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REPORT AND RECOMMENDATION
OF THE
PRESIDENT OF THE
INTERNATIONAL DEVELOPMENT ASSOCIATION
TO THE
EXECUTIVE DIRECTORS
ON A
PROPOSED DEVELOPMENT CREDIT
TO THE REPUBLIC OF THE GAMBIA
FOR AN
ENERGY PROJECT

October 15, 1981

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CURRENCY EQUIVALENTS

Currency Unit	=	Dalasi (D)
US\$1.00	=	D1.80
D1.00	=	US\$0.56
D1.00	=	Bututs 100

WEIGHTS AND MEASURES EQUIVALENTS

<u>Metric</u>		<u>British/US</u>
1 meter (m)	=	3.28 feet (ft)
1 kilometer (km)	=	0.62 mile (mi)
1 square kilometer (km ²)	=	0.386 square mile (sq mi)
1 kilogram (kg)	=	2.2 pounds (lb)
1 metric ton (m ton)	=	2.205 pounds (lb)
1 liter (l)	=	0.26 US gallon (gal)
1 kilovolt (kV)	=	1,000 volts (V)
1 kilowatt (kw)	=	1,000 watts (w)
1 kilovolt amperes (kVA)	=	1,000 volt-amperes (VA)
1 Megawatt (MW)	=	1,000 kilowatts (kw)

ABBREVIATIONS AND ACRONYMS

BADEA	=	Banque Arabe pour le Developpement Economique de l'Afrique
AfDB	=	African Development Bank
CILSS	=	Permanent Inter-State Committee for Drought Control in the Sahel
GPMB	=	Gambia Produce Marketing Board
GTZ	=	Gesellschaft fur Technische Zusammenarbeit
GUC	=	Gambia Utilities Corporation
KfW	=	Kreditanstalt fur Wiederaufbau
ODM	=	Overseas Development Ministry (UK)
UNSO	=	United Nations Sahelian Office

FISCAL YEAR

July 1 - June 30

REPUBLIC OF THE GAMBIA

ENERGY PROJECT

CREDIT AND PROJECT SUMMARY

- Borrower: Republic of The Gambia
- Beneficiaries: Ministry of Local Government and Lands; Ministry of Agriculture and Natural Resources; and, The Gambia Utilities Corporation (GUC).
- Amount: SDR 1.3 million (US\$1.5 million equivalent).
- Terms: Standard; the Government would relend about US\$600,000 to GUC at 10.6 percent per annum for 20 years including five years of grace, with GUC bearing the foreign exchange risk.
- Project Description: The project would assist the Government in developing a strategy for accelerating hydrocarbon exploration in the country and in strengthening the electric power sector. It would also support government's efforts to make better use of its forest resource. The project would include:
- (a) an exploration promotion component comprising:
 - (i) the retrieval, re-evaluation and test reprocessing of seismic data and the strengthening of the government's geological unit (20 man-months);
 - (ii) a review of the contractual framework for petroleum exploration and assistance in negotiations with private oil companies (6 man-months);
 - (iii) training of one staff member of the geological unit, and
 - (iv) office and field equipment;
 - (b) a power distribution component that would include investments to improve GUC's distribution network in the Banjul/Kombo/St. Mary area;
 - (c) a forestry component that would help the government to strengthen the Forestry Department and to develop an energy-related program.

To be implemented simultaneously, but not included in the project, is an Energy Survey and Master Plan being financed by the United Nations Sudano-Sahelian Office (UNSO), and for which IDA is acting as executing agency.

Project Risks:

The principal risk is associated with the exploration component given that the data presented to companies may not be attractive enough for them to enter into exploration contracts. In view of the interest of companies in the region and the large potential benefits to the country from an exploitable hydrocarbon discovery, this risk is considered acceptable.

Estimated Cost:

The cost of the proposed project (net of taxes) is estimated at US\$1.7 million equivalent of which US\$1.5 million (about 85 percent) would be foreign exchange. A summary cost table is shown below:

	<u>Foreign</u>	<u>Local</u>	<u>Total</u>
	-----US\$	million-----	
<u>Exploration Promotion Component</u>			
Consultant Services and Data Process.	0.50	0.02	0.52
Training	0.05	0.00	0.05
Office Accommodation and Equipment	<u>0.09</u>	<u>0.01</u>	<u>0.10</u>
Subtotal	0.64	0.03	0.67
<u>Electric Power Component</u>			
Equipment and Installation	0.38	0.09	0.47
Consultant Services	<u>0.08</u>	<u>0.02</u>	<u>0.10</u>
Subtotal	0.46	0.11	0.57
<u>Forestry Component</u>			
Consultant Services	<u>0.08</u>	<u>0.02</u>	<u>0.10</u>
Subtotal	0.08	0.02	0.10
Baseline Cost	1.18	0.16	1.34
Physical Contingencies	0.12	0.02	0.14
Price Contingencies	0.20	0.02	0.22
Total Contingencies	0.32	0.04	0.36
TOTAL PROJECT COST	1.50	0.20	1.70

<u>Financing Plan:</u>	<u>Foreign</u>	<u>Local</u>	<u>Total</u>
	<u>-----US\$</u>	<u>million-----</u>	
IDA	1.50	-	1.50
Government	<u>-</u>	<u>0.20</u>	<u>0.20</u>
TOTAL	1.50	0.20	1.70

<u>Estimated</u>	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>
<u>Disbursements:</u>			
IDA Annual	0.10	0.70	0.70
Cumulative	0.10	0.80	1.50

Rate of Return: N.A.

Staff Appraisal Report: N.A.

Map: IBRD 15416-R

INTERNATIONAL DEVELOPMENT ASSOCIATION

REPORT AND RECOMMENDATION OF THE PRESIDENT
TO THE EXECUTIVE DIRECTORS ON A PROPOSED
CREDIT TO THE REPUBLIC OF THE GAMBIA FOR
AN ENERGY PROJECT

1. I submit the following report and recommendation on a proposed Development Credit to the Republic of The Gambia for SDR 1.3 million (US\$1.5 million equivalent) on standard IDA terms to help finance an Energy Project.

PART I - THE ECONOMY

2. The latest economic report on The Gambia dated December 23, 1980 has been circulated to the Executive Directors. Its conclusions are reflected in the following assessment of the state of the economy, and its prospects. Country data appear in Annex I.

The Setting

3. The Republic of The Gambia is a small country with an area of 10,360 square kilometers surrounded on three sides by the Republic of Senegal. The country is extremely flat with a maximum elevation above sea-level of 35 meters. Geographically, it can be divided into three regions. The first is the mangrove belt which borders the river from its mouth to over 240 kilometers inland. Lying behind and slightly higher are the "banto faros", swampy areas during the rainy season, some of which are used for rice cultivation. Beyond these swamps stretches the sandstone plateau where most of the crops are grown, primarily groundnuts and millet.

4. The population is predominantly rural. Some 85 percent of the country's 570,000 inhabitants derive their livelihood from agriculture and livestock raising. The urban population is still small but is rapidly increasing (4.2 percent per year as compared to the national average of 2.8 percent). For a developing country, the population is not particularly young, with children below the age of 15 accounting for 41 percent of total population. Overall population pressure is high, with a density of about 90 per square km of agricultural land.

5. The Gambian economy is dominated by groundnut production which is the country's main source of foreign exchange and is the basis for its major industrial activity of groundnut crushing. Cotton was introduced a long time ago but still represents only a small proportion of agricultural production. The most important food crops are millet, sorghum and rice, the basic staple of the population. Millet is grown in rotation with groundnuts on light upland soils, while rice is cultivated mainly in the "banto faros". Due to the competition with groundnuts, only about 70 percent of the

country's food requirements are met by local food production and about 35,000 tons of cereals (mainly rice) have to be imported every year. Livestock is an important but relatively unexploited potential. With an off-take rate of about 6 percent, the subsector contributes less than 3 percent to GDP.

6. Productivity in the rural sector is low. The Gambian farmer experiences the same frustrations as his neighbors in the Sahel where rainfall is irregular and the soils poor. His cultivation methods have remained predominantly traditional as his ability to adopt modern techniques is hampered by the absence of formal education and practical training (the literacy rate in the rural areas is virtually nil). The future for Gambian agricultural development is poor, because there is little land which has not yet been cultivated and because agricultural soils are being degraded by high intensity land use, also resulting in severe deforestation.

7. Despite the predominance of the rural economy (40 percent of GDP and 80 percent of the working population), The Gambia has a relatively active modern sector: trade and transport have always been important and reflect to a large extent the historic role of The Gambia as an entrepot for Senegal and neighboring countries. Transit trade, linked to the unique geographical situation of The Gambia and to its low import tariffs, is an important source of revenue overall and for the budget. Tourism has also emerged as an important sector during the last 10 years, contributing about 8 percent to GDP and employing 2,700 persons. Public administration is a major sector of the economy accounting for 15 percent of GDP. About 25 percent of the salaried labor force is employed by the Government. Industrial activity is limited to two groundnut oil mills, a soft drink factory and a shoe factory, all located in Banjul. Income per capita of the urban population, estimated at US\$550, is about four times higher than that of the rural population and two times the national average estimated at \$225 in 1979.

Recent Economic Developments

8. In the first decade after Independence (1965), The Gambia undertook three modest development programs, financed over 80 percent by foreign aid. This cautious policy reflected the country's limited absorptive capacity and the need to maintain a careful balance between development outlays and the maintenance of adequate financial reserves to protect the economy against sharp variations in groundnut production and prices.

9. Since the mid-1970s, with the implementation of the First Five-Year Development Plan, a larger investment effort was made to promote economic growth. But, while public investments increased from 6 percent of GDP in 1973/74 to 28 percent in 1978/79, GDP growth only averaged 1 percent per year in constant prices, less than the population growth (2.8 percent per annum), which lowered the average living standard of the population. The drought which struck several times and unfavorable price developments were beyond Government's control. But, to some extent, the Government was slow in turning its attention to productive sectors. Between 1974/75 and 1978/79, D 95 million (52 percent of total development expenditures) were devoted to transport infrastructure, while the rural sector only received D 36 million. Emphasis

on transport and communications reflected the availability of foreign assistance and the increased absorptive capacity of the sector resulting from the use of foreign contractors for construction work.

10. The high level of public investment during that period was made possible by a substantial increase in foreign assistance. Budgetary savings, however, did not keep pace with the increase in development expenditures and, as a result, a large part of the required counterpart funds had to be financed by the Gambia Produce Marketing Board (GPMB), the state agricultural marketing organization, and by borrowings from the Central Bank. The Central Bank tried to limit the volume of credit extended by the commercial banks to the private sector by raising their minimum liquidity requirements from 5 percent to 20 percent of their financial obligations. This had little effect because of the excessive liquidity of the commercial banks, and credit to the private sector continued to increase unabated.

11. Many public enterprises, set up during the 1970s to promote development in important sectors of the economy (livestock, fisheries, public utilities), also had recourse to bank credit to cover operating losses or to finance investments. GPMB has recently become a borrower, because its financial situation deteriorated following three bad crops and its obligation to contribute to the current budget and the Government's investment program has continued.

