with NNPC in 1991.

Factors That Discourage or Encourage Investment in Nigeria's Oil Sector

The four oil companies that responded to our survey said they are continuing to invest in Nigeria; they cited several factors that either discourage or encourage increased investment.

Representatives from all four of the companies that responded to our survey said that greater incentives will have to be offered for them to sign the proposed production-sharing contracts. They believe the risks and expenses are higher for some of the deep offshore acreage being offered. In addition, according to one company representative, NNPC can take up to 95 percent of the profit for certain amounts of production under the combined tax, royalty, and profit-sharing structure of the proposed production-sharing contract. This oil company representative added that these conditions are unacceptable.

Three of the companies that responded to our survey indicated Nigeria places unreasonably severe limitations on using and hiring foreign workers, even those with highly specialized and technical skills. Company representatives added that the required level of local hires could be as high as 95 percent of total company staff.

Three of the four companies that responded to our survey noted that bureaucratic delays affect operations in Nigeria. For example, one oil company representative said that delays during import inspection can result in a delay of 6-9 months on imports of basic equipment and supplies. Consequently, his company stockpiles certain supplies and equipment.

According to the U.S. Trade Representative's 1991 National Trade Estimate Report, Nigeria's limits on using and hiring foreign workers, its bureaucratic delays when repatriating profits, and its 40-percent limit on foreign oil companies' participating interest in petroleum-producing partnerships are barriers to investment.

On the other hand, the most frequently noted incentives to investment that companies identified were (1) the attractive profit incentives to explore and develop existing oil fields under the existing MOUs, (2) the coastal location of Nigerian oil fields that makes it easier to transport oil to U.S. and European markets, (3) the abundance of light sweet crude oil in Nigeria, (4) the established petroleum infrastructure that includes pipelines and ports that exist in Nigeria, (5) the favorable producing environment with relatively shallow water and a tropical climate, and (6) the oil companies' history of a stable relationship with the government of Nigeria.

U.S. and International Efforts to Promote Trade With and Investment in Nigeria's Petroleum Sector

U.S. and international lending agencies have undertaken efforts to support trade with and investment in Nigeria's petroleum sector. The U.S. Export-Import Bank,¹² the World Bank, the International Finance Corporation, the Japan Export-Import Bank, and the European Investment Bank are providing financing for the development of a gas condensate project located at the Oso field in Nigeria, as shown in table I.2.

The Oso gas condensate development project is a joint venture between NNPC and Mobil Producing Nigeria (MPN—a subsidiary of Mobil Oil Corporation). According to the U.S. Export-Import Bank, the purpose of the Oso project is to produce 100,000 barrels per day of condensate and conserve 3 trillion cubic feet of gas resources.

¹²The U.S. Export-Import Bank's export credits for the Oso gas condensate development project were committed before it stopped giving financing and credit guarantees for U.S. exports to Nigeria in July 1992.

Appendix I
Nigerian Petroleum Industry and Conditions
Affecting U.S. Investment

Table I.2: Financing for Nigeria's Oso Gas Condensate Development Project

Entity	Amount (U.S. dollars in millions)	Repayment period
World Bank	\$218	19 years/5 years' grace
Japan Export-Import Bank	47	10 years
European Investment Bank	65	19 years/5 years' grace
U.S. Export-Import Bank	95	5 years
International Finance Corporation	170	5 years
NNPC/MPN	290	- -
Total	\$885	- -

Note: NNPC received a (1) \$218-million loan from the World Bank, (2) \$47-million loan from the Japanese Export-Import Bank, and (3) \$65-million loan from the European Investment Bank. MPN received a \$95-million loan guarantee from the U.S. Export-Import Bank and a \$170-million loan from the International Finance Corporation. The International Finance Corporation's financing for the Oso project involves \$75 million from its own account and \$95 million from the accounts of a number of international banks. NNPC and MPN are jointly providing \$290 million in equity for the Oso condensate field in Nigeria.

Source: U.S. Export-Import Bank.

To secure financing for the Oso project, Nigeria allowed an escrow account to be established outside of Nigeria. All project revenues will be paid into this account, and all principal and interest on money borrowed for the project will be paid from this account.

According to the U.S. embassy in Nigeria, the Oso gas condensate project is considered an important project because (1) the OPEC quota for Nigeria does not include condensate; (2) the project will utilize large quantities of associated natural gas, which would otherwise be flared (burned off), by re-injecting it into the reservoir for enhanced recovery; (3) the project is environmentally sound; and (4) the project is the first exploration and production one for which NNPC has received World Bank financing. The project is expected to generate substantial foreign exchange revenues by increasing Nigeria's oil exports by 8 percent. The planned start-up for the Oso condensate project is late 1992.

Major Contributors to This Report

General Government
Division, Washington,
D.C.

Elliott C. Smith, Assistant Director
Anne M. Pond, Evaluator-in-Charge
R. Rochelle Burns, Evaluator

Resources,
Community, and
Economic
Development
Division, Washington,
D.C.

Godwin M. Agbara, Staff Evaluator

Ordering Information

The first copy of each GAO report is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

**U.S. General Accounting Office
P.O. Box 6015
Gaithersburg, MD 20877**

Orders may also be placed by calling (202) 275-6241.

**United States
General Accounting Office
Washington, D.C. 20548**

**Official Business
Penalty for Private Use \$300**

<p>First-Class Mail Postage & Fees Paid GAO Permit No. G100</p>
--