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REPORT AND RECOMMENDATION  
OF THE  
PRESIDENT OF THE  
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT  
TO THE  
EXECUTIVE DIRECTORS  
ON A  
PROPOSED LOAN  
TO THE  
NATIONAL ELECTRIC POWER AUTHORITY  
WITH THE GUARANTEE OF THE  
FEDERAL REPUBLIC OF NIGERIA  
FOR A  
LAGOS POWER DISTRIBUTION PROJECT

October 25, 1979

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### CURRENCY EQUIVALENTS

Currency Unit = Naira (N)  
US\$1 = Naira 0.65  
N1 = US\$1.54

### MEASURES AND UNITS OF MEASUREMENT

1 cubic meter (m<sup>3</sup>) = 35.3 cubic feet  
1 kilometer (km) = 0.62 mile  
1 kilovolt (kV) = 1000 volts  
1 Megawatt (MW) = 1000 kilowatts  
1 Kilowatt hour (kwh)

### ABBREVIATIONS

ECN - Electricity Corporation of Nigeria  
EIB - European Investment Bank  
NDA - Niger Dams Authority  
NEPA - National Electric Power Authority

### FISCAL YEAR

April 1 to March 31

NIGERIA - LAGOS POWER DISTRIBUTION PROJECT

LOAN AND PROJECT SUMMARY

Borrower: National Electric Power Authority

Guarantor: Federal Republic of Nigeria

Amount: US\$100.0 million, equivalent

Terms: Payable over 20 years, including 5 years of grace, at an interest rate of 7.95 percent per annum. NEPA would carry the foreign exchange risk.

Project Description: The project would assist in: (a) meeting the rapidly rising demand for electricity in the Lagos metropolitan area between 1979/80 and 1985/86 by expanding (i) the high-tension system of lines and sub-stations at 132 and 33 kV, fed from the 330 kV national grid, and (ii) the 11 kV and low-tension distribution system; and (b) setting up and carrying out a staff training program through provision of 26 man-years of experts and instructors and related training equipment and materials. The project faces some risks associated with the possible reorganization of the power sector and the need for NEPA to engage promptly additional permanent staff for its Training and Personnel Departments.

**Estimated Cost:**

	<u>Total</u>	<u>Foreign</u>	<u>Local</u>
	------(US\$ million)-----		
<b><u>Lagos Distribution</u></b>			
<b>High-tension system</b>			
Equipment, engineering and construction	78.1	60.3	17.8
Design and supervision	6.4	4.2	2.2
Import duties	6.9	-	6.9
Physical contingencies	<u>6.9</u>	<u>4.8</u>	<u>2.1</u>
Base cost	98.3	69.3	29.0
Price contingencies	<u>32.0</u>	<u>13.4</u>	<u>18.6</u>
	130.3	82.7	47.6
<b>Distribution system</b>			
Equipment and construction	46.9	32.2	13.7
Administration, engineering and supervision	9.9	1.4	8.5
Import duties	4.8	-	4.8
Physical contingencies	<u>4.6</u>	<u>2.6</u>	<u>2.0</u>
Base cost	66.2	37.2	29.0
Price contingencies	<u>21.4</u>	<u>6.1</u>	<u>15.3</u>
Total	87.6	43.3	44.3
<b><u>Training Program</u></b>			
Experts	2.3	1.6	0.7
Equipment	<u>1.1</u>	<u>0.9</u>	<u>0.2</u>
Base cost	3.5	2.6	0.9
Price contingencies	<u>0.8</u>	<u>0.4</u>	<u>0.4</u>
Total	4.3	3.0	1.3
<b>Total cost (excl. taxes)</b>	206.1	129.0	77.1
<b>Total cost (incl. taxes)</b>	<u>222.2</u>	<u>129.0</u>	<u>93.2</u>
<b><u>Financing Plan:</u></b>			
IBRD	100.0	100.0	-
EIB	35.0	28.6	6.4
Federal Government loans and/or internal cash generation	<u>87.2</u>	<u>0.4</u>	<u>86.8</u>
<b>Total</b>	<u>222.2</u>	<u>129.0</u>	<u>93.2</u>

Estimated  
Disbursement:

	-----US\$ Million-----				
<u>Bank FY</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
<u>Annual</u>	7.5	20.0	31.5	28.5	12.5
<u>Cumulative</u>	7.5	27.5	59.0	87.5	100.0

Rate of Return: 20 percent

Staff Appraisal  
Report: 2502-UNI, dated October 1, 1979.



INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

REPORT AND RECOMMENDATION OF THE PRESIDENT  
TO THE EXECUTIVE DIRECTORS  
ON A PROPOSED LOAN TO NATIONAL ELECTRIC POWER AUTHORITY  
FOR A LAGOS POWER DISTRIBUTION PROJECT

1. I submit the following report and recommendation on a proposed loan to the National Electric Power Authority (NEPA) with the guarantee of the Federal Republic of Nigeria for the equivalent of US\$100 million to help finance a project for power distribution in Lagos. The loan would have a term of 20 years, including 5 years of grace, with interest at 7.95 percent per annum. NEPA would carry the foreign exchange risk. The European Investment Bank (EIB) is discussing with NEPA the possibility of providing a loan in parallel with the Bank for the equivalent of UA25 million (about US\$35.0 million). If agreed upon, the EIB loan is expected to have a term of about 16 years, including 4 years of grace, with interest at about 7 percent per annum.

PART I - THE ECONOMY

2. A Country Economic Memorandum on Nigeria (Report 2428-UNI), dated June 19, 1979, has been distributed to the Executive Directors. The following paragraphs summarize and update the major findings and conclusions of that report. Country data are attached as Annex I.

Political Background

3. Following 13 years of military rule, a civilian government assumed office in Nigeria on October 1, 1979. The government is headed by Mr. Shehu Shagari, leader of the National Party of Nigeria, which emerged from the elections as the party with the greatest and widest support. The economic policies of the new administration have yet to be formulated in detail. Nevertheless, Mr. Shagari has indicated that his policies with respect to domestic and foreign affairs will follow the same broad principles as those espoused by the outgoing administration. Rural development, increased food production, education and low-cost housing are expected to be focal points of the new administration's program. A greater role of the private sector in development is envisaged.

Economic Developments 1974-78

4. Nigeria has an estimated population of about 80 million (1978), with a per capita income of around US\$560. Per capita income alone, however, is not a satisfactory indicator of the average living standard in Nigeria. In terms of such criteria as child mortality, life expectancy, and number

of people per physician, Nigeria ranks amongst the poorest countries in the world. Oil has been a major resource for Nigeria for over a decade, but it acquired a dominating influence in the economy only after the sharp escalation of the oil price in 1973/74. Within a year, the oil revenues tripled, rising to over US\$6.5 billion (roughly US\$100 per capita) in 1974/75; a corresponding increase occurred in the foreign exchange earnings. This occurred at a time when Nigeria depended primarily on agriculture for income and employment. It had only a small industrial base and the existing infrastructure was deficient and in a very poor state.

5. The nation's first concern at that time was to use the oil wealth to improve greatly - indeed revolutionize - the state of the country's social and physical infrastructure, and establish heavy industry. The Government simultaneously set out to achieve satisfactory growth of agriculture and light manufacturing to ensure broadly-based economic progress. All these concerns were underscored in the Third National Development Plan (1975-80). The plan was prepared in the midst of the oil boom and reflected the optimism and confidence of that time. It contemplated a total investment program of about US\$50 billion (representing a three-fold increase over the previous plan period), with the public sector accounting for about US\$35 billion (subsequently raised close to US\$45 billion due to cost increases). The public sector program contained large allocations for transport (28 percent) and industry (19 percent), and an ambitious goal of free and compulsory universal primary education (UPE) by 1980 was set. The economy was expected to grow at 9.5 percent a year, with agriculture growing at 5 percent and manufacturing at 18 percent.

6. The actual course of events, however, turned out to be quite different. In the post-oil boom period, the Nigerian economy grew at an average rate of 6 percent a year. There was little increase in the agricultural output and the growth of manufacturing, at 12 percent a year, remained below the Third Plan target. Although construction, power, transport, and public services expanded at around 20 percent a year, serious physical bottlenecks emerged. Acute power shortages and congested ports and roads undermined the productivity of the existing industrial plants, upset the normal distribution channels and caused consumer frustration. These factors contributed to the rapid increase in production costs, which in turn made it generally difficult for domestic production in both agriculture and manufacturing to compete with foreign produced goods. Because the fastest growing tertiary sectors are concentrated in the urban areas, the economic growth had a strong urban bias, which tended to accentuate the urban-rural income inequalities and encouraged emigration of young labor from rural areas. Also, private investment, at least in the early years, remained sluggish for a variety of reasons, such as the indigenization measures and the uncertain domestic and international economic environment.

7. The oil revenues, which were critical for the implementation of the proposed public sector program, fell substantially short of expectations, while the actual costs of the programs and projects turned out to be much higher. Large deficits in the government budget and balance of payments appeared quite early in the period, and the resource constraint came to reassert itself much sooner than expected. Although the additional oil



resources were used largely to augment the nation's capital stock (the federal budget current surplus amounted to 60 percent of the current revenues), the capital expenditures rose so quickly - seven-fold between 1973/74 and 1977/78 - that the budget was in substantial deficit already in 1975/76. As provided in the Third Plan, government investment concentrated on transport, heavy industry and education, which yielded some impressive results, particularly in roads and ports. Not surprisingly, the much enlarged public sector investments, together with the growing financial difficulties, considerably strained the existing administrative capacity. Thus, costs and design of projects could not always be closely controlled, and investments tended to be capital intensive with a large import content.

#### Financial Difficulties and Government Stabilization Measures

8. Nigeria's financial difficulties were further aggravated in 1977 when the Nigerian oil faced, at the official price set in April 1977, keen competition in European and US markets from other, cheaper sources. Consequently, Nigerian sales, which began to decline in the latter half of 1977, plummeted in the early months of 1978. Federal budget deficits and the drawdown of foreign exchange reserves had been increasing over time, but the country's financial situation became critical in 1977/78. The fiscal year closed with a Federal Government overall budget deficit of about US\$3 billion, representing about 10 percent of GDP. Foreign exchange reserves declined sharply and by the end of 1978 stood at US\$2.2 billion, a level equivalent to only seven weeks of imports. The rate of inflation averaged 15 percent during the two years, rendering domestic production of tradeables progressively less competitive with foreign-produced goods.

9. To overcome these problems, the Government, over the past two years, took a number of steps designed to increase public resources, to curtail public expenditure, and to curb imports. The Nigerian oil price in April 1978 was brought in line with the prices of its competitors in order to reverse the trend of declining oil exports. Non-oil revenues in 1978/79 were augmented through higher rates for income tax, excises, and import duties as well as through better enforcement of tax laws and procedures, while cutting Federal Government capital expenditures by 25 percent in nominal terms. In order to strengthen the balance of payments position, import licensing and other restrictions were introduced to reduce particularly the nonessential consumer imports, and the Government raised two large syndicated loans (amounting to US\$1.75 billion) in the Euro-currency market. In addition, the Government during this period shifted the emphasis in its expenditures towards agriculture and introduced policies and programs to stimulate agricultural production.

10. On the whole, the above measures succeeded in bringing about a measure of domestic economic stability and stopping the drain on foreign exchange reserves. The oil output, following the price reduction, revived quickly and reached well over 2 mbd in the latter half of 1978 compared to an average of 1.5 mbd at the start of the year. The overall budget deficit for 1978/79 is now estimated at only 60 percent of the previous year's level or about 5 percent of GDP. The import restrictions also appear to have been very effective in achieving their objective.

