

Policy, Research, and External Affairs

WORKING PAPERS

Water and Sanitation

Infrastructure and Urban Development
Department
The World Bank
August 1990
WPS 477

Private Participation in the Delivery of Guinea's Water Supply Services

Thelma A. Triche

LIBRARY
INTERNATIONAL REFERENCE CENTRE,
FOR COMMUNITY WATER SUPPLY AND
SANITATION (IRC)

Lease contracts provide a promising format for capturing the potential efficiency gains of private participation in the water supply sector. But to ensure that these gains accrue to society as a whole, lease contracts must be carefully designed and the responsible public authority must be capable of fulfilling the monitoring and regulatory role effectively.

This paper — a product of the Water and Sanitation Division, Infrastructure and Urban Development Department — is part of a larger effort in PRE to examine the implications of private participation in the delivery of public services. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact Mari Dhokai, room S10-017, extension 33970 (30 pages).

In 1989 the Republic of Guinea restructured its urban water supply sector and entered into a lease-contract arrangement in which private interests participate in delivering services.

Ownership of the country's urban water supply facilities and responsibility for sector planning and investment were transferred to a new national water authority, SONEG. A new water management company (SEEG) was created as a mixed enterprise by the government (49 percent) and a private foreign investor-manager (51 percent) to operate and maintain the facilities.

If carefully designed, a lease-contract arrangement can transfer maximum commercial risk to the contractor for day-to-day operations. But unlike a concession, it does not transfer ownership or the burden of capital expenditures for major new investments.

Recent experience with lease contracts and concessions in Côte d'Ivoire demonstrated that fragmentation of responsibilities for planning, investment, operations, maintenance, and debt service may lead to inefficiency and lack of accountability. And revenue protection clauses may erode incentives for efficiency.

The strength of the lease-contract arrangement in Guinea lies in the simplicity of the institutional framework, the specificity of responsibilities, and the clarity of accountability relationships and incentives. In planning investments and setting tariffs, SONEG has an incentive to maintain the financial viability of the operations on which it depends for revenue. SEEG is motivated to increase profits by operating efficiently and to avoid financial penalties by meeting service standards.

The challenges lie in the difficulty of creating in SONEG a strong oversight agency that will be able to negotiate effectively with SEEG and in the difficulty of attracting competition for subsequent contracts. Unless SONEG is successful, consumers may not capture many of the potential efficiency gains of private participation.

Processing the IDA credit for this arrangement was delayed because World Bank procurement guidelines do not cover the selection of contractors for lease contracts or concessions. With the growing interest in private operation of public services, the Bank should consider developing appropriate guidelines for selecting contractors for lease contracts and concessions.

The PRE Working Paper Series disseminates the findings of work under way in the Bank's Policy, Research, and External Affairs Complex. An objective of the series is to get these findings out quickly, even if presentations are less than fully polished. The findings, interpretations, and conclusions in these papers do not necessarily represent official Bank policy.

Contents

Foreword

1. Introduction	1
2. Economic Theory: Balancing Public and Private Roles in Water Supply	2
3. Institutional Arrangements for Private Participation in Water Supply	5
4. The Urban Water Supply Sector in Guinea: Recent History	10
5. The Restructuring of Guinea's Water Supply Sector	12
6. Conclusions	24

Figure

Breakdown of the Full Cost of Water	19
---	----

Table

Water Rates and Costs, 1989-98	20
--	----

Annexes

Annex 1 Contractual Arrangements for Private Sector Participation in Water Supply Operations	
Annex 2 Summary of Key Legal Documents Governing the Guinea Water Supply Sector	

Author's Note: Thelma Triche is a consultant with the Water and Sanitation Division, Urban Infrastructure Department of the World Bank.

Acknowledgements: The author wishes to thank Mike Garn for his invaluable guidance in every stage of the preparation of this paper. The assistance and cooperation of Alain Locussol and Richard Verspyck and the insightful comments of Arturo Israel are gratefully acknowledged. Barbara de Boynville and John Green provided editorial assistance.

Abbreviations and Acronyms

CGE	<i>Compagnie Générale des Eaux</i>
DEG	<i>Entreprise Nationale de Distribution des Eaux de Guinée</i> , Guinea's former national water company
DGSE	<i>Direction Générale des Sources d'Energie</i> , the Directorate of Energy Sources
FIM	Foreign investor-manager
FNA	<i>Fonds National de l'Assainissement</i> , National Sanitation Fund of Côte d'Ivoire
FNH	<i>Fonds National de l'Hydraulique</i> , National Water Works Fund of Côte d'Ivoire
GF	Guinean franc
ICB	International competitive bidding
IDA	International Development Association
LCR	Lease-contractor rate
MRNE	<i>Ministère des Ressources Naturelles et de l'Environnement</i> , the Ministry of Natural Resources and the Environment of Guinea
SAUR	<i>Société d'Aménagement Urbain et Rural</i>
SEEG	<i>Société d'Exploitation des Eaux de Guinée</i> , the new Water Management Company of Guinea
SODECI	<i>Société de Distribution d'Eau de Côte d'Ivoire</i> , the Water Company of Côte d'Ivoire
SONEG	<i>Société Nationale des Eaux de Guinée</i> , the National Water Authority of Guinea
SSE	State Secretariat for Energy

Foreword

1. An enduring feature of virtually every evaluation of water supply and sanitation operations in World Bank borrower countries is that sector institutions are relatively ineffective. The catalogue of deficiencies is extensive: unaccounted-for water, inadequate maintenance, low sales, low productivity of staff, low collection ratio, and often an unsustainable financial position. Approaches that are suggested to deal with these deficiencies are the introduction of market-like incentives in publicly owned and operated services, and the introduction of private sector ownership, management, and operation of sector services. There are precedents for the adoption of such approaches in several developed countries and in a few developing countries. In a number of cases, private firms have played a role in the sector for many years. Now that the popularity of these approaches to reform is growing, the need for guidelines for preparing and implementing them is obvious. Since we know of no systematic examination of the effectiveness of privatization and market surrogate schemes or of the factors that contribute to their effectiveness in this sector in developing countries, a strategy is needed for applied research that would serve as a basis of guidelines.

2. It is essential, first, to examine the theoretical basis of arguments for introducing market mechanisms and private sector involvement in water supply and sanitation and to understand the practical implications of the theory for sector policies and institutional arrangements. On this basis, research should be aimed at evaluating the effectiveness of various institutional arrangements in different countries, observing the barriers to implementing reforms of this nature in the sector, and identifying various ways of addressing the barriers.

3. Water supply and sanitation operations are frequently considered public goods, and they may also be natural monopolies. They are not widely supplied in free markets. It is often assumed that these services should be provided by governments, but this is not necessarily so; given an appropriate framework, the private sector may be willing in many situations to deliver services, and it can do so more efficiently than the public sector. Yet involvement of the private sector does not automatically lead to economic efficiency, from the point of view of society as a whole. Our approach to this issue is first to seek a balance between public and private roles by identifying the minimum responsibilities the government should assume (to ensure that these public goods are supplied and broadly consumed at near optimal levels) and the sector functions that could be carried out effectively by the private sector. Second, it is essential to explore ways in which the characteristics and mechanisms of free markets that are associated with efficiency can be introduced into sector operations. For example, since competition is usually considered the most essential characteristic of an efficient market, we are interested in determining how competition can be introduced into sector operations. Which institutional and legal arrangements can be used to ensure that privatization actually improves efficiency? When privatization is not feasible or when a market is not contestable, what market surrogate mechanisms can be used to create incentives for efficiency, rational investment planning, and adequate maintenance?

4. The implications of institutional arrangements for private and public sector capacity (that is, the ability of each actor to carry out its assigned role) should be examined. In specific countries, the comparative strengths of the private and public sectors and their incentives to perform effectively, as well as the official attitude toward the private sector, must be considered. One of the arguments for introducing private involvement in the delivery of services is that it can relieve weak public institutions of the burden of day-to-day operations so

that they can concentrate on the tasks of sector policy making, planning, and regulation. At the same time, these arrangements create the need for an oversight agency. It is therefore useful to scrutinize arrangements for private participation to determine what capacity requirements are implied for public oversight agencies and whether some are institutionally less burdensome than others. Since the strength of the public sector and its ability to adapt to changing circumstances vary considerably from one developing country to another, the choice of arrangement will depend greatly on local conditions.

5. A related factor to consider is the extent to which local capacity, in both the public and private sectors, can be expected to develop under a particular arrangement. Some arrangements may foster local capacity building more than others. Many will require the participation of expatriates. In our eagerness to improve efficiency and extend coverage in the water and sanitation sector, we should not forget that true development involves the enhancement of local capacity, particularly for routine functions associated with day-to-day service delivery. There may be a price to pay in terms of short-term efficiency while local capacity is being developed, but the long-term benefits can more than justify the short-run costs. Strategies for ensuring that this occurs need to be cultivated.

