

**Document of**  
**the International Development Association**  
**Acting as Administrator of the Interim Trust Fund**

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Report No. P-6735-GUI

MEMORANDUM AND RECOMMENDATION  
OF THE  
MANAGING DIRECTOR  
TO THE  
PRESIDENT OF THE  
INTERNATIONAL DEVELOPMENT ASSOCIATION  
ON A  
PROPOSED INTERIM FUND CREDIT  
IN AN AMOUNT OF SDR 18 MILLION  
TO  
THE REPUBLIC OF GUINEA  
FOR A  
THIRD WATER SUPPLY AND SANITATION PROJECT

March 3, 1997

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## CURRENCY EQUIVALENTS

Currency Unit = Guinean Franc

(As of January 31, 1997)

US\$ 1 = 1,000 GNF

1 SDR = US\$ 1.3894

## WEIGHTS AND MEASURES

1 meter	=	3.28 feet
1 hectare	=	2.47 acres
1 kilometer	=	0.625 miles
1 liter	=	0.220 Imperial gallons
1 Imperial gallon	=	4.545 liters
1 cubic meter	=	220 Imperial gallons

## ABBREVIATIONS AND ACRONYMS

ACGP	Administration et Contrôle des Grands Projets ( <i>Public Works Management Agency</i> )
CAS	Country Assistance Strategy
DATU	Direction de l'Aménagement du Territoire et de l'Urbanisme ( <i>Directorate of Land Development and Urbanism</i> )
DNH	Direction Nationale de l'Hydraulique ( <i>National Hydraulics Directorate</i> )
EER	Economic Rate of Return
GDP	Gross Domestic Product
GNF	Guinean Franc
ICB	International Competitive Bidding
MUH	Ministère de l'Urbanisme et de l'Habitat ( <i>Ministry of Urbanism and Housing</i> )
MRNE	Ministère des Ressources Naturelles et de l'Energie ( <i>Ministry of Natural Resources and Energy</i> )
NCB	National Competitive Bidding
NGO	Non-Governmental Organization
NPV	Net Present Value
SEEG	Société d'Exploitation des Eaux de Guinée ( <i>Guinean Water Operation Company</i> )
SDR	Special Drawing Rights
SNAPE	Service National d'Aménagement des Points d'Eaux ( <i>National Service for the Development of Rural Water Supply</i> )
SONEG	Société Nationale des Eaux de Guinée ( <i>Guinean National Urban Water Development Company</i> )
TA	Technical Assistance
TOR	Terms of Reference

## FISCAL YEAR

January 1 - December 31

Vice President:	Jean-Louis Sarbib
Country Director:	Mamadou Dia
Technical Manager:	Max Pulgar-Vidal
Task Team Leader:	Yao Badjo

REPUBLIC OF GUINEA

THIRD WATER SUPPLY & SANITATION SECTOR PROJECT

INTERIM FUND CREDIT AND PROJECT SUMMARY

<b>Borrower:</b>	Republic of Guinea
<b>Beneficiaries:</b>	Ministry of Natural Resources and Energy (MRNE), Ministry of Urbanism and Housing (MUH) and the Guinean National Urban Water Development Company (SONEG)
<b>Poverty:</b>	Program of targeted interventions
<b>Credit Amount:</b>	SDR 18 million (US\$25.00 million equivalent)
<b>Terms:</b>	Standard IDA terms with 40 years' maturity
<b>Commitment Fee:</b>	0.5 percent on undisbursed credit balances beginning 60 days after signing
<b>Financing Plan:</b>	See Schedule A
<b>On-Lending:</b>	US\$16.8 million equivalent of the Interim Fund credit would be provided by the Government to SONEG, of which 50 percent (US\$8.4 million) would be on-lent at IBRD terms (20 years including 5 years of grace, at an annual interest rate of 7 percent) and the remaining US\$8.40 million would be provided in form of equity. SONEG would bear the foreign risk. The rest US\$8.2 million equivalent of the Interim Fund credit would be provided to the DATU and DNH as grants.
<b>Economic Rate of Return:</b>	The project's ERR is 13 percent, taking into account all investments for the expansion of water system in Conakry and other cities up to the year 2001.
<b>Staff Appraisal Report:</b>	14831-GUI
<b>Map:</b>	IBRD 27322
<b>Project I.D.:</b>	GN-PE-1075

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**MEMORANDUM AND RECOMMENDATION OF THE MANAGING DIRECTOR  
TO THE PRESIDENT OF THE INTERNATIONAL DEVELOPMENT ASSOCIATION  
(THE ASSOCIATION ACTING AS ADMINISTRATOR  
OF THE INTERIM TRUST FUND)  
TO THE REPUBLIC OF GUINEA  
FOR A THIRD WATER SUPPLY AND SANITATION SECTOR PROJECT**

1. I submit for your approval the following memorandum and recommendation on a proposed development credit to the Republic of Guinea for SDR 18 million, the equivalent of US\$25.00 million, on standard IDA terms with a maturity of 40 years, to help finance a Third Water Supply and Sanitation Project. The Government of Guinea would contribute US\$1.2 million equivalent, and SONEG would contribute US\$1.8 million equivalent.
2. **General Background.** Guinea's social indicators are among the lowest in the world. Life expectancy is 47 years, the under-five mortality rate is 237 per 1,000 live births, and only 52 percent of the population has access to safe water.
3. Non -agricultural production accounted for two-thirds of GDP, and Guinea's cities are growing at the rate of 5.8 percent a year or twice the national population growth rate. Conakry, the capital, houses 1.2 million people, or 84 percent of the country's urban population.
4. Before 1989 only 25 percent of all Guineans had access to safe water. That year, Government restructured the water supply sector and set up a new authority, SONEG (*Société Nationale des Eaux de Guinée*), to plan and manage investments. Under a ten-year lease, Government also contracted with SEEG (*Société d'Exploitation des Eaux de Guinée*) -a company 51 percent owned by a foreign consortium- to operate and maintain water sector facilities at its own commercial risk. This innovative arrangement, supported by IDA, has become the model of a successful private-public partnership worldwide (see "Success of a Lease Contract-Guinea's Water Supply", World Development Report 1994, p. 62).
5. But in spite of much progress, Guinea's water sector coverage and the quality of its water services need to be improved further. In Conakry only 30 percent of the population is served by private connections. Another 30 percent get their water from neighbors. The rest must depend on unevenly distributed public standpipes, expensive water vendors, or unsafe sources. On the sanitation side, waste water and excreta disposal is highly inadequate and poses significant health and environmental hazards, particularly in the densely populated areas of Conakry. Improving the health and well-being of the poor by giving them better access to safe water and sanitation facilities is a central goal of IDA's 1994 Country Assistance Strategy for Guinea. The objective of the proposed project is to help Guinea achieve this crucial component in its overall goal of poverty reduction.
6. **Water Sector.** Urban water sector related issues are significantly different from rural ones. *Urban drinking water.* In 1988 only ten of Guinea's 33 urban centers were equipped with piped water systems. There were only about 12,000 connections (9,000 of them in Conakry) and only 600 (5 percent) were equipped with meters. Water production capacity for Conakry was less than 40,000 cubic meters a day for a population of one million. Today eighteen urban centers are equipped with piped systems and there are 34,000 connections (24,000 in Conakry), 98 percent of which are metered. Conakry's water production capacity has increased to 100,000

cubic meters a day. Yet even today, less than 60 percent of the urban population has access to safe water through connections or standpipes, and the remaining 40 percent must rely on unsafe-water.

*Rural water.* In 1988, only some 1,750 water points were operational, of which 85 percent served villages and the remainder served small urban centers. Currently about 6,100 water points have been constructed and 90 percent are operational. These new water points consist of boreholes equipped with hand pumps (50 percent), open wells (20 percent) and tapped springs (30 percent). Water points serve about 1.4 million people, or about 30 percent of the rural population, which is estimated to be 4.7 million. Guinea is implementing many rural water and sanitation projects with bilateral donors (especially France and Germany). IDA financed in 1990 (Credit 2106-GUI, SDR 3.9 million) the implementation of about 300 productive boreholes equipped with handpumps, 94 percent of which are operational. The government requested also IDA assistance to implement rural water and sanitation demand driven operations in the *Guinée Maritime* (coastal Guinea).