12. As a result of these developments, total domestic credit rose by 59 percent in 1977/78 and by a further 48 percent in 1978/79. The resultant increase in imports, coupled with a relatively bad export performance more than offset the improvement in the capital account. The balance of payments registered an overall deficit of D 27.8 million in 1977/78 and D 28.2 million in 1978/79. For the first time since Independence, net foreign reserves declined to a negative position of D 22.2 million in October 1979.

13. Faced with this deterioration in its financial situation, the Government agreed with the IMF on a financial program in support of a standby arrangement and a Trust Fund loan. Efforts are also being made to mobilize savings by increasing interest rates on demand and time deposits by 1.5 percentage points. In addition, measures are being considered to redress the situation of certain public enterprises through, where appropriate, adjustments in prices and tariffs, injections of new equity and improvement in management and accounting capacity to eliminate the need for budgetary subsidies.

Basic Development Constraints and Options

14. The Gambia has often been referred to as the "groundnut country", and economic activity depends on the size of this crop and the price it commands on world markets. The necessity to diversify the economic base is unquestionable. However, the options open to The Gambia are limited. The small size of the local market makes it difficult to establish manufacturing industries for import substitution. It is doubtful that tourism would become

important enough to help solve some of the development problems confronting the country. There is presently a growing concern among policy makers in The Gambia over the real benefits derived so far from tourism development: the net foreign exchange earnings are low; the rate of Gambianization in hotels and ancillary facilities has been slow; and Government revenues derived from the sector barely justify the investments made to promote tourism.

15. Given the resource endowment and the size of the country, the agricultural sector will remain for years to come the backbone of the Gambian economy. Agricultural productivity, however, must be increased, through higher investments, improvements in extension services, and better credit distribution. New crops and different methods of cultivation such as irrigation are being introduced, but can be developed only gradually as agricultural institutions are strengthened. Production and export of groundnuts will therefore continue to be the main determinant of economic growth in the medium term.

Medium-Term Prospects

16. The present strategy, as outlined in the 1981-86 Plan, gives high priority to achieving national food self-sufficiency, while ensuring to farmers an income that is steady and free from the effects of unfavorable climatic conditions. To this end, Government plans to make increasingly heavy investments in agriculture, including irrigation developments. However, Government's attempts to implement the stated strategy will have to overcome severe financial and institutional obstacles, as it would raise total planned investment to well over one-third of GDP, and public investment to about 80 percent of this amount. First, the country's absorptive capacity is obviously limited and, in particular, there is no clear evidence that existing institutional structures in the rural sector are appropriate to the range of agricultural production activities (including input and credit supply, grain storage and marketing) that will have to be pursued. Second, the required volumes of concessionary aid may well not be available, and Government has little scope for borrowing on harder terms, since this would quickly increase debt service obligations to unsustainable levels.

17. In light of these arguments, the Bank believes that Government will be forced to aim at more modest objectives and that total planned investments should probably not exceed 25 percent of GDP. In such an event, and provided that Government can plan and implement effective policies in the vital groundnut sector, it would still be possible for the country to achieve an economic growth rate of about 5 percent annually over the next Plan period.

18. There is an additional concern in that, even if Government can be persuaded to make significant cuts in the investment program, the domestic savings performance will remain a problem. In the recent past, Government contributed on average not more than 15 percent to the financing of public sector projects. This implied a mediocre savings performance which has been difficult to strengthen because the tax base was expanding only slightly, while the needs for recurrent expenditures particularly in agriculture, road maintenance, health, and education, continued to increase. This unfavorable public finance situation is likely to persist over the 1981-86 Plan period.

19. In view of The Gambia's poverty and the development constraints as outlined above, there will be a continuing need for large inflows of external aid. Foreign donors would be expected to continue providing financial assistance on the same very favorable terms as in the past, and to meet a high proportion of total project costs, including a substantial share of local cost financing in appropriate cases.

PART II - BANK GROUP OPERATIONS IN THE GAMBIA

20. To date the Bank Group has financed seven operations in The Gambia totalling US\$27.4 million of which US\$17.8 million had been disbursed as of May 31, 1981. A US\$2.1 million credit in FY70 (187-GM) helped rehabilitate the port of Banjul, vital for a country so dependent on foreign trade; due to a sharp increase in construction costs after project approval, a US\$ 2.4 million supplementary credit was added in FY74. The second operation (FY73) involved a US\$1.3 million credit (333-GM) for the irrigation of 3,000 ha of rice and preparation of a follow-up project. A third project for which a US\$4.0 million credit (602-GM) was made in FY76, focuses on the development of the tourism sector; it also aims at improving public utilities in Banjul and its suburbs (para. 38 *et seq*). Also in FY76 IDA approved a credit of US\$4.1 million (644-GM) for a Rural Development Project, co-financed by ODM and BADEA--aimed at improving agricultural extension services and transport and marketing infrastructure, and providing training and agricultural credit for farmers. Two projects were approved in FY78: a US\$5.5 million Education Credit (792-GM) to improve secondary education, strengthen educational planning and administration, expand the training of skilled workers, and upgrade middle level managers, and a US\$3 million credit (814-GM) for a Rural and Urban Enterprise Project to stimulate further development in agriculture, agro-industries, small-scale enterprises and housing construction. Finally, IDA approved in 1979 a US\$5.0 million credit (897-GM) for a Highway Maintenance Project as a first phase of a longer range maintenance program to improve inland transport infrastructure. Notes on the execution of ongoing projects are in Annex II.

21. Our past operations have focused on four main objectives: a) development of agriculture which remains the country's major economic activity; b) diversification of economic activity and foreign exchange earning opportunities through development of tourism and small and medium-scale enterprises; (c) establishment of infrastructure and services essential to support these activities; and (d) improvement of manpower training to expand the country's absorptive capacity. Moreover, we have included in each project an important technical assistance component to assist in strengthening the government administration and public institutions. Project implementation has been generally satisfactory. While weak management has caused delays in some projects, the Government has been scrupulous in providing project financing when needed and making efforts to solve implementation problems. The Bank's strategy, which is in accordance with policies being formulated by the Government under its Second Five-Year Plan (1981-1986), will remain essentially the same. Thus we are preparing follow-up projects in agriculture, infrastructure (port and highway maintenance), education, and the small and medium enterprise

sector. The proposed Energy Project would expand this strategy by strengthening the government administration concerned with energy planning and oil exploration and would also continue our efforts, started under the Infrastructure and Tourism Project, to improve the power sector.

PART III - THE ENERGY SECTOR

Energy Resources, Supply and Demand

22. The Gambia's energy endowment is modest. The nation's once abundant forests are being depleted through over cutting, brush fires, and increased farming and grazing to accommodate a rapidly growing population. There is no firm evidence yet of the existence of hydrocarbons but there is some possibility of economically exploitable oil and gas deposits offshore based on limited past exploration and geophysical inference. The country is very flat, with a maximum elevation above sea level of 120 feet which precludes major hydroelectric potential. No coal, oil shale, or uranium deposits have been discovered. Shells from the groundnut crop are presently being used for fuel at the groundnut processing plant and it is planned to substitute groundnut shell briquettes for charcoal. Although the potential for wind power is limited to the coast, the solar regime appears to be favorable.

23. The Gambian economy is based on agriculture and service activities which are not particularly energy intensive, and in this respect Gambia has suffered less than the other countries from the shock of recent increases in oil prices. The energy used in agriculture and in activities in the service sector is almost entirely wood based. Nearly all rural households and a majority of urban households cook with wood or charcoal. Energy consumption, estimated at 244 kg of oil equivalent per capita, has grown by about four percent per annum during the 1970s. Locally produced wood and charcoal are estimated to account for 75 percent of the total energy consumption with imported petroleum products meeting the balance. The import of petroleum products, however, has grown by about 15 percent per annum since 1973/74 and amounted to 50,000 tons in 1977/78, and cost the economy over \$11.0 million. Power facilities consist of seven non-interconnected grids serving Banjul and six other urban areas, supplied by diesel generators.

Institutions

24. The Ministry of Local Government and Lands is responsible for mineral production, including petroleum exploration (para. 29 et seq). The import of petroleum products is handled by four private oil companies, with the Ministry of Finance and Trade regulating the price of petroleum products through negotiation with the companies (para. 27). The Ministry was also responsible for setting a suggested retail price for charcoal prior to its ban (para. 46). The Gambia Utilities Corporation (GUC) is a government-owned company responsible for the generation and supply of electricity as well as providing water and sewerage services (para. 35 et seq). The Department of Forestry within the newly created Ministry of Water Resources and Environment oversees the use

of forestry resources, including firewood and charcoal. It manages the nation's forest lands, enforces legislation to prevent the felling of certain trees, and supervises reforestation. The Gambia is an active member of the Interstate Committee for Drought Control in the Sahel (CILSS) which is involved in programs to prevent deforestation. Finally, the Ministry of Economic Planning and Industrial Development is responsible for energy planning in the country.

The Main Energy Sub-Sectors and Sectoral Issues

25. The main issues in the energy sector relate to an absence of basic data, a shortage of qualified personnel, inadequate investment and poor coordination among relevant government agencies. As a result, the Government is not in a position to fully evaluate the country's energy resources, analyze and choose between development options, or prepare and implement plans and policies in the energy sector.

The Petroleum Sub-Sector

26. The demand for petroleum products is satisfied entirely through imports from the Middle East. The import, storage, distribution and sales of petroleum products in The Gambia is handled by Shell, BP, Mobil and Texaco. Sales of gasoline and diesel fuel (7.0 million gallons and 6.9 million gallons respectively in 1977/78) have been increasing by approximately 15 percent per annum since 1974, while that of kerosene has been declining from a peak of 1.6 million gallons in 1975/76 to 1.3 in 1977/78. The large increases in the sale of petroleum products, particularly diesel fuel, can be attributed to the substantial increase in electric power generating capacity in The Gambia outside the GUC network (para. 39), the rapid growth in the tourist industry, which places a heavy demand on transportation and the 7 percent per annum increase in the volume of imports of passenger vehicles. The decline in the sales of kerosene may partly reflect the substitution of kerosene by use of bottled gas which has grown from almost zero in 1975 to an estimated 32,000 bottles (400 tons) in 1980. Excluding bottled gas, gasoline represents 46 percent of petroleum products consumption, diesel fuel another 46 percent while kerosene accounts for the remaining 8 percent.

27. The retail prices of petroleum products, which vary between US\$2.40 and US\$2.75 a gallon, are negotiated semi-annually between the oil companies and the Ministry of Finance based on a formula covering various cost elements, taxes and profit. Although in the past the Government has granted the companies the requests for price increases, it is planning to study the formula more closely within the UNSO financed, IDA executed Energy Survey and Master Plan study (para. 47). The prices charged reflect the current international cost of importing petroleum products and are in line with those charged in neighboring countries. Since 1979, the price of gasoline has been increased by 60 percent and that of kerosene and diesel oil by 80 percent.

28. Petroleum imports have become a growing burden on The Gambia's balance of payments. In 1973/74, oil imports represented a little over 3 percent of total exports. In 1977/78, this percentage is estimated to have

increased to over 16 percent of exports. In the years ahead, petroleum imports are likely to absorb a growing share of the country's export earnings, even assuming that future growth in petroleum demand would be considerably lower than it has been in the recent past. This would have a serious effect on Gambia's capacity to finance its development program, particularly if groundnut exports do not recover rapidly from their present depressed levels.