### Recent Oil Market Developments and Short-term Outlook

11. Nigeria's financial position has improved in recent months following successive increases in the world oil price. As the latest in a series of price increases, and in accordance with OPEC policy, Nigeria raised the price of its crude oil to US\$23.40 per barrel on July 1, 1979, up from US\$14.10 in December 1978. The high prices for Nigeria's crude oil exports coincided with a record level of output of 2.4 mbd during the first half of 1979. Together, these two factors will change the fiscal situation in 1979 and add considerably to foreign exchange reserves. Export earnings are likely to exceed US\$17 billion, representing an increase of 65 percent over the 1978 level, and federal revenue for 1979/80, budgeted at N8.8 billion, is likely to exceed N11 billion. The budget indicates that most of the additional revenue will be used to expand capital expenditures, which may rise by as much as 20 percent in real terms, or to a level close to the peak of 1977/78. This expansion is dictated primarily by the large amount of unfinished investments.

### Economic Prospects and Policies

12. Nigeria's economic prospects over the coming years will continue to be subject to the vicissitudes of the international oil market. Although Nigeria over the next year or two can be expected to have a relatively comfortable financial position and should be able to accumulate sizeable foreign exchange reserves, its longer term resource outlook is less sanguine. Unless there are major new oil discoveries - the chances for which are not held to be very good - Nigeria's future oil output will not rise much above the current levels, and because of the rapidly rising domestic consumption, the volume of oil exports is likely to decline over time. If the world oil market remains tight and the oil price in real terms continues to rise, the steady improvement in Nigeria's terms of trade can be expected to increase her import capacity even though the volume of oil exports fails to rise. However, in view of the size of the economy, the level of economic development, the pipeline of unfinished investments and numerous identified investment projects, Nigeria's actual import needs are likely to far exceed the import capacity. The external resource gap is likely to widen in the 1980s, and may amount to 2 percent of GDP by 1985. Nigeria therefore faces immense resource requirements in the longer term. Reduction of dependence on oil by raising the level of non-oil exports and non-oil public revenues will remain the basic challenge of economic development. But it is also important that Nigeria is able to augment her own resources with sizeable external borrowings.

13. Assuming continuing efforts by the Government to raise non-oil revenues, an active private sector, and an annual external borrowing level of around US\$1 billion, Nigeria can be expected to maintain gross domestic investment at 25 percent of GDP during 1980-85. Provided investments are well conceived and productive, this rate should permit the economy to grow at about 5 percent a year, with fair potential for employment creation. The economy-wide ICOR is expected to remain high owing to the weight of the large capital intensive projects in the ongoing public sector investment program. The actual performance of the economy, however, will depend on how successfully imports are replaced by domestic production and non-oil exports

stimulated. One critical factor in realizing this will be the competitiveness of domestic production relative to foreign goods. This will require that Government pays close attention to establishing a favorable cost and price structure, as well as directing investment priorities and policy emphasis towards directly productive projects.

14. The Government is at present preparing the Fourth National Development Plan which is expected to come into effect in April 1980. Although the guidelines for the next plan have yet to be formulated, indications are that the next five years will be used to consolidate the nation's economic base, and to lay the foundations for balanced long-term economic development, with particular emphasis on agriculture. It will, therefore, be important that the Government continues to exercise restraint in undertaking new large investments, ensuring that expenditure commitments do not exceed available public sector resources. In order to stimulate the growth of agriculture and manufacturing as well as to reduce the strain on the administration, the private sector over the coming years will have to play a growing role.

15. The fact that a new government took office at a time when Nigeria's financial prospects have greatly improved enhances the need for careful resource management. There will no doubt be pressures on the Government to reverse the policies of consolidation and prudent budget and balance of payments management instituted by the former government. It will be a major test and challenge for the government to proceed prudently in the face of these pressures.

#### External Borrowing and Creditworthiness

16. Until recently, Nigeria had only limited recourse to external borrowing. The public guaranteed external debt outstanding (including undisbursed) amounted to US\$1.3 billion at the end of 1977 and, mainly because of the two syndicated Euro-currency loans, US\$3.2 billion at the end of 1978. The service on this debt would rise to an average of US\$550 million a year in the early 1980s, representing about 2 percent of the expected export earnings. The World Bank's share in the external debt now is about 25 percent. Given the relatively low level of external indebtedness, the Government's generally cautious approach to external borrowing, and the favorable prospects for oil, the debt service is likely to remain below 10 percent over the next decade. Provided the Government is successful in implementing policies that would enhance the productivity of investment and maintain balance between resource availability and use, Nigeria can be considered creditworthy for considerable Bank lending.

PART II - BANK GROUP OPERATIONS IN NIGERIA

17. Bank and IDA lending to Nigeria as of August 31, 1979 amounted to US\$1,043.7 million (net of cancellations). <sup>1/</sup> The amount of these loans and credits disbursed as of August 31, 1979 was US\$629.0 million, leaving an undisbursed balance of US\$414.7 million. Transport, power, and water supply together account for about 48 percent of total commitments; agriculture for about 29 percent (most of which was committed in the last four fiscal years); and education, industry and the post-war rehabilitation loan for the remaining 23 percent of total commitments. Gross disbursements in FY78 were about US\$51 million, and US\$60 million in FY79, but are expected to increase in the coming years in line with the expansion of Bank lending to Nigeria. There have been only two IDA credits to Nigeria, for US\$35.5 million; both are fully disbursed. IFC has made three loans to borrowers totalling US\$3.6 million, and four equity investments totalling US\$2.4 million. Of these amounts, US\$3.7 million have been repaid, cancelled, or sold. Annex II contains a summary statement of Bank loans, IDA credits, and IFC investments, as well as notes on the execution of ongoing projects.

18. The main thrust of the Bank's activities in Nigeria in recent years has been to support agriculture and rural development, with particular emphasis on institution-building and transfer of technology. These objectives are in consonance with the Federal Government's priorities under the Third Plan, which places considerable emphasis on agriculture, and its policy to use the proceeds of Nigeria's oil revenues to increase the productive capacity of the economy, and thereby raise the standard of living of its population, including the rural poor.

19. In view of the interest which Nigeria has expressed in greater Bank involvement, a greatly expanded Bank lending program is contemplated. In developing a broader approach to lending in Nigeria, a central objective is to encourage the shift (already discernable in the Federal Government's investment programming) away from the massive and diffused infrastructure investment which characterized the two or three years following the oil boom towards a more discriminating support for growth in the commodity producing sectors. A second objective of Bank lending is to raise the productivity of the lowest income groups and thereby diminish the incidence of absolute poverty in Nigeria. This objective has been actively pursued in recent agricultural projects, which benefit some of the very lowest income groups. Agricultural lending of this kind would continue to figure prominently in the future lending program. A third objective of Bank lending is to support the Federal Government's efforts to diversify the economy, and reduce the excessive

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<sup>1/</sup> Excluding US\$81.0 million for the Bida and Ilorin Agricultural Development Projects and the Forestry Plantation Project, approved by the Executive Directors on March 20 and 27, 1979.

dependence upon petroleum as a source of foreign exchange and fiscal revenue. Consequently, we hope to develop some industrial projects of an explicitly export-oriented nature, although our efforts are still at a rather preliminary stage. Agricultural lending, in particular, would include strengthening the potential for export crops such as cocoa.

20. The directly productive sectors constitute an appropriate focus for an expanded lending program. Projects in both agriculture and industry together should account for a large share of Bank lending in the coming two or three years. Effective support for the commodity producing sectors will also require strategic investment in production-related infrastructure, however. There would appear to be good opportunities for the Bank to make a significant contribution in highway maintenance, water supply, and power including the project currently before you. Further project identification work is under way in these sectors. Similarly, there is a strong case for continued lending for education. In this context, it is proposed that vocational, technical, and teacher training be given heavy emphasis. Finally, the Bank would support the Federal and state governments' efforts to spread the benefits of growth to the social sectors. It is envisaged that some of the pressing problems of rapid urbanization will be addressed through a number of urban development projects, including the one in Bauchi State, focussed on the needs of the urban poor. A sectoral distribution of lending along these lines would be in keeping with the need to generate employment, and would also support the Federal Government's aim of mobilizing Nigeria's petroleum revenues to alleviate poverty and improve the overall distribution of income.

### PART III - THE POWER SECTOR

#### Energy Resources and Consumption

21. Compared to other West African countries, Nigeria is well endowed with energy resources. The most important are oil and natural gas. Proven crude oil reserves - concentrated in the Niger River delta - are believed to be around 2.7 billion tons with present daily production at about 2.3 million barrels, close to an annual output of 100 million tons. About 20 billion cubic meters of natural gas are associated with this production; practically all of it is being flared, with only 3 percent being utilized at this time. A first step in increasing this percentage is now under consideration with a proposed gas pipeline to serve the Lagos area. Estimated recoverable reserves of non-associated gas amount to 1.2 trillion cubic meters. Commercially exploitable deposits of coal, mostly sub-bituminous, are put at 340 million tons and lignite deposits at 140 million tons. Potential hydro-power resources are estimated at 11,500 MW, of which 520 MW are being utilized at present.

22. Nigeria's total energy consumption in 1978 has been estimated at roughly 14.7 million tons of fuel oil equivalent (t.o.e.), of which about 56 percent came from commercial sources, including petroleum products, natural

gas, coal, and hydroelectricity, and about 43 percent from non-commercial sources, including wood, charcoal, and organic wastes. In spite of rapid growth of commercial energy consumption, averaging 20 percent over the last five years, per capita consumption is still only about 0.18 t.o.e. per year. The high proportion of energy used for residential needs and transport reflects the relatively low level of Nigeria's industrialization. Energy consumed in the form of electricity represents about 13 percent of the total, and has grown at an average of 20 percent per annum over the past five years. Except for Lagos, where service coverage reaches 90 percent, access to electricity supply is limited to about 20 percent of the population. In 1977/78, public service electricity consumption amounted to a mere 65 kWh per capita, as compared with - for example - 180 kWh in the Ivory Coast and 390 kWh in Ghana (excluding use in aluminum smelting). The Lagos metropolitan area of about 500 km<sup>2</sup>, however, with less than 5 percent of Nigeria's population, absorbed 43 percent of total electricity consumption in 1978, or roughly 425 kWh per capita.

23. At present, the Federal Government lacks some basic sector and comparative data necessary to formulate an optimum energy development plan. The Government has already engaged consultants to carry out an initial survey as a basis for major investment decisions over the near-to-medium term. It has also expressed interest in a more comprehensive approach toward national energy planning, a feature of which would be the creation of a domestic capability for such planning on a continuous basis. Bank staff is currently discussing with the Federal Government the scope and timing of this study.

#### Power Sector Organization

24. The National Electric Power Authority (NEPA) is currently responsible for about 95 percent of public service electricity supply. NEPA is a semi-autonomous public corporation operating under the general supervision of the Federal Commissioner of Mines and Power, who is responsible for approving important policy decisions. It was created in 1972 through a merger of Electricity Corporation of Nigeria (ECN) and Niger Dams Authority (NDA). Between 1951 and 1972, ECN generated, transmitted, and distributed practically all electricity throughout Nigeria. NDA was established in 1962, with Bank assistance, to build and operate the hydro-electric scheme at Kainji on the Niger River.

25. The activities of NEPA are controlled by a Board of Directors, consisting of five senior officials of the relevant Federal Ministries, three members appointed by Federal Commissioner of Mines and Power, and the General Manager. The central management in Lagos comprises - in addition to the General Manager - six assistant general managers, in charge of the following divisions: engineering, operations, distribution, commercial, finance and administration. Subordinated to the distribution division are district headquarters, which are in charge of planning, designing, building, operating, and maintaining distribution networks, and of metering, billing, and customer relations. About 15,450 employees were on NEPA's payroll on March 31, 1978. At the same time, however, about 1,800 authorized positions

remained vacant. In part, this reflects the relative scarcity of certain skills in Nigeria. NEPA's situation is, however, aggravated by its being required to apply Federal Government salary scales which make it difficult for NEPA to attract and retain qualified executives, professionals, and skilled labor. Particularly in the context of the Federal Government's efforts to contain wages in both public and private sectors (para. 9), the Government has been unwilling to exempt NEPA, or any other public corporation from its public salary guidelines. To overcome the scarcity of senior staff, NEPA has had to obtain the services of a substantial number of expatriates.