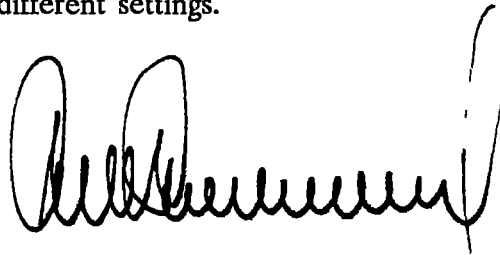
6. Other questions to be researched concern regulatory and incentive frameworks. To what extent do local labor laws, tax regimes, import restrictions, and banking and foreign exchange restrictions inhibit private sector participation? If the overall incentive environment is distorted and broad-based reform is not feasible in the short term, but if the government nevertheless wants to initiate private sector participation, can appropriate exemptions and guarantees be incorporated into contracts for private delivery of service? Can such piecemeal reforms be effectively integrated with broader-based reforms in the long term?

7. Finally, policies and mechanisms for cost recovery and, in particular, for implementing distributional objectives in the context of commercial operations should be investigated. Which payment terms and mechanisms best promote efficiency? For example, payments that are based on performance (cubic meters of water provided, tons of waste collected, etc.) are more effective than nonvariable fees. How can an operator's legitimate need for reliability of income be satisfied? What arrangements for adjusting the operator's rate and changing tariffs are consistent with efficiency? If the full cost of services is not recovered through tariffs, how can the shortfall be provided? Does cross-subsidization undermine financial viability?

8. This study represents an initial effort in what we hope will become a significant research project on privatization and the introduction of commercial principles and mechanisms into the water supply and sanitation sector. It establishes what the major issues are and demonstrates these through a case study. After summarizing past experience with a similar arrangement in Côte d'Ivoire, the study examines in detail the case of private involvement through a lease contract for water supply operations in the Republic of Guinea. Since operations under the new arrangement in Guinea have been under way for only a few months, this study is not an evaluation of results. Rather, the case is used as a vehicle for exploring many of the theoretical and practical considerations outlined above. The lease-contract arrangement presents an interesting case because it involves participation of the private sector in commercial service delivery, while ownership of facilities and responsibility for sector planning and investment are retained by the public sector. It provides an opportunity for

exploring the balance between public and private roles, and mechanisms for promoting effective performance in the sector as a whole.

9. Future research should describe practical applications of other types of arrangements, and ultimately evaluate and compare the results of schemes that have been in operation for several years in different settings.

A handwritten signature in black ink, appearing to read 'Curt Carnemark', with a large, stylized flourish at the end.

Curt Carnemark, Chief
Water and Sanitation Division



1. Introduction

1.1 The Republic of Guinea has recently taken steps to restructure dramatically the urban water supply sector and to rehabilitate operations and improve financial performance. The International Development Association (IDA), the World Bank affiliate that lends on concessional terms to the poorest countries, is supporting these reforms through a Second Water Supply Project (Credit 1985-GUI) that became effective on October 5, 1989.¹ A new state enterprise, *Société Nationale des Eaux de Guinée* (SONEG), now owns the urban water supply facilities and has entered into a lease contract with a new water management company, *Société d'Exploitation des Eaux de Guinée* (SEEG), for the operation and maintenance of the urban water supply systems.² SEEG, which is expected to function as a commercial enterprise with complete autonomy in the exercise of day-to-day operational decisions, will retain an agreed portion of the tariff it collects from customers (the lease-contractor rate) and will submit the remainder to SONEG as rent.

1.2 The government has agreed to raise tariffs gradually to a level that will cover sectoral operating expenses, including depreciation, and yield an acceptable financial return on system assets and the lease contractor's equity. During an interim period, the lease-contractor rate will be supplemented on a declining basis by the IDA credit; allocations from the National Budget will cover part of SONEG's debt service, also on a declining basis. In addition, the IDA credit will contribute to the rehabilitation of existing facilities, the expansion of the Conakry water supply system, and consultancy services for SONEG. The African Development Bank, the French Caisse Centrale de Coopération Economique (CCCE), and the European Investment Bank are co-financing the expansion investments.

1.3 This paper will outline the theoretical arguments that are relevant to the project design, describe the institutional arrangements that were adopted, examine the key provisions of the legal documents, and explain how the major issues that arose during project preparation were addressed. Part 2 presents, as background, general economic theory regarding the roles of the public and private sectors in providing public services. In Part 3, the main features and advantages of lease contracts are discussed, and the experience in Côte d'Ivoire with lease contracts and concessions for water supply is summarized. The recent history of the water supply sector in Guinea is outlined in Part 4. Part 5 discusses key features of the new institutional and financial arrangements. Particular attention is devoted to the lease contractor selection process, the role of IDA funding, key provisions of the legal documents, and the resolution of uncertainties regarding the application of World Bank Group procurement policies to this case. Conclusions are presented in Part 6.

1.4 Although this type of arrangement has been used successfully in both Europe and Africa, the project under examination is still in the very early stages of execution, and it will be several years before the design can be evaluated in light of actual experience. It is the first case in which the World Bank has financed a lease contract as a package. With this in

1. This study is based in part on the Staff Appraisal Report for the IDA credit prepared by Alain Locussol and Richard Verspyck (Report 7304-GUI).

2. SEEG is a mixed enterprise owned by the Republic of Guinea (49 percent) and a consortium of French firms (51 percent).

mind, it is hoped that the paper will not only help Bank Group managers and staff who are contemplating the preparation of similar projects, but also stimulate further research on the participation of the private sector in public service projects and contribute to the evolution of the Bank's policies in this area, particularly the procurement and selection process.

2. Economic Theory: Balancing Public and Private Roles in Water Supply

2.1 Until very recently, discussions of the relative merits of the public sector and the private sector have been cast in terms of ideology, with the discussants at opposite poles. Although ideology and social values will continue to be an important component of the discussion, there is growing recognition that neither the public sector nor the private sector always operates efficiently or in the best interest of society. Any society that wishes to minimize inefficiency and injustice should take advantage of the relative strengths of the public and private sectors (as well as community organizations and informal businesses) and enable each to perform the useful roles for which it is best suited in that particular environment. Since the definitions of efficiency and justice vary from one society to another, and from one time to another, and the relative strengths of the public and private sectors vary as well, there are no formulas that can be easily applied to all countries. Nevertheless, relying on economic theory, it is possible to make some statements about the relative roles of the public and private sectors that are generally applicable to most societies. To do so requires an understanding of what economists mean by public and private goods.

Public and Private Goods

2.2 According to economic theory, goods and services can be distinguished by whether they are consumed individually or jointly, and by whether nonpayers can be excluded or not. In fact, all goods fall somewhere along the continuum between individual and joint consumption and along the other continuum between feasible and infeasible exclusion.³ *Private goods* are consumed individually: once consumed by one individual, they are not available for consumption by another, nor would the benefits of consumption accrue to anyone else. Moreover, the individual consumers are identifiable and nonpayers can be excluded from consumption. Private goods are usually available only by paying the market price, and private firms are willing to produce and market such goods only if they can cover their costs and make a profit at the market price. Most of the ordinary goods and services that are bought by consumers in the marketplace (for example, food, clothing, furniture, automobiles, and cleaning services) can be considered private goods.

2.3 At the opposite extreme are *public goods* that are typified by joint consumption and infeasible exclusion. These are available to everyone, and the benefits of their availability accrue to the community as a whole. When one individual benefits from a public good, its availability to others is not diminished, and it is practically impossible to charge individuals for its use or to exclude nonpayers. Public health, environmental control, police protection and national defense are usually considered public goods. Because of the difficulty of identifying the extent to which each individual benefits from such goods, and of charging each individual accordingly, the private sector tends to produce less than the socially desirable levels of these

3. This discussion of public and private goods is based on E. S. Savas, *Privatizing the Public Sector: How to Shrink Government* (Chatham, N.J.: Chatham House Publishers, 1982), pp. 30-33.

goods. Ensuring that these goods and services are provided at appropriate levels is therefore considered the responsibility of government.

2.4 There are, in fact, no "pure" private goods or public goods. All private goods entail some positive and/or negative externalities (costs or benefits that affect someone other than the primary consumer like, for example, pollution resulting from the consumption of fuels). All public goods have some characteristics of private goods, some more than others. Goods and services that are subject to individual consumption, but for which it is not possible or practical to identify consumers and charge a fee, are known as *common pool goods*. These include natural resources like the air, wilderness areas, rivers, and oceans. Some government regulation is usually necessary to ensure that the commons are used efficiently and equitably. Otherwise the commons would be subject to overuse and exhaustion.

2.5 *Toll goods* are another category. Although fees can be charged and nonpayers excluded, toll goods are not subject to individual consumption, (that is, the benefits of consumption accrue to society as a whole, and consumption of a toll good by one individual does not usually reduce its availability to others). In fact, the efficacy of some services may increase in proportion to the number of users. Radio and TV broadcasts and, to some extent, telephone service are examples. Some toll goods (for example, bridges and mass transit systems) are also *natural monopolies*; the fixed costs of their production are much higher than the variable costs, and production is subject to important economies of scale. A natural monopoly may present two possible dangers. First, the high costs and risks may discourage private production altogether. Second, if a private producer does emerge, it is not likely to face direct competition and is therefore able to charge more than the costs of ownership and operation of the facilities, and consumers have no alternative source of supply if the service is poor. Public involvement is required for several reasons: to allocate monopoly rights to a private party that is willing to make the investment, to regulate prices in the public interest, and to establish and monitor performance standards. In some situations, where the private sector cannot raise the necessary capital, it may be desirable for the government to undertake the investments.