Institutional and Legal Frameworks for Petroleum Exploration

29. Responsibility for petroleum exploration and exploitation rests with the Geological Unit of the Ministry of Local Government and Lands. It has a total staff of 10 persons and is headed by a senior geologist. While the head of the unit is an academically qualified professional, neither he nor the rest of the staff have much experience nor firsthand knowledge of the industry. The unit's budget covers mostly the salaries of its staff. Due to these limitations, the unit has not been in a position to acquire geological information or even to monitor the work of foreign private petroleum exploration companies. Recently the unit acquired the services for one year of a qualified expatriate geologist through a Canadian bilateral program, and the situation has improved somewhat.

30. The relevant legislation governing the petroleum industry is the Mining (Mineral Oil) Act of 1954 as amended, the Income Tax Act and the Development Act of 1973 which regulates all foreign investment in The Gambia. The Mining Act empowers the Minister of Local Government and Lands to issue licenses, leases and regulations governing licenses and leases and provides penalties for breach of regulations. There are three types of licenses or leases granted: (i) oil exploration licenses granted for an initial 2-year term with a possible one year renewal and covering surface exploration activities; (ii) oil prospecting licenses granted for an initial 4-year term with three possible successive one year extensions over 75 percent of the initial permit area, and (iii) oil mining leases for development/production of hydrocarbons granted for a 30-year period with a possible renewal of up to 30 years. Minimum fees are charged for the issue of exploration licenses, and a licensee is required to make minimum expenditures, either on seismic surveys or drilling. Production royalties are 12.5 percent on oil and condensate from onshore or from territorial waters. The royalty on all natural gas is 5 percent.

31. The general terms of the petroleum leases and licenses are contained in the regulations to the Mining Act and can be modified without amending the law. Although the basic structure of the regulations is sound, several areas need revision such as: the financial provisions, minimum work and expenditure provisions; the extent and scope of ministerial discretion in setting license terms and conditions; and, the provisions for ensuring stability of license terms. The Government has requested that the proposed project include assistance for a review and redraft of the regulations to the Mining Act.

Exploration History

32. Gambia's sedimentary area covers about 18,000 km² (10,000 km² onshore, and 8,000 km² offshore) and is totally enclaved in Senegal. Oil companies have been engaged in exploration in The Gambia since 1956. Five

companies have held permits (see Annex IV and Chart). As a result of their exploration efforts, about 5,000 km of seismic lines have been shot and three wells drilled; two onshore in 1960 by British Petroleum (BP) and one offshore in early 1979 by Chevron, all of them dry. The onshore wells were drilled on structures that were not sufficiently well defined and did not benefit from the seismic techniques available today. The offshore well was drilled on a large structure in 700 m of water. Although it encountered potential source rocks and reservoirs, the organic matter in the source rock was immature. At present only Societe Nationale Elf Aquitaine (SNEA) is active under an oil exploration license, which expires in 1982, covering the onshore and continental shelf areas. SNEA is planning to conduct a seismic reflection survey of the shallow offshore and rivers and some onshore geophysical work, but is not committed to drilling a well.

33. Information gathered during past exploratory work together with that available in Senegal and Guinea-Bissau, suggests that the geology of the basin is quite complex and that, while the negative results of the recently completed well downgrade the petroleum prospects of The Gambia's continental slope, the potential of the continental shelf and coastal margin area merits further work.

Government Approach to Hydrocarbon Exploration

34. The Government attaches high priority to the development of its domestic energy resources, and in particular to increasing petroleum exploration. Several companies have made inquiries about concessions in The Gambia to follow SNEA's relinquishments in 1982. The Government has decided upon a systematic approach to attracting companies to undertake further exploration. Under the proposed project it would employ consultants: (i) to collect, compile and re-interpret existing geological and geophysical data in order to assess the country's petroleum potential; and, (ii) to bring the legal and contractual framework in line with industry practice and the country's potential.

The Electric Power Sub-Sector

35. The generation and distribution of electricity in The Gambia is the responsibility of the Gambia Utilities Corporation (GUC), a Government-owned company that took over the management and operation of the water and power utilities from the Ministry of Works and Communications in 1972. In recent years GUC has taken on more responsibilities such as the sale of bottled gas and the eventual operation of sewerage and sewage treatment facilities presently under construction in the Kotu resort area and in the capital city of Banjul.

36. GUC is governed by a Board of Directors of eight members representing Government, parastatal and private interests. Its organization consists of a head office, a Power Division and a Water Division. Its staff of about 600 includes only a few members with the experience and training required for the operation of an efficient utility.

37. The power facilities of GUC consist of seven non-interconnected space grids; the major system supplies the Banjul-Kombo-St Mary area; the others supply six small towns in the provinces. The Banjul area is fed

from the Half Die power station, whose original base load capacity consisted of three 2.2 MW diesel units before the severe breakdown of November 1977 (para. 39). Distribution is mainly by overhead lines including 25 miles of 11 kV primary lines and some 30 miles of 400/230 V secondary lines.

The Tourism and Infrastructure Credit (602-GM)

38. In 1975, GUC was the major beneficiary of the Tourism and Infrastructure Project, financed jointly by IDA, KfW and AfDB. The project included inter alia an expansion of the water supply and electric power systems serving the Banjul-Kombo-St. Mary area to meet new demand resulting from tourism development and urban growth. The water component (financed by KfW) included development of a new water field. The power component (financed by AfDB) included a 3 MW diesel generator originally intended to be located at Half Die (but eventually installed at Kotu), equipping of three substations and construction of 33 and 11 kV transmission lines. The sewerage component together with funds for the Assistant Managing Director of GUC and fitter mechanics for the power station were financed by IDA. The project also provided for the recruitment of an Accounting Advisor (on the job since 1976), as well as key personnel for the commissioning and operation of the enlarged water system.

39. The extended water-supply system was commissioned in September 1980. The power component ran into delays and difficulties after an explosion at Half Die in November 1977 destroyed one existing 2.2 MW generating set and badly damaged another. Although the Government attempted to remedy the damage caused by the explosion by obtaining financing for additional small generating sets, the lack of spare parts and qualified technical staff caused a series of further breakdowns and power supply has remained unreliable. The available Half Die generating capacity now consists of five 0.8 MW sets, 60% of that in 1977. It is only this year that adequate generating capacity will be restored through commissioning of the new Kotu power station (para. 41). In the meantime, unfortunately, electricity sales have steadily declined because large commercial and industrial users have been forced to install their own generating systems to maintain supply during the prolonged periods of load shedding or outages of GUC equipment.

GUC's Financial Situation

40. This crisis had a serious financial impact on GUC, which has been unable to meet the rate of return and debt limitation covenants under the Tourism and Infrastructure Project. Despite three increases which doubled tariffs between September 1976 and August 1979, GUC had negative rates of return in 1978 and 1979, mainly attributable to losses of revenue through generator breakdowns, inefficient power generation and distribution, and fuel oil price increases which brought fuel costs from 40 percent of GUC's operating expenses in 1975 to a forecast 60 percent in 1980. Neither was GUC able to meet its debt service covenant because the Government obliged it to take on additional debt for the construction of the new Kotu Power Station (1979-1981) and to buy four diesel generators (1980). Meanwhile, the financial relations between GUC and the Government have become entangled; on the one hand, the Government paid for large generator repairs and fuel bills; on

the other, it has not paid for GUC's 1976 losses (Dahasis 1.9 million or US\$1 million), a requirement under the Tourism and Infrastructure Credit, and has also not paid amounts due by various Government bodies for water and electricity services.

GUC's Prospects

41. A long-term solution to the generation problem will be achieved shortly with the commissioning in April-May 1981 of a new Kotu power station. Construction of this plant was committed after the 1977 explosion at Half-Die power station before any of the equipment financed by AfDB as part of the Tourism and Infrastructure Project had been installed. The 3 MW set to be financed by AfDB was then still being manufactured. Following the advice of its consultants, GUC decided to install this set plus an additional one of the same capacity, also AfDB-financed, in a new power station at Kotu connected by a 33 kV line to Half Die station. The installed capacity of this system will be 10 MW of which 7.0 MW can be considered firm which will be adequate to meet the 1981 peak demand estimated at 5.5 MW. Expansion of its generating capacity, together with a third set scheduled to be in operation in 1982, will meet GUC's generating needs, but difficulties remain relating to distribution facilities, personnel and financial management. The proposed project would address these problems.

42. The above crisis diverted the attention of GUC's scarce management personnel away from the problems affecting the distribution system, which have reached serious proportions. The two 11 kV overhead feeder lines supplying Banjul with power from the Half Die station are loaded to their thermal limit. The existing substation switchgears were installed in the early 1950s and are obsolete--the equipment in at least one substation is overloaded during peak load periods. Voltage levels in many areas are unacceptably low due to many new consumers having been connected over several years without any system reinforcement. Many of the existing low voltage lines are not designed to carry the increasing loads, resulting in high system losses. System break-downs are frequent and the faults cannot be speedily located because of a lack of switching points. Large numbers of consumers are also affected by scheduled interruptions during maintenance work or while new consumers are being connected. These problems are such that, unless remedied urgently, they would reduce GUC's ability to provide adequate service to its customers and would endanger its financial recovery. The Government has therefore requested inclusion of a distribution component in the proposed project to rehabilitate the present inadequate system (para. 50(b)).

43. The effectiveness of the technical assistance program for GUC has been hampered by financial problems and a shortage of counterpart staff for training, although the situation has recently improved. The German Agency for Technical Cooperation (GTZ) has been requested to provide technical assistance for the operations of the Kotu power station. In order to design better its assistance, GTZ is financing a review of GUC's management and organization in order to identify in detail its technical assistance and training needs. The Government will consult with the Association on the GTZ study's findings prior to finalizing a program for its implementation.

44. The financial situation of GUC is expected to improve significantly as soon as a reliable power supply ensures recovery of revenues. To reinforce this recovery, Government and GUC have approved a Financial Recovery Plan, acceptable to the Association (Annex V), which includes: a settlement of accounts between GUC and the Government (para. 40); further contribution to GUC's equity by the Government; compensation by the Government of GUC's losses on the provincial systems; and, the setting of appropriate power tariff levels. Implementation of the Financial Recovery Plan would be a condition of effectiveness (Section 6.01(b) of the Development Credit Agreement). Because of its recent problems GUC will be unable to achieve the 8 percent rate of return targets for power as set in Credit 602-GM for FYs 81 and 82. It is proposed, however, to maintain the covenant from FY83. Because of delays in implementation of the Tourism and Infrastructure Project, the sewerage rate of return covenant in Credit 602-GM, now set for FY81, would be maintained from FY83 to allow for completion of works. No change is proposed in the financial targets for GUC's water service included in Credit 602-GM. Other covenants are also maintained. Assurances have been obtained that: (i) GUC would set tariffs for its power and sewerage services at a level adequate to achieve an 8 percent rate of return on currently valued net fixed assets in operation by 1983 (Section 4.03 of the Project Agreement); (ii) GUC would not incur any long term debt unless its current adjusted revenues are equal to at least 1.6 times its future maximum debt service (Section 4.04 of the Project Agreement); (iii) Government would fully compensate GUC for the losses from operation of the provincial power and water supply systems (Section 4.02 of the Development Credit Agreement); and (iv) the appointment of the Managing Director of GUC would be subject to prior consultation with IDA (Section 4.03 of the Development Credit Agreement).