#### NEPA's Existing Facilities

26. NEPA's presently installed generating capacity totals 1,600 MW (with an available capacity of 1,420 MW), consisting of the Kainji hydro-electric plant (520 MW), gas and steam turbines at five thermal plants (Delta, Afam, Ijora, Oji, and Sapele), and a number of diesel stations. In the past three years, adverse hydrological conditions, affecting the Niger River flow into the Kainji reservoir, resulted in a deficit of energy and consequently in serious supply shortages. However, the hydrological situation has now improved and, with the commissioning in 1978 and early 1979 of several thermal generating units, the available generating capacity appears adequate for current energy demand. The plants are connected to the main load centers through 1,870 km of high-tension transmission lines and eight main step-down substations at 330/132 kV. About 1,700 km of lines and 33 substations at 132/33 kV feed the sub-transmission and distribution networks. However, problems with the transmission and distribution systems frequently cause unscheduled interruptions in supply.

27. The Lagos metropolitan area, served originally by a local thermal plant, was connected to the national high-tension grid when the Kainji scheme was put into operation. A program of distribution expansion to overcome supply constraints in the metropolitan area was launched in 1974. Its first phase, now nearing completion, comprises the installation of a new 330/132 kV substation and the extension of the high-tension transmission system. However, the execution of the second phase is urgently required, and would be provided for under the proposed project.

#### NEPA's Expansion Program

28. The project would be part of NEPA's ambitious development program for the period 1977-87, which is designed to cope with a rapid growth in demand for power. Although Nigeria's economic growth is projected to be somewhat lower in the coming years than in the past, demand for power over the program period is estimated to continue to grow at the rate of about 20 percent per annum nationwide (para. 22) and about 15 percent per annum in the Lagos metropolitan area. This is in part due to the expected industrial growth as well as the present relatively low per capita consumption of the country in general. The development program is expected to add a net generating capacity of about 3,800 MW to the presently installed capacity

(after deducting retirements). The most important additions are scheduled to consist of several hydro-electric plants, together with a large thermal plant fueled by natural gas from the Niger River delta. The location of these new generating units would affect the expansion of the transmission grid. This would include the construction of about 1,000 km of single circuit and 1,200 km of double circuit 330 kV lines, and the installation of a number of sub-stations at the main load centers to feed the 132 kV system. The sub-transmission system at 33 and 11 kV and the distribution networks would be substantially expanded to deliver an incremental load of about 2,500 MW.

29. According to NEPA's current but tentative estimates, the cost of the ten-year program would amount to almost US\$9 billion (at 1978 prices), of which distribution would absorb about US\$2 billion, representing an average total investment cost of about \$2,000 per additional kW of installed generating capacity. This is in line with costs in other parts of West Africa. Although the ten-year program would impose a considerable burden upon NEPA's financial and staff resources, its general scope and composition seems justified to meet the rapidly increasing demand for power which, for example, would entail in the Lagos metropolitan area an expected doubling of per capita consumption over the program period.

#### Bank Role

30. Between 1964 and 1972, the Bank made four loans, totalling \$216.8 million, for power development in Nigeria; one benefited ECN, two NDA, and the last NEPA. The first loan (Loan 372-UNI), in 1964, assisted in financing the transmission system at 330 and 132 kV and sub-transmission and distribution facilities for Lagos, Ibadan, and Port Harcourt. The project was completed in time and within cost estimates. The second loan (Loan 383-UNI), in 1964, was made in parallel with assistance from Italy, the Netherlands, the United Kingdom, and the United States to assist in financing the construction of the Kainji hydro-electric scheme, with a generating capacity of 320 MW, and the associated transmission system at 330 kV. This project experienced substantial cost increases due to a larger than expected volume of civil works, higher equipment costs, and delays caused by the civil war. The third loan (Loan 572-UNI), in 1968, provided additional funds to cover these cost increases. The project was completed one year behind schedule in 1970. The last loan (Loan 847-UNI), in 1972, assisted in providing two additional 100 MW generating units for Kainji, together with a second transmission line to Lagos. Some \$2.5 million of this loan remains to be disbursed for the project's rural electrification component and a tariff study (para. 41). The additional units at Kainji were put into service in 1976 and the second Kainji-Lagos line in 1977.

31. The Bank's past involvement in the Nigerian power sector has contributed to improvements in operations, planning, and development. The Bank was also instrumental in bringing about the merger of ECN and NDA into NEPA (para. 24), which resulted in a much more efficient organization of the power sector. The major changes in the overall economic situation of Nigeria in the last few years have resulted in an unprecedented increase in the demand



for power, and a similarly rapid growth is expected in the future. This has placed a considerable strain on the power system and executive ability of NEPA. There is therefore an urgent need for expansion and improvement in the sector. In this situation, the Bank has an even more important role to play than in the past in providing technical and financial assistance in support of NEPA's program.

#### PART IV - THE PROJECT

32. The proposed project forms part of NEPA's expansion program for 1977-87. It was identified in 1977, and appraised in October 1978. A post-appraisal mission visited Lagos in February 1979. A Staff Appraisal Report, dated October 1, 1979 (2502-UNI), is being circulated separately to the Executive Directors. After discussions on co-financing with the European Investment Bank (EIB) in Luxembourg in March 1979, negotiations were held at the Bank in June. Supplementary data on the project is to be found in Annex III.

#### Project Objectives

33. The project would assist in meeting the increase in demand for electricity in the Lagos metropolitan area and in alleviating NEPA's serious staffing and financial problems. It would strengthen NEPA's capacity to plan and execute distribution networks for the supply of electricity to the ultimate consumer, still an important limitation on the company's system development, and of particular importance in the Lagos metropolitan area because of explosive and uneven growth patterns, geographical peculiarities, and rights-of-way limitations in the city. It would, by building up NEPA's capability for manpower development and training, substantially increase the number of suitably trained staff. It would also, by further raising and restructuring tariffs, strengthen NEPA's financial capability, encourage conservation of electricity, and reduce distortions in demand.

#### Project Description

34. The project would be implemented over the period 1979-84, and would consist of:

- (i) the expansion of the high-tension system to complete NEPA's development program up to 1985/86 - about 70 km of 132 kV lines and seven new and extensions to six existing stations at 132 kV with a total additional transformer capacity of about 1,075 MVA; about 90 km of 33 kV lines and 12 new and extensions to 13 existing substations at 33 kV with a total additional transformer capacity of about 570 MVA;
- (ii) the expansion of the 11 kV and low-tension distribution system to serve the incremental demand in the Lagos metropolitan

area between 1979/80 and 1982/83 - about 650 km of 11 kV cables, about 930 11 kV distribution centers, control and protection equipment and accessories; about 200 km of 0.4 kV cables, about 1,100 km of 0.4 kV overhead lines, fuse pillars, meters, and accessories; and

- (iii) the provision of 26 man-years of experts and instructors in human resources development, training, and various other disciplines, in addition to training equipment and materials for existing training centers, to assist in formulating training objectives and executing training programs.

### Project Implementation

35. The project would be implemented by NEPA over a period of about four and one-half years. Preliminary engineering for the high-tension system has been carried out by consultants. Consultants would also be employed for construction supervision of high-tension lines and substations. The detailed design of transmission lines would be done by the selected contractor. NEPA would do the engineering of the 11 and 0.4 kV distribution elements, using present standard designs.

36. With these arrangements, NEPA should have no problems in implementing the project. Its central management and many of the senior managers are competent, experienced, and dedicated. However, it suffers from a scarcity of executive talent at middle management level and a serious shortage of technical and professional staff throughout the organization (para. 25). As a result, top officials are fully involved in day-to-day operations with little time for planning, control, coordination, and on-the-job training of subordinates. At the same time, NEPA is overstaffed by unskilled labor, and by clerical and other auxiliary employees. For this reason, an understanding was reached with NEPA that the presently declining trend in the staff/consumer ratio should continue. In addition, the project's training component would address this problem through an expanded retraining program. To ensure its success, NEPA would engage additional permanent staff, on terms and conditions acceptable to the Bank, to fill professional positions now vacant in its Training Department and in the manpower control section of its Personnel Department, including that of the Training Director; the Director would be appointed by not later than December 31, 1979 (Section 4.03 of the Loan Agreement).

### Project Cost

37. Total costs of the project are estimated at US\$222.2 million (including taxes and duties of US\$16.1 million), of which the foreign exchange component would amount to US\$129.0 million or 58 percent. A breakdown of the cost by major categories is given in the Loan and Project Summary. The power distribution component would absorb most of the expenditure on the project. An estimated US\$4.3 million would be spent on the training component. The costs of the specialists, instructors, and advisers would average some

US\$8,000 per man-month, of which US\$5,000 would be in foreign exchange. For the distribution component, allowance has been made for physical contingencies equal to on average 7.5 percent of base costs, and price contingencies have been calculated on base costs plus physical contingencies. Price contingencies for foreign costs allow for an annual rate of inflation of 7.5 percent in 1979 and 6 percent per annum thereafter; price contingencies for local costs are estimated at 20 percent per annum. On this basis, total contingencies are estimated at 42 percent of base costs. The incremental unit investment cost of the power distribution component would amount to about US\$370 per kW of installed capacity, which is reasonable compared to that of other cities in West Africa.

#### Project Financing

38. The proposed loan to NEPA would be guaranteed by the Federal Government. The loan of US\$100 million equivalent would finance 49 percent of the total project cost, net of taxes, and would be equivalent to 78 percent of the foreign exchange cost of the project. Additional financing is expected to be provided by the European Investment Bank (EIB), which is discussing with NEPA the possibility of providing a loan of about US\$35 million (25 million units of account) for about 16 years, including 4 years of grace, at an interest rate of about 7 percent. About US\$6.4 million of this loan would finance local expenditure. As detailed in the Loan and Project Summary, the remaining project cost of US\$87.2 million would be financed by NEPA from internal cash generation and by the Federal Government through loans (para. 44). In case the EIB loan would not materialize, this amount would also be financed by NEPA or the Federal government.

#### Financial Position and Cost Recovery

39. The financial position of NEPA has been unsatisfactory in recent years. During the highly inflationary period between its establishment in 1972 and the autumn of 1977, electricity tariffs remained unchanged. When they were finally raised in October 1977, the 30 percent increase had only a limited impact on NEPA's finances. NEPA's fixed assets were last revalued in 1972. However, if approximate annual revaluations are attributed to fixed asset values for all later years, the financial rate of return shows a decline from about 4.4 percent in 1972/73 to around zero in 1975/76 and thereafter. Also, deprived of the necessary internally generated funds, NEPA relied increasingly upon the Federal Government for its investment needs. NEPA's own contribution to its capital budget shrank from 84 percent in 1972/73 to 7 percent in 1977/78. The Federal Government loans were on easy terms: a maturity of 25 years, including 5 years of grace, with interest at 5 percent and a waiver of interest in the first 5 years. As a result, although to some extent offset by continuing inflation and still leaving a good margin for additional borrowing, NEPA's debt:equity ratio, based on estimated revalued assets, rose from about 30:70 in 1972/73 to about 45:55 in 1977/78.