7. **Sanitation.** Morbidity due to common enteric and parasitic diseases is high throughout the country and outbreaks of cholera are regularly reported. In 1994, 675 persons (330 in Conakry alone) died in a cholera epidemic. In Conakry, the municipal sewer network is dilapidated. There are no treatment plants, and effluent is discharged directly into the ocean. Only 9 percent of the population is connected to sewerage. The remaining has access to facilities such as pit latrines, but these are mostly not built to adequate standards. The city of Conakry manages the sanitation system and lacks financial resources to operate adequately. Pit emptying is often carried out manually and in unhealthy conditions. Waste water and excreta are illegally dumped into the sea or in open land. Heavy rainfall, inadequate drainage, and sporadic collection and disposal of domestic and industrial waste exacerbate the sanitation situation.

8. **Project Objectives.** The overall *development objectives* of the proposed project are to improve the living conditions and health of the poor by increasing coverage through better access to safe, affordable water and sanitation; improving efficiency and private participation in the water sector, by setting the stage for a second generation affermage lease contract; and ensuring sustainability by improving water pricing and cost recovery and developing Guinea's regulatory and planning capacity. *Specific sector and project objectives* are to formulate an integrated, multisectoral strategy for the shared use of water by households, industry, and agriculture, to be coordinated with future development projects in those sectors; to further strengthen the policy and regulatory capacity of the Directorate of Hydraulics (DNI), the national water company (SONEG) and the Directorate of Housing (DATU); to increase coverage in Conakry by 100 percent; and to rehabilitate Conakry sewerage facilities in order to reach 80 percent of the population in the area where sewerage system exists.

9. **Project Description.** The proposed operation has three components:

(a) **Urban Water Supply** (US\$18.6 million, 66 percent of the project cost). This component includes the rehabilitation and expansion of the water supply network in Conakry - with the construction/installation of about 300 kilometers of pipelines, two storage reservoirs and about 10,000 household connections; and strengthening SONEG's regulatory and policy capacity including the preparation of new contractual arrangements with private sector.

(b) **Urban Sanitation** (US\$8.4 million, 30 percent of the project cost). This component covers institutional arrangements including cost recovery study and promotion of proper

technologies, training and support for artisans to rehabilitate and construct on-site systems, and support for small contractors for pit emptying; rehabilitation, extension, and maintenance of existing sewerage facilities in Conakry; construction of a sewerage treatment facility.

(c) Water Resources Management (US\$1.0 million, 4 percent of the project cost). This component will include: (i) organization of a National Water Resources Management Workshop to launch an integrated strategy; (ii) technical assistance to revise the water legislation; (iii) strengthening of human resources, and institutional capacity in the field of water resources management; and (iv) promotion of regional river basin cooperation. The overall objective of the component is to assist the *Direction Nationale de l'Hydraulique* (DNH) to develop a national water management policy and strategy. IDA's assistance will help finance technical assistance and studies required to develop a national water management policy and strategy.

10. **Project Implementation.** The project would be implemented by the existing agencies. The Ministry in charge of Water Resources (MRNE) and the Ministry responsible for Housing (MUH) will be the lead Ministries for the project. MRNE would oversee the project implementation. The implementing agencies would prepare, review, and evaluate bid documents; award and sign contracts; supervise works; withdraw funds from the special account. SONEG would implement the urban water supply component, DATU would implement the urban sanitation component and DNH would implement the water resource management strategy. The Government will organize a joint annual review meeting attended by donors, implementing agencies and representatives of user groups and communities, to review audits, reports, provision of counter funds, progress on implementation and performance, reach agreement for the following year, action to be taken and goals to be reached.

11. **Project Sustainability.** Sustainability would be achieved through enhanced institutional efficiency and financial self-sufficiency. Institutional efficiency would be enhanced under the project by provision of financial and technical support to: (i) The overall structure of Guinea's urban water sector--the public-private partnership (SONEG's regulatory framework and SEEG's private lease-contract), SONEG's financial structure (through adequate tariffs and cost recovery), and the urban water sector's long-term policy --will continue to ensure its ability to supply safe and affordable water to a larger proportion of the growing urban population; (ii) The involvement of the private sector in the operation of sewerage network and in the maintenance of the on-site facilities would help to ensure the future sustainability of various types of sanitation systems in Guinea through adequate cost recovery (agreements have been reached to privatize the waste water systems management); and (iii) Revise water legislation, develop capacity building in the field of water resources management and promotion of regional river basin cooperation.

12. **Lessons Learned from Previous IDA Involvement.** IDA's involvement in the water supply sector began with the Conakry First Water Supply and Sanitation Project (Credit 870-GUI) approved in March 1985. The objectives of the project were to: rehabilitate the water production and transmission facilities; extend the water distribution network including household connections installation; provide technical assistance to the water supply company; and carry out feasibility studies for water supply/sanitation in secondary centers. According to ICR 6922, the physical components of the first project have for the most part been successfully completed. However the result remains below expectations especially for the institutional reform to strengthen the sector's financial capability and promote improved systems.

The ongoing Second Water Project (Credit 1985-GUI), approved in 1989, took into account these earlier lessons of experience and emphasized the strengthening of SONEG's planning and management capabilities, as well as the rehabilitation of SONEG's technical, commercial and financial operations through a lease contract with a water management company (SEEG). This follow-up Second Water Project is being implemented satisfactorily and on schedule. The percentage of access to safe water has increased from 15 percent in 1980 to 60 percent in 1995. SONEG's capacity has improved with regard to financial management, rate-setting and reporting. Private sector involvement has improved water supply service through improved billing and collection performance, reduction of leakage at an acceptable level, expansion of the water system, and a decrease in contractual costs and delays. Water rates have been increased as agreed, revenue generation is adequate, and there is no problem with counterpart funding. Fees from private consumers increased from US\$0.10 in 1989 to US\$0.75 in 1994. The average fee rate is currently US\$0.90 per cubic meter.

13. In spite of significant progress, the following areas of improvement remain: the rehabilitation and extension of the Conakry water network, the necessity for SONEG and SEEG to comply with all the covenants of the ongoing lease contract, the timely payment of water bills by the Government and inclusion of specific dated covenants regarding public water bill arrears. Government has submitted to IDA a proposal time table to renegotiate SONEG's and SEEG's remuneration levels. In addition, SEEG and SONEG has submitted to the Bank a satisfactory action plan for improving the efficiency of the Conakry's water network.

14. ***Rationale for IDA Involvement.*** As noted in the **Country Assistance Strategy (CAS)** reviewed by the Board on **February 7, 1994**, "with the rural exodus within Guinea and the significant flow of refugees from neighboring warring countries, Guinea has seen a rapid growth of basic settlements that lack essential public sanitation equipment and services (water and electric power supply, solid waste collection and hygienic disposal of human waste)". On the drinking water side, the continuation of IDA's involvement is important to sustain successful sector reforms, assure financial discipline, and help consolidate cofinancing: France, and Japan are financing in parallel water and sanitation works for \$74 million. On the sanitation side, IDA support would help Guinea to reform the institutional framework and identify the investments needed to serve the growing low-income population in urban and rural areas. The proposed operation would help achieve two key objectives of poverty reduction and competitiveness of Guinea's economy. It will not only help the poor by increasing low-income households' access to safe water and sanitation facilities, but also assure an adequate water supply to enterprises and households, and reducing the costs of inputs. Finally, it would support the private-public partnerships to improve Guinea's infrastructure.

15. ***Agreed Actions.*** During negotiations: (a) Government agreed to deposit a counterpart funding in a total amount of \$1.2 million and agreed to establish two project accounts with an initial deposit of US\$200,000, by June 30, 1997; (b) The borrower and SONEG agreed to implement the agreed action plan for improving the overall water and sanitation sector and will carry out the project in accordance with the agreed implementation manuals; it was agreed that standard bidding documents recommended by the Bank would be used to prepare the procurement documentation; (c) The Borrower submitted to the Bank during negotiations: (i) a satisfactory procurement plan; and (ii) procedures for project management and procurement; (d) The Borrower and SONEG agreed to submit to the Administrator, no later than six months after the close of their fiscal years, auditor's reports by independent auditors acceptable to the

Administrator; (e) It was agreed that a project mid-term review will be carried out by May 31, 1999, involving IDA and relevant Government agencies and parallel financing agencies.