The Forestry Sub-Sector

45. At the beginning of this century, most of The Gambia was covered with heavy forests and woodland. Clearing was limited to agriculture and fallow land necessary to support the small rural population. Since 1900, however, a six-fold increase in population together with growth in farm lands and associated cattle production has seriously depleted forest resources. The Gambia, now the fifth most densely populated country in Africa, is threatened with severe deforestation, drastic shortages in wood supplies, soil erosion, impoverishment of pasture land (especially around watering points) and increasing vulnerability to drought. The wooded area remaining now covers about 350,000 ha. While present wood consumption is estimated at 900,000 m³ per annum, and is expected to rise to 1,500,000 m³ by the year 2000, the mean annual increment of wood available is estimated to average 350,000 m³. If present trends continue, The Gambia's forestry resources will be exhausted by the end of the century.

46. The Government's forestry policy reflects its awareness of the problem and seeks the following:

- (a) Strengthening forestry institutions and improving forestry planning. Due to the lack of staff, means and supporting materials, the forestry institutions are weak. Assistance is needed to improve the capability of the Forestry Department to, inter alia, develop energy-related programs.
- (b) Reduction in wood consumption. Wood burning is a more efficient way of using wood energy than charcoal provided that transport of the wood, heavier than charcoal, does not require long distances. In The Gambia, where such distances are short, the Government has already banned the production and sale of charcoal, which should reduce wood consumption by about 30 percent. The Government would like to further reduce wood consumption through the use of improved, more efficient wood stoves and the use of wood substitutes.
- (c) Improving management of forest cover and creation of fast-growing, state-managed and rural tree plantations. Modest scale pilot reforestation programs are being implemented. Further assistance is needed, however, to formulate a full-scale program of reforestation based on data available from these pilot schemes.

Two projects financed respectively by USAID (US\$1.6 million) and GTZ (US\$2.5 million) are underway to support the above Government policy on a pilot basis. Given the magnitude of the problem faced by the Forestry Department, additional assistance is needed which the proposed project would begin to provide.

Overall Sector Strategy

47. Faced with increasing problems in the energy field because of a narrow resource base, a lack of plans, policies and personnel, the Government wishes to minimize the cost of energy inputs to the economy, both in terms of investment and import requirement. As a first step, it is therefore carrying out, with the assistance of consultants, a comprehensive Energy Survey and Master Plan. Initially, this was to have been included in the proposed project but, for reasons principally of timing, it is being implemented separately by the UNSO with the Bank acting as executing agency. The study is expected to be completed in the autumn of 1981 and its results included in the second national economic five year plan (1981-85). The Government also recognizes the urgent need for: (a) developing a strategy to accelerate petroleum exploration in the country; (b) strengthening the power sector; and, (c) developing and expanding programs in the forestry sector. In view of The Gambia's limited energy resources, any commercial discovery of hydrocarbons, however small, would have an important impact on the country's economy. In the power sector, the public sector's large investments would be wasted unless solutions are found to GUC's management and financial problems and unless minor, though urgent, improvements are made in the distribution network. Progressive desertification warrants an increase in activities in the forestry sector. IDA's role would be to support: (i) the Government's rational approach to energy planning; (ii) the promotion of The Gambia's hydrocarbon potential; (iii) the long-term strengthening of GUC; and (iv) the Government's efforts to make better use of renewable energy resources.

PART IV - THE PROJECT

Introduction

48. The proposed project was identified during the visit of an IDA mission to The Gambia in April 1980 and appraised in September 1980. Credit negotiations were held in Washington, D.C. on June 1 and 2, 1981. The Gambian delegation was headed by Dr. Ayo Langley, Permanent Secretary of the Ministry of Economic Planning and Industrial Development. A credit and project summary appears at the beginning of this report, and a supplementary project data sheet is given in Annex III. There is no Staff Appraisal Report.

Project Objectives

49. Consistent with the objectives defined above (para. 47), the project would:

- (a) strengthen the Geological Unit's capacity to evaluate and interpret available geological and geophysical data;
- (b) assist the Government in promoting the country's hydro-carbon potential and in negotiating exploration contracts with oil companies;
- (c) improve the electric power distribution network, and
- (d) assist the forestry sector in strengthening its institutions and developing an energy-related program.

Project Description

50. The project would include the following components:

(a) Exploration Promotion

(i) exploration component

About sixteen man-months of services of exploration consultants (including an explorationist, a geophysicist and other experts on short-term assignments) to assist in:

- a. retrieving, compiling and integrating existing geological and geophysical data;
- b. test reprocessing of seismic data;
- c. providing the petroleum potential information to oil companies;
- d. negotiating exploration contracts; and
- e. monitoring the activities of operating companies.

(ii) legal consultants

About six man-months of advice by a legal firm to review the legal and contractual framework for petroleum exploration and to assist in negotiations with companies;

(iii) training

Each consultant would be responsible for on-the-job training of designated staff of the Geological Unit. One Gambian already identified would be provided specialized geological training abroad;

(iv) office and field equipment

The Geological Unit would be provided with the equipment necessary to support the work of the consultants, including storage and reproduction equipment, vehicles and a modest expansion of office space.

(v) Basin study (4 man-months)

The Gambia shares a single basin with Senegal and Guinea-Bissau. To fully understand the geology of the basin, the relevant geological and geophysical data from the three countries needs to be integrated in a basin wide study. The proposed credit would finance The Gambia's share in such a study. Guinea-Bissau's share is being financed under Credit 1095 GUB. Senegal has requested World Bank assistance for the compilation, review and interpretation of its geological and geophysical data. The basin study would take place in 1983 by which time the basic work is expected to have been completed in the three countries. The consultants for the basin study would be acceptable to the three Governments (para. 55). Each Government would enter into a contract with the consultants and supply them with the available data. After the study each Government would receive a basin report and a separate country report.

(b) Power Distribution Component

The power distribution component would optimize distribution from the two power stations serving the Banjul area, enhance transformer capacity, reduce the risks in overloaded circuits, improve substation safety and limit voltage fluctuations. It would enable GUC to make better use of investments already made in the sector. Specific improvements in the Banjul-Kombo-Saint Mary area would include:

- (i) reinforcement of the 11kV network in Banjul by a new 11kV overhead feeder from Half Die to Southwest Banjul;
- (ii) installation of one pole mounted 100 kVA and one ground mounted 300 kVA substation in Banjul; installation of a 200 kVA transformer and a 100 kVA transformer in the Kombos;

- (iii) minor improvements to seven substations in the Banjul-Kombo-St. Mary area;
- (iv) reinforcement and replacement of low voltage circuits and extension of the power supply to the water boreholes; and,
- (v) installation of 11 kV air break isolating switches.

(c) Assistance to Forestry

This component would include consultancy services and equipment needed to prepare a program for efficient management of forestry resources. The details of the program to be financed will be finalized with the assistance of the Association during project implementation.

Cost Estimates and Financing Plan

51. The total cost of the proposed project, net of duties and taxes, is estimated at US\$1.7 million equivalent, of which US\$1.5 million, or 88 percent, is foreign exchange. The cost estimates include physical contingencies of 10 percent. Price contingencies have been included based on an increase of 9 percent for 1981 and 8 percent per annum for 1982, 1983 and 1984. Total contingencies amount to about US\$0.4 million, or 27 percent of baseline cost estimates. Estimated costs by project component are given in the Credit and Project summary. The cost per man month of consulting services is estimated at US\$15,000 for short-term petroleum consultants, US\$5,000 for long-term power-engineering assistance to GUC, and US\$7,000 for short-term forestry consultants, including travel, subsistence and overhead. This is acceptable, taking into account the high level of specialized expertise involved and costs prevailing in the petroleum, forestry and power sectors. The proposed IDA credit of US\$1.5 million equivalent would finance the foreign exchange component. Local costs estimated at US\$200,000 would be financed by the Government. About US\$600,000 of the credit would be on-lent to GUC at 10.6 percent per annum for 20 years including 5 years of grace with GUC bearing the foreign exchange risk. The Government would enter into a subsidiary loan agreement with GUC satisfactory to the Association (Section 3.01(c) of the Development Credit Agreement). The project would be exempt from taxes and duties.

Project Implementation

52. A project coordinating unit consisting of a Project Coordinator, and support staff will be established in the Ministry of Economic Planning and Industrial Development (MEPID) to serve as a counterpart to the consultants' carrying out the Energy Survey and Master Plan. The unit would also coordinate the implementation of the exploration promotion and forestry components of the proposed project and employ staff whose qualifications would be acceptable to the Association (Section 3.02 of the Development Credit Agreement). The unit would work in close collaboration with the Geological Unit of the Ministry of Local Government and Lands which would implement the exploration promotion component and with the Forestry Department of the Ministry of Water Resources and Environment which would implement the forestry component. Exploration,

legal and forestry consultants are expected to be employed by the end of 1981. The Geological Unit in the Ministry of Local Government and Lands would select the trainee for overseas training also by the end of 1981.

53. The power distribution component would be implemented by GUC (Section 3.01(b) of the Development Credit Agreement and Section 2.01 of the Project Agreement). GUC would undertake the installation of equipment as well as the modifications and reinforcements to its network using its own labor force and with the assistance of an expatriate consulting engineer to be employed before December 31, 1981 for a period of 2 years (Section 3.02 of the Project Agreement). The equipment would be procured within six months of credit effectiveness and would take two years to install. The project is expected to be completed by June 30, 1984.

Procurement and Disbursement

54. Given the urgent nature of the investments and the small amount involved, contracts for the power distribution equipment (estimated to cost US\$380,000) would be awarded on the basis of limited international tendering. Contracts for the Geological Unit's equipment and vehicles (estimated at US\$50,000) would be procured through competitive bidding following local advertising procedures, which are acceptable to the Association. The construction contract for the Geological Unit's facilities (estimated at about US\$50,000) would be awarded following local competitive bidding. The consultants would be acceptable to the Borrower and the Association and would be employed on terms and conditions satisfactory to the Association (Section 3.03 of the Development Credit Agreement and Section 3.02 of the Project Agreement). Disbursements would be fully documented.

55. The proposed IDA Credit would be disbursed as follows:

- (a) civil works--85 percent of expenditures (US\$40,000);
- (b) the supply of plant and equipments to GUC--100 percent of foreign expenditures and 50 percent of local expenditures (US\$380,000);
- (c) the supply of vehicles and equipment for the exploration and forestry components--100 percent of foreign expenditures and 50 percent of local expenditures (US\$50,000);
- (d) consultant services: (i) for the basin study-100 percent of foreign expenditures (US\$50,000); (ii) for GUC-100 percent of foreign expenditures (US\$90,000); (iii) other than for the basin study or for GUC-100 percent of foreign expenditures (US\$520,000); and
- (e) training--100 percent of foreign expenditures (US\$50,000).