40. The rate covenant in the Loan Agreement of 1972 (Loan 847-UNI) would be continued unchanged, providing for NEPA to achieve an eight percent return on its revalued net fixed assets in operation unless otherwise agreed

by the Bank (Section 5.05 of the Loan Agreement). Assurances were received from NEPA on a realistic timetable for reaching the eight percent rate of return by 1982 and on appropriate performance targets in the interim period. In addition, assurances were received on the application of an acceptable methodology for the valuation of net fixed assets, to be used in calculating the rate of return. Until recently, the Federal Government was reluctant to approve any tariff increases because of the greatly deteriorated service by NEPA. However, by late-1978 restrictions on electricity supply had been substantially overcome and more normal service had been restored (para. 26). The Federal Government therefore introduced an increase in tariffs, of on average 53 percent, as of August 1, 1979. While the increase does not enable NEPA to attain immediately a return of eight percent on revalued net fixed assets in operation, it is a significant step towards this goal. It is expected that by 1982/83 the government will be in a position to approve further tariff adjustments, as necessary. By that time, electricity sales are expected to be almost double their present level, without a proportionate increase in costs. Thus, on the basis of present financial forecasts, the further tariff increase necessary to meet the full eight percent rate of return would be only about 30 percent. Further tariff adjustments will be required from time to time thereafter.

41. The rate increases of October 1977 and August 1979 incorporated new tariff schedules, the classification of which appears adequate and easy to apply. Also, as part of the most recent tariff adjustment, NEPA introduced several changes in the existing tariff structure to alleviate the tariffs' earlier socially regressive character. Further refinement of the tariff structure has to await the determination of the economic cost of electricity supply for different classes and levels of consumption. NEPA has recently sought the assistance of consultants, financed under Loan 847-UNI, to carry out a tariff study based on marginal cost principles; the study will be of importance to NEPA's planning and financing functions, and its findings will be discussed by NEPA and the Bank upon its completion.

42. At present, the cash position of NEPA is also unfavorably affected by arrears in payments by consumers. These amount to some US\$100 million equivalent, representing bills for about six months, with nearly one-third due by Government agencies. However, the problem is primarily caused by serious difficulties experienced by NEPA staff in the delivery of bills to consumers. To solve the problem of arrears of both public and private consumers, NEPA has already initiated action to speed up billing and collection, re-enforcing its efforts where necessary by cutting off supply. Also, NEPA and the Federal Government will review with the Bank arrangements for the prompt recovery of overdue accounts.

43. During the 1979-84 project period, within the context of its ten-year development, NEPA would require about US\$6.5 billion equivalent for planned capital investment and appropriate increases in working capital. Taking into account the recent tariff adjustment, and assuming that additional tariff increases will be made in the early 1980's, NEPA ought to be in a position to generate internal funds of about US\$2.9 billion equivalent in the next five years. However, almost half of this amount would be used for

debt service, leaving only about US\$1.5 billion for capital expenditure. The proposed loans by the Bank and the EIB represent a modest amount in relation to NEPA's funds requirements. Consequently, nearly 75 percent of NEPA's capital budget for the next five years, or some US\$4.8 billion equivalent, would still have to be financed by Federal Government loans.

44. There appears to be no realistic alternative to substantial financial support from the Federal Government as long as NEPA continues to invest such massive amounts of capital in expansion. Even if this support were exclusively in the form of loans, with no government equity contributions, the deterioration of the debt:equity ratio is likely to be mitigated by the process of inflation. Therefore, the Federal Government has agreed that it would formulate proposals for meeting NEPA's investment needs and discuss them periodically with the Bank (Section 3.05 of the Guarantee Agreement). In this dialogue, the Federal Government and the Bank would address themselves primarily to the specific question of adequate cash generation by NEPA, and to the prospects for strengthening NEPA's financial position and enabling it - in the long run - to borrow in the external capital market.

45. As far as NEPA's capacity to borrow is concerned, additional debt would not be incurred by NEPA without the concurrence of the Bank unless its net revenues would be at least 1.5 times the maximum debt service requirement for any succeeding fiscal year (Section 5.07 of the Loan Agreement). Provided tariffs are increased as expected and maintained at appropriate levels, this covenant is not expected to preclude NEPA from raising the necessary loans for its ten-year development program.

#### Procurement

46. All goods and services financed by the Bank would be procured through international competitive bidding in accordance with the Bank's guidelines, and companies coming to Nigeria to execute projects assisted by the Bank would not be affected by recent legislation requiring incorporation as Nigerian companies. The legislation, requiring most companies to obtain 40 or 60 percent Nigerian ownership, seeks to promote the transfer of technology and to obtain the maximization of benefits to Nigeria. To comply with the Bank's procurement requirements and, at the same time, to obtain the transfer of technology sought by Nigeria, companies awarded a contract under a project assisted by the Bank would be exempted from the incorporation requirement; however, as a general rule, the contracts are to provide for the proper training of Nigerian staff.

47. In case the EIB loan materializes, its proceeds would be applied to purchases of switchgear for some of the new sub-stations and the expansion of existing ones, together with communications equipment. Except for switchgear, and for control and protection equipment for sub-station expansion, which have to match existing equipment, goods and services financed by EIB would also be procured through international competitive bidding. The EIB guidelines would permit procurement in all member countries of the Bank and Switzerland.

48. For high-tension transmission lines, estimated to cost about US\$28 million, NEPA would follow the practice of turn-key contracts to be awarded after international competitive bidding. Procurement of high-tension sub-stations, estimated to cost about US\$103 million, would be done under separate

contract packages for (i) power transformers; (ii) supply and erection of structures, switchgear, and control and protection equipment (to be financed in part by the EIB); (iii) supply and erection of communications equipment (to be financed by the EIB); and (iv) civil works. The main categories of equipment and materials for the distribution system, including transformers, conductors, insulators, and meters, would be procured separately, at an estimated total cost of about US\$87 million equivalent. Domestically manufactured equipment, such as electrical conductors, would be allowed a 15 percent preference or the applicable import duty, whichever is lower, for purposes of bid evaluation. However, almost all contracts are expected to be awarded to foreign suppliers. The services of training specialists, instructors, and advisers to be engaged under the project, valued at about US\$4 million would be obtained on terms and conditions acceptable to the Bank. The Federal Government has agreed that the Government's approval of contract awards, which has caused delays in the execution of NEPA's works in the past, would be expedited (Section 3.04 of the Guarantee Agreement).

#### Disbursement

49. The proposed loan would be disbursed during the period 1980-84. Disbursements would be made against appropriate documentation for 100 percent of foreign expenditures on imported goods and services, or 100 percent of the ex-factory cost of locally manufactured goods. In the case of local consultant services, including training specialists, disbursement from the Bank loan would be made against 100 percent of their salaries. An amount of US\$10 million is provided on an unallocated basis.

#### Economic Justification

50. Several alternative 132 and 33 kV schemes were considered for each of the loading sectors of the Lagos metropolitan area, assuming different proportions of load to be fed to the 11 kV system directly or through the 33 kV system. This comparative analysis established that the project represents the least cost solution.

51. The internal economic return has been estimated for the expansion program required to serve the incremental power demand of the Lagos area for the period 1980/81-1985/86, of which the proposed project forms part. On that basis, and assessing benefits as revenues from sales of electricity at today's tariff levels, the rate of return of the project is estimated at 20 percent. The main uncertainties, which might affect this return, are possible increases in investment costs and lower than projected electricity sales. A 10 percent change in both these elements would reduce the return to 17 percent.

#### Project Risks

52. Although NEPA's service has recently improved, widespread discontent with its performance and strong regional pressures prompted the draftsmen of the new Constitution to deprive the Federal Government of the exclusive right

to operate the electric power system. According to the Constitution, the federal power to legislate on electricity matters is concurrent with that of the states, except in the matter of distribution, which has become the exclusive legislative responsibility of the states. However, as reflected in NEPA's Decree No. 24 of 1972, the applicable law will allow NEPA to continue to provide distribution services as long as no legislative action is taken by the states. Although the future organization of the power sector is uncertain, no abrupt changes are expected. Nevertheless, any reorganization of the sector might threaten the smooth functioning of electricity supply. Consequently, NEPA has agreed that any material change in the 1972 Decree, adversely affecting NEPA's operations or the carrying out of the proposed project, could result in the suspension of the loan (Section 6.01 of the Loan Agreement), and the Federal Government has agreed to promptly notify the Bank of any major changes in the operational responsibilities of NEPA (Section 3.03 of the Guarantee Agreement). The Federal Government has also stated that it would welcome any comments which the Bank might wish to offer on the present and future organization of the sector.

53. The effectiveness of the training component depends upon the prompt engagement of additional permanent staff for the Training and Personnel Departments (para. 36). However, given the reluctance of the Federal Government to modify NEPA's salary structure, NEPA may experience problems in attracting suitably qualified and experienced local staff (para. 25). NEPA has indicated that in that event it would recruit additional expatriate staff.

54. Otherwise, assuming that further tariff increases will be sufficient to enable NEPA to earn an 8 percent return on its revalued net fixed assets in operation in the foreseeable future, there appear to be no serious risks to the successful implementation of the project. The Federal Government has always assigned high priority to the development of the power sector, and there is no indication that it might depart from this position.

#### PART V - LEGAL INSTRUMENTS AND AUTHORITY

55. The draft Loan Agreement between the Bank and the National Electric Power Authority, the draft Guarantee Agreement between the Federal Republic of Nigeria and the Bank, and the Report of the Committee provided for in Article III, Section f (iii) of the Articles of Agreement are being distributed to the Executive Directors separately.

56. Special conditions of the proposed loan are listed in Section III of Annex III of this Report.

57. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Bank.

PART VI - RECOMMENDATION

58. I recommend that the Executive Directors approve the proposed loan.

Robert S. McNamara  
President

Attachments  
October 25, 1979  
Washington D.C.