16. On the water supply side it was agreed that: (i) SONEG and SEEG would review the options for reducing consumer water rates and implement the agreed action plan to improve the efficiency of Conakry's water network; (ii) incentives to improve operational performances should be built in the future arrangements; (iii) a second-generation lease contract, with terms and conditions acceptable to IDA, should be signed no later than July 31, 1999; (iv) SONEG will periodically report on its and SEEG's operating and financial performance, using agreed upon monitoring indicators; (v) Measures should be taken, including tariff adjustments, to ensure that SEEG and SONEG's revenues generate for each of its fiscal year 1998 and 1999 an annual return of not less than 4 percent of the average current net value of the sector's revalued net fixed assets in operation, and for each of its fiscal year thereafter an annual return of not less than 5 percent of said value; (vi) Conditions of credit effectiveness. The signature by the Government and SONEG of a three-year rolling contract-plan (1997-2000) that includes an investment program acceptable to the Administrator, a subsidiary loan agreement between the Government and SONEG, acceptable to the Administrator and the settlement by the Government of its arrears to SEEG (GNF 660 million) and the payment of SEEG's arrears to SONEG (GNF 608 million) by June 30, 1997 will be condition of credit effectiveness.

17. On the sanitation side it was agreed that: (i) Issues are mainly institutional and relate to lack of systematic community participation, need for public education regarding hygiene and cost recovery. These issues will be addressed by using NGOs extensively to implement the sanitation strategy and by having government mount a public information campaign; (ii) The Government will take required measures to contract out the management of Conakry's sewerage system by December 31, 1998; (iii) The completion of the ongoing institutional arrangements and cost-recovery study and the selection of a private operator for the waste water management will be conditions of disbursement against expenditures related to the physical works for the sanitation component.

18. **Poverty Category.** The project is a poverty-targeted intervention. It would improve access to affordable safe drinking water for those who do not have it now and provide sanitation facilities in targeted areas of Conakry. The project would support IDA's efforts to better integrate poverty issues in the design of urban and rural investments. Systematic community involvement would be encouraged at neighborhood levels to elicit the actual demand of users, particularly women, who are usually the main water carriers in low-income neighborhoods. The proposed project would have a good impact on poverty alleviation in Conakry, by improving health, hygiene and the capacity for economic activity of the people especially the poorest, the women and children who are without access to clean, affordable water and sanitation facilities. In order to offer further opportunities for poverty alleviation, the medium and long-term strategic plans will enable extension of future investments in water supply and low cost sanitation services. Furthermore the project will create around 100,000 person-months of direct jobs or 2,000 permanent for five years of which 70 percent will be for unskilled workers.

19. **Environmental Aspects.** Government has prepared a satisfactory National Environment Action Plan, which focuses on the management of natural resources (including water), and the environment. The most pressing issues in Conakry are those of solid waste and human waste disposal, both of which would be addressed under this project and the ongoing Urban II project (Cr. 2112). The proposed physical works would not generate resettlement or have negative

environmental impact. In addition, a complementary proposed third urban environment project under preparation would address solid waste management, secondary roads, and environmental issues related to drainage. The proposed project is classified as Category B. The project will have a significant positive impact on the environment through improvement of water supply and sanitation service in Conakry. Since the project's investment consists mainly of maintenance and rehabilitation of existing sewerage systems and extension of the water supply network, no major environmental impacts are foreseen. Mitigation and compensatory measures of negative impacts have been studied with Guinean authorities. Reducing the negative impacts concern especially the civil works phase; after works, negative impact will come from a bad maintenance of lagoons or a breakdown of the system of supplying the lagoons with waste water. The only major negative impact (bad smells) could result of a bad monitoring of waste water treatment. Follow-up and evaluation of lagoons and more generally of all sanitation systems should be carried out by means of conventions with the University of Conakry under a supervision of a specialized consultant. The mitigation plan has been integrated into the design of the project components and will be funded under the project. The Department of Environment within the Ministry of Public Works will be charged with the responsibility for coordinating the environmental activities and overseeing the mitigation plan under the project.

20. ***Program Objective Categories.*** The proposed project would support four key objectives: Improving health and reducing poverty by increasing coverage and access to safe water sufficiently to meet urban household demand, particularly in Conakry's fast-growing, low-income areas. Improvement of urban environment by developing sanitation service in Conakry. Improving sustainability especially in Sustainable pricing by instituting measures to recover costs for the water supply, setting the stage for a second water management contract. Institutional development by improving the regulatory and human capacity of institutions responsible for water and sanitation. The main components to achieve the above objectives are (i) the rehabilitation and extension of Conakry water system; (ii) support to water resources management and preparation of national water strategy; (iii) rehabilitation and construction of facilities for collection and treatment of sewage and sludge .

21. ***Project Benefits.*** The project's direct, tangible but unquantifiable benefits are: (a) improved and more transparent sector management, including more effective monitoring, planning and programming; (b) increased private sector participation in urban infrastructure services such as waste water management, on-site systems maintenance, and public works; (c) improvements in sanitation and water supply would reduce water-borne morbidity and infant mortality, contribute to better health and thereby raise the productivity and income, especially for the poor; the lack of basic sanitation presents direct and indirect health hazards to the affected population; a large percentage of diseases affecting the population are related to unsafe water (for example, diarrhea diseases account for the largest share 20.3 percent of cause of death among the age group 0-4). This project would contribute to reducing public spending on health. More than 40 percent of Guineans do not have access to safe drinking water and proper sanitation; The proposed project would not only ensure accessibility to safe water by these poor people but would also allow affordability through the water tariff structure. Currently, although the average consumer rate stands at 880 GNF/m<sup>3</sup>, the poorest section of the consumers benefit from a "social rate" equivalent to 680 GNF/m<sup>3</sup>. Also, the cost per connection averages 300,000 GNF, whereas the consumer only pay 60,000 GNF. The project would also improve the efficiency and the viability of the water and sanitation sector and introduce more sustainable policy for the management of water resources. New employment opportunities would be available during the execution of the rehabilitation and expansion of water supply systems and

would increase in income; most works will be carried out by local contractors and/or subcontractors. Job creation would be substantial as large numbers of unskilled workers will be required at construction sites.

22. **Economic Justification.** The project's direct measurable benefits are based on quantifiable benefits arising mainly from user cost savings and incremental benefits. Economic and financial justifications, including Economic Rates of Return (ERR) calculations and sensitivity analysis have been carried out. The estimated economic rate of return of the water supply and sanitation component is 13 percent with shadow prices applied. Obviously these results fail to capture the project's full benefits, including such positive externalities, as improved sanitary conditions and health. A sensitivity analysis has been carried out to measure the effect of the risk of cost overrun, lower demand and delay in implementation. A detailed economic analysis is summarized in Schedule B, Pages 16 and 17 of this MOP.

23. **Participatory Approach:** The Water and Sanitation Sector Policy Letter and Investment Program have been developed through a highly participatory approach. One of the project's objectives is to provide basic urban services in partnership with the private sector (see paragraphs 17 and 18). The water and sanitation policy letter was prepared by a committee chaired by the DNH, with representatives of the Ministry of Natural Resources and Energy and DATU, SNAPE, SEEG, SONEG and user representatives. The project implementing agencies and other donors (Germany) participated in the preparation of different components, particularly with respect to prioritizing operation and maintenance. During the project implementation, communities would be involved through a systematic use of data gleaned from beneficiary assessments in the design of public information campaigns to be conducted by mayors, NGOs, and community leaders. In addition, all interested water and sanitation sector partners including government Ministries, stakeholders, private sector representatives, and representatives of donors community will be invited to participate in a Water and Sanitation Sector Policy Workshop to be organized in June 1997, to exchange views and to make recommendations for a national water management policy and strategy. This Workshop should result in consensus on the major goals and objectives of the existing entities responsible for the sector management.