About US\$320,000 would remain unallocated. A condition of disbursement for the forestry component would be Government's submission of a program and equipment list satisfactory to the Association (para. 4 of Schedule 1 to the

Development Credit Agreement). A condition of disbursement for the basin study would be (para. 4 of Schedule 1 to the Development Credit Agreement):

- (a) the availability of satisfactory geological and geophysical data for the portion of the basin owned by Senegal and Guinea-Bissau; and
- (b) arrangements satisfactory to the Association having been made between Senegal, The Gambia and Guinea-Bissau for implementing the basin study including contractual arrangements with consultants.

The proceeds of the credit are expected to be fully disbursed within three and a half years of effectiveness.

Accounting, Auditing and Reporting

56. The Project Unit would keep separate accounts for exploration promotion and forestry components. These accounts would be audited by external auditors acceptable to the Government and the Association. GUC would keep separate accounts for each of its power, water and sewerage services (Sections 4.01 and 4.02 of the Project Agreement). These accounts would continue to be audited by GUC's auditors (Pannell Fitzpatrick and Co.) who are acceptable to the Bank. Cost control procedures instituted by GUC are working satisfactorily. GUC and the Project Unit would submit audit reports to the Association no later than six months after the close of the fiscal year. The Project Unit and GUC would submit quarterly and annual reports on implementation of the project in a format acceptable to the Association. They would also submit a project completion report not later than six months after the Closing Date.

Project Benefits and Risks

57. The most immediate benefit from the exploration promotion component is that the retrieval and re-evaluation of the geological and geophysical data, together with the revision of the legal and contractual framework, would permit the Government to negotiate exploration contracts containing work commitments commensurate with the country's potential. Any ensuing exploitable hydrocarbon discovery would have a significant positive impact on the country's economy. The short-term risk associated with this component is that the data presented to companies may not be attractive enough for them to enter into exploration contracts. In view of the interest of some companies thus far, this risk is acceptable. The longer term risk is that, even if exploration were undertaken, no exploitable reserves might be found. This risk is substantial, but is also acceptable because of the large benefits that would accrue if an exploitable find were made.

58. The power distribution component is a least cost solution that would enable GUC to fully utilize its generating capacity. It would also be instrumental in solving a number of important problems relating to the utility's financial health and management that have troubled it since it was established. Resolution of these problems would also have a significant beneficial effect on the tourism and other sectors important to the economy. The forestry component would help the Government to strengthen the Forestry Department and to develop an energy-related program.

PART V - LEGAL INSTRUMENTS AND AUTHORITY

59. The draft Development Credit Agreement between the Republic of The Gambia and the Association, the draft Project Agreement between the Republic of The Gambia and The Gambia Utilities Corporation, and the Recommendation of the Committee provided for in Article V, Section 1(d) of the Articles of Agreement of the Association are being distributed to the Executive Directors separately.

60. The draft Development Credit Agreement conforms to the usual pattern of agreements on petroleum exploration promotion projects. Special features of the draft Development Credit and Project Agreements are referred to in the text and listed in Section III of Annex III to this report. A special condition of effectiveness would be the implementation by GUC and the Borrower of GUC's Financial Recovery Plan.

61. I am satisfied that the proposed Development Credit would comply with the Articles of Agreement of the Association.

PART VI - RECOMMENDATION

62. I recommend that the Executive Directors approve the proposed Development Credit.

A.W. Clausen
President

Attachments

Washington, D.C.

October 15, 1981

TABLE 3A
GAMBIA - SOCIAL INDICATORS DATA SHEET

LAND AREA (THOUSAND SQ. KM.)	GAMBIA			REFERENCE GROUPS (WEIGHTED AVERAGES - MOST RECENT ESTIMATE) ^{/a}	
	TOTAL	MOST RECENT		LOW INCOME	MIDDLE INCOME
	11.3	1970	ESTIMATE	AFRICA SOUTH OF SAHARA	AFRICA SOUTH OF SAHARA
AGRICULTURAL	6.0	/b	/b	/b	/b
GNP PER CAPITA (US\$)	60.0	100.0	250.0	238.3	794.2
ENERGY CONSUMPTION PER CAPITA (KILOGRAMS OF COAL EQUIVALENT)	28.5	52.3	124.5	70.5	707.5
POPULATION AND VITAL STATISTICS					
POPULATION, MID-YEAR (THOUSANDS)	327.0	449.0	587.0	.	.
URBAN POPULATION (PERCENT OF TOTAL)	12.4	15.0	18.1	17.5	27.7
POPULATION PROJECTIONS					
POPULATION IN YEAR 2000 (MILLIONS)			1.0	.	.
STATIONARY POPULATION (MILLIONS)			3.0	.	.
YEAR STATIONARY POPULATION IS REACHED			2135	.	.
POPULATION DENSITY					
PER SQ. KM.	28.9	39.7	51.9	27.7	55.0
PER SQ. KM. AGRICULTURAL LAND	55.0	75.0	96.0	73.7	130.7
POPULATION AGE STRUCTURE (PERCENT)					
0-14 YRS.	42.8	44.0	44.3	44.8	46.0
15-64 YRS.	54.2	53.1	52.6	52.4	51.2
65 YRS. AND ABOVE	3.0	2.9	3.1	2.9	2.8
POPULATION GROWTH RATE (PERCENT)					
TOTAL	2.0	3.2	3.0	2.6	2.8
URBAN	3.6	5.1	5.0	6.5	5.1
CRUDE BIRTH RATE (PER THOUSAND)	47.8	46.7	47.5	46.9	46.9
CRUDE DEATH RATE (PER THOUSAND)	26.2	23.1	22.4	19.3	15.8
GROSS REPRODUCTION RATE	3.1	3.1	3.1	3.1	3.2
FAMILY PLANNING					
ACCEPTORS, ANNUAL (THOUSANDS)	..	1.0	2.1	.	.
USERS (PERCENT OF MARRIED WOMEN)	..	..	..	..	..
FOOD AND NUTRITION					
INDEX OF FOOD PRODUCTION					
PER CAPITA (1969-71=100)	101.0	98.0	72.0	89.5	89.9
PER CAPITA SUPPLY OF					
CALORIES (PERCENT OF REQUIREMENTS)	91.0	99.0	97.0	90.2	92.3
PROTEINS (GRAMS PER DAY)	52.0	56.0	55.0	52.7	52.8
OF WHICH ANIMAL AND PULSE	10.0	13.0	13.0	17.8	16.1
CHILD (AGES 1-4) MORTALITY RATE	40.6	34.7	32.8	27.3	20.2
HEALTH					
LIFE EXPECTANCY AT BIRTH (YEARS)	37.5	40.4	41.7	45.8	50.8
INFANT MORTALITY RATE (PER THOUSAND)	..	217.0/c	..	..	..
ACCESS TO SAFE WATER (PERCENT OF POPULATION)					
TOTAL	..	12.0	..	23.9	27.4
URBAN	..	97.0	..	55.0	74.3
RURAL	..	3.0	..	18.5	12.6
ACCESS TO EXCRETA DISPOSAL (PERCENT OF POPULATION)					
TOTAL	..	..	..	26.2	..
URBAN	..	..	..	63.5	..
RURAL	..	..	..	20.3	..
POPULATION PER PHYSICIAN	21800.0	22894.7	13170.7	31911.8	13844.1
POPULATION PER NURSING PERSON	..	4065.0	3941.6	3674.9	2898.6
POPULATION PER HOSPITAL BED					
TOTAL	834.0/d	..	816.9	1238.8	1028.4
URBAN	..	..	172.3	272.8	423.0
RURAL	..	..	3935.5	1745.2	3543.2
ADMISSIONS PER HOSPITAL BED	..	..	..	..	..
HOUSING					
AVERAGE SIZE OF HOUSEHOLD					
TOTAL	..	8.3/c	..	..	..
URBAN	..	6.1/c	..	..	..
RURAL	..	9.0/c	..	..	..
AVERAGE NUMBER OF PERSONS PER ROOM					
TOTAL	..	..	..	..	..
URBAN	..	..	..	..	..
RURAL	..	..	..	..	..
ACCESS TO ELECTRICITY (PERCENT OF DWELLINGS)					
TOTAL	..	..	..	..	..
URBAN	..	..	..	..	..
RURAL	..	..	..	..	..

TABLE 3A
GAMBIA - SOCIAL INDICATORS DATA SHEET

		GAMBIA			REFERENCE GROUPS (WEIGHTED AVERAGES - MOST RECENT ESTIMATE) ^{/a}	
		1960 ^{/b}	1970 ^{/b}	MOST RECENT ESTIMATE ^{/b}	LOW INCOME AFRICA SOUTH OF SAHARA	MIDDLE INCOME AFRICA SOUTH OF SAHARA
EDUCATION						
ADJUSTED ENROLLMENT RATIOS						
PRIMARY:	TOTAL	12.0	24.0	37.0	56.4	73.7
	MALE	17.0	33.0	50.0	70.7	96.8
	FEMALE	8.0	14.0	24.0	50.1	79.0
SECONDARY:	TOTAL	3.0	7.0	12.0	10.0	16.2
	MALE	4.0	11.0	17.0	13.6	25.3
	FEMALE	2.0	4.0	7.0	6.6	14.8
VOCATIONAL ENROL. (% OF SECONDARY)		1.4	3.6	5.3	8.0	5.3
PUPIL-TEACHER RATIO						
PRIMARY		31.0	27.0	26.0	46.5	36.2
SECONDARY		19.0	20.0	17.0	25.5	23.6
ADULT LITERACY RATE (PERCENT)		6.0 ^{/d}	..	10.0	25.5	..
CONSUMPTION						
PASSENGER CARS PER THOUSAND POPULATION						
		3.0	6.5	..	2.9	32.3
RADIO RECEIVERS PER THOUSAND POPULATION						
		6.1	111.3	113.3	32.8	69.0
TV RECEIVERS PER THOUSAND POPULATION						
		..	..	..	1.9	8.0
NEWSPAPER ("DAILY GENERAL INTEREST") CIRCULATION PER THOUSAND POPULATION						
		5.0	..	..	2.8	20.2
CINEMA ANNUAL ATTENDANCE PER CAPITA						
		..	..	..	1.2	0.7
LABOR FORCE						
TOTAL LABOR FORCE (THOUSANDS)		169.1	218.9	271.1	.	.
FEMALE (PERCENT)		46.8	46.2	45.5	34.1	36.7
AGRICULTURE (PERCENT)		85.0	82.0	79.1	80.0	56.6
INDUSTRY (PERCENT)		7.0	8.0	8.9	8.6	17.5
PARTICIPATION RATE (PERCENT)						
TOTAL		51.7	48.7	46.2	41.7	37.2
MALE		56.2	53.5	51.1	54.3	47.1
FEMALE		47.4	44.2	41.4	29.2	27.5
ECONOMIC DEPENDENCY RATIO		0.9	1.0	1.0	1.2	1.3
INCOME DISTRIBUTION						
PERCENT OF PRIVATE INCOME RECEIVED BY						
HIGHEST 5 PERCENT OF HOUSEHOLDS		..	..	..	..	..
HIGHEST 20 PERCENT OF HOUSEHOLDS		..	..	..	..	..
LOWEST 20 PERCENT OF HOUSEHOLDS		..	..	..	..	..
LOWEST 40 PERCENT OF HOUSEHOLDS		..	..	..	..	..
POVERTY TARGET GROUPS						
ESTIMATED ABSOLUTE POVERTY INCOME LEVEL (US\$ PER CAPITA)						
URBAN		..	..	..	136.0	381.2
RURAL		..	..	95.0	84.5	156.2
ESTIMATED RELATIVE POVERTY INCOME LEVEL (US\$ PER CAPITA)						
URBAN		..	..	185.0	99.1	334.3
RURAL		..	..	90.0	61.2	137.6
ESTIMATED POPULATION BELOW ABSOLUTE POVERTY INCOME LEVEL (PERCENT)						
URBAN		..	..	..	39.7	..
RURAL		..	..	40.0	68.8	..