TABLE JA  
NIGERIA - SOCIAL INDICATORS DATA SHEET

LAND AREA (THOUSAND SQ. KM.)	NIGERIA			REFERENCE GROUPS (ADJUSTED AVERAGES - MOST RECENT ESTIMATE) /a		
	TOTAL	1970	MOST RECENT ESTIMATE	SAME	SAME	NEXT HIGHER
				GEOGRAPHIC REGION /c	INCOME GROUP /d	INCOME GROUP /e
TOTAL	923.8					
AGRICULTURAL	446.4					
	1960 /b	1970 /b	ESTIMATE /b			
GNP PER CAPITA (US\$)	120.0	200.0	420.0	261.4	430.3	926.1
ENERGY CONSUMPTION PER CAPITA (KILOGRAMS OF COAL EQUIVALENT)	34.0	52.0	94.0	80.6	262.1	730.0
<b>POPULATION AND VITAL STATISTICS</b>						
POPULATION, MID-YEAR (MILLIONS)	51.6	66.2	79.0	.	.	.
URBAN POPULATION (PERCENT OF TOTAL)	13.0	16.3	18.1	17.1	24.6	49.0
<b>POPULATION PROJECTIONS</b>						
POPULATION IN YEAR 2000 (MILLIONS)			152.0	.	.	.
STATIONARY POPULATION (MILLIONS)			435.0	.	.	.
YEAR STATIONARY POPULATION IS REACHED			2135	.	.	.
<b>POPULATION DENSITY</b>						
PER SQ. KM.	56.0	72.0	86.0	18.4	45.3	44.6
PER SQ. KM. AGRICULTURAL LAND	125.0	152.0	177.0	50.8	149.0	140.7
<b>POPULATION AGE STRUCTURE (PERCENT)</b>						
0-14 YRS.	44.7	44.8	46.0	44.1	45.2	41.3
15-64 YRS.	54.1	53.0	52.0	52.9	51.9	55.3
65 YRS. AND ABOVE	1.2	2.2	2.0	2.8	2.8	3.5
<b>POPULATION GROWTH RATE (PERCENT)</b>						
TOTAL	2.4	2.5	2.6	2.7	2.7	2.4
URBAN	5.0	4.7	4.6	5.7	4.3	4.5
CRUDE BIRTH RATE (PER THOUSAND)	52.0	51.0	50.0	46.3	39.4	31.1
CRUDE DEATH RATE (PER THOUSAND)	25.0	21.0	18.0	17.2	11.7	9.2
GROSS REPRODUCTION RATE	..	3.3	3.4	3.1	2.7	2.2
<b>FAMILY PLANNING</b>						
ACCEPTORS, ANNUAL (THOUSANDS)	..	7.6	33.2	.	.	.
USERS (PERCENT OF MARRIED WOMEN)	..	..	..	..	13.2	34.7
<b>FOOD AND NUTRITION</b>						
<b>INDEX OF FOOD PRODUCTION</b>						
PER CAPITA (1969-71=100)	98.9	102.0	91.0	94.3	99.6	104.4
<b>PER CAPITA SUPPLY OF CALORIES (PERCENT OF REQUIREMENTS)</b>						
	91.0/g	89.0	88.0	89.5	94.7	105.0
<b>PROTEINS (GRAMS PER DAY)</b>						
	50.0/g	59.9	46.3	55.8	54.3	64.4
<b>OF WHICH ANIMAL AND PULSE</b>						
	9.7/g	16.3	9.3	17.9	17.4	23.5
CHILD (AGES 1-4) MORTALITY RATE	38.0	33.0	24.0	22.3	11.4	8.6
<b>HEALTH</b>						
LIFE EXPECTANCY AT BIRTH (YEARS)	39.0	43.0	48.0	47.0	54.7	60.2
INFANT MORTALITY RATE (PER THOUSAND)	..	154.0/j	..	..	68.1	46.7
<b>ACCESS TO SAFE WATER (PERCENT OF POPULATION)</b>						
TOTAL	..	..	..	20.3	34.4	60.8
URBAN	..	..	..	53.9	57.9	75.7
RURAL	..	..	..	10.1	21.2	40.0
<b>ACCESS TO EXCRETA DISPOSAL (PERCENT OF POPULATION)</b>						
TOTAL	..	..	..	22.5	40.8	46.0
URBAN	..	..	..	62.5	71.3	46.0
RURAL	..	..	..	13.9	27.7	22.5
POPULATION PER PHYSICIAN	32000.0	20530.0	14810.0	17424.7	6799.4	2262.4
POPULATION PER NURSING PERSON	6020.0/f	4220.0	3210.0	2506.6	1522.1	1195.4
<b>POPULATION PER HOSPITAL BED</b>						
TOTAL	2100.0/h	2220.0	1170.0	502.3	726.5	453.4
URBAN	..	400.0	280.0	201.4	272.7	253.1
RURAL	..	18450.0	4140.0	1403.6	1404.4	2732.4
ADMISSIONS PER HOSPITAL BED	..	..	..	23.4	27.5	22.1
<b>HOUSING</b>						
<b>AVERAGE SIZE OF HOUSEHOLD</b>						
TOTAL	..	..	..	4.9	5.4	5.3
URBAN	..	..	4.7	4.9	5.1	5.2
RURAL	..	..	..	5.5	5.5	5.4
<b>AVERAGE NUMBER OF PERSONS PER ROOM</b>						
TOTAL	..	..	..	..	..	1.9
URBAN	3.0	..	2.2	..	..	1.6
RURAL	..	..	..	..	..	2.5
<b>ACCESS TO ELECTRICITY (PERCENT OF DWELLINGS)</b>						
TOTAL	81.0	..	..	..	28.1	50.0
URBAN	81.3	..	42.4	..	45.1	71.7
RURAL	..	..	..	..	9.9	17.3

	NIGERIA			REFERENCE GROUPS (ADJUSTED AVERAGES - MOST RECENT ESTIMATE) /a			
	1960 /b	1970 /b	MOST RECENT ESTIMATE /b	SAME	SAME	NEXT HIGHER	
				GEOGRAPHIC REGION /c	INCOME GROUP /d	INCOME GROUP /e	
<b>EDUCATION</b>							
ADJUSTED ENROLLMENT RATIOS							
PRIMARY:	TOTAL	36.0	34.0	49.0	59.0	82.7	102.5
	MALE	46.0	43.0	59.0	64.2	87.3	108.6
	FEMALE	27.0	25.0	39.0	44.2	75.8	97.1
SECONDARY:	TOTAL	3.0	4.0	10.0	9.0	21.4	33.5
	MALE	4.0	6.0	14.0	12.0	33.0	38.4
	FEMALE	1.0	3.0	7.0	4.4	15.5	30.7
VOCATIONAL ENROL. (% OF SECONDARY)		5.0	8.5	3.8/1	7.0	9.8	11.5
PUPIL-TEACHER RATIO							
PRIMARY		30.0	34.0	34.0	42.2	34.1	35.8
SECONDARY		19.0	21.0	25.0	22.9	23.4	22.9
ADULT LITERACY RATE (PERCENT)		15.0	..	..	20.8	54.0	64.0
<b>CONSUMPTION</b>							
PASSENGER CARS PER THOUSAND							
POPULATION		0.7	1.0	2.1	4.0	9.3	13.5
RADIO RECEIVERS PER THOUSAND							
POPULATION		4.0	23.0	79.0	44.3	76.9	122.7
TV RECEIVERS PER THOUSAND							
POPULATION		0.2	1.4	1.8	2.9	13.5	38.3
NEWSPAPER ("DAILY GENERAL INTEREST") CIRCULATION PER THOUSAND POPULATION							
		8.0	5.0	9.0	5.6	18.3	40.0
CINEMA ANNUAL ATTENDANCE PER CAPITA							
		..	..	0.5	0.4	2.5	3.7
<b>LABOR FORCE</b>							
TOTAL LABOR FORCE (THOUSANDS)		18300.0/f	25600.0	27700.0 /k	.	.	.
FEMALE (PERCENT)		41.3	40.6	40.2	31.9	29.2	25.0
AGRICULTURE (PERCENT)		70.8	62.1	56.0	77.6	62.7	43.5
INDUSTRY (PERCENT)		10.4	13.8	18.0	7.9	11.9	21.5
<b>PARTICIPATION RATE (PERCENT)</b>							
TOTAL		42.7	40.5	39.1	40.8	37.1	33.5
MALE		50.9	48.8	47.4	53.9	48.8	48.0
FEMALE		34.8	32.4	31.0	25.6	20.4	16.8
ECONOMIC DEPENDENCY RATIO		1.4/f	1.2	1.4	1.2	1.4	1.4
<b>INCOME DISTRIBUTION</b>							
PERCENT OF PRIVATE INCOME RECEIVED BY							
HIGHEST 5 PERCENT OF HOUSEHOLDS		..	..	..	..	15.2	20.8
HIGHEST 20 PERCENT OF HOUSEHOLDS		..	..	..	..	48.2	52.1
LOWEST 20 PERCENT OF HOUSEHOLDS		..	..	..	..	6.3	3.9
LOWEST 40 PERCENT OF HOUSEHOLDS		..	..	..	..	16.3	12.6
<b>POVERTY TARGET GROUPS</b>							
ESTIMATED ABSOLUTE POVERTY INCOME LEVEL (US\$ PER CAPITA)							
URBAN		..	..	352.0	187.6	241.3	270.0
RURAL		..	..	156.0	96.8	136.6	183.3
ESTIMATED RELATIVE POVERTY INCOME LEVEL (US\$ PER CAPITA)							
URBAN		..	..	286.0	138.4	179.7	282.5
RURAL		..	..	95.0	71.0	103.7	248.9
ESTIMATED POPULATION BELOW ABSOLUTE POVERTY INCOME LEVEL (PERCENT)							
URBAN		..	..	..	34.5	24.8	20.5
RURAL		..	..	27.0	48.7	37.5	35.3

.. Not available  
 . Not applicable.

## NOTES

/a The adjusted group averages for each indicator are population-weighted geometric means, excluding the extreme values of the indicator and the most populated country in each group. Coverage of countries among the indicators depends on availability of data and is not uniform.

/b Unless otherwise noted, data for 1960 refer to any year between 1959 and 1961; for 1970, between 1969 and 1971; and for Most Recent Estimate, between 1974 and 1977.

/c Africa South of Sahara; /d Lower Middle Income (\$281-550 per capita, 1976); /e Intermediate Middle Income (\$551-1135 per capita, 1976); /f 1963; /g 1961-63; /h Including ex-north Cameroon under British administration; /i certain fields of study previously classified under other second level education of a vocational or technical nature are now reported under general education; /j 1965-66 average.

/k 1973

May, 1979

DEFINITIONS OF SOCIAL INDICATORS

**Notes:** Although the data are drawn from sources generally judged the most authoritative and reliable, it should also be noted that they may not be internationally comparable because of the lack of standardized definitions and concepts used by different countries in collecting the data. The data are, nonetheless, useful to describe orders of magnitude, indicate trends, and characterize certain major differences between countries.

The adjusted group averages for each indicator are population-weighted geometric means, excluding the extreme values of the indicator and the most populated country in each group. Due to lack of data, group averages of all indicators for Capital Surplus Oil Exporters and of indicators of Access to water and excreta disposal, Housing, Income distribution and Poverty for other country groups are population-weighted geometric means without exclusion of the extreme values and the most populated country. Since the coverage of countries across the indicators depends on availability of data and is not uniform, caution must be exercised in relating averages of one indicator to another. These averages are merely useful as approximations of "expected" values when comparing the values of one indicator at a time across the country and reference groups.

LAND AREA (thousand sq. km)

Total - Total surface area comprising land area and inland waters.

Agricultural - Most recent estimate of agricultural area used temporarily or permanently for crops, pastures, market and kitchen gardens or to lie fallow.

GDP PER CAPITA (US\$) - GDP per capita estimates at current market prices, calculated by same conversion method as World Bank Atlas (1975-77 basis); 1960, 1970, and 1977 data.

ENERGY CONSUMPTION PER CAPITA - Annual consumption of commercial energy (coal and lignite, petroleum, natural gas, hydro-, nuclear and geothermal electricity) in kilograms of coal equivalent per capita; 1960, 1970 and 1976 data.

POPULATION AND VITAL STATISTICS

Total population, mid-year (millions) - As of July 1; 1960, 1970, and 1977 data.

Urban population (percent of total) - Ratio of urban to total population; different definitions of urban areas may affect comparability of data among countries; 1960, 1970 and 1975 data.

Population Projections

Population in Year 2000 - Current population projections are based on 1975 total population by age and sex and their mortality and fertility rates; projection parameters for mortality rates comprise of 3 levels assuming life expectancy at birth increasing with country's per capita income level, and female life expectancy stabilizing at 77.5 years. The parameters for fertility rate also have 3 levels assuming decline in fertility according to income level and past family planning performance. Each country is then assigned one of these 9 combinations of mortality and fertility trends for projection purposes.

Stationary Population - In a Stationary Population, there is no growth since the birth rate is equal to the death rate, and also the age structure remains constant. This is achieved only after fertility rates decline to the replacement level of unit net reproduction rate, when each generation of women replaces itself exactly. The Stationary Population size was estimated on the basis of the projected characteristics of the population in the year 2000, and the rate of decline of fertility rate to replacement level.

Year Stationary Population is Reached - The year when Stationary Population size has been reached.

Population density

Per sq. km. - Mid-year population per square kilometer (100 hectares) of total area.

Per sq. km. agricultural land - Computed as above for agricultural land only.

Population age structure (percent) - Children (0-14 years), working-age (15-64 years) and retired (65 year and over) as percentages of mid-year population; 1960, 1970 and 1977 data.

Population growth rate (percent) - total - Annual growth rates of total mid-year populations for 1950-60, 1960-70, and 1970-77.

Population growth rate (percent) - urban - Annual growth rates of urban populations for 1950-60, 1960-70, and 1970-75.