24. **Project Risks.** Although this is an extension of a successful project, the following potential changes could pose some risks: (a) water consumption lower than expected due to macro conditions or low demand for service connections; (b) the pace at which communities would be mobilized and sensitized to use safe water and better sanitation service, and their willingness to pay for water and sanitation services; and (c) the Government arrears. The first risk would be mitigated by introducing an extension social connections program financed by the project at a low cost and by reducing water rate for the poorest portion of the population; in addition, other donors (France, Japan and Germany) are financing in parallel water works and water connections for households at low cost for the consumers in Conakry and in other urban centers with extensive connections at a low cost. The second risk would be mitigated by public information through the mayors, NGOs and community leaders. The following activities carried out will also help to minimize the project's risks: a water demand review, beneficiaries assessment including general survey and willingness to pay studies. Although an uncontrolled expansion of inadequate water operations in secondary centers could also jeopardize the financial viability of the sector, to minimize this project risk, it was agreed during negotiations that SONEG will not make any new investment estimated to cost the equivalent of more than US\$5 million each, until the end of the project, unless such investment is in the opinion of the Bank technically, financially and economically viable based on detailed financing plan and forecasts.

25. In the past, the Government billing was based on a lump sum structure until 1990 and was grossly overvalued. An individual lump sum billing structure was implemented for each public connection in 1990, and later, water metering equipment was installed. As a result, Government water consumption has changed drastically from 7.5 million cubic meters with global lump sum to about 5.4 million cubic meters in 1993. In 1995, the Government implemented two measures to further reduce its water consumption and improve its payment ratio. It established a list of Government services for which water consumption will be paid by the Government, and transferred public standpipe water bills to local communities. Continuing coordination with other donors will be necessary to mitigate all the above-mentioned risks.

26. There are no significant technical risks, as the works will be carried out using conventional construction methods by qualified contractor and consultants under proven management capability, especially in the case of SONEG. Implementation delay would impact the viability of the investment components of the project. However, sensitivity analysis has been carried out on the economic return and net present value of the project components (urban water and sanitation) to measure the effect of the risk of cost- overrun, lower demand, and delay in implementation as shown in Schedule B, Table 6-1.

The estimated economic rate of return (ERR) of water supply and sanitation component is 13 percent for the base case "most likely" scenario; the ERR would be 10 percent with a 2 year delay in implementation or a 50 percent lower forecasted water demand, and 12 percent with 20 percent increase in total costs.

27. **Recommendation.** I am satisfied that the proposed Interim Fund Credit would comply with Resolution No. 184, adopted by the Board of Governors of the Association on June 26, 1996, establishing the Interim Trust Fund, and I recommend that the President approve it.

Gautam Kaji  
Managing Director

#### **Attachments**

Washington, D.C.  
March 3, 1997

## REPUBLIC OF GUINEA

## THIRD WATER SUPPLY AND SANITATION SECTOR PROJECT

## Project Costs and Financing Plan

Estimated Project Cost  
(US\$ million net of taxes and duties)

Project Component	US\$ million equivalent		
	Local <sup>1</sup>	Foreign	Total
<b>Urban Water Supply</b>			
Systems rehabilitation and expansion	3.91	11.18	15.09
Technical assistance, consultants' services, and training	0.00	1.42	1.42
<b>Water Resources Management</b>			
Consultants' services and training	0.07	0.36	0.43
Equipment	0.13	0.32	0.45
<b>Human Waste Management</b>			
Construction and rehabilitation of treatment pond	0.83	4.67	5.50
Training and technical assistance	0.15	1.70	1.85
Base cost estimate <sup>2</sup>	5.09	19.65	24.74
Physical contingencies	0.63	1.97	2.60
Price contingencies	0.14	0.52	0.66
<b>Total Project Cost<sup>3</sup></b>	<b>5.86<sup>4</sup></b>	<b>22.14</b>	<b>28.00<sup>5</sup></b>

Note: Cost estimates based on consultant evaluations and detailed project design. All costs reflect unit prices as of December 31, 1996.

<sup>1</sup> Local costs are net of duties on imported equipment and material.

<sup>2</sup> In December 1996 prices.

<sup>3</sup> Based on contracts recently awarded in Guinea for similar works under the Water II project.

<sup>4</sup> See Footnote (a).

<sup>5</sup> See Footnote (a).

## Financing Plan

Potential Funding Source	US\$ million equivalent		
	Local <sup>6</sup>	Foreign	Total
<b>Water Supply</b>			
SONEG	1.80	0.00	1.80
IDA	2.70	14.10	16.80
Subtotal	4.50	14.10	18.60
<b>Water Resources Management</b>			
Government	0.10	0.00	0.10
IDA	0.13	0.77	0.90
Subtotal	0.23	0.77	1.00
<b>Human Waste Management</b>			
Government	1.10	0.00	1.10
IDA	0.03	7.27	7.30
Subtotal	1.13	7.27	8.40
<b>Total</b>	<b>5.86<sup>7</sup></b>	<b>22.14</b>	<b>28.00<sup>8</sup></b>

<sup>6</sup> Local costs are net of duties on imported equipment and material.

<sup>7</sup> See Footnote (a).

<sup>8</sup> See Footnote (a).

## REPUBLIC OF GUINEA

## THIRD WATER SUPPLY AND SANITATION SECTOR PROJECT

## Procurement Arrangements

*(US\$ millions equivalent net of taxes and duties contingencies)*

<i>Items Procured</i>	<i>ICB</i>	<i>NCB</i>	<i>OTHERS</i>	<i>TOTAL</i>
<b>1. Civil Works</b>				
(a) Reservoirs, Transmission and Distribution	11.00 (10.00)	6.00 (5.20)	- -	17.00 (15.20)
(b) Treatment Ponds & sewer network rehabilitation	6.40 (5.40)	- -	- -	6.40 (5.40)
<b>2. Equipment and Vehicles</b>				
(c) DNH	-	-	0.50 (0.40)	0.50 (0.40)
<b>3. Consulting &amp; Technical Assistance</b>				
(d) Technical assistance and training	-	-	0.50 (0.45)	0.50 (0.45)
(e) Project design & supervision	-	-	3.60 (3.55)	3.60 (3.55)
<b>Total</b>	<b>17.40</b>	<b>6.00</b>	<b>4.60</b>	<b>28.00</b>
<b>Total Financed by the IDA Credit</b>	<b>(15.40)</b>	<b>(5.20)</b>	<b>(4.40)</b>	<b>(25.00)</b>

Note: Figures in parentheses are US\$ million equivalent, to be financed by IDA.

**Disbursements****Allocation and Disbursement of IDA credit**  
*(US\$ million)*

<b>Category</b>	<b>Amount of the Interim Fund Credit Allocated (US\$ million, net of Taxes)</b>	<b>% of Expenditures to be Financed</b>
<b>1. Civil Works</b>		
a. Reservoirs, Transmission & Distribution . (SONEG)	13.60	100% of foreign expenditure & 90% of local expenditure
b. Network rehabilit./ treatment ponds (DATU)	5.00	100% of foreign expenditure & 90% of local expenditure
<b>2. Vehicles/ Equipment</b> (DNH)	0.45	100% of foreign expenditure & 90% of local expenditure
<b>3. Consulting Services</b>		100% of total expenditure
a. SONEG	1.40	
b. DATU,	1.35	
c. DNH	0.40	
<b>4. Refunding of PPF</b>	0.80	
<b>5. Unallocated</b>	2.00	
<b>TOTAL</b>	<b>25.00</b>	

**Estimated IDA Disbursement Schedule**

<b>Disbursement</b>	<b>IDA Fiscal year</b>					<b>2003</b>
	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	
	<i>(US\$ million equivalent)</i>					
Annual	1.50	5.00	6.00	5.50	5.00	2.00
Cumulative	1.50	6.50	12.50	18.00	23.00	25.00