.. Not available
. Not applicable.

NOTES

^{/a} The group averages for each indicator are population-weighted arithmetic means. 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 1976 and 1979.

^{/c} 1973; ^{/d} 1962.

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 reference groups are (1) the same country group of the subject country and (2) a country group with somewhat higher average income than the country group of the subject (except for "Capital Exports" group where "Middle Income North Africa and Middle East" is chosen because of stronger socio-cultural affinities). In the reference group data the averages are population weighted arithmetic means for each indicator and shown only when majority of the countries in a group has data for that indicator. Since the coverage of countries among the indicators depends on the availability of data and is not uniform, caution must be exercised in relating averages of one indicator to another. These averages are only useful in comparing the value of one indicator at a time among the country and reference groups.

LAND AREA (thousand sq.km.)

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

Agricultural - Estimate of agricultural area used temporarily or permanently for crops, pastures, market and kitchen gardens or to lie fallow; 1978 data.

GNP PER CAPITA (US\$) - GNP per capita estimates at current market prices, calculated by same conversion method as World Bank Atlas (1977-79 basis); 1960, 1970, and 1979 data.

ENERGY CONSUMPTION PER CAPITA - Annual consumption of commercial energy (coal and lignite, petroleum, natural gas and hydro-, nuclear and geothermal electricity) in kilograms of coal equivalent per capita; 1960, 1970, and 1979 data.

POPULATION AND VITAL STATISTICS

Total Population, Mid-Year (thousands) - As of July 1; 1960, 1970, and 1979 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 1979 data.

Population Projections

Population in year 2000 - Current population projections are based on 1980 total population by age and sex and their mortality and fertility rates. Projection parameters for mortality rates comprise of three 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 three levels assuming decline in fertility according to income level and past family planning performance. Each country is then assigned one of these nine 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; 1960, 1970 and 1979 data.

Per sq. km. agricultural land - Computed as above for agricultural land only; 1960, 1970 and 1978 data.

Population Age Structure (percent) - Children (0-14 years), working-age (15-64 years), and retired (65 years and over) as percentages of mid-year population; 1960, 1970, and 1979 data.

Population Growth Rate (percent) - total - Annual growth rates of total mid-year populations for 1950-60, 1960-70, and 1970-79.

Population Growth Rate (percent) - urban - Annual growth rates of urban populations for 1950-60, 1960-70, and 1970-79.

Crude Birth Rate (per thousand) - Annual live births per thousand of mid-year population; 1960, 1970, and 1979 data.

Crude Death Rate (per thousand) - Annual deaths per thousands of mid-year population; 1960, 1970, and 1979 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 1979.

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; 1961-65, 1970, and 1979 data.

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 distribution of population, and allowing 10 percent for waste at household level; 1961-65, 1970, and 1977 data.

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 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; 1961-65, 1970 and 1977 data.

Per capita protein supply from animal and pulse - Protein supply of food derived from animals and pulses in grams per day; 1961-65, 1970 and 1977 data.

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; 1960, 1970 and 1979 data.

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 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; 1961-65, 1970 and 1977 data.

Per capita protein supply from animal and pulse - Protein supply of food derived from animals and pulses in grams per day; 1961-65, 1970 and 1977 data.

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; 1960, 1970 and 1979 data.

HEALTH

Life Expectancy at Birth (years) - Average number of years of life remaining at birth; 1960, 1970 and 1979 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 a medical assistant, nurse, midwife, etc.) which offer in-patient accommodation and provide a limited range of medical facilities. For statistical purposes urban hospitals include WHO principles/general hospitals, and rural hospitals local or rural hospitals and medical and maternity centers. Specialized hospitals are included only under total.

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.

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

Adjusted 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.

Pupil-teacher 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, hearse 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., covering population of all ages. Definitions in various countries are not comparable; 1960, 1970 and 1979 data.

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; 1960, 1970 and 1979 data.

Industry (percent) - Labor force in mining, construction, manufacturing and electricity, water and gas as percentage of total labor force; 1960, 1970 and 1979 data.

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 1979 data. These are based on 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 total labor force.

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

The following estimates are very approximate measures of poverty levels, and should be interpreted with considerable caution.

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".

THE GAMBIA

ECONOMIC INDICATORS

<u>GROSS NATIONAL PRODUCT IN 1979</u>	<u>ANNUAL RATE OF GROWTH (% , constant prices)</u>			
	<u>US\$ Mln</u>	<u>%</u>	<u>1974-79</u>	<u>1979</u>
GNP at Market Prices	132.2	100.0	1.4	19.9
Gross Domestic Investment	37.8	28.6	22.0	-23.9
Gross National Savings	4.8	3.6		
Current Account Balance	-38.4	-29.1		
Export of Goods, NFS	86.4	65.3	-2.9	29.7
Imports of Goods, NFS	131.7	99.6	12.5	-5.1

OUTPUT, LABOR FORCE AND PRODUCTIVITY IN 1978/79

	<u>Value Added</u>		<u>Labor Force</u>		<u>V. A. Per Worker</u>	
	<u>US\$ Mln</u>	<u>%</u>	<u>Thousands</u>	<u>%</u>	<u>US\$</u>	<u>%</u>
Agriculture	47.8	45.6	216.0	80.0	221.3	57.0
Industry ^{1/}	9.3	8.8	13.5	5.0 ^{2/}	688.9	177.3
Services	47.8	45.6	40.5	15.0 ^{2/}	1,180.2	303.8
Total/Average	104.9	100.0	270.0	100.0	338.5	100.0

GOVERNMENT FINANCE

	<u>Central Government</u>					
	<u>Dalasi Mln</u>			<u>% of GDP</u>		
	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>
Current Receipts	65.5	65.9	79.8	30.9	35.7	33.1
Current Expenditures ^{3/}	58.6	66.5	73.3	27.6	36.1	30.4
Current Surplus	6.9	-0.6	6.5	3.3	0.3	2.7
Capital Expenditures	32.6	68.8	53.0	15.4	37.3	22.0
External Assistance (net)	7.7	42.2	36.4	3.6	22.9	15.1

MONEY, CREDIT AND PRICES

	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
	<u>Dalasi Mln</u>					
Money and Quasi-Money	39.2	51.9	63.5	74.5	73.0	77.0
Claims on Government (net)	-4.7	-6.1	9.9	17.9	29.9	31.3
Claims on the Economy	16.3	33.7	42.0	64.4	95.2	134.1
	(Percentages)					
Money and Quasi-Money as a % of GDP	26.8	28.8	29.9	40.4	30.3	35.1
General Price Index (1974=100)	111.8	135.1	157.3	173.4	186.1	195.4
Annual Percentages Changes in:						
General Price Index	17.6	20.8	16.4	10.2	7.3	5.0
Claims on Government	-61.7	29.8	--	80.8	67.0	4.7
Claims on the Economy	13.2	106.7	24.6	53.3	47.8	40.9

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

^{1/} Including public utilities and construction.

^{2/} Estimates based on number of employees in establishments having five or more workers and furnishing statistical returns.

^{3/} Excluding transfers to Development Fund.

THE GAMBIA
TRADE PAYMENTS AND CAPITAL FLOWS

<u>BALANCE OF PAYMENTS</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>						
	(Millions of US\$)								
Exports of Goods, NFS	66.1	54.6	86.4						
Imports of Goods, NFS	78.7	104.8	131.7						
Resources Gap (deficit = -)	-12.6	-50.2	-45.3						
Interest Payments (net)	-0.1	-0.1	-0.1						
Workers' Remittances	-0.3	-0.3	-0.4						
Other Factor Payments (net)	1.7	-0.6	-1.1						
Net Transfers	4.9	4.1	8.5						
Balance on Current Account	-6.4	-47.1	-38.4						
Direct Foreign Investment									
Net M&T Borrowing									
Disbursements	3.3	13.2	12.7						
Amortization	-0.2	-0.4	-0.4						
Subtotal (net)	3.1	12.8	12.3						
Capital Grants	--	6.9	3.8						
Other Capital (net)	-1.3	5.0	3.6						
Error and Omissions	5.5	9.2	3.1						
Increase in Reserves (- = Increase)	-0.9	13.2	15.6						
Gross Reserves (end year) ^{1/}	31.1	21.2	9.9						
Fuel and Related Materials Imports									
of which: Petroleum	6.3	10.8	11.1						
Exports									
of which: Petroleum									
<u>RATE OF EXCHANGE</u> Through -	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>
Dalasi/US\$	2.1	2.0	1.7	1.7	1.8	2.2	2.3	2.1	1.8

MERCHANDISE EXPORTS (AVERAGE 1974/75 - 1978/79)

	<u>US\$ MLN.</u>	<u>£</u>
Groundnut Products	36.8	72.7
Groundnut (shelled)	(20.1)	(39.7)
Oil (unrefined)	(12.5)	(24.7)
Cake	(4.2)	(8.3)
Palm Kernels and Nuts	0.4	0.8
Fish and Fish Products	1.7	3.4
Other (including border trade)	11.7	23.1
<u>Total</u>	<u>50.6</u>	<u>100.0</u>

EXTERNAL DEBT - December 31, 1979

	<u>US\$ MLN</u>
Public Debt, including Guaranteed	45.7
Non-Guaranteed Private Debt	--
Total Outstanding and Disbursed	45.7

DEBT SERVICE RATIO FOR 1979 ^{2/}

	<u>£</u>
Public Debt, including Guaranteed	0.3
Non-Guaranteed Private Debt	--
Total Outstanding and Disbursed	0.3

IIRD/IDA LENDING (MLN. US\$)
(as of January 31, 1981)

	<u>IIRD</u>	<u>IDA</u>
Outstanding and Disbursed	--	16.1
Undisbursed	--	11.3
Outstanding, including undischursed	--	27.4

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

^{1/} End of fiscal year (June).

^{2/} Ratio of Debt Service to Exports of Goods and Non-Factor Services.