Crude birth rate (per thousand) - Annual live births per thousand of mid-year population; 1960, 1970 and 1977 data.

Crude death rate (per thousand) - Annual deaths per thousand of mid-year population; 1960, 1970 and 1977 data.

Gross reproduction rate - Average number of daughters a woman will bear in her normal reproductive period if she experiences present age-specific fertility rates; usually five-year averages ending in 1960, 1970, and 1975.

Family planning - acceptors, annual (thousands) - Annual number of acceptors of birth-control devices under auspices of national family planning program.

Family planning - users (percent of married women) - Percentage of married women of child-bearing age (15-44 years) who use birth-control devices to all married women in same age group.

FOOD AND NUTRITION

Index of food production per capita (1969-71 = 100) - Index of per capita annual production of all food commodities. Production excludes seed and feed and is on calendar year basis. Commodities cover primary goods (e.g. sugarcane instead of sugar) which are edible and contain nutrients (e.g. coffee and tea are excluded). Aggregate production of each country is based on national average producer price weights.

Per capita supply of calories (percent of requirements) - Computed from energy equivalent of net food supplies available in country per capita per day. Available supplies comprise domestic production, imports less exports, and changes in stock. Net supplies exclude animal feed, seeds, quantities used in food processing, and losses in distribution. Requirements were estimated by FAO based on physiological needs for normal activity and health considering environmental temperature, body weights, age and sex distributions of population, and allowing 10 percent for waste at household level.

Per capita supply of protein (grams per day) - Protein content of per capita net supply of food per day. Net supply of food is defined as above. Requirements for all countries established by USDA provide for a minimum allowance of 60 grams of total protein per day and 20 grams of animal and pulse protein, of which 10 grams should be animal protein. These standards are lower than those of 75 grams of total protein and 23 grams of animal protein as an average for the world, proposed by FAO in the Third World Food Survey.

Per capita protein supply from animal and pulse - Protein supply of food derived from animals and pulses in grams per day.

Child (ages 1-4) mortality rate (per thousand) - Annual deaths per thousand in age group 1-4 years, to children in this age group; for most developing countries data derived from life tables.

HEALTH

Life expectancy at birth (years) - Average number of years of life remaining at birth; 1960, 1970, and 1977 data.

Infant mortality rate (per thousand) - Annual deaths of infants under one year of age per thousand live births.

Access to safe water (percent of population) - total, urban, and rural - Number of people (total, urban, and rural) with reasonable access to safe water supply (includes treated surface waters or untreated but uncontaminated water such as that from protected boreholes, springs, and sanitary wells) as percentages of their respective populations. In an urban area a public fountain or standpost located not more than 200 meters from a house may be considered as being within reasonable access of that house. In rural areas reasonable access would imply that the housewife or members of the household do not have to spend a disproportionate part of the day in fetching the family's water needs.

Access to excreta disposal (percent of population) - total, urban, and rural - Number of people (total, urban, and rural) served by excreta disposal as percentages of their respective populations. Excreta disposal may include the collection and disposal, with or without treatment, of human excreta and waste-water by water-borne systems or the use of pit privies and similar installations.

Population per physician - Population divided by number of practicing physicians qualified from a medical school at university level.

Population per nursing person - Population divided by number of practicing male and female graduate nurses, practical nurses, and assistant nurses.

Population per hospital bed - total, urban, and rural - Population (total, urban, and rural) divided by their respective number of hospital beds available in public and private general and specialized hospital and rehabilitation centers. Hospitals are establishments permanently staffed by at least one physician. Establishments providing principally custodial care are not included. Rural hospitals, however, include health and medical centers not permanently staffed by a physician (but by medical assistant, nurse, midwife, etc.) which offer in-patient accommodation and provide a limited range of medical facilities.

Admissions per hospital bed - Total number of admissions to or discharges from hospitals divided by the number of beds.

HOUSING

Average size of household (persons per household) - total, urban, and rural - A household consists of a group of individuals who share living quarters and their main meals. A boarder or lodger may or may not be included in the household for statistical purposes.

Average number of persons per room - total, urban, and rural - Average number of persons per room in all, urban, and rural occupied conventional dwellings, respectively. Dwellings exclude non-permanent structures and unoccupied parts.

Access to electricity (percent of dwellings) - total, urban, and rural - Conventional dwellings with electricity in living quarters as percentage of total, urban, and rural dwellings respectively.

EDUCATION

Adult enrollment ratios

Primary school - total, male and female - Gross total, male and female enrollment of all ages at the primary level as percentages of respective primary school-age populations; normally includes children aged 6-11 years but adjusted for different lengths of primary education; for countries with universal education enrollment may exceed 100 percent since some pupils are below or above the official school age.

Secondary school - total, male and female - Computed as above; secondary education requires at least four years of approved primary instruction; provides general vocational, or teacher training instructions for pupils usually of 12 to 17 years of age; correspondence courses are generally excluded.

Vocational enrollment (percent of secondary) - Vocational institutions include technical, industrial, or other programs which operate independently or as departments of secondary institutions.

Public teachers ratio - primary and secondary - Total students enrolled in primary and secondary levels divided by numbers of teachers in the corresponding levels.

Adult literacy rate (percent) - Literate adults (able to read and write) as a percentage of total adult population aged 15 years and over.

CONSUMPTION

Passenger cars (per thousand population) - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearses and military vehicles.

Radio receivers (per thousand population) - All types of receivers for radio broadcasts to general public per thousand of population; excludes unlicensed receivers in countries and in years when registration of radio sets was in effect; data for recent years may not be comparable since most countries abolished licensing.

TV receivers (per thousand population) - TV receivers for broadcast to general public per thousand population; excludes unlicensed TV receivers in countries and in years when registration of TV sets was in effect.

Newspaper circulation (per thousand population) - Shows the average circulation of "daily general interest newspaper", defined as a periodical publication devoted primarily to recording general news. It is considered to be "daily" if it appears at least four times a week.

Cinema annual attendance per capita per year - Based on the number of tickets sold during the year, including admissions to drive-in cinemas and mobile units.

LABOR FORCE

Total labor force (thousands) - Economically active persons, including armed forces and unemployed but excluding housewives, students, etc. Definitions in various countries are not comparable.

Female (percent) - Female labor force as percentage of total labor force.

Agriculture (percent) - Labor force in farming, forestry, hunting and fishing as percentage of total labor force.

Industry (percent) - Labor force in mining, construction, manufacturing and electricity, water and gas as percentage of total labor force.

Participation rate (percent) - total, male, and female - Participation or activity rates are computed as total, male, and female labor force as percentages of total, male and female population of all ages respectively; 1960, 1970 and 1975 data. These are ILO's participation rates reflecting age-sex structure of the population, and long time trend. A few estimates are from national sources.

Economic dependency ratio - Ratio of population under 15 and 65 and over to the labor force in age group of 15-64 years.

INCOME DISTRIBUTION

Percentage of private income (both in cash and kind) received by richest 5 percent, richest 20 percent, poorest 20 percent; and poorest 40 percent of households.

POVERTY TARGET GROUPS

Estimated absolute poverty income level (US\$ per capita) - urban and rural - Absolute poverty income level is that income level below which a minimal nutritionally adequate diet plus essential non-food requirements is not affordable.

Estimated relative poverty income level (US\$ per capita) - urban and rural - Rural relative poverty income level is one-third of average per capita personal income of the country. Urban level is derived from the rural level with adjustment for higher cost of living in urban areas.

Estimated population below absolute poverty income level (percent) - urban and rural - Percent of population (urban and rural) who are "absolute poor".

ECONOMIC INDICATORS

	<u>GROSS NATIONAL PRODUCT IN 1977</u>		<u>ANNUAL RATE OF GROWTH (% constant prices)</u>		
	US\$ Mln.	%	1974-77	1976	1977
GNP at Market Prices	39839	100.0	7.4	11.3	5.4
Gross Domestic Investment	12119	30.4	30.7	24.5	23.6
Gross National Saving	11101	28.3	26.3	16.6	17.8
Current Account Balance	-1018	2.5			
Exports of Goods, NFS	12639	31.7	1.9	14.7	9.9
Imports of Goods, NFS	13236	33.2	33.1	31.0	17.5

OUTPUT, LABOR FORCE AND PRODUCTIVITY IN 1976

	<u>Value Added</u>		<u>Labor Force<sup>1/</sup></u>		<u>V. A. Per Worker</u>	
	US\$ Mln.	%	Mln.	%	US \$	%
Agriculture	12840	33.6	16.5	56	778	60
Industry	16528	43.2	5.2	18	3178	245
Services		23.	6.2	21	1427	110
Unallocated			1.6	5		
Total/Average	38216	100.0	29.5	100.0	1295	100.0

GOVERNMENT FINANCE

	<u>General Government</u>			<u>Central Government</u>		
	<u>(N Mln.)</u>	<u>% of GDP</u>		<u>(N Mln.)</u>	<u>% of GDP</u>	
	1977/78	1977/8	1976/7-1977/8	1977/8	1977/8	1976/7-77/8
Current Receipts	8809	34.1	34.8	6868	26.6	26.6
Current Expenditure	5027	19.5	19.0	2697	10.4	10.0
Current Surplus	3762	14.6	15.8	4171	16.1	16.5
Capital Expenditures	8822	34.1	33.0	6287	24.3	24.4
External Assistance (net)						

MONEY, CREDIT and PRICES

	1972	1973	1974	1975	1976	1977	1978
	(Million N outstanding end period)						
Money and Quasi Money	1161.4	1414.1	2156.3	3622.5	5278.9	7067.5	7395.6
Bank credit to Public Sector	519.0	497.1	-1460.1	-1281.5	199.5	2094.4	3238.7
Bank Credit to Private Sector	750.2	854.4	1070.2	1786.1	2417.8	3443.0	4623.9

(Percentages or Index Numbers)

Money and Quasi Money as % of GDP	15.1	15.9	14.9	21.9	26.7	27.3	na.
General Price Index (1960 = 100)	172.9	203.9	217.0	289.6	352.4	423.1	492.5
Annual percentage changes in:							
General Price Index	-3.5	17.9	6.3	33.5	21.7	21.5	16.4
Bank credit to Public Sector	-2.3	-4.2	n.a.	n.a.	n.a.	n.a.	na.
Bank credit to Private Sector	26.9	12.7	26.6	66.8	35.4	45.3	34.3

NOTE: All conversions to dollars in this table are at the average exchange rate prevailing during the period covered.

<sup>1/</sup> Total labor force; unemployed are allocated to sector of their normal occupation. "Unallocated" consists mainly of unemployed workers seeking their first job.

<sup>2/</sup> Index of Urban Consumer Prices up to 1977. National Price Index from 1978.

. Not applicable

## TRADE PAYMENTS AND CAPITAL FLOWS

BALANCE OF PAYMENTS

	1976	1977	1978
	(Millions US \$)		
Exports of Goods, NFS	10,549	12,974	10,979
Imports of Goods, NFS	10,517	13,271	14,242
Resource Gap (deficit = -)	32	-297	-3,263
Interest Payments (net)	386	324	246
Workers' Remittances	-	-	-
Other Factor Payments (net)	-676	-860	-476
Net Transfers	-156	-156	-270
Balance on Current Account	-414	-989	-3,763
Direct Foreign Investment	340	440	186
Net MLT Borrowing			
Disbursements	61	96	1,434
Amortization	-29	-62	-22
Subtotal	32	34	1,412
Capital Grants	-	-	-
Other Capital (net)	-453	-112	-5
Other items n.e.i	-12	-216	-176
Increase in Reserves (+)	-507	-843	-2,346
Gross Reserves (end year)	5,517	4,617	..
Net Reserves (end year)	5,433	4,590	2,244
Fuel and Related Materials			
Imports	280	158	174
of which: Petroleum	-	-	-
Exports	9,468	11,553	9,488
of which: Petroleum	9,468	11,553	9,488

RATE OF EXCHANGE

1975:	N1.00 = US\$1.62
1976:	N1.00 = US\$1.60
1977:	N1.00 = US\$1.55
1978:	N1.00 = US\$1.58

MERCHANDISE EXPORTS (AVERAGE 1976-78)

	US \$ Min	%
Crude Oil	10,170	92.5
Cocoa Products	477	4.3
Palm Products	38	0.4
Tin	20	0.2
All Other Commodities	292	2.6
Total	10,997	100.0

EXTERNAL DEBT, DECEMBER 31, 1978

	US \$ Min
Public Debt, incl. guaranteed	2,180
Non-Guaranteed Private Debt	..
Total outstanding & Disbursed	..
<u>DEBT SERVICE RATIO for 1978<sup>1/</sup></u>	<u>%</u>
Public Debt, incl. guaranteed	0.8
Non-Guaranteed Private Debt	*
Total outstanding & Disbursed	..