2.6 The purer private goods and services require the least government intervention, though the establishment of standards and regulations to ensure safety, transparency and honesty may be desirable. The more a good or service exhibits one of the characteristics of a public good (that is, collective consumption enhances efficiency, or charging users is impractical), the more government involvement may be justified. But even for most of these goods and services, public ownership of direct production is not required; rather, some form of government intervention to organize or regulate private sector activities may be adequate. Even if production is subject to important economies of scale, awarding franchises and regulation of prices may be adequate to ensure optimal production and consumption. The almost pure public goods and services, like police protection or environmental regulation, are most likely to require direct government production or provision.

Comparative Strengths of the Public and Private Sectors

2.7 The strength of the private sector is that it is usually able to deliver marketable services and products more efficiently than the public sector. Although efficient public

enterprises do exist, private firms seem to be more efficient in the majority of cases.⁴ In general, efficiency in the operation of commercial activities is associated with the existence of competition. In a competitive market, a producer's revenues are linked with costs through the price mechanism. By improving efficiency the producer can reduce prices and, in doing so, increase sales and revenues. Failure to do so often results in bankruptcy. In public enterprises that do not operate in competitive markets, the link between revenues (or rewards) and cost control (efficiency) is often weak or absent altogether. Efforts to improve the performance of public enterprises often involve the strengthening of this link through the introduction of commercial accounting practices, the elimination of budgetary subsidies, and the introduction of incentive pay schemes or direct competition in the market (by allowing private firms to exist and compete with public firms).

2.8 The public sector's area of comparative advantage lies in carrying out those activities that the private sector cannot perform and in stimulating private interest in economically desirable activities that otherwise would not be undertaken. In general, this includes correcting for externalities, protecting common pool resources, and organizing or regulating natural monopolies. These are difficult and complex tasks; creating and sustaining a capacity to carry them out constitutes a major challenge for both developed and developing countries.

2.9 The division of labor and specialization between the private and public sectors will vary from country to country depending not only on the economic situation and level of development, but also on cultural and socioeconomic factors. Occasionally, community organizations or the informal sector may be able to fill a need that the more formal sectors cannot. In the water and sanitation sector, for example, they may provide water to households without central connections and engage in solid waste collection and recycling. With minimal public support or recognition, and liaison with formal public programs, these less formal agents can make a valuable contribution. In most instances, the choice is not an either-or proposition, but a question of balancing the roles of the various actors. Since the capacity of both the public and private sectors is severely limited in many developing countries, it is even more essential that the strengths and resources of all actors be used effectively.

The Water Supply Sector

2.10 Water supply has a key characteristic that makes it a potentially viable commercial enterprise for the private sector: it is feasible (in the context of appropriate legal, institutional, and technical conditions) to charge users of the service and to exclude nonpayers. But water supply also involves significant externalities in the form of health and productivity benefits for the economy as a whole. Since some individuals may not be aware of the benefits or may not be willing or able to pay, an optimal level of water supply services might not be produced or consumed without some public intervention to subsidize or provide for cross-subsidization through differential block rates.

2.11 In addition, water supply has the characteristics of a natural monopoly: the infrastructure required for water supply has very high investment costs and is subject to

4. Elliot Berg Associates. "Private Provision of Public Services: A Literature Review" (paper prepared for the Public Sector Management and Private Sector Development Division, Country Economics Department of the World Bank, April 1989), p. 13.

important economies of scale; and competing systems are impractical in most cases. Some government involvement is needed to allocate monopoly rights, regulate prices, monitor performance, and in some situations make the most costly investments. However, it does not follow that public operation is essential, or even desirable.

2.12 Though day-to-day competition in the marketplace is not practical, it may be possible to introduce incentives for efficiency through competitive bidding for concessions or contracts to operate services. In theory, as long as competition is fair, it should not matter whether the competing firms are publicly owned or private. But in developing countries where public administrations are not particularly strong, it may be advisable for the public sector to concentrate on those aspects of water supply that are not appropriate for the private sector (that is, oversight and regulatory functions), and to contract with private firms for the day-to-day commercial operation of systems and, if possible, for the planning, financing, and implementation of investments. In situations where no viable competitors to an incumbent operator exist, the government may take steps to foster the development of competitors.

2.13 Finally, it is worth emphasizing that regulating and monitoring a natural monopoly are complex and difficult responsibilities. The oversight agency must establish financial and technical standards, design a selection process, choose the operator, monitor and evaluate the operator's performance, and periodically renegotiate contracts and revise standards. Good regulation requires not only technical skills, but also high ethical standards, consistent political support, and a minimum of political interference.⁵ Moreover, it is harder to create incentives for effectiveness in regulatory agencies than it is in commercial ones, and the failure of a regulatory agency to function effectively can undermine the potential benefits of competitive contracting for the operation of a public service.

3. Institutional Arrangements for Private Participation in Water Supply

3.1 Daniel Coyaud has described four types of contractual arrangements through which the private sector participates in water supply: service contracts, management contracts, lease contracts, and concessions.⁶ Under service contracts and management contracts, a public entity contracts with a private firm for the provision of specific services. A service contract is fairly limited in scope and covers a specific activity such as training or equipment maintenance; a management contract usually covers the full range of operations. The two are similar, however, in that a public authority bears the full commercial risk under both, and the compensation of the contractor is usually not directly linked to operational efficiency or cost control. Conventional technical assistance contracts usually fall into the service contract category. In contrast, under lease contracts and concessions, commercial risks are shifted to the contractor. Under a lease contract, a private firm rents facilities from the public authority, which remains responsible for investments. The lessee finances only working capital for operation and maintenance. A concessionaire must finance investments as well as working capital. (A more detailed summary description of the four arrangements is provided in Annex 1.)

5. Arturo Israel, "The Changing Role of the State: Institutional Dimensions," draft paper, 1989, pp. 17-18.

6. Daniel P. Coyaud, *Private and Public Alternatives for Providing Water Supply and Sewerage Services*, World Bank Infrastructure and Urban Development Papers, Report INU 31. 1988.

Advantages of Lease Contracts and Concessions

3.2 Arrangements in which the contractor assumes the commercial risks offer the advantage that the contractor is motivated to improve the efficiency of the system. Therefore, lease contracts and concessions are more likely to lead to the "least-cost output" (for example, per cubic meter of water) than are service or management contracts in which the contractor's compensation is not linked to revenues. Since the lease-contractor rate (LCR), or the concession rate, is usually calculated as a portion of revenues per unit, reductions in unit costs and an improved collection ratio mean increased profits. Although part of these benefits might accrue to society when the LCR or concession rate is eventually adjusted or renegotiated, the prospect of losing some of the hard-won profits per unit supplied would not necessarily reduce the contractor's incentive, since efficiency improvements would also give the firm a strong position in competing for contract renewal. In addition, if services were growing to meet unsatisfied demand, or if demand were expanding, total profits might increase even though profits per unit decreased. Depending on how elastic demand is, the lower tariff could also result in an increase in quantity used, which would offset the reduction in unit profits.⁷

3.3 Concessions may be preferable to lease contracts because there are some obvious advantages to assigning responsibility for investments to a commercial entity that is also responsible for operations. The operator is well placed to forecast demand and make investment decisions that will satisfy demand in a commercially viable fashion. Inappropriate investments often result when decisions are made in isolation from commercial considerations. In addition, the owner of physical assets has a stronger incentive to maintain them than does a lessee. However, concession arrangements are not always feasible. If the cost of an investment exceeds the borrowing capacity of the private sector, or if the political and economic situation makes the private sector reluctant to invest, the public sector might have to assume responsibility for planning and investment. In such cases, a lease contract is the appropriate commercial arrangement, but mechanisms should be incorporated into the lease contract to ensure that adequate maintenance will be carried out. Once most of the costly investments have been completed, or the political and economic situation has improved, it may be possible to convert a lease contract into a concession under which the private company makes limited future investments and pays a rental fee on completed investments.

3.4 Lease contracts allow for the involvement of professional private companies in the technical and commercial operations of public services. These have a built-in incentive to improve efficiency, but without the burden of capital expenditures. Such arrangements are widely used in France for water supply, sanitation, and solid waste management services, and they have been used for the delivery of various public services in West Africa. In Côte d'Ivoire, the urban water sector has been operated by a private company, *Société de Distribution d'Eau de Côte d'Ivoire* (SODECI), during the past twenty-five years under a mix of

7. Price elasticity is an economic concept that is used to indicate the change in quantity demanded that results from a change in price. It is represented mathematically as the ratio of the percentage change in quantity demanded to the percentage change in price. If the percentage change in quantity demanded is greater than the percentage change in price, (that is, if price elasticity is less than -1), then demand is said to be elastic. But if the percentage change in quantity is equal to or less than the percentage change in price, (that is, price elasticity is greater than or equal to -1), then demand is said to be inelastic.

concessions and lease contracts. Lease contracts are also being used in Niger (road transportation), Nigeria (port management), Central African Republic (river transportation), and Guinea (mining operations).