THE STATUS OF BANK GROUP OPERATIONS IN THE GAMBIA

A. Statement of IDA Credits (as of August 31, 1981)

<u>Credit Number</u>	<u>Year</u>	<u>Borrower</u>	<u>Purpose</u>	Amount, less cancellations (US\$ million) 1/	
				<u>IDA</u>	<u>Undisbursed</u>
Two credits fully disbursed.				5.78	
602-GM	1976	Republic of The Gambia	Infrastructure and Tourism Development	4.00	0.46
644-GM	1976	Republic of The Gambia	Rural Development Project	4.10	0.48
792-GM	1978	Republic of The Gambia	Education Project	5.50	2.56
814-GM	1978	Republic of The Gambia	Rural and Urban Enterprise Project	3.00	1.40
897-GM	1979	Republic of The Gambia	Highway Maintenance Project	<u>5.00</u>	<u>3.75</u>
Total				27.38	8.65
-of which has been repaid				<u>0.07</u>	
Total now held by IDA				<u>27.31</u>	
Total Undisbursed					<u>8.65</u>

1/ Prior to exchange adjustments.

B. Projects in Execution*

Cr. No. 602 Infrastructure and Tourism Project; US\$4.0 Million Credit of January 12, 1976; Effective Date: December 16, 1976; Closing Date: June 30, 1982.

The project provides basic infrastructure for tourism development, expansion of public utilities, and technical assistance to The Gambia Utilities Corporation (GUC). The physical components of the project are on the whole being implemented satisfactorily, the only exception being delays in implementing the electricity component. The management and worsening financial performance of the GUC continue to give cause for concern. A project completion mission is likely to be scheduled in early 1982.

Cr. No. 644 Rural Development Project: US\$4.1 Million Credit of July 19, 1976; Effective Date: November 16, 1976; Closing Date: September 30, 1981

The project, now almost completed, has been hampered by managerial problems, resulting in objectives only being partly met. The project has also been affected by sectorial problems, particularly the breakdown of the agricultural credit system. To take the experience of the project into account and to analyze the implications of the sectorial developments, appraisal of a follow-up project has been delayed until late 1981 or early 1982.

Cr. No. 792-GM Gambia Education Project: US\$5.5 Million Credit of May 26, 1978; Effectiveness Date: October 26, 1978; Closing Date: June 30, 1983.

Because of problems in the recruitment of technical assistance for the Project Unit, there was an initial delay of about one year in project implementation. Since overcoming these problems, implementation has progressed satisfactorily. The first phase of school construction, about 60% of all civil works, is in line with the revised implementation schedule. Contracts for the second phase of construction have been awarded, and procurement of furniture and equipment is underway. Disbursements are still lagging behind appraisal estimates but are expected to accelerate with the advancement of civil works. All technical assistance personnel, except the health planning specialist, have been recruited. The upgrading programs for secondary school teachers and for instructors at the Technical Institute are being finalized. Curriculum development for secondary science and practical subjects and for the nurses training program is underway.

* 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.

Cr. No. 814-GM Rural And Urban Enterprises Project: US\$3 Million Credit of
May 26, 1978; Effectiveness Date: September 29, 1978;
Closing Date: December 31, 1982.

The line of credit to Gambia Commercial and Development Bank (GCDB) is almost fully committed with 53 subprojects approved since credit effectiveness. Institution building remains difficult and US\$180,000 have recently been reallocated for additional technical assistance. GCDB still has to complete the financing plan for its new office building.

Cr. No. 897-GM Highway Maintenance Project: US\$5 million Credit of
May 10, 1979; Effectiveness Date: July 20, 1979;
Closing Date: December 31, 1984.

The project consists of a four-year maintenance program including routine and periodic maintenance of selected roads; installation of a weighing bridge and procurement of equipment; technical assistance to the Public Works Department; and a mechanical engineering fellowship. The major component, periodic maintenance, started according to the appraisal schedule in October 1980. The EEC Special Action Credit (6-GM, US\$1.7 million) supplementing the IDA credit was amended to include additional equipment and its closing date was extended to end-1981. Field implementation of the routine and periodic maintenance programs is good. Spare parts procurement for equipment should be improved to assure smooth operations; the Government is studying alternative procedures and will be proposing a solution to the problem to the Association.

REPUBLIC OF THE GAMBIA

SUPPLEMENTARY PROJECT DATA SHEET

Section I: Timetable of Key Events

- (a) Time taken to prepare project: 6 months
- (b) Project prepared by: Government/Association
- (c) Identification Mission: May, 1980
- (d) Appraisal Mission: September, 1980
- (e) Negotiations: June 1981
- (f) Planned date of effectiveness: January 31, 1981

Section II: Special IDA Implementation Action: None

Section III: Special Conditions

- (a) Implementation of GUC's Financial Recovery Plan by the Borrower and GUC would be a condition of effectiveness (para. 44).
- (b) During negotiations assurances were obtained that (para. 44):
 - (i) with respect to GUC's power and sewerage services, GUC would set tariffs at a level sufficient to provide an 8 percent rate of return on currently valued net fixed assets in operation from 1983 onwards;
 - (ii) GUC would not incur any long-term debt unless its current adjusted revenues are not less than 1.6 times its future maximum debt service;
 - (iii) Government would fully compensate GUC for the losses from operation of the provincial power and water supply systems; and
 - (iv) the appointment of the Managing Director of GUC would be subject to prior consultation with the Association.
- (c) GUC would employ an engineer to assist in equipment installation by December 31, 1981 (para. 53); and
- (d) A condition of disbursement for the basin study would be the availability of satisfactory data, and satisfactory arrangements having been made between Senegal, Gambia and Guinea-Bissau to implement the joint basin study, including contractual arrangements with consultants. A condition of disbursement of the forestry component would be Government's submission of a program and list of equipment satisfactory to the Association (para. 55).

THE GAMBIA

Hydrocarbon Geology and Status of Exploration

Hydrocarbon Geology

1. The onshore and offshore areas of The Gambia lie within the Senegal Basin, one of a series of Mesozoic basins situated along the West African coast. Formation of the basin initiated with basement subsidence during the Jurassic, probably in association with continental rifting. The sedimentary wedge thickens westward from zero in the eastern Senegal interior to approximately 7,000 m in its thickest part. In the present onshore area, Mesozoic sediments onlap eastward onto an extensive westward dipping surface and unconformably overlie folded and faulted Paleozoic formations.
2. The structural framework for part of the basin is conditioned by the Triassic/Jurassic salt tectonics which are well known in Senegal although not as clear in The Gambia with the existing seismic. Tensional faulting is also usual in this type of continental margin. Chances remain that structures can be delineated, especially in the shelf or coastal areas, with improved geophysical technology that would overcome more effectively the data quality problems of earlier surveys. Data quality is crucial as the anomalies, if they exist, are likely to be small and subtle.
3. Possibilities exist for stratigraphic traps, for example, limestones and sandstones encased in shales at numerous stratigraphic levels or where the predominantly carbonate and sandstone section of Cenomanian and Upper Albian age shales out updip (eastward) in the area of the present coastal margin. Also deltaic or sand bar following directional trends can be divergent to the general westward basinal deepening. The recently discovered oil field in the Ivory Coast is linked to such stratigraphic occurrence.

Exploration History

4. The Gambia sedimentary basin covers an area of 7,600 km² onshore, 5,000 km² on the continental shelf and about 4,000 km² on the continental slope. This area has been explored for hydrocarbons since 1956, generally by companies which were also holding exploration permits on the adjacent areas in Senegal.
5. Five companies have held permits: British Petroleum, Shell International, Aracca Petroleum, Chevron and Societe Nationale Elf Aquitaine (SNEA). Since Chevron relinquished its rights on the continental slope in early 1980, only SNEA is holding an exploration license covering the continental shelf and the onshore. SNEA is planning seismic surveys onshore and offshore.

Results of Past Exploration

6. As a result of past exploration, a significant amount of information has been collected. About 5,000 km of seismic were shot (mostly offshore) and three wells were drilled. BP drilled two wells onshore in 1960-61 (SK-1 and BK-1) and Chevron a well (Jammah-1) in the deep offshore in early 1979. ^{1/} The three wells were dry. The onshore wells were drilled on poorly-defined structures while Chevron drilled a large, north-south trending structure.

Reservoir and Source Rocks

7. These wells have proven the existence of reservoir and source rocks in the Cretaceous (Albian to Maestrichtian). In the Jammah well, reservoir and potential source rocks were encountered. The source rocks, however, were thermally immature due to insufficient burial. Better maturation and oil generation conditions could be encountered under the thicker cover of the continental shelf.

8. Reservoir and source rocks have generally been identified in the wells drilled both in Senegal and The Gambia in Cretaceous section (Albian to Maestrichtian). The carbonates and sands of Cenomanian age, the Albian sands and the sands which occur in places in Lower Maestrichtian have generally been the objectives. Regional variations of those formations apparently have not been well studied.

9. The presence of light oil in Uppermost Cretaceous/Lower Tertiary sands and heavy oil in the Lower Tertiary in southern Casamansa (Dome Flore area) proves that oil generation and migration have in effect occurred in the area. The trapping and migration problems in this area are unsolved and a solution to this problem would greatly contribute to leads for successful exploration.

Conclusion

10. The recent dry well, Jammah-1, has undoubtedly downgraded the continental slope areas. The shelf and coastal margin area were not drilled enough to allow a thorough evaluation of the potential. Two major problems remain to be solved:

- (a) oil generation and migration--to find areas where the existing source rocks have been buried deep enough for maturation of organic matter and where migration and trapping possibilities exist; and
- (b) deeper formations (Jurassic or Paleozoic)--to solve these problems, modern seismic techniques, more wells and sound geological understanding of stratigraphy and sedimentation will be necessary.

^{1/} Sk-1 bottomed at 3,710 m in Upper Aptian; BK-1 at 2,104 m in Lower Cenomanian and Jammah-1 at 3,020 m in Albian.

THE GAMBIA

Gambia Utilities Corporation

Proposed Financial Recovery Plan

With the installation this year of two 3MW sets at the Half Die Power Station and the new powerhouse at Kotu, the electric power generation problems of the Gambia Utilities Corporation (GUC) will be solved for the time being. The construction and installation of facilities proposed to be financed under this project should solve the more urgent problems relating to distribution of electric power. These physical facilities should significantly improve GUC's financial situation. However, they are not sufficient to restore GUC's financial health and additional financial actions need to be taken. The Government has now approved a financial recovery plan for GUC which is summarized below:

- (i) the conversion to Government equity of about Dalasi 4.3 million made available to GUC by the Government between 1975 and 1980 for the emergency purchase of generators and other equipment;
- (ii) the conversion to Government grant as "Development Funding" of about Dalasi 3.3 million made available to GUC by the UK Government (ODA) and the Government for the procurement of materials;
- (iii) the settlement of transactions between GUC and Government whereby the Government owes GUC a net amount of about Dalasi 1.0 million;
- (iv) the provision of funds by the Government to GUC as equity to cover cost overruns amounting to about Dalasi 2.5 million on the new Kotu Power Station now being constructed and financed with a loan from the African Development Bank;
- (v) an increase of 15 percent in the electricity tariff effective October 1, 1981, with Government paying the losses of the provincial electric power systems as provided for under section 15 of the GUC Act of 1972. 1/

Implementation of the above elements of the Plan would begin to put GUC on a sound financial basis. Assuming the Plan is implemented in October 1981, as a condition of effectiveness and making further assumptions regarding revenues and costs, Tables 1 to 4 contain financial forecasts of GUC for the years 1981-86. As the tables indicate, net operating income before interest rises from Dalasi 62,000 in 1981 to Dalasi 6.0 million in 1985. The rate of return increases to close to 8 percent in 1983 and about 9 percent in 1985. Assurances have been obtained that GUC shall produce revenues sufficient to yield an annual rate of return of not less than 8% for its power and sewerage services in 1983 and thereafter. Additional tariff increases of 20 percent

1/ Already approved and in effect.

for fiscal year 1982 and 10 percent thereafter have been assumed in the projections, with the Government continuing to cover provincial losses. In order to maintain a sound financial structure in the future, assurances have been obtained from GUC that it will not incur any long term debt unless its current adjusted revenues are at least equal to 1.6 times its future maximum debt service.