## REPUBLIC OF GUINEA

## THIRD WATER SUPPLY AND SANITATION SECTOR PROJECT

## Project Monitoring and Performance Indicators

Category Catégorie	Indicators Indicateurs	Planned/(Actual)					
		Year 1 Année 1	Year 2 Année 2	Year 3 Année 3	Year 4 Année 4	Year 5 Année 5	Year 6 Année 6
		1998	1999	2000	2001	2002	2003
Works Travaux	Amount committed Montant à engager (milliers de \$US)	500	4,400.00	6,400.00	6,100	1,200.00	
	Amount paid Montant payé	500	3,400.00	5,400.00	5,500.00	2,800.00	1,000.00
	New pipes (km)						
	Pose de nouvelles conduites (kml)	20	46	60	70	20	
Operation Exploitation	Production (million m3/year)						
	Production (x 1000 m3/an)	37 (36)	37.5	38	39	41	42.5
	Ratio /Billing /Production %						
	Ratio /Facturation / Production	61 (55)	70	75	75	78	80.0
	Number of connections (thousand)						
	Nombre de branchements (milliers)	39 (31)	46	56	63	72	80.0
	Population connected in thousands						
	Population branchée en milliers	700 (550)	839	1,011	1,145	1,300	1400.0
	Number of connections per employee						
	Nombre de branchements par employé	70 (56)	82	97	108	120	130.0
Number of standpipes							
Nombre de bornes-fontaines	763 (663)	870	980	1,110	1,250	1400.0	
Population impacted (thousand)							
Population desservie (milliers)	1200(1,100)	1,320	1,480	1,610	1,700	1750.0	
Consumption per person (liters/day)							
Consommation par habitant (l/j)	41 (36)	41	41	42	51	40.0	
Finance Finances	Income (millions GNF)						
	Chiffre d'affaires (millions FG)	25,700	31,000	33,000	35,600	36,850	38300.0
	Profit (Millions GNF)						
	Résultats d'expl. (Mil. FG)	1,470	2,340	3,760	3,720	4,200	6500.0
	Wages (Millions GNF)						
	Dépenses de pers. (mil.deFG)	2,830	2,980	3,120	3,270	3,420	3430.0
Tarifs (GNF)							
Tarif moyen (GNF)	940	940	940	940	940	940.0	
SANITATION COMPONENT (ASSAINISSEMENT) DATU							
Works Travaux	Amount committed Montant à engager (milliers de \$US)	900	1600	2640	2460	800	
	Amount paid Montant payé	500	1400	2000	2400	1600	500
	New pipes (km)						
	Pose de nouvelles conduites (kml)			2	2		
	Pipelines rehabilitated (km)						
	Conduites réhabilitées (km)		5	6	7		4
	Pipilines cleaned out (km)						
Conduites curées (km)	10	12					
On site systems Assainissement autonome	Artisans trained (Artisans formés)	25	25	50	25	25	
	Pit emptying operational contractors						
	Nombre d'entreprises actives de vidange	1	2	2	3	2	
	Number of meeting gathering stakeholders						
Nombre de réunion avec tous les acteurs	2	3	3	3	1		
Operation Exploitation	Population connected (thousand)						
	Population racoordée au réseau d'égout	2,500	7,500	9,000	10,000	8,500	
	Volume of wastewater treated (m3/day)						
	Volume des eaux usées traitées (m3/jour)			100	160	170	200
	Volume of treated wastewater form pit (m3/day)						
	Volume traité de matières de vidange (m3/jour)				100	150	170
Reduction of DBO5 %							
Réduction de la DBO5 %				80	80	85	

## REPUBLIC OF GUINEA

## THIRD WATER SUPPLY AND SANITATION SECTOR PROJECT

## 1. Past Financial Indicators

	<i>GNF million</i>				
	<i>1990</i>	<i>1991</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>
<u>Urban Water Supply Sector</u>					
Total revenues	4,556	6,122	12,314	19,495	19,933
Total operating expenses	4,829	5,814	9,541	13,792	11,133
Debt service	87	164	372	1,838	5,418
Net income	(318)	(177)	2,402	3,901	3,069
Net internal cash flow	900	3474	(797)	2,936	3,213
Cash at end of year	1,030	1,601	3,803	5,419	1,788
Accounts receivables	984	3,192	11,494	14,972	7,992
Net fixed assets	17,566	31,764	89,125	90,392	92,772
Long term debt	14,140	19,300	72,197	89,559	79,694
Equity share capital	8,244	19,311	43,396	45,466	47,960
<u>S.O.N.E.G.</u>					
Total revenues	624	1,681	4,706	8,144	6,026
Net income	(519)	(196)	2,214	3,323	5,882
Operating ratio	176%	83%	48%	42%	44%
Net internal cash flow	684	2,475	(2,009)	(153)	(48)
Cash at end of year	546	1,116	3,264	5,381	1,755
Internal cash contribution to investments	5%	5%	13%	36%	39%
Net fixed assets	16,353	30,540	87,998	88,708	91,014
Total assets	24,645	47,141	127,791	147,068	146,314
Long term debt	14,125	19,300	72,197	89,559	79,694
Equity share capital	6,945	18,011	42,096	44,166	46,660
<u>S.E.E.G.</u>					
Revenues from Tarif exploitant local		2,189	4,890	6,890	5,447
Revenues from Tarif exploitant étranger		1,934	2,415	2,425	2,034
Total revenues	3,932	4,440	7,608	11,350	7,481
Operating ratio	95%	99%	96%	92%	75%
Net internal cash flow	216	1,009	1,211	1,323	3,261
Cash at end of year	483	485	538	38	33

**2. Projected Financial Indicators**

	<i>GNF million</i>				
	<i>1996</i>	<i>1998</i>	<i>2000</i>	<i>2002</i>	<i>2004</i>
<b>Urban Water Supply Sector</b>					
Total operating revenues	20,229	31,018	35,592	38,293	38,750
Total operating expenses	11,715	13,121	14,179	14,650	14,724
Debt service	6,033	13,052	13,224	14,168	13,535
Net income	(3,318)	1,467	3,765	4,289	7,174
Net internal cash flow	2,481	4,845	8,189	9,476	10,490
Net cash at the end of year	(2,141)	2,687	3,565	5,093	7,243
Accounts receivables	8,071	8,119	9,348	10,874	11,434
Net fixed assets	105,898	143,773	170,262	184,353	213,740
Long term debt	97,446	140,519	154,123	182,229	179,653
Equity share capital	47,960	47,960	47,960	47,960	47,960
<b>S.O.N.E.G.</b>					
Total from redevance	5,702	14,276	16,224	17,510	17,150
Net income	(4,110)	210	1,543	2,089	4,719
Operating ratio	64%	43%	38%	37%	32%
Net internal cash flow	(1,080)	454	2,205	2,508	2,886
Cash balance	1,668	1,505	1,358	1,226	1,106
Internal cash contribution to investments	33%	22%	17%	17%	17%
Net fixed assets	104,000	141,559	167,679	181,340	209,402
Total assets	166,498	213,590	222,527	260,232	264,579
Long term debt	99,665	140,519	154,123	182,229	179,653
Equity share capital	46,660	46,660	46,660	46,660	46,660
<b>S.E.E.G.</b>					
Total revenues	7,859	9,657	12,480	13,770	14,350
Operating ratio	75%	74%	69%	66%	64%
Net internal cash flow	3,561	4,391	5,983	6,968	7,604
Cash at the end of year	135	1,182	2,207	3,867	6,136

## REPUBLIC OF GUINEA

## THIRD WATER SUPPLY AND SANITATION SECTOR PROJECT

**Economic Analysis**

1. The overall development objectives of the proposed project is to alleviate the effects of poverty and improve health by increasing access to safe and affordable water and sanitation; to encourage private sector participation by setting the stage for a second-generation affermage lease contract; and to ensure sustainability by improving water pricing and cost recovery and developing Guinea's water sector regulatory and planning capacity.

In terms of health benefits, the project would reduce the water-borne morbidity which constitutes the dominant cause of death among infants and children in Guinea. (For example, diarrhea diseases account for the largest share 20.3 percent of cause of death among the age group 0-4.) This would contribute to higher labor productivity of the population. It would also contribute to reducing public spending on health.

2. Economic analysis of the proposed project (ANNEX 6-1, SAR) focuses on quantifiable economic benefits from the urban water supply component, the largest component of the project, taking into account a reduction in unaccounted for water due to improved managerial efficiency and the immediate rehabilitation of the water system, as well as consumer's surplus generated from the increase in water consumption per capita. In addition, the analysis incorporates benefits from urban sanitation components.