3.5 In each of the West African examples mentioned above, the contracted firm is a joint foreign-local enterprise. SODECI is a private company of which 48 percent of the stock is owned by French interests and 52 percent by Ivorian stockholders, including 4 percent held by the National Financing Bank. The other arrangements involve mixed enterprises that are jointly owned by the state and a foreign private partner. In all these cases, the foreign partner has brought to the arrangement essential technical and managerial expertise. Such an arrangement constitutes an alternative to conventional technical assistance contracts. It incorporates an important advantage: because of the built-in incentive to reduce costs, the operating firm is more motivated to use local staff and develop local capacities, so expensive expatriate staff can eventually be reduced. In Côte d'Ivoire, SODECI has reduced the number of expatriate staff from 40 to 12 over a period of 25 years, during which operations have been expanding. Currently, the general manager and all provincial managers are Ivorian.

3.6 Though it is not always possible initially, there are advantages to transferring the locally owned portion of joint enterprises to the local private sector. In so doing, the state retains its regulatory role but avails itself of the resources and greater efficiency of the private sector.

The Relevant Experience in Côte d'Ivoire

3.7 Although the experience in Côte d'Ivoire with SODECI has been successful as regards urban water supply operations, the overall arrangement encompassing urban sanitation and rural water supply has produced mixed results. It is worth reviewing this experience and noting the lessons that have been learned.⁸

3.8 Institutional Arrangements and SODECI's Role. Following a successful competitive bid, SODECI was established in 1960 as a subsidiary of *Société d'Aménagement Urbain et Rural* (SAUR), a large French water utility, to operate the Abidjan water supply system under a concession contract. Subsequently, the majority of the company's equity was acquired by private Ivorian shareholders; stocks have been traded on the Abidjan Stock Exchange since 1978. In 1974, the legal arrangements between the government and SODECI were expanded to include (i) a lease contract for operation and maintenance of all urban and rural water supply facilities outside the capital, Abidjan; (ii) a concession contract for the Abidjan water supply system under which SODECI, in addition to operation and maintenance, was responsible for investments in boreholes; and (iii) a conventional maintenance contract for the Abidjan sewerage and drainage system. SODECI collected the approved tariff from consumers and, after subtracting its lease contractor and concession fees, transferred the remaining proceeds to two sector funds, the National Water Works Fund (FNH), which was responsible for water sector debt service, and the National Sanitation Fund (FNA), which financed the sanitation sector. The Water Directorate of the Ministry of Public Works and Transportation was responsible for planning and investment.

8. This review is based on the President's Report for a Water Supply and Sanitation Sector Adjustment Loan to the Republic of Côte d'Ivoire, Report P-5089-RCI. The World Bank, 1990.

3.9 Although SODECI was not consulted regarding these investments, it was obliged under the terms of its contract to operate and maintain all new water supply systems. Since the contract also provided that SODECI would be compensated for any shortfall between actual and projected sales, SODECI did not really assume all of the commercial risk. This arrangement continued until 1987, when the government began to restructure the water and sanitation sector.

3.10 Results. By 1989, water supply was accessible to the majority of Ivorians. A total of 158 cities and towns and about 90 villages were equipped with piped systems; 72 percent of the urban population (87 percent in Abidjan and 60 percent in other urban centers) had access to safe water, compared with less than 30 percent in 1974. In more than 8,000 villages, 13,500 water points had been constructed and equipped with handpumps. If all of these had been in working order, the coverage ratio would have been above 80 percent in rural areas (compared with less than 10 percent in 1974), but a large proportion of these water points were not in working condition.

3.11 In the urban areas, operating efficiency was excellent, with a low level of unaccounted-for water (12 percent) and a high collection rate (98 percent) for private customers. The company's productivity was twice as high as that of any other water utility in West Africa, either in physical terms (130 connections per employee) or monetary terms (value added divided by personnel costs). In the rural areas, performance was poor. A centralized maintenance system resulted in costly and delayed repairs; community development initiatives were not well organized, and villager participation was weak. Supervision of SODECI by the Water Directorate was inadequate, and cost recovery policies have been erratic.

3.12 Overall financial and economic performance of the water sector was undermined by the lack of coordination, inadequate incentive framework under which SODECI did not assume enough of the risks, and poor regulation and monitoring of the sector. The fragmentation of sector responsibilities and a lack of financial control led to serious misallocation of resources and overinvestment. Investment decisions were made by the Water Directorate on the basis of extremely optimistic consumption forecasts. As a result, projects were overdesigned and construction of production facilities was favored over expansion of distribution networks. The inefficient and overdesigned rural systems were subsidized by high tariffs on urban users, particularly industrial customers. The high tariffs depressed demand, and revenues fell as industries recycled water and used less-costly private sources (which were not adequately regulated and taxed due to lax enforcement of existing laws). When consumption fell short of projections, the financial situation of SODECI, because of the terms of its contract, was protected at the expense of the sector funds.

3.13 Poor planning and management of the sewerage subsector and insufficient resource allocation for maintenance by FNA undermined SODECI's incentives to control costs and made it difficult to monitor and evaluate the performance of the contractor. In sum, the lack of coordination among the Water Directorate, SODECI, and the sector funds, and an inadequate risk/incentive framework raised costs, diminished the accountability of these institutions, and weakened the government's ability to negotiate with and monitor SODECI.

3.14 Restructuring of the Water and Sanitation Sectors in Côte d'Ivoire. In 1987, the government began to implement a restructuring program. A concession contract was negotiated with SODECI under which its compensation for operations was reduced. SODECI

is now responsible not only for operation and maintenance, but also for projecting demand and planning and executing all investments in the urban water supply sector. The Water Directorate relinquished all investment responsibilities in the water supply sector. It concentrates on the supervision and control of operations, while the Directorate of Major Works supervises SODECI's investment-related activities. Urban water tariffs are gradually being reduced to levels that are consistent with long-term marginal costs for water supply and sanitation.⁹

3.15 Responsibility for investments in the sanitation and rural water supply sectors was assigned to the Directorate of Major Works. An operation and maintenance contract for the Abidjan sewerage and drainage system was awarded to SODECI, with unit prices substantially lower than in the previous contract, and with a medium-term plan to transform the arrangement into a lease contract under which the operator would assume greater responsibility and risks. Responsibility for maintenance of rural water systems is to be gradually transferred to villagers under guidelines that have been tested in the government's pre-existing Eau Toujours Program; financing for rehabilitation of handpumps and for training and community development activities is provided by the Second Water Supply Project (Ln. 2130-IVC). Complementary actions will be financed by other donors.

3.16 The 1988 budget law established the legal framework for controlling the unauthorized tapping of groundwater resources throughout the country. A decree establishing a system for the official declaration of well drilling will be enacted, and SODECI will be empowered to enforce these controls and to carry out an exhaustive inventory of private wells subject to the extraction fee. FNH and FNA were abolished, and a single entity was created to manage the public water and sanitation debt.

3.17 Lessons from Côte d'Ivoire. Several lessons can be learned from this experience. These lessons will be referred to later in this paper when the restructuring of Guinea's urban water supply sector is examined.

- ▶ Fragmentation of responsibilities for planning, investment, operations, maintenance, and debt service may lead to lack of accountability and inefficiency because actors do not have an appropriate level of control over decisions and actions that affect their efficiency.
- ▶ Rural and urban water supply require drastically different institutional and financial approaches. Therefore, it may not be wise to assign responsibility for the two to a single operator.

9. The difficulty of accommodating both economic and financial criteria in adopting a pricing policy for the water supply sector has long been acknowledged. (See Robert J. Saunders, Jeremy J. Warford, and Patrick C. Mann, *The Definition and Role of Marginal Cost in Public Utility Pricing: Problems of Application in the Water Supply Sector*, The World Bank, Central Projects Staff, Research Working Papers Series, P.U. Report No. RES 6, 1976.) Short-run marginal cost generally does not cover all financial costs. Since long-run marginal cost usually covers financial costs more completely, it has been favored as the basis of price policy in Bank-financed water supply projects.

- ▶ Excessive subsidization of rural water services through high tariffs on urban and industrial users may not prove viable because the high tariffs may lead to reductions in demand and thus in revenues.
- ▶ Private sector involvement in the delivery of public services does not in itself guarantee efficiency; the role of the oversight agency is crucial, and incentives for efficiency must be incorporated into contracts and institutional relationships.

4. The Urban Water Supply Sector in Guinea: Recent History

4.1 In 1989, despite adequate water resources, the Republic of Guinea had one of the least developed urban water supply sectors in West Africa. Only 10 urban centers out of 33, plus the mining city of Fria that has a private system, were partially equipped with distribution systems. In addition, three new systems were under construction. Less than 40 percent of the 2.3 million urban dwellers (of which about 1 million live in the capital city of Conakry) had access to piped water either through connections or standpipes. The remaining population relied on private wells or cisterns for their water. For those with access to piped water, the quality of service was low. There were frequent interruptions in service and water treatment was often bypassed or inadequate.

Sector Organization

4.2 The State Secretariat for Energy (SSE), part of the Ministry of Natural Resources and the Environment (MRNE), is responsible for the urban water supply sector in Guinea. Until the recent reorganization under the Second Water Supply Project, the Directorate for Energy Sources (DGSE) of SSE was in charge of programming, financing, and executing urban water supply projects, while the national water company, *Entreprise Nationale de Distribution des Eaux de Guinée* (DEG), was responsible for operation, maintenance, billing and collection in Conakry and the secondary urban centers. Sector-related debt was serviced by the national budget. DEG was formerly responsible for maintenance of the Conakry piped sewerage, but this task was recently taken over by the local government, which is also responsible for solid waste collection and disposal.