GAMBIA

GUC - Forecast Consolidated Income Statement ^{1/}
(D'000)

<u>Year Ending June 30</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
<u>Operating Revenue</u>						
Electricity	8,578	12,398	16,931	20,485	24,822	30,000
Water	<u>2,271</u>	<u>2,798</u>	<u>3,449</u>	<u>4,209</u>	<u>5,091</u>	<u>6,160</u>
Total	10,849	15,196	20,380	24,694	29,913	36,160
<u>Operating Expenses</u>						
Fuel and lube oil	5,230	6,590	8,010	9,880	12,220	15,070
Labor and other materials						
Electricity	1,307	1,638	1,800	1,928	2,180	2,397
Water	1,406	1,606	1,833	2,016	2,218	2,440
Head Office	1,270	1,397	1,537	1,690	1,859	2,045
Depreciation	<u>1,574</u>	<u>2,798</u>	<u>3,364</u>	<u>4,372</u>	<u>5,297</u>	<u>5,875</u>
Total	10,787	14,029	16,544	19,886	23,774	27,827
<u>Net Operating Income</u>						
<u>Before interest</u>	62	1,167	3,836	4,808	6,139	8,333
Interest charged op.	<u>975</u>	<u>1,623</u>	<u>2,095</u>	<u>2,539</u>	<u>2,460</u>	<u>2,338</u>
<u>Net Income</u>	<u>(913)</u>	<u>(456)</u>	<u>1,741</u>	<u>2,269</u>	<u>3,679</u>	<u>5,995</u>
<u>Memo Items</u>						
Provincial Profit (losses)						
Electricity	(831)	(712)	(762)	(804)	(854)	(900)
Water	<u>(20)</u>	<u>-</u>	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>
Total	(851)	(712)	(712)	(749)	(794)	(835)

1/ Based on Banjul electricity and water supply operations, that is excluding provincial operations, sewerage and gas sales.

GAMBIA

GUC- Forecast Sources and Applications of Funds
(D'000)

<u>Year Ending June 30</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
<u>Sources</u>						
Net Income	(913)	(456)	1,741	2,269	3,679	5,995
Depreciation	1,574	2,798	3,364	4,372	5,297	5,875
Consumers' contribution	330	220	160	120	160	120
Loans:						
AFDB I and II	9,772					
4th generator			4,000			
Water supply extension			9,000			
IDA		260	500	500		
Total Loans	9,772	260	13,500	500	-	-
Revaluation Reserve	3,067	4,603	5,151	6,310	7,252	7,527
Capital Grants (including 3rd generator)	1,000	4,000	-	-	-	-
Increase in retained earnings	1,871					
Total Sources	16,701	11,425	23,916	13,571	16,388	19,517
<u>Applications</u>						
New plant in operation	18,400	2,770	5,220	15,160	1,120	1,160
Work in progress	(8,090)	2,450	9,940	(14,040)	40	(40)
Revaluation net plant	2,084	3,976	4,370	4,993	6,571	6,810
Revaluation work in progress	983	627	781	1,317	681	717
Amortization	1,595	35	535	1,185	1,785	1,750
Total Applications	14,972	9,858	20,846	8,615	10,197	10,397
<u>Change in Working Capital</u>	1,729	1,567	3,070	4,956	6,191	9,120

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GUC - Forecast Balance Sheets
(D'000)

<u>Year Ending June 30</u>	<u>Unaudited</u> <u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
<u>Assets</u>							
Plant in operation	33,933	55,726	64,069	75,696	98,426	109,389	121,488
Less: depreciation	13,089	15,972	20,367	25,768	32,717	41,286	51,290
Net plant in operation	20,844	39,754	43,702	49,928	65,709	68,103	70,198
Work in progress	19,652	12,545	15,622	26,343	13,620	14,341	15,018
Net current assets	3,171	4,900	6,467	9,537	14,493	20,684	29,804
Total Assets	<u>43,667</u>	<u>57,199</u>	<u>65,791</u>	<u>85,808</u>	<u>93,822</u>	<u>103,128</u>	<u>115,020</u>
<u>Equity and Liabilities</u>							
<u>Equity</u>							
Government Equity	5,725	5,725	5,725	5,725	5,725	5,725	5,725
Capital Grants	4,563	5,563	9,563	9,563	9,563	9,563	9,563
Development Funding (C/A)	3,329	3,329	3,329	3,329	3,329	3,329	3,329
Development Funding (Govt)	6,584	6,584	6,584	6,584	6,584	6,584	6,584
Retained Earnings (losses)	(14,350)	(13,392)	(13,848)	(12,107)	(9,838)	(6,159)	(164)
Revaluation Reserve	16,814	19,881	24,484	29,635	35,945	43,197	50,724
Total Equity	<u>22,665</u>	<u>27,690</u>	<u>35,837</u>	<u>42,729</u>	<u>51,308</u>	<u>62,239</u>	<u>75,761</u>
<u>Long Term Debt</u>							
Existing loans onlent by Govt	16,228	26,000	26,000	25,500	25,000	23,900	22,800
New loans onlent by Govt	-	-	260	13,760	13,610	12,960	12,310
GPMB Loan	235	140	105	70	35	-	-
Central Bank Loan	1,500	-	-	-	-	-	-
State Pension Board Loan	500	500	500	500	500	500	500
Total Long Term Debt	<u>18,463</u>	<u>26,640</u>	<u>26,865</u>	<u>39,830</u>	<u>39,145</u>	<u>37,360</u>	<u>35,610</u>
<u>Miscellaneous</u>							
Consumers' Contribution	2,117	2,447	2,667	2,827	2,947	3,107	3,227
Provincial Capital Reserve	422	422	422	422	422	422	422
Total Equity and Liabilities	<u>43,667</u>	<u>57,199</u>	<u>65,791</u>	<u>85,808</u>	<u>93,822</u>	<u>103,128</u>	<u>115,020</u>

GAMBIA

GUC - Forecast Financial Ratios^{1/}
(D'000)

<u>Year Ending June 30</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
<u>Net Plant in Operation</u>	20,844	39,754	43,702	49,928	65,709	68,103	70,198
<u>Net Operating Income Before Interest</u>		62	1,167	3,836	4,808	6,139	8,333
<u>Return on Average Net Plant 2/ in Operation (before interest)</u>		0.2	2.8	8.2	8.3	9.2	12.0
<u>Net Income After Interest</u>		(913)	(456)	1,741	2,269	3,679	5,995
<u>Return on Average Net Plant^{2/} in Operation (after interest)</u>		-	-	3.7	3.9	5.5	8.7
<u>Internal Cash Generation</u>							
Net Operating Income		62	1,167	3,836	4,808	6,139	8,333
Depreciation		<u>1,574</u>	<u>2,798</u>	<u>3,364</u>	<u>4,372</u>	<u>5,297</u>	<u>5,875</u>
Total		<u>1,636</u>	<u>3,965</u>	<u>7,200</u>	<u>9,180</u>	<u>11,436</u>	<u>14,208</u>
<u>Debt Service</u>							
Interest		975	1,623	2,095	2,539	2,460	2,338
Amortization		<u>1,595</u>	<u>35</u>	<u>535</u>	<u>1,185</u>	<u>1,785</u>	<u>1,750</u>
Total		<u>2,570</u>	<u>1,658</u>	<u>2,630</u>	<u>3,729</u>	<u>4,245</u>	<u>4,088</u>
<u>Debt Service Coverage</u>		0.6	2.4	2.7	2.5	2.7	3.5
<u>Debt/Equity Ratio</u>		49/51	43/57	48/52	43/57	38/62	32/68

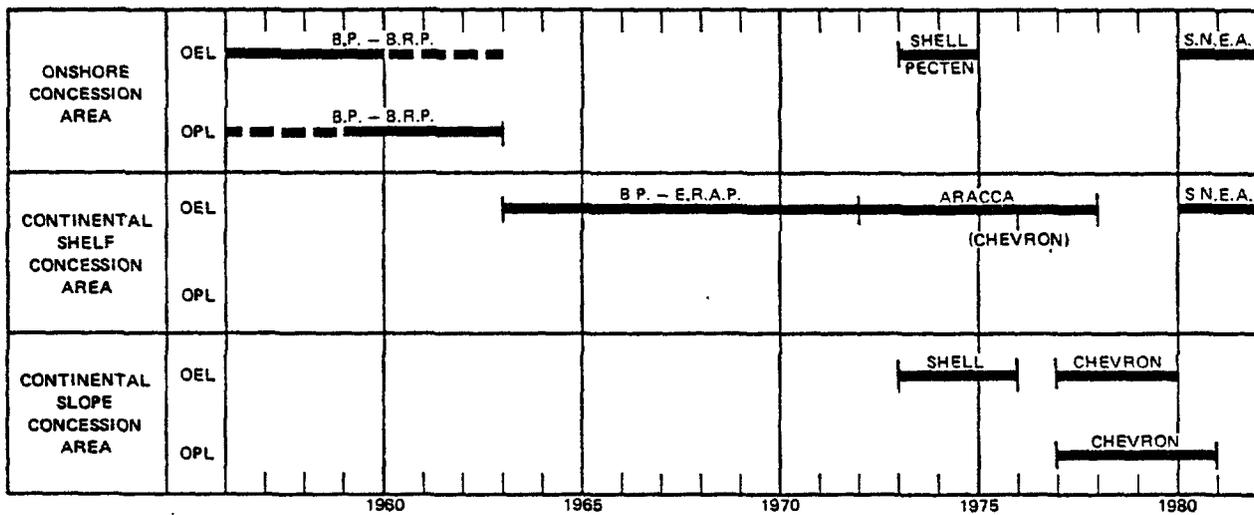
^{1/} Based on Banjul electricity and water supply operations, that is excluding provincial operations, sewerage and gas sales.

^{2/} Net plant calculated by taking average of initial and year end figure.

^{3/} Of which D 1.5 million to be repaid out of the settlement of accounts by GUC with the Government.

7.22,81

CHART: Timing of Licenses Held by Oil Companies for the Three Major Concession Areas



This map has been prepared by the World Bank's staff exclusively for the convenience of the readers of the report to which it is attached. The denominations used and the boundaries shown on this map do not imply, on the part of the World Bank and its affiliates, any judgment on the legal status of any territory or any endorsement or acceptance of such boundaries.

THE GAMBIA GAMBIAN CONCESSION AREAS AND REGIONAL EXPLORATORY WELLS