IBRD/IDA LENDING, (Dec. 31, 1978) (Million US \$):

	IBRD	IDA
Outstanding & Disbursed	450	38.3
Undisbursed	343	-
Outstanding incl. Undisbursed	793	38.3

1/ Ratio of Debt Service to Exports of Goods and Non-Factor Services.

\* Less than 1%

.. Not Available

THE STATUS OF BANK GROUP OPERATIONS IN NIGERIA

**A. STATEMENT OF BANK GROUP OPERATIONS IN NIGERIA**  
(as of August 31, 1979)

Loan or Credit Number	Year	Borrower	Purpose	US\$ million		
				Amount (less cancellations)		
				Bank	IDA	Undisbursed
<b>Fourteen loans and two credits fully disbursed</b>				<b>319.3</b>	<b>35.3</b>	
427	1965	Nigeria	Roads	14.5		2.5
814	1972	Nigeria	Education	17.3		2.9
838	1972	Nigeria	Roads	26.3		10.1
847	1972	NEPA	Power	76.0		2.5
922	1973	NPA	Port	55.0		4.8
929	1973	Nigeria	Education	54.0		47.5
1045	1974	Nigeria	Cocoa Dev.	20.0		6.2
1091	1975	Nigeria	Livestock	21.0		17.0
1092	1975	Nigeria	Agri. Dev. Funtua	29.0		2.9
1099	1975	Nigeria	Agri. Dev. Gusau	19.0		2.1
1103	1975	Nigeria	Rice Dev.	17.5		10.4
1164	1975	Nigeria	Agri. Dev. Gombe	21.0		5.2
1183	1975	Nigeria	M.W. State Oil Palm	29.5		26.5
1191	1976	Nigeria	E.C. State Oil Palm	19.0		16.1
1192	1976	Nigeria	W. State Oil Palm	17.0		13.3
1454	1977	Nigeria	Agri. Dev. Lafia	27.0		23.4
1455	1977	Nigeria	Agri. Dev. Ayangba	35.0		30.2
1591	1978	Nigeria	Nuc. Est. Smallholder Oil	30.0		30.0
1597	1978	NIDB	Industrial Dev.	60.0		60.0
* 1711	1979	Nigeria	Water Supply - Kaduna	92.0		92.0
* 1719	1979	Nigeria	Agri. & Rural Mgmt. Inst.	9.0		9.0
Total				1008.4	35.3	414.7
Of which has been repaid				131.2	2.0	
Total outstanding 1/				877.2	33.3	
Amount sold				16.8		
of which has been repaid				16.4	0.4	
** Total now held by Bank and IDA				876.8	33.3	
Total undisbursed				414.7	0.0	414.7

**B. STATEMENT OF IFC INVESTMENTS**  
(as of August 31, 1979)

Fiscal Year	Business	Type of Business	Amount in US\$ Million		
			Loan	Equity	Total
1964, 1967, 1970	Arewa Textiles Ltd.	Textile Mfg.	1.0	0.6	1.6
1964	Nigeria Industrial Development Bank Ltd.	Dev. Fin. Co.		1.4	1.4
1973	Funtua Cottonseed Crushing Ltd.	Veg. Oil Crushing	1.6		1.6
1973	Nigerian Aluminum Extrusion Ltd.	Aluminum Processing	1.0	0.3	1.3
1974	Lagisgi Sugar Estates	Sugar		0.1	0.1
Total Gross Commitments			3.6	2.4	6.0
Less cancellations			0.3		0.3
Less sold or repaid			1.9	1.5	3.4
Total Commitments now held by IFC			1.4	0.9	2.3
Undisbursed				0.1	0.1

\* Not yet effective.

\*\* Prior to exchange rate adjustments.

1/ Excluding cancellation of 5.0.

C. PROJECTS IN EXECUTION 1/

Loan No. 427-UNI      Western Nigeria Road Project: US\$14.5 million Loan of September 26, 1965; Effective Date: March 29, 1966; Closing Date: March 31, 1975

The project has been completed. The Bank awaits word from the Government on the closing of the loan.

Loan No. 814-UNI      Second Education Project: US\$17.3 million Loan of April 18, 1972; Effective Date: November 28, 1972; Closing Date: December 31, 1979

There has been substantial improvement in recent months in project implementation. Of the 30 project schools, 6 have been completed and 14 are more than 90 percent completed. The project unit has been strengthened, and has successfully assumed responsibilities previously handled by consultants. The loan should be fully disbursed by December 31, 1979.

Loan No. 838-UNI      Fifth Highway Project: US\$26.3 million Loan of June 26, 1972; Effective Date: February 20, 1973; Closing Date: June 30, 1980

The construction components of the project have been completed. The closing date of the loan was recently extended in order to complete disbursements and to allow consultants to complete preparation for a Sixth Highway Project.

Loan No. 847-UNI      Fourth Power Project: US\$76.0 million Loan of June 30, 1972; Effective Date: June 26, 1973; Closing Date: December 31, 1979

While the completion of the rural electrification component has been delayed, the project is expected to be completed by the end of the year.

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1/ These notes are designed to inform the Executive Directors regarding the progress of projects in execution, and in particular to report any problems which are being encountered, and the action being taken to remedy them. They should be read in this sense, and with the understanding that they do not purport to present a balanced evaluation of strengths and weaknesses in project execution.

Loan No. 922-UNI      Second Lagos Port Project: US\$55.0 million Loan of August 1, 1973; Effective Date: October 30, 1973; Closing Date: December 31, 1979

Civil works are complete. Container cranes are now on order and will be in operation by the end of 1979. Total project costs are much in excess of the appraisal estimates due to labor awards and cost overruns. A revision of the tariff structure in 1977 considerably improved the financial situation of the National Ports Authority.

Loan No. 929-UNI      Third Education Project: US\$54.0 million Loan of August 16, 1973; Effective Date: January 14, 1975; Closing Date: December 31, 1982

Since appraisal, project costs have increased fourfold and the scope of the project has been revised. Project administration was complicated by the partition of many states in 1976. The project unit has been strengthened recently by the appointment of a full-time project director, and the states have made adequate financial provisions. Project implementation has been improved and with all contracts awarded, the loan should be fully disbursed by December 1982. A revision of the project scope was approved by the Board in September 1979.

Loan No. 1045-UNI      Second Cocoa Project: US\$20.0 million Loan of October 11, 1974; Effective Date: October 15, 1975; Closing Date: September 30, 1981

Although the creation of new states has created some organizational and managerial problems, the project is almost completed in all four states. Planting targets have been achieved, but other physical development, including road development, has not fully met planned objectives. A follow-up project has been appraised.

Loan No. 1091-UNI      Livestock Development Project: US\$21.0 million Loan of March 20, 1975; Effective Date: July 19, 1976; Closing Date: July 1, 1981

Project implementation has been slow due to the creation of new States and operational difficulties. Serious problems of counterpart funding from the Federal Government have been encountered. A contract has recently been concluded with a management consulting firm and, as a result, prospects for project implementation are greatly improved.



Loan No. 1092-UNI Funtua Agricultural Development Project: US\$29.0 million  
Loan of March 20, 1975; Effective Date: January 5, 1976;  
Closing Date: July 1, 1982

Project implementation is progressing satisfactorily with excellent farmer response and the full support of both Federal and State Governments. Demand for inputs is consistently above appraisal estimates. The federally controlled Agricultural Projects Monitoring and Evaluation and Planning Unit financed under this loan is fully operational. Project costs are in line with appraisal estimates and disbursement is proceeding satisfactorily. An expanded second stage project to cover the remainder of Kaduna State has been appraised.

Loan No. 1099-UNI Gusau Agricultural Development Project: US\$19.0 million  
Loan of April 4, 1975; Effective Date: January 5, 1976;  
Closing Date: July 1, 1982

The project is progressing satisfactorily with support from both Federal and State Governments. Farmer response is good and appraisal objectives are being met and in some cases exceeded. Project unit costs are some 25 percent above appraisal estimates due to domestic inflation. There have been problems relating to the timely delivery of fertilizer supplies which are centrally procured by the Federal Government. Recent agreements between the Bank and the Government on the streamlining of fertilizer procurement should help to resolve this problem. The possibility of a second phase project is being examined.

Loan No. 1103-UNI Rice Project: US\$17.5 million Loan of April 25,  
1975; Effective Date: January 10, 1976; Closing  
Date: December 31, 1980

Project implementation has been slow due to deficiencies in counterpart funding and staffing limitations. The Bank has withdrawn from the project component located in Cross River State because of acute problems of cost overruns and inadequate physical progress. Plans to reallocate the remaining funds to project components in Anambra and Imo States, where physical project progress is more satisfactory, will depend upon improved counterpart funding and a satisfactory resolution of staffing problems.

Loan No. 1164-UNI Gombe Agricultural Development Project: US\$21.0 million  
Loan of September 29, 1975; Effective Date: December 29,  
1976; Closing Date: July 1, 1982

The project is being implemented satisfactorily with full support from both Federal and State Governments. Farmer response is most favorable. The demand for inputs and the production of maize is exceeding appraisal estimates. Problems in recruiting intermediate and junior staff continue. The preparation of a feasibility study for an expanded second-stage project to cover the remainder of Bauchi State has been completed; the expanded project is scheduled for appraisal early in 1980.

Loan No. 1183-UNI Mid-Western (Bendel) State Oil Palm Project: US\$29.5 million Loan of December 31, 1975; Effective Date: October 17, 1977; Closing Date: December 31, 1984

Loan effectiveness was substantially delayed because of problems relating to staff recruitment, land acquisition and completion of the Federal and State Legal Opinions and State Loan Agreement. Appraisal targets have not been met for the smallholder component as a result of financial and managerial problems. Management has improved recently but planting targets are behind schedule. Cost overruns are likely to be substantial.

Loan No. 1191-UNI East Central (Imo) State Oil Palm Project: US\$19.0 million Loan of February 12, 1976; Effective Date: April 6, 1977; Closing Date: December 31, 1984

Project implementation was delayed due to the creation of new states and problems with intermediate and junior staffing. The latter have now been resolved, but there are problems of local counterpart funding. Appraisal targets have not been met and substantial cost overruns are expected.

Loan No. 1192-UNI Western (Ondo) State Oil Palm Project: US\$17.0 million Loan of September 22, 1976; Effective Date: February 13, 1978; Closing Date: December 31, 1984

The smallholder component is facing managerial and financial difficulties, and final targets may not be achieved. Problems with estate land acquisition and funding delayed effectiveness, and will result in a reduced planted area.

Loan No. 1454-UNI Lafia Agricultural Development Project: US\$27.0 million Loan of June 28, 1977; Effective Date: March 3, 1978; Closing Date: December 31, 1982

Although local counterpart funding is now adequate, the project is still experiencing some problems of a technical nature, particularly concerning extension. However, Government is responding to Bank action, and overall project progress is satisfactory.