4.3 In theory, DEG could have acted as an autonomous agency, but its Board, with representatives of several ministries, never met. In fact, DEG was treated and managed as a MRNE department with only an illusory separate legal personality. In the past, frequent changes in top management and persistent interference in day-to-day management, including the appointment of employees, made it impossible for DEG to take advantage of technical assistance and develop appropriate internal controls.

The First Water Supply and Sanitation Project

4.4 The Bank Group's first Conakry Water Supply and Sanitation Project (Credit 870-GUI) was approved in December 1976 and closed in March 1985. The physical components that were implemented were subject to substantial delays, and some physical components were not implemented as extensively as originally planned. Despite heavy technical assistance, institutional development and financial performance under the project were extremely disappointing. During and following the project, existing facilities have

remained in poor condition, and maintenance has been inadequate. A major rehabilitation program is now needed.

4.5 Much of the blame for the poor performance of the first project can be attributed to political interference and the poor economic environment that prevailed throughout implementation. Although the overall situation in the country has begun to improve, the performance of the urban water supply sector has remained poor. Chronic shortages of foreign exchange, lack of qualified staff, and low staff morale have contributed to substandard operations and the poor quality of service. Inadequate tariffs, weak billing procedures, a low collection ratio, and the absence of internal controls have created a poor financial position.

Cost Recovery

4.6 The principle of charging users for piped water seems to be accepted by both the government and the population, but in the past rates were set at extremely low levels that usually did not cover operating costs and depreciation. Moreover, inadequate commercial procedures, illegal extensions of connections, and the disappearance or disrepair of many meters created a situation where water could be consumed without being paid for. Revenues collected through billings sometimes did not cover even cash operating costs. DEG survived only because the central government and municipalities regularly paid their bills (on the basis of estimated consumption that was budgeted at the beginning of each fiscal year until 1985) and because the government provided annual operating subsidies. Attempts were made under the first project to clean up long-standing arrears with private customers, but these actions were not followed by new procedures to avoid future accumulation of unpaid bills. This absence of discipline on the part of customers and the utility has typified almost all Guinean public services in the past. Recent experience in the urban transportation sector, however, has shown that the population is willing to pay reasonable charges for good service if cost recovery procedures are strictly enforced.

The Need for Radical Institutional Reform

4.7 The First Water Supply and Sanitation Project and other similar projects in Guinea and in neighboring countries have demonstrated that grafting technical assistance teams onto extremely weak institutions does not lead to satisfactory project implementation and institutional development. The Project Completion Report for the first project concluded with this recommendation:

"Institutional reforms to strengthen the sector's financial capability and promote improved systems would be the predominant components proposed in preparing a new project.... Though substantial technical assistance will still be needed, it is clear from experience under this project that this will almost certainly again be fruitless unless accompanied by a radical reshaping of institutional responsibilities.... In the opinion of projects staff, the shortcomings of the [sector] can be remedied most successfully by

a more commercial and entrepreneurial approach, preferably by a degree of privatization."¹⁰

4.8 Since increased efficiency and expansion of services were desirable in Guinea, and since the potential for both was considerable, an arrangement that promoted these objectives promised potential benefits for both the country and for a private partner, provided satisfactory contractual provisions were designed to protect the interests of each, and that political and economic barriers could be removed.

5. The Restructuring of Guinea's Water Supply Sector

5.1 In 1987, the Government of Guinea began to restructure the water supply sector, with assistance provided through IDA's Project Preparation Facility. Eventually, the Directorate for Energy Services and the national water company were replaced with two new companies: a state-owned national water authority, *Société Nationale des Eaux de Guinée* (SONEG), and a water management company, *Société d'Exploitation des Eaux de Guinée* (SEEG).

5.2 SONEG owns the urban water supply facilities in Conakry and secondary centers. It is fully responsible for sector development including identification, preparation, financing and implementation of new projects. SONEG also is responsible for issuing sectoral consolidated accounts and servicing the debt.

5.3 SEEG is jointly owned by the state and a professional private partner, the Foreign Investor-Manager (FIM). Within the framework of a ten-year lease contract with SONEG, it is responsible for operating and maintaining urban water supply facilities and billing customers and collecting charges. In addition, SEEG has entered into a management contract with the FIM under which the latter will provide home-office support for day-to-day management, regular audits of procedures, and assistance for procurement and selection of SEEG's expatriate staff.

5.4 The government reorganized the sector with the assistance of consultants and legal counsel through a complete revision of the sectoral legal framework, the closing of DEG, and the negotiation of the relevant contracts among the various parties involved. Key documents (which are described in Annex 2) include:

- ▶ the enterprise contract between the State of Guinea and SONEG,
- ▶ SONEG's statutes,
- ▶ the urban water supply general regulations,
- ▶ the shareholders' agreement between the state and the FIM for the creation of SEEG,
- ▶ SEEG's statutes,
- ▶ the lease contract between SONEG and SEEG, and
- ▶ the management contract between SEEG and the FIM.

10. World Bank, Project Completion Report, Republic of Guinea, Conakry Water Supply and Sanitation Project (Credit 870-GUI), August 31, 1987, p. 23.

5.5 Liquidation of DEG was completed by December 31, 1989. Staff who were not transferred to positions in SEEG, SONEG, or other civil service jobs were laid off.

Selection of the FIM

5.6 As this project began to take shape, there was a great deal of uncertainty and discussion within the Bank as to whether the lease contract between SONEG and SEEG could be financed by the Bank and, if so, under which guidelines. While these questions were being resolved, processing of the project was delayed considerably. There appeared to be no precedent for Bank financing of such a contract arrangement. In the past, the Bank had financed specific goods and services to be procured within the context of such an arrangement (for example, in Côte d'Ivoire), but not the contract as a package deal. Neither the Bank's procurement guidelines nor the guidelines for the use of consultants provide explicit guidance for tendering and awarding lease contracts.¹¹

5.7 The Procurement Issue. The project design, as proposed, called for selection of SEEG's major shareholder (the FIM) on the basis of the lowest lease-contractor rate (LCR) bid. A representative of the Bank's Legal Department pointed out that, not only was this contrary to the procurement guidelines, but it was also hard to imagine that a foreign firm would be willing to participate under such terms. Instead, it was suggested that the technical services of the foreign firm be contracted under a traditional management contract in accordance with the guidelines for the use of consultants, and that equipment be procured separately in accordance with the procurement guidelines.¹² Though this formula had the merit of being squarely in line with Bank practice, it was unacceptable to the project's authors. They felt it would eliminate the most innovative element of the proposed project design: the assumption of commercial risk by the lease contractor and therefore the FIM as a partner in the lease-contract arrangement.

5.8 Neither set of guidelines was entirely satisfactory for this type of contract, but it was argued that the provision of a cubic meter of water (distributed, billed, and collected) has more in common with the provision of civil works than with consultants' services. As long as there is fair competition among potential FIMs, the lowest LCR bid constitutes the lowest-cost option for the operation of water supply services, even if the inputs are not procured at the lowest price each by the selected contractor. Ultimately, the Bank's guidelines for procurement of works and goods were applied to the selection of the FIM. Since the goods

11. The procurement guidelines apply to goods, works, and related services such as transportation, installation, training. The object of these guidelines is to ensure that goods and works financed by the Bank are procured fairly and at lowest cost from Bank-eligible countries (that is, Bank members, Switzerland or Taiwan). To this end, international competitive bidding (ICB) is prescribed. Consultant services, unlike goods and works, are not considered to be standard in nature and are therefore less subject to evaluation on the basis of price. According to the Bank's guidelines, other considerations such as competence, experience and the client-consultant relationship are the principal factors to be considered in choosing consultants. In the award of consultancy contracts, price may be considered, but only secondarily. Consequently, proposals for consultant contracts may be solicited from a "short list" of firms or individuals. International competitive bidding is not required.

12. Under the proposed lease-contract arrangement, as for all contracts awarded after international competitive bidding on the basis of the most advantageous bid, equipment to be procured by the lease contractor in fulfilling its obligations would not be subject to ICB.

and services to be procured under the contract, and financed by IDA, would be indirectly subject to the Bank's international competitive bidding guidelines, it was stipulated that they would have to be provided by Bank-eligible countries. Equipment and works to be procured for the rehabilitation program and system expansion, which are not part of the lease contract, would be procured through international competitive bidding.

5.9 The Selection Process. Before soliciting bids from potential FIMs, the government, with assistance provided under IDA's Project Preparation Facility, prepared drafts of the various legal documents and established a plan for financing overall sector costs through increased consumer tariffs, international financing, and budgetary contributions. In order to ensure transparency and fairness, the selection of the FIM was carried out, after international competitive bidding, on the sole basis of financial proposals made by prequalified professional companies. The six prequalified companies (four from France, one from Tunisia, and one from the United Kingdom) were all large water distribution companies that met the technical and financial prequalification criteria. The preselection document described Guinea's water supply sector, the proposed institutional reforms, and the requirements and instructions for preselection. The bidding documents described the roles of the state and of the two companies to be created, SONEG and SEEG; the proposed financial arrangements; SEEG's responsibilities with respect to rehabilitation and maintenance; the instructions for completing bids; and rules governing the submission of bids.