3. *Affordability.* A nation-wide survey on willingness to pay indicated that more than 75 percent of households expressed a strong interest in water service by individual connection, although 40 percent of present standpipe users preferred to keep their current means of water supply because they could afford other methods. Among the people who preferred individual water connection, only 10 percent in Conakry (and 20 percent in other centers) were willing to pay the total cost of water use. Moreover, the majority of the population was not willing to pay even the average consumer rate, estimated as 880 GF/m<sup>3</sup> in 1995, which is among the highest in the region. The high consumer rate is due to low water sales, and it is recommended to be reduced to a more affordable level. Currently, although the average consumer rate stands at 880 GNF/m<sup>3</sup>, the poorest section of the consumers benefit from a "social rate" equivalent to 680 GNF/m<sup>3</sup>. Also, the cost per connection averages 300 000 GNF, whereas the consumer only pays 60 000 GNF.

6.07 *Marginal Cost.* The long-run marginal cost (LRMC) of the water supply system, as expressed by the average incremental cost (AIC), is estimated at 1,027 GNF per cubic meters, using a 10 percent discount rate to reflect the opportunity cost of capital (for detailed calculations, see ANNEX 6-1 in the SAR).

6.08 *Economic Rate of Return.* The economic rate of return of the water component was calculated taking into account the probable benefits that would occur from the incremental quantity of water the project supplied. This incremental amount of water would be used by the

beneficiaries both to replace previously used sources (water from vendors), and to increase water consumption. To calculate the benefits from the increase in water consumption, we have estimated the additional consumers' surplus, which arises from the increase in water consumption assuming a linear demand curve and price elasticity of -0.2. The estimated economic rate of return (ERR) of the water supply component is 13 percent with shadow prices adjusted. The ERR does not take into account the benefits from positive externalities such as improved health and productivity as the result of the better availability and quality of water which cannot be quantified.

6.09 *Sensitivity Analysis.* A sensitivity analysis has been carried out to measure the effect of the risk of cost-overflow, lower demand, and delay in implementation as shown in Table 6-1 below.

**Table 6-1. Estimated Rates of Return for Various Project Scenarios**

<i>Project Scenario</i>	<i>Estimated ERR</i>
Base Case "most likely" scenario	13.3%
10% increase in water investment costs	12.8%
10% increase in water operating costs	13.2%
10% increase in total water costs	12.8%
20% increase in water investment costs	12.3%
20% increase in water operating costs	13.2%
20% increase in total costs	12.3%
50% lower projection water demand	10.0%
2 year delay in implementation	10.2%



**REPUBLIC OF GUINEA**  
**THIRD WATER SUPPLY AND SANITATION SECTOR PROJECT**

**Key Processing Events**

(a) Time taken to prepare the project:	18 months
(b) Project prepared by:	Government with IDA assistance <sup>9</sup>
(c) First IDA mission:	March 06, 1994
(d) Appraisal mission departure:	June 29, 1995
(e) Post-Appraisal mission	September 21 - 29, 1996
(f) Date of negotiations:	February 10, 1997
(g) Board Presentation:	April 15, 1997
(h) Planned date of effectiveness:	July 31, 1997
(i) Relevant PCRs/ICRs/PPARs:	PCR 6922-Conakry Water Supply and Sanitation Project (Cr. 870-GUI), closed on 03/29/85, rated unsatisfactory

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<sup>9</sup> This report is based on the findings of the Bank appraisal mission which visited Guinea in July 1995 and the post-appraisal mission carried out in September 1996. The appraisal mission comprised Messrs/Mesdames Y. Badjo (Sanitary Engineer and Mission Leader), A. Harth (Technical Specialist), N. Tin (Principal Economist), J-L Aka-Adjo (Financial Analyst), T. Sato (Economist), P. Brook-Cowen (Private Sector Specialist), S. Dabomy and J. Toublanc (Sanitation Specialists), M. Fall (Sanitary Engineer), M/M. T. Damhaug (Water Resources Management Specialist), R. Verspyck (Principal Water & Sanitation Specialist), S. Haddour (Project assistant) and E. Herczeg (Staff Assistant) participated in the preparation of the project. Mr. A. Briscoe is the Lead Advisor, A. Locussol and L. Obeng are Peer Reviewers. Messrs Max Pulgar-Vidal and Mamadou Dia are the Technical Manager and the Country Director for Guinea respectively, for this operation.



**REPUBLIC OF GUINEA**  
**THIRD WATER SUPPLY AND SANITATION SECTOR PROJECT**

**Status of Bank Group Operations**

**Summary Statement of Loans and IDA Credits**  
**(As of 02/18/97)**

Project ID	Loan or Credit No.	Fiscal Year	Borrower	Purpose	Original amount in US\$ millions				Difference between expected and actual disbursements <sup>a</sup>	
					IBRD	IDA	Cancellations	Undisbursed		
Number of Closed Loans/Credits: 41										
<b>Active Loans</b>										
GN-PE-1077	C28740	1996	GOVERNMENT	MIN SECT INV PROMOT		12.20		11.02	1.87	
GN-PE-1081	C28390	1996	GOVERNMENT	AGRIC SERVICES		35.00		30.34	0.97	
GN-PE-1090	C27870	1996	GOVERNMENT	HIGHER EDUCATION MAN		6.60		5.37	1.36	
GN-PE-1087	C27190	1995	GOVERNMENT	EQUITY AND SCHOOL IM		42.50		37.20	5.37	
GN-PE-1078	C26530	1995	GOVERNMENT	FINANCIAL SECTOR		23.00		11.53	10.79	
GN-PE-1070	C25740	1994	GOVERNMENT	HEALTH/NUT.SCTR.		24.60		19.52	2.38	
GN-PE-1043	C24160	1993	GOVERNMENT OF GUINEA	POWER II		50.00		21.43	13.30	
GN-PE-1068	C24070	1993	GOVT OF GUINEA	AGR.EXPORT PROMOTION		20.80		14.09	6.12	
GN-PE-1059	C21120	1990	GOVT OF GUINEA	SECOND URBAN		57.00		20.64	16.76	
GN-PE-1065	C21060	1990	GOVERNMENT	NAT RURAL INFRASTRUC		40.00		2.19	-2.51	
GN-PE-1044	C19850	1989	REP OF GUINEA	WATER II		40.00		3.58	2.12	
<b>TOTAL</b>						0.00	351.70	0.00	176.90	58.53

	Active Loans	Closed Loans	Total
Total disbursed (IBRD and IDA)	181.82	722.55	904.37
Of which repaid	0.00	87.11	87.11
Total now held by IBRD and IDA	351.70	598.15	949.85
Amount sold	0.00	0.00	0.00
Of which repaid	0.00	0.00	0.00
Total undisbursed	176.90	3.16	180.06

a. Intended disbursements to date minus actual disbursements to date as projected at appraisal.

**Note:**

Disbursement data are updated at the end of the first week of the month.

**REPUBLIC OF GUINEA**  
**THIRD WATER SUPPLY AND SANITATION SECTOR PROJECT**

**Summary of IFC Investments**

**Committed and Disbursed Portfolio**  
As of 02/18/97  
(in US Dollar Millions)

<i>FY Approval</i>	<i>Company</i>	<i>Committed</i>				<i>Disbursed</i>			
		<i>IFC</i>				<i>IFC</i>			
		<i>Loan</i>	<i>Equity</i>	<i>Quasi</i>	<i>Partic</i>	<i>Loan</i>	<i>Equity</i>	<i>Quasi</i>	<i>Partic</i>
1988	Aurifere	0.00	3.00	4.59	0.00	0.00	3.00	4.59	0.00
1993	SGHI	3.33	0.56	0.24	0.00	3.33	0.56	0.24	0.00
1994	Ciments Guinee	1.05	0.00	0.00	0.00	1.05	0.00	0.00	0.00
	<b>Total Portfolio:</b>	<b>4.38</b>	<b>3.56</b>	<b>4.83</b>	<b>0.00</b>	<b>4.38</b>	<b>3.56</b>	<b>4.83</b>	<b>0.00</b>

<b>Approvals Pending Commitment</b>			
<i>Loan</i>	<i>Equity</i>	<i>Quasi</i>	<i>Partic</i>

There are no approvals pending commitment for this country.