Loan No. 1455-UNI Ayangba Agricultural Development Project: US\$35.0 million Loan of June 28, 1977; Effective Date: March 3, 1978; Closing Date: December 31, 1982

After experiencing some problems of local counterpart funding, the project is now progressing satisfactorily.

Loan No. 1591-UNI Rivers State Nucleus Estate/Smallholder Oil Palm Project: US\$30.0 million Loan of June 6, 1978; Effective Date: July 10, 1979; Closing Date: December 31, 1985

The project's physical progress is satisfactory.

Loan No. 1597-UNI Nigerian Industrial Development Bank, Ltd.: US\$60 million Loan of June 15, 1978; Effective Date: October 24, 1978; Closing Date: December 31, 1980

The project is proceeding satisfactorily. The first sub-loans have been processed and approved.

Loan No. 1667-UNI Bida Agricultural Development Project: US\$23 million Loan of September 17, 1979; not yet effective; Closing Date: June 30, 1985

The project is moving towards effectiveness satisfactorily.

Loan No. 1668-UNI Ilorin Agricultural Development Project: US\$27 million Loan of September 17, 1979; not yet effective; Closing Date: June 30, 1985

The project is moving towards effectiveness satisfactorily.

Loan No. 1679-UNI Forestry Plantation Project: US\$31 million Loan; not yet signed; Closing Date: June 30, 1985

The loan documents are expected to be signed in late-October of this year.

Loan No. 1711-UNI Kaduna Water Supply Project: US\$92 million Loan of July 16, 1979; not yet effective; Closing Date: December 31, 1985

The project is proceeding towards effectiveness satisfactorily.

Loan No. 1719-UNI Agricultural and Rural Management Training Institute Project: US\$9 million Loan of July 16, 1979; not yet effective; Closing Date: December 31, 1984

The project is moving towards effectiveness satisfactorily.

SUPPLEMENTARY PROJECT DATA SHEET

Lagos Power Distribution Project

Section I: Timetable of Key Events

- (a) Time taken by the country to prepare the project: 13 months
- (b) The agency which has prepared the project: NEPA and Consultants
- (c) Date of first presentation to the Bank: April 1977
- (d) Date of the first Bank mission to consider the project: December 1977
- (e) Date of departure of the Appraisal Mission: October 2, 1978
- (f) Date of completion of negotiations: June 22, 1979
- (g) Planned date of effectiveness: January 31, 1980

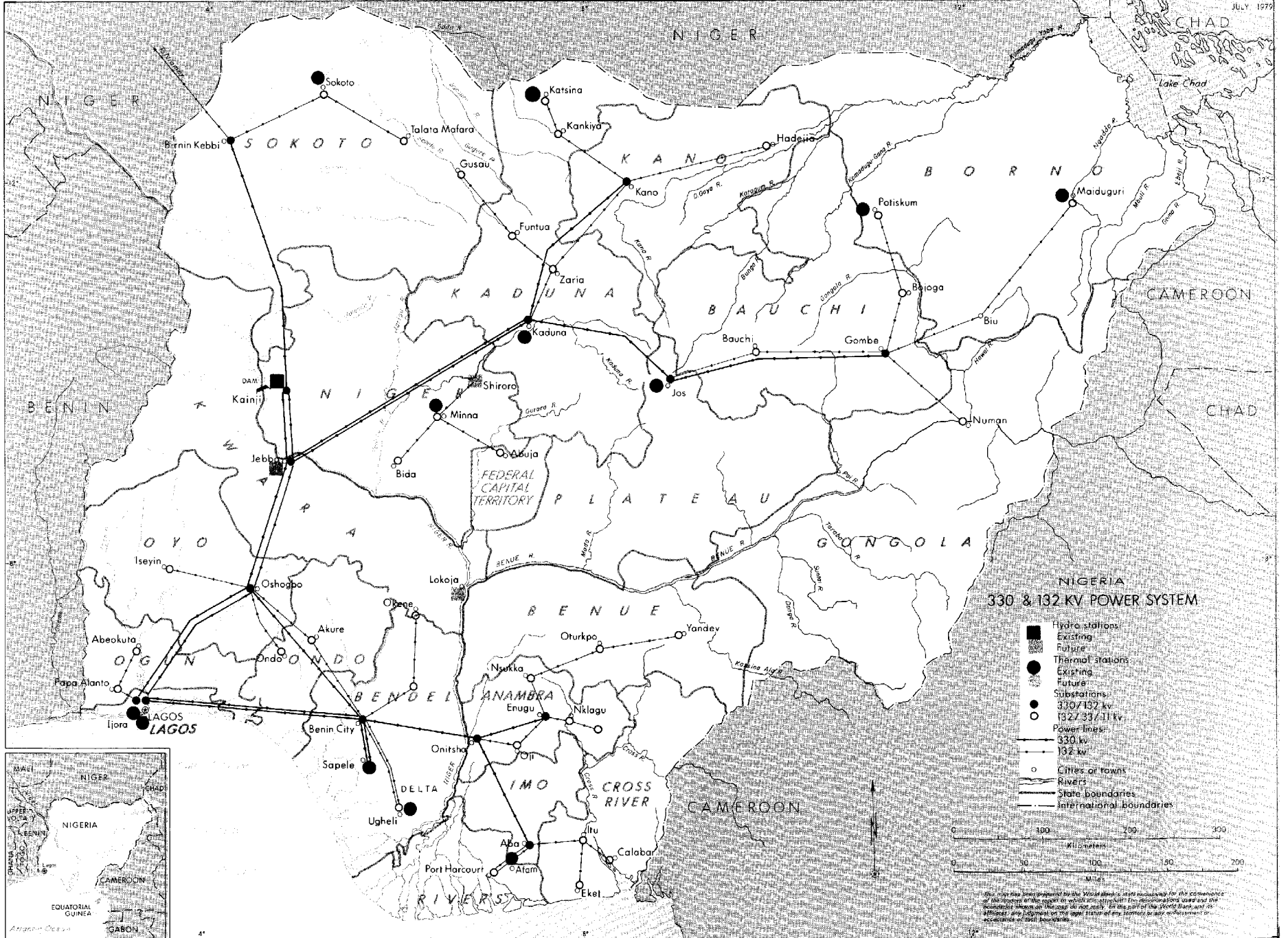
Section II: Special Bank Implementation Actions

None

Section III: Special Conditions

Special assurances were obtained:

- (a) That NEPA would appoint a Director of Training by not later than December 31, 1979 (para. 36);
- (b) That NEPA would, unless otherwise agreed by the Bank, maintain a full 8 percent return on its net fixed assets in operation (para. 40);
- (c) That the Federal Government would from time to time discuss with the Bank proposals for meeting NEPA's investment needs and their implementation (para. 44);
- (d) That the Federal Government would expedite approval of contract awards by NEPA (para. 48); and
- (e) That the Federal Government promptly notify the Bank of any major changes in the operational responsibilities of NEPA (para. 52).



**NIGERIA  
330 & 132 kV POWER SYSTEM**

- Hydro stations:  
Existing
- ▣ Hydro stations:  
Future
- Thermal stations:  
Existing
- Thermal stations:  
Future
- Substations:  
330/132 kv
- Substations:  
132/33/11 kv
- Power lines:  
330 kv
- Power lines:  
132 kv
- Cities or towns
- Rivers
- State boundaries
- International boundaries

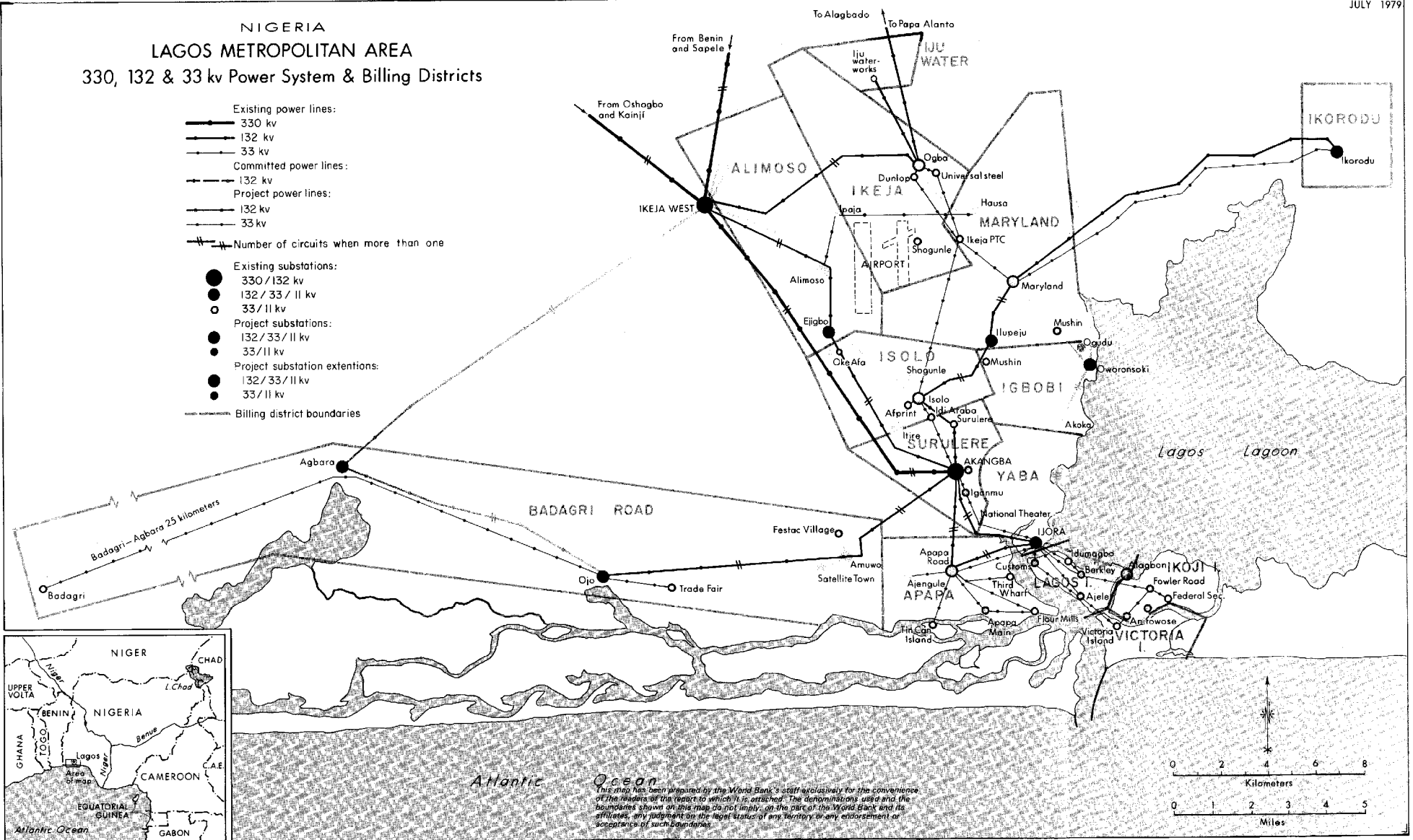


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NIGERIA  
**LAGOS METROPOLITAN AREA**  
 330, 132 & 33 kv Power System & Billing Districts

- Existing power lines:
  - 330 kv
  - 132 kv
  - 33 kv
- Committed power lines:
  - 132 kv
- Project power lines:
  - 132 kv
  - 33 kv
- Number of circuits when more than one
- Existing substations:
  - 330/132 kv
  - 132/33/11 kv
  - 33/11 kv
- Project substations:
  - 132/33/11 kv
  - 33/11 kv
- Project substation extensions:
  - 132/33/11 kv
  - 33/11 kv
- Billing district boundaries



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