5.10 A draft lease contract, including the detailed specifications, was reviewed by Bank staff and five of the prequalified firms that attended a prebid conference in Conakry. Their comments, as well as those of Bank staff, were incorporated into the final draft version of the lease contract. It was attached to the bidding documents with drafts of SEEG's shareholders' agreement, SEEG's statutes, and the management and subscription contracts.

5.11 The only parameters used to select the final candidate were the lease-contractor rate (LCR) that SEEG would retain on each cubic meter of water collected, and the price that SEEG would charge the customers for new connections. The prequalified FIMs were placed in similar financial conditions: in particular, the bidding documents specified the initial equity contribution the FIM would make to SEEG (about \$1.55 million out of \$3.0 million), the apportioning of dividends, and the remuneration of the FIM for the management assistance contract with SEEG (set at 2 percent of SEEG's revenues).¹³

5.12 Though six companies had been prequalified, only two bids were submitted. The four French companies combined to form two consortia. A joint venture of *Compagnie Générale des Eaux*, the largest French private water distribution company, and SAUR, the third-largest French private water distributor in France and one of the main shareholders of the Ivorian SODECI, submitted the lowest bid, about 30 percent below consultant estimates, and was selected by the government in accordance with evaluation procedures agreed upon with the Bank. The second bid, by a joint venture of the two other French companies, was 13 percent below consultant estimates. The other prequalified candidates did not submit bids. The U.K. company, a large public water authority that was in the process of being privatized, cited delays in the completion of its privatization as the reason for its withdrawal from the

13. The complete set of preselection and bidding documents, including draft legislation and contracts, is available in the Africa Information Center. All documents are in French. See document numbers D00245, D06542, D09533, D09535, D09537, D09540.

competition. The Tunisian concern became a casualty of political changes in Tunisia just prior to the bid submission deadline.

5.13 Under the circumstances, competition was indeed somewhat limited. Nevertheless, in terms of the final cost of the service, the outcome appears to have been favorable from the point of view of the government and consumers.

The Water Management Company, *Société d'Exploitation des Eaux de Guinée* (SEEG)

5.14 Management and Organization. The chairman of the Board of SEEG is chosen by the government, and the general manager is nominated by the FIM, subject to the approval of SEEG's Board. Certain important decisions (such as approval of the annual budget, signing of large contracts, approval of nonbudgeted commitments of over GF 100 million, proposals for the distribution of dividends, and changes in or renewal of the lease contract) must be approved by a 75 percent majority of the Board. This means that the FIM cannot make important decisions without the concurrence of at least one of the Board members representing the state; since the state's representatives usually vote in unison, such decisions will generally have to be reached by consensus.¹⁴ Decisions concerning day-to-day management within the limit of the approved budget are left entirely to the general manager.

5.15 Operational Provisions. SEEG is free to define its own organization and procedures to meet its contractual obligations. It is free to hire and fire staff, both local and expatriate, although initially it was asked to give preference to laid-off DEG staff. The company will procure its imports (chemicals, parts for regular maintenance or construction of new connections) in accordance with industrial practices approved by its Board from Bank-eligible countries only. Under the terms of the lease contract, SEEG is permitted to maintain bank accounts in local or foreign currency and to transfer money freely.

5.16 Tax and Tariff Concessions. SEEG enjoys certain tax and import tariff concessions for a period of six years, until 1995. With one exception, these are the same concessions that other firms are entitled to under Guinea's investment code. The exception, a partial exemption from taxes on oil products, has proven difficult to implement because SEEG must pay the taxes when it purchases fuel from suppliers and then must request a refund from the government, which is chronically short of funds. Since all LCR bids were net of taxes, none of these exemptions represents additional revenue to SEEG over and above its LCR bid.

5.17 Maintenance and Rehabilitation. SEEG is responsible for regular maintenance of the facilities, including replacement of works and parts as necessary but excluding catchments, civil works, and pipes greater than 160 millimeters in diameter, all of which are the responsibility of SONEG. The condition of existing installations and rehabilitation needs are specified in a detailed inventory for each of the urban systems at the time it is turned over to SEEG. A \$5.0 million rehabilitation program (financed by the IDA credit) will be carried out

14. Should at least 24 percent of the state's 49 percent share eventually be sold to private Guineans, this provision would continue to require some local consent for major decisions, but the government would no longer have a de facto veto over proposals favored by the private shareholders, foreign and local. In fact, such an event is desirable and would make it possible for the country to take full advantage of private resources and fully reap the efficiency benefits of private sector involvement. This will be possible only after the Guinean private sector develops further and capital markets emerge.

by SEEG, and the inventories will be revised to reflect the rehabilitation as it is completed.¹⁵ At the end of the lease-contract period, SEEG will be responsible for returning facilities to SONEG in the condition specified in the inventories.

5.18 Penalties. SEEG is required to post and maintain a performance bond of GF 200 million (\$400,000). These funds will be applied against any penalties SEEG might incur for failure to meet service standards after an initial grace period of two years, or failure to submit annual accounts and reports.

5.19 Initial Performance. The lease contract took effect when the IDA credit became effective in October 1989. The initial start-up of operations under the lease contract went well. By December, a new billing system that simplified the identification of customer accounts and made it difficult for customers to avoid paying for water service had been put into place. Installation of the system progressed much faster than originally expected. However, project staff now expect some delays in the implementation of the rehabilitation program (for which supplies must be procured under international competitive bidding).

The National Water Authority, *Société Nationale des Eaux de Guinée* (SONEG)

5.20 Organization. SONEG has two departments: Finance and Administration, which handles sector accounting and general administration, and monitors SEEG's performance; and Studies and New Works, which is responsible for identification, preparation and supervision of new projects (including the expansion of the Conakry system financed under the project as well as other investment projects being financed by other donors). The IDA credit is financing an advisor to SONEG's general manager to assist in general sector planning and financial management, and an advisor to the head of the Department of Studies and New Works to assist in establishing project management procedures, as well as occasional short-term consultancies.

5.21 Staffing. Before DEG was abolished, it employed about 500 staff, of whom 15 percent were professional, 32 percent were skilled or semiskilled, and 53 percent were unskilled workers. In addition, DGSE staff in charge of the urban water supply sector numbered about 15, fewer than 10 of whom were professionals. Under the new arrangements, SONEG's staff will total about 60 and SEEG's about 250. Of the laid-off DEG staff, about 200 of the former staff have been hired by SEEG, 40 have been retained by SONEG, and 30 qualified for other jobs in the civil service. SEEG appears to have attracted the most highly qualified individuals. SONEG's staff, though it includes a few very competent individuals, is relatively weaker.

5.22 Staff of DGSE and DEG who were not selected for the two new companies were phased out. It was originally foreseen that the IDA credit would finance a training program to be implemented in Conakry by a Canadian nongovernmental organization in the field of plumbing, air conditioning and electromechanics for those laid-off staff who wanted to launch their own businesses, but this program has so far failed to materialize.

15. Since actual rehabilitation needs exceed this amount, further financing from other donors is being sought.

5.23 SONEG's Role with Regard to SEEG. SONEG is responsible for monitoring the performance of SEEG in discharging its obligations under the lease contract (for example, water supply standards, implementation of the rehabilitation program, and proper maintenance). It also adjusts and if necessary renegotiates SEEG's remuneration, the lease-contract rate. (SONEG's capacity to fulfill this role is discussed in paragraphs 5.37-5.42.)

Financial Arrangements and the Role of the IDA Credit

5.24 Tariffs. For each cubic meter of water consumed, SEEG is eventually expected to:

- (a) collect from the customers the "full water rate" (that is, a rate sufficient to cover sectoral operating expenses and yield an acceptable rate of return on SONEG's assets);
- (b) retain part of collected revenues, the "lease-contractor rate," to cover its own operating expenses (in both foreign exchange and local currency), depreciate its own assets, and provide a return on its equity; and
- (c) pay part of collected revenues to SONEG as a "rental fee" intended to cover SONEG's own operating expenses, service the sectoral debt, and finance part of the investment program.

5.25 During the initial years of implementation of the new institutional arrangements, revenues generated locally through the consumer rate are expected to be insufficient to cover the full water rate. The consumer rate, which was raised from GF 60 per cubic meter (\$0.12/cubic meter) to GF 150 per cubic meter (\$0.30/cubic meter) early in 1989, is sufficient to cover SEEG's expenses in local currency and a rental fee that would cover SONEG's operating expenses and generate cash to finance part of the investment program. Therefore, it is envisaged that the foreign exchange portion of the LCR will be covered by the IDA credit, but on a declining basis.¹⁶ The IDA credit will finance the foreign expenditures of the lease contract on the basis of a pari passu formula by simply multiplying the volume of water for which revenues were collected by SEEG by the foreign exchange component of the LCR, and then applying a declining percentage. The volume of collection will be confirmed every four months by independent auditors.