**NOTE ON PORTFOLIO IMPLEMENTATION ISSUES**

The portfolio as of June 30, 1996 consisted of thirteen projects with commitments totaling US\$415 million, of which US\$215 million were undisbursed. The infrastructure sector absorbed 37 percent of the portfolio, agriculture/environment, 25 percent, and social sectors, 18 percent.

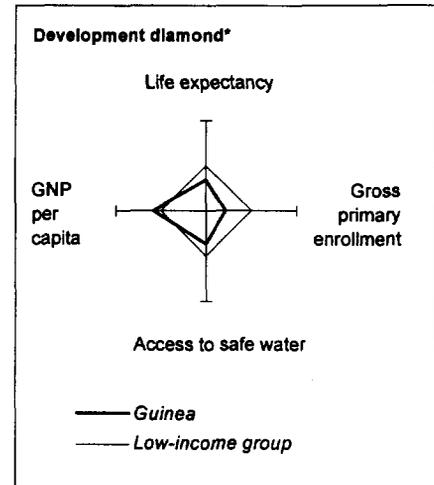
Problem and "At Risk" projects at the beginning of FY97 are concentrated in infrastructure, agriculture, power and financial sector. One of the thirteen projects was closed in FY96. The number of problem projects has been reduced from five before July 1996 to currently three: (1) for the *Power II Project*, the Government of Guinea is preparing a financial restructuring plan scheduled to be finalized by March 1997; (2) a reappraisal is underway to restructure the *Agricultural Export Promotion Project* and to reduce its number of components from fifteen to three; and (3) the final tranche release under the *Financial Sector Project* is expected by March, 1997, pending confirmation by the forthcoming supervision mission that all conditions therefore have been met. The *Highways IV Project* which was closed on December 31, 1996, was rated as "At Risk" because of effectiveness in delays and lacking CPF availability, and with regard to the *Second Urban*, its rating was up-graded since implementation has markedly improved from 1996.

The principal targets for improving the Guinea portfolio set for FY97 are: the elimination of all problem ratings; an increase in the average disbursement rate to at least the regional average of 25 percent from the FY96 level of 21 percent; and a reduction in the average delay in effectiveness of newly approved projects to six months.

A number of measures have been defined in FY97, in order to help prevent the emergence of portfolio problems in the future. They are aimed inter alia at improving the availability of counterpart funding strengthening GOG's procurement activities, raising financial accountability in Guinea, and increasing the Bank's supervision intensity.

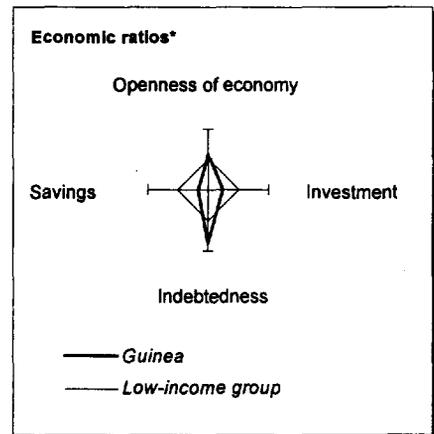
## Guinea at a glance

POVERTY and SOCIAL	Guinea	Sub-Saharan Africa	Low-income
	Population mid-1995 ( <i>millions</i> )	6.6	589
GNP per capita 1995 (US\$)	540	490	480
GNP 1995 ( <i>billions US\$</i> )	3.6	289	1,466
<b>Average annual growth, 1990-95</b>			
Population (%)	2.7	2.8	1.8
Labor force (%)	2.7	2.8	1.9
<b>Most recent estimate (latest year available since 1989)</b>			
Poverty: headcount index (% of population)	..	..	..
Urban population (% of total population)	30	31	29
Life expectancy at birth (years)	44	52	63
Infant mortality ( <i>per 1,000 live births</i> )	130	92	58
Child malnutrition (% of children under 5)	18	..	38
Access to safe water (% of population)	55	47	75
Illiteracy (% of population age 15+)	76	43	34
Gross primary enrollment (% of school-age population)	44	71	105
Male	59	77	112
Female	29	64	98



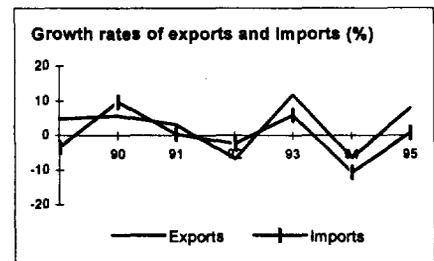
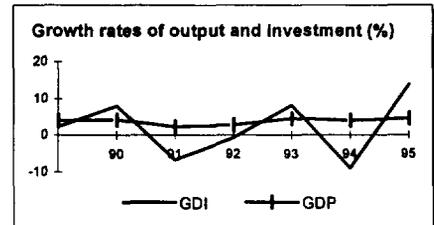
## KEY ECONOMIC RATIOS and LONG-TERM TRENDS

	1975	1985	1994	1995	
GDP ( <i>billions US\$</i> )	..	..	3.4	3.7	
Gross domestic investment/GDP	..	..	13.6	14.8	
Exports of goods and non-factor services/GDP	..	..	19.8	21.1	
Gross domestic savings/GDP	..	..	9.0	10.7	
Gross national savings/GDP	..	..	4.3	5.5	
Current account balance/GDP	..	..	-9.3	-5.9	
Interest payments/GDP	..	..	1.2	1.1	
Total debt/GDP	..	..	91.4	86.1	
Total debt service/exports	..	..	14.0	14.1	
Present value of debt/GDP	..	..	57.8	..	
Present value of debt/exports	..	..	285.3	..	
<b>(average annual growth)</b>					
GDP	..	3.7	4.0	4.6	4.9
GNP per capita	..	1.4	1.6	1.8	1.9
Exports of goods and nfs	..	3.1	-6.4	7.8	7.2



## STRUCTURE of the ECONOMY

	1975	1985	1994	1995
<b>(% of GDP)</b>				
Agriculture	..	..	24.1	24.1
Industry	..	..	30.8	30.5
Manufacturing	..	..	4.6	4.7
Services	..	..	45.1	45.4
Private consumption	..	..	82.3	80.8
General government consumption	..	..	8.7	8.5
Imports of goods and non-factor services	..	..	24.4	25.1
<b>(average annual growth)</b>				
Agriculture	..	4.2	5.1	5.0
Industry	..	2.5	3.2	3.8
Manufacturing	..	..	..	..
Services	..	4.3	4.0	4.9
Private consumption	..	3.4	6.5	2.3
General government consumption	..	5.2	-2.2	4.8
Gross domestic investment	..	1.6	-9.0	14.0
Imports of goods and non-factor services	..	2.0	-10.7	0.8
Gross national product	..	4.3	4.4	4.6



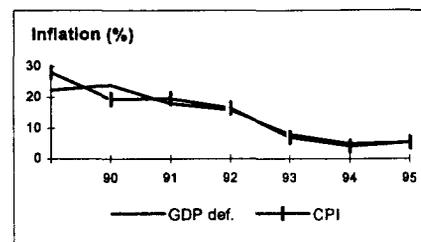
Note: 1995 data are preliminary estimates. Figures in *italics* are for years other than those specified.

\* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

## Guinea

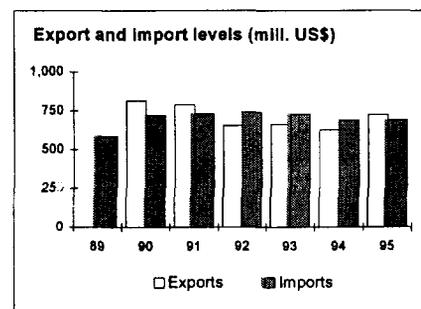
## PRICES and GOVERNMENT FINANCE

	1975	1985	1994	1995
<b>Domestic prices</b>				
<i>(% change)</i>				
Consumer prices	..	..	4.1	5.3
Implicit GDP deflator	..	..	5.0	5.3
<b>Government finance</b>				
<i>(% of GDP)</i>				
Current revenue	..	..	10.4	11.0
Current budget balance	..	..	4.5	6.1
Overall surplus/deficit	..	..	-3.6	-2.5



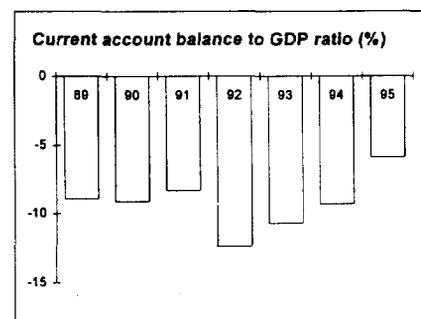
## TRADE

	1975	1985	1994	1995
<i>(millions US\$)</i>				
Total exports (fob)	..	..	626	725
Bauxite	..	..	272	299
Alumina	..	..	103	110
Manufactures	..	..	..	..
Total imports (cif)	..	..	687	690
Food	..	..	74	73
Fuel and energy	..	..	68	82
Capital goods	..	..	153	182
Export price index (1987=100)	..	..	..	..
Import price index (1987=100)	..	..	245	260
Terms of trade (1987=100)	..	..	..	..