5.26 The National Budget will help cover sectoral debt service (SONEG's responsibility), also on a declining basis. The level of the support for each year will be specified in the enterprise contract between SONEG and the state. The figure shows the breakdown of the full cost of water into two components: SEEG's operating costs (the LCR), and other financial needs of the sector (SONEG's operating costs, its contribution to new investments, and debt service). The consumer rate, which SEEG collects and which currently covers only part of the full cost of water, is divided into the part that SEEG retains (consumers' contribution to the lease-contractor rate) and the part that SEEG pays to SONEG as a rental fee. The Figure also shows how external financing (for foreign expenditures) and support from the National Budget (for debt service) fill the gap between the consumer rate and the

16. It is normal practice under operations financed by the World Bank for the contractor to be protected against foreign exchange risks, but ultimately SEEG will assume that risk along with the other commercial risks it has already assumed.

full cost of water on a declining basis as the sectoral financial burden is gradually transferred to the customer. After six years of implementation of the new arrangements (the duration of the IDA project), the consumer rate should be sufficient to cover not only the local operating costs and depreciation of both SONEG and SEEG, but also the sectoral debt and about 40 percent of the foreign exchange portion of the LCR.

5.27 The table on page 20 shows the projected evolution of the full cost of water and a breakdown of its main components as well as the cost sharing between consumers, the National Budget, and external financing. Note that tariffs will not be increased again until 1991, and the LCR will be adjusted periodically by the application of cost index formulas.

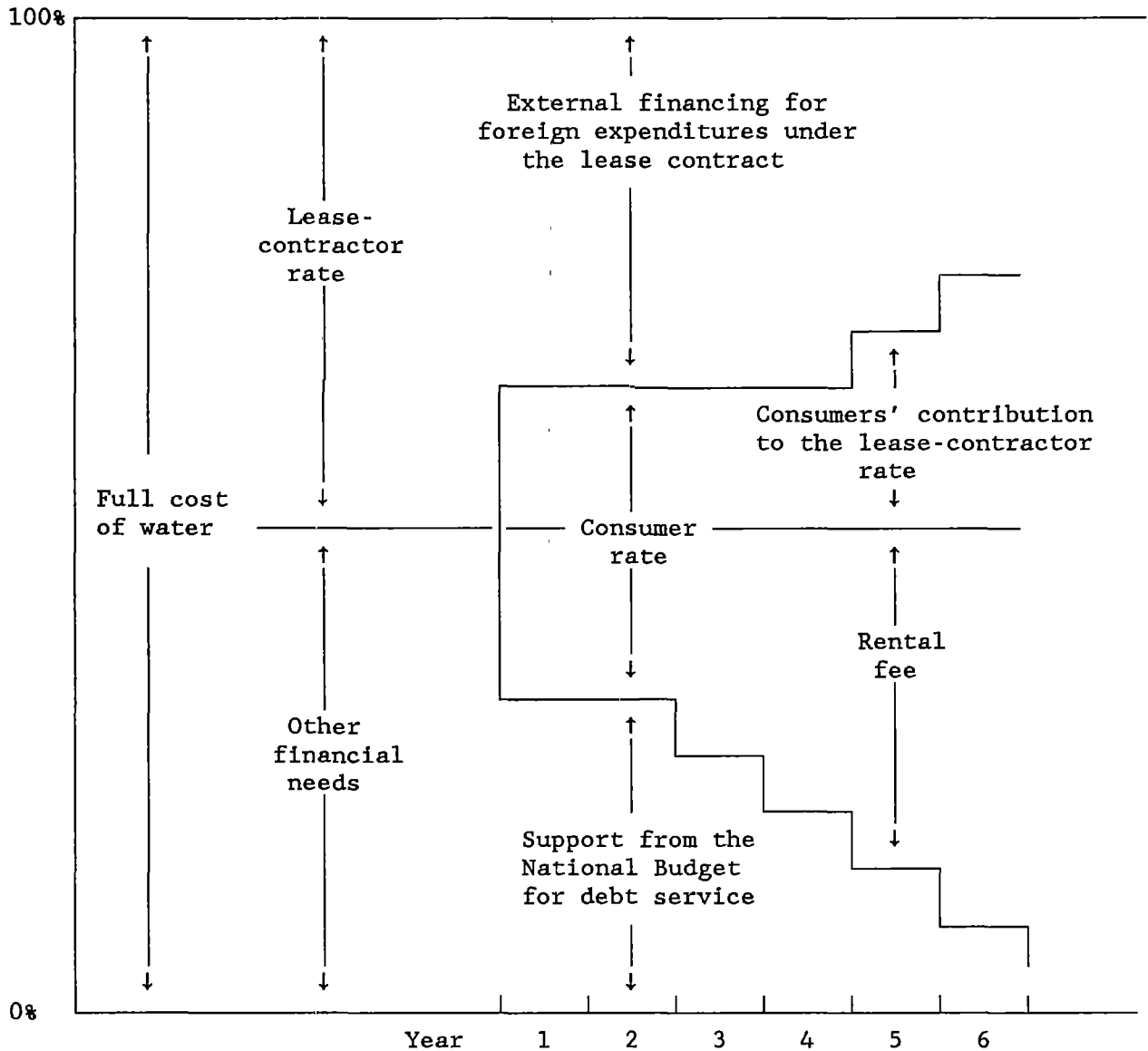
5.28 Given the uncertainty of present consumption patterns and the low tariff level, it is neither feasible nor desirable to establish immediately a rate structure based on categories of water users or increasing block rates. Differential pricing (under which water consumption by low-income households could be subsidized, for example), will be introduced once consumption has been fully metered and recorded over a sufficient period of time. In order to encourage the efficient use of water by households and to avoid excessive tariffs for industrial, administrative, and commercial customers that might result in the reduction of revenues or the collection ratio, the government has agreed that the lowest rate applied to any specific category of customers would be at least equal to 120 percent of the average cash operating costs of both SEEG and SONEG. The social block rate could be introduced in 1991 when a projected tariff increase would raise average tariffs above 120 percent of operating costs.

5.29 The success of this plan depends on a number of factors, not the least of which is the government's commitment to raising tariffs commensurate with evolving costs. SEEG's and SONEG's revenues will depend on the evolution of demand as a result of expansion and in response to improved service and increased tariffs, and on SEEG's success in improving collection. Even if sectoral finances evolve as projected, there would be a continuing need for external financing beyond the six-year duration of the Second Water Supply Project. Not until 1998 are tariffs and the full cost of water expected to be in equilibrium.

5.30 Local and Central Government Water Bills. Although payment of water bills by government agencies has not posed a problem in the past, SEEG is protected from a potential problem in this regard in several ways. The enterprise contract between the state and SONEG indicates detailed budgeting and payment procedures for administrative and municipal water bills, and the Lease Contract stipulates that the foreign exchange portion of the LCR that is financed by IDA will be paid on at least onethird of administrative billings, even if actual collection is lower. Finally, SEEG is permitted to cut off water supply to any agencies that fail to pay.

5.31 Adjustment of the Lease Contract Rate. The foreign exchange component of the LCR will be adjusted quarterly, and the local currency component will be revised semiannually in accordance with cost index formulas that allow 90 percent of weighted cost increases or decreases to be reflected in the adjusted LCR. This provision is quite favorable for SEEG, and it reduces some of the risk the lease contractor assumes. Both the level of the LCR and the indexation formulas will be renegotiated after four years; at that time, the government (through SONEG) will have an opportunity to push for changes in both if greater efficiency seems possible.

Breakdown of the Full Cost of Water



This figure shows the general principle of cost sharing between the consumer, the National Budget, and external financing.

WATER RATES AND COSTS, 1989-90
(Guinean francs per cubic meter at current prices)

Item	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
<u>Full cost of water</u>										
Lease-contractor rate	195	217	229	237	214	219	219	219	219	219
SONEG operating expenses	11	11	10	10	9	8	8	7	6	6
Debt service	139	165	191	210	196	272	361	336	286	272
Participation in investments /a	52	43	90	76	126	160	38	46	75	68
<u>Total</u>	<u>398</u>	<u>436</u>	<u>520</u>	<u>533</u>	<u>545</u>	<u>660</u>	<u>625</u>	<u>608</u>	<u>587</u>	<u>566</u>
Constant 1989 \$/cubic meter	0.75	0.74	0.83	0.82	0.80	0.93	0.85	0.79	0.74	0.68
<u>Cost sharing</u>										
Consumer rate of which:	150	150	239	274	356	520	561	566	566	566
Rental fee to SONEG	(64)	(55)	(138)	(170)	(252)	(386)	(406)	(389)	(368)	(346)
National Budget	139	165	153	126	78	54	0	0	0	0
External financing	109	121	128	133	110	86	64	43	21	0
<u>Total</u>	<u>398</u>	<u>436</u>	<u>520</u>	<u>533</u>	<u>545</u>	<u>660</u>	<u>625</u>	<u>608</u>	<u>587</u>	<u>566</u>
Consumer rate/full cost (%)	38	34	46	51	65	79	90	93	96	100

/a Balance required to generate adequate returns on SONEG's net assets.

NOTE: Totals may not add up due to rounding.