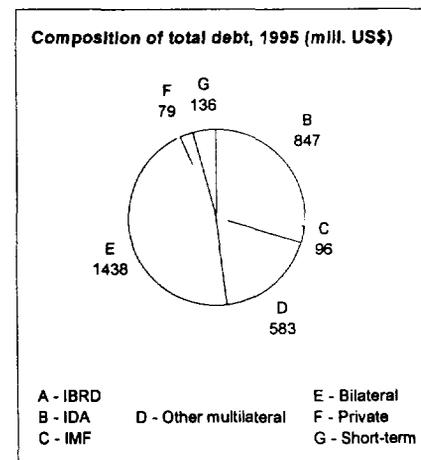
## BALANCE of PAYMENTS

	1975	1985	1994	1995
<i>(millions US\$)</i>				
Exports of goods and non-factor services	..	..	672	774
Imports of goods and non-factor services	..	..	828	823
Resource balance	..	..	-156	-49
Net factor income	..	..	-118	-133
Net current transfers	..	..	-41	-35
Current account balance, before official transfers	..	..	-315	-217
Financing items (net)	..	..	280	248
Changes in net reserves	-3	-2	34	-31
<b>Memo:</b>				
Reserves including gold (mill. US\$)	..	..	164	209
Conversion rate (local/US\$)	20.3	24.3	976.7	990.8



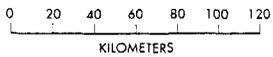
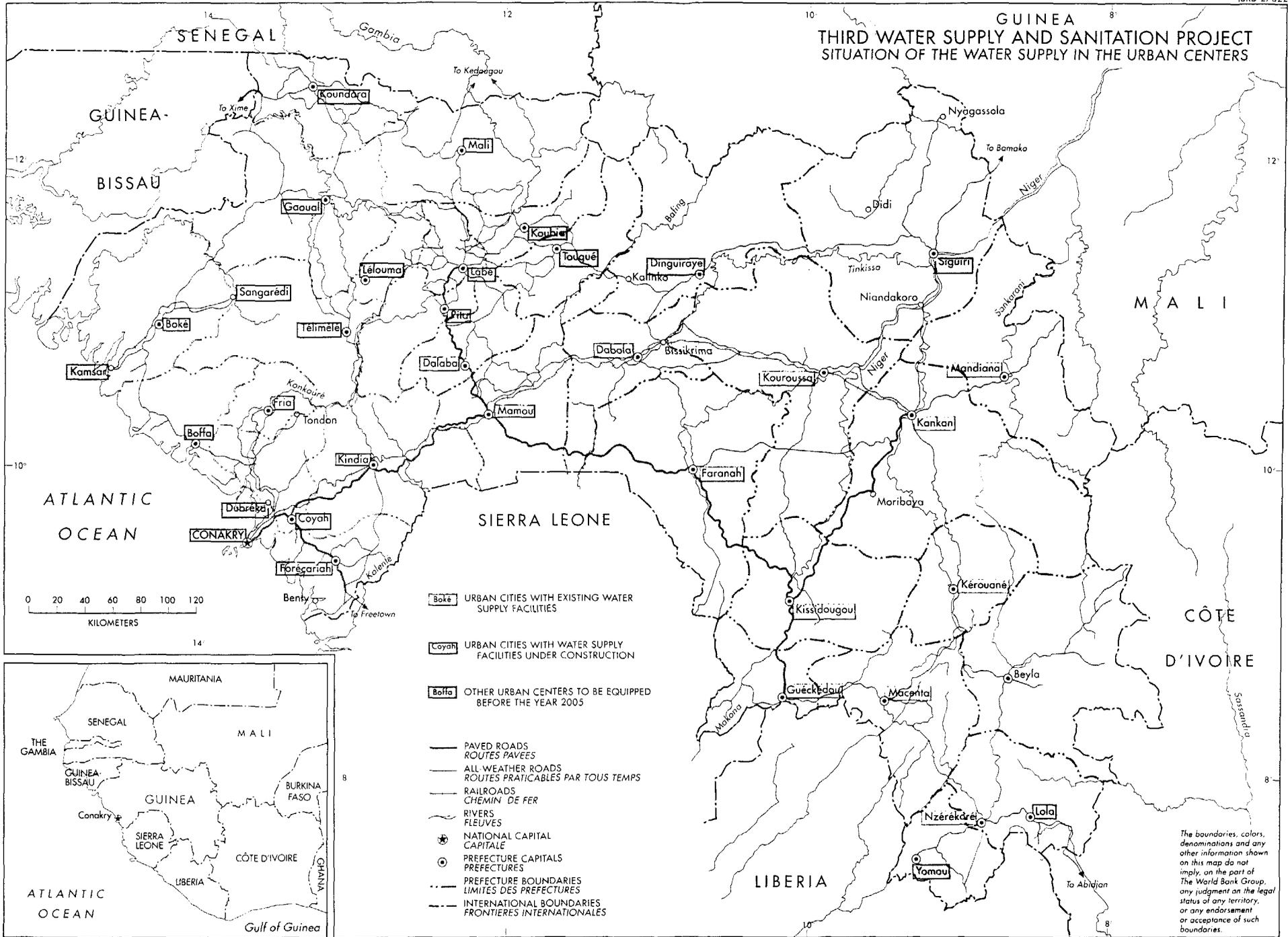
## EXTERNAL DEBT and RESOURCE FLOWS

	1975	1985	1994	1995
<i>(millions US\$)</i>				
Total debt outstanding and disbursed	760	1,455	3,104	3,179
IBRD	68	55	0	0
IDA	0	117	773	847
Total debt service	38	72	96	111
IBRD	8	8	0	0
IDA	0	1	8	8
<b>Composition of net resource flows</b>				
Official grants	3	45	162	175
Official creditors	54	48	131	109
Private creditors	4	18	-9	-15
Foreign direct investment	0	1	30	35
Portfolio equity	0	0	0	0
<b>World Bank program</b>				
Commitments	21	33	48	42
Disbursements	0	22	63	59
Principal repayments	2	5	2	2
Net flows	-2	17	61	57
Interest payments	6	4	6	6
Net transfers	-8	12	55	51





# GUINEA THIRD WATER SUPPLY AND SANITATION PROJECT SITUATION OF THE WATER SUPPLY IN THE URBAN CENTERS



- Boke URBAN CITIES WITH EXISTING WATER SUPPLY FACILITIES
- Coyah URBAN CITIES WITH WATER SUPPLY FACILITIES UNDER CONSTRUCTION
- Boffa OTHER URBAN CENTERS TO BE EQUIPPED BEFORE THE YEAR 2005

- PAVED ROADS  
ROUTES PAVEES
- ALL WEATHER ROADS  
ROUTES PRATICABLES PAR TOUS TEMPS
- RAILROADS  
CHEMIN DE FER
- RIVERS  
FLEUVES
- ★ NATIONAL CAPITAL  
CAPITALE
- PREFECTURE CAPITALS  
PREFECTURES
- PREFECTURE BOUNDARIES  
LIMITES DES PREFECTURES
- - - INTERNATIONAL BOUNDARIES  
FRONTIERS INTERNATIONALES

*The boundaries, colors, denominations and any other information shown on this map do not imply, on the part of The World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.*





## IMAGING

Report No.: P  
Type: MOP

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