Selected Issues

5.32 Profitability and the Motives of the Foreign Investor-Manager. Financial projections carried out by Bank staff indicate a net return on SEEG's equity in the range of 12 percent to 18 percent annually over the life of the contract, a respectable and reasonable profit. It is safe to assume that the foreign partners probably expect to benefit in other, perfectly legitimate, ways from this venture (for example, through the enhancement of their expertise and networks, and the establishment of their pre-eminence in the region). In fact,

SAUR (one of the members of the French consortium which became the FIM, and also a shareholder of SODECI) had been looking for such an opportunity to expand operations in Africa for some time. With its many years of experience in operations in another West African country, it was in a position to calculate costs fairly accurately and to minimize certain start-up costs. For example, it had already developed an effective billing system in Côte d'Ivoire that would be applicable to the Guinean situation. This may explain how it was able, with CGE, to prepare a bid that was substantially lower than expected.

5.33 As regards the direct financial returns of the arrangement, during negotiations with the government for the management contract with SEEG, the FIM attempted unsuccessfully to obtain a higher fee than the 2 percent stipulated in the bidding documents.

5.34 Separation of Planning and Investment from Operations. In Côte d'Ivoire the separation of responsibilities for sector management appears to have resulted in a lack of accountability and efficiency because the various actors had inadequate control over decisions and actions that affected their performance. For example, a ministerial department that did not depend directly on sector revenues was responsible for planning investments. While designers of the Guinea arrangement believed that it would be preferable to assign responsibility for planning, investment, debt service and operations to a single entity, they concluded that it would be unrealistic to expect a private operator to assume the burden of existing debt service and future investments, which will necessarily be heavy, given the current physical and financial status of the sector. Their project design allocated responsibility for planning, investment, tariff setting, and eventually debt service to SONEG, while operations and most of the maintenance were assigned to the contractor, SEEG. Not all analysts would agree that it is preferable to combine all of these functions in one entity; some would argue that decentralization increases efficiency by allowing agencies to specialize in one or two functions and by increasing the level of responsibility of working-level staff. All analysts would probably agree that the incentive to perform each essential function satisfactorily must somehow be deliberately incorporated into the institutional setup, and that when functions are separated, incentives and channels for cooperation become important.

5.35 In contrast to the former arrangement in Côte d'Ivoire, the arrangement in Guinea gives the state enterprise SONEG an incentive to pursue sector efficiency and financial viability because its own income and its ability, eventually, to service the debt and contribute to investments will depend on its shrewdness in planning investments, setting tariffs that cover sector costs, and negotiating with SEEG adjustments in the lease-contractor rate. The viability of SEEG depends primarily on its success in improving operational efficiency and collections. These arrangements provide a substantial measure of accountability as well as appropriate incentives.

5.36 However, there is one obvious weakness in the division of responsibilities between SONEG and SEEG. SONEG will plan and execute all new investments and SEEG is expected to take over and operate them, but there is no provision for consultation between the two entities on the planning of investments, and such consultation might be considered inappropriate.¹⁷ As a result, SEEG will have no voice in investment decisions that will affect

17. Under the terms of the lease contract, SONEG may assign responsibility for the operation of new investments to SEEG, but it does not have to do so. SEEG, on the other hand, is expected to accept all operating responsibilities that SONEG assigns to it.

its ability to operate efficiently; if SEEG should subsequently argue that an investment was poorly planned and cannot be operated efficiently, SONEG may lose some leverage in negotiating the lease-contractor rate.

5.37 SONEG's Vulnerability. A recent study of contract plans (CPs, also known as enterprise contracts) reported that, while CPs have been useful for establishing management processes and creating channels for dialog between state enterprises and the state, they "have not proven to be legally enforceable contracts." Governments cannot be sued or otherwise forced to comply with their obligations as stated in such contracts. In fact, "persistent non-compliance with terms of the CPs has discouraged and demotivated enterprise managers."¹⁸ A major source of problems has been the unreliability of government subsidies or transfers to support the operations of state enterprises.

5.38 A review of SONEG's enterprise contract reveals that SONEG may not be as vulnerable as many state enterprises in this regard. The company is not directly dependent on the government for operating transfers or subsidies. On the contrary, the sector is expected to become self-sufficient. SONEG is authorized to propose and, after approval of the State Secretariat for Energy, set tariffs that will cover: SEEG's local operating costs; an increasing percentage of SEEG's foreign exchange costs; all of SONEG's own operating costs, including depreciation; an increasing percentage of the sector's debt service; and an acceptable return on SONEG's assets (that would be used as SONEG's contribution to future sector investments). The state agrees to pay all of the sector debt for two years, and a gradually decreasing portion of the debt for four additional years. There is no provision for the government to contribute to SONEG's operating costs or investment funds, should tariff revenues fall short.

5.39 These arrangements could leave SONEG somewhat vulnerable to operating shortfalls. Even though the government appears to be committed to gradually increasing tariffs to a level that would cover all sector operating expenses and yield an acceptable rate of return on SONEG's assets, there is no guarantee that it or its oversight agent, the State Secretariat for energy, will approve the tariff increases that SONEG proposes to meet this objective.¹⁹ In the event that tariffs are not increased to a level that covers the lease-contractor rate and SONEG's operating costs as well as a return on assets, the lease contract guarantees that payment of the LCR to SEEG would have first priority. As a result, SONEG's revenues would be reduced or even eliminated before SEEG's would be affected. Inadequate resources for SONEG could compromise its ability to supervise the lease contract and to carry out sector planning and investment activities.

5.40 The study of enterprise contracts concluded: "They should be kept short and simple. Emphasis should be placed on goal clarification, an increase in managerial autonomy,

18. John Nellis, *Contract Plans and Public Enterprise Performance*, World Bank, Policy, Planning, and Research Working Paper 118, October 1988, p. ix.

19. The IDA credit agreement with the government requires that measures be taken, including tariff adjustments, so that SONEG's revenues will generate a 1.5 percent rate of return on annually revalued net assets in service from 1991 to 1993, and a 2.5 percent rate of return from 1994 onward. A schedule of tariff increases is included in SONEG's enterprise contract.

and open negotiating between government and management.²⁰ SONEG's contract satisfies this prescription, except that no formal mechanism for the resolution of disagreements between SONEG and the state has been established, apparently because the legal system in Guinea is still in an early stage of development.

5.41 SONEG's Strength vis-à-vis SEEG. The ability of SONEG to fulfill its role with regard to SEEG will be a key factor in the success of the new arrangement. The monitoring function is fairly straightforward, and it will be simplified in the short term by SEEG's interest in improving operations quickly to secure revenues. However, because of the admittedly dismal current state of operations and the impracticality of enforcing service standards immediately, SONEG may develop a lax attitude toward its enforcement role and its need, as a new institution, to develop the required skills and procedures for a firm enforcement stance once the initial grace period is over.

5.42 Given the need for close collaboration between the two companies, there is also the danger that, over time, SONEG's "arm's-length" attitude toward SEEG may be eroded, just as happened in Côte d'Ivoire. This would particularly endanger SONEG's position in adjusting and renegotiating the lease-contractor rate. To assist SONEG in developing a strong position in these negotiations from the beginning, the IDA credit will finance occasional short-term technical assistance for this purpose.

6. Conclusions

Introduction of Competition and Incentives for Efficiency

6.1 The restructuring of the Guinea water supply sector represents a first step toward improving the overall efficiency of the system. Through the bidding process for a lease contract to operate the water supply system, competition has been introduced into a public service. The linking of the revenues of the lease contractor, SEEG, with cost control and the effectiveness of collection creates incentives for both technical and economic efficiency. The initial performance of the company during the early months of operation has been encouraging.

Framework for Transfer of Skills and Responsibility

6.2 The arrangement with the foreign investor-manager as a shareholder in SEEG, and as management consultant whose fees are also linked to SEEG's revenues, establishes a framework that encourages effective training and the transfer of skills and responsibility to local staff. Moreover, the time-frame of the lease contract, ten years, is more realistic for achieving technical assistance objectives than the usual two- or three-year technical assistance contract.

20. Nellis, *Contract Plans*.

Oversight Function

6.3 The participation of the private sector in the delivery of water supply services is only a part of the reform. The important tasks of proposing tariff adjustments, renegotiating the lease-contractor rate, monitoring the performance of SEEG, and planning and implementing investments remain with the state enterprise SONEG. A new lean organization has been established and technical assistance personnel are in place, but the difficulty of creating effective oversight agencies is well known, and project staff expect to have significant involvement supervising this crucial aspect of the project.

Tariffs and Financial Viability

6.4 The government has indicated a willingness to raise tariffs to a level that covers operating expenses and sector debt service and yields a financial return on SONEG's assets so that it can contribute to future investments; these increases are essential for the viability of the arrangement. SEEG's finances are protected somewhat more than SONEG's. Although Guinea's political and institutional structures have changed profoundly since the new government was established in 1984, the country's political and economic environment remains precarious. The difficulty of carrying out reforms must not be underestimated.

Simplicity of the Arrangement

6.5 The arrangement in Guinea is a remarkably simple one. Unlike the previous arrangement in Côte d'Ivoire, it is limited to the urban water supply sector. Neither SONEG nor SEEG has any responsibility for rural water supply, and urban sanitation is being handled separately. Although ultimately the natural links among these components will need to be reinforced, in the medium term, this separation could be a good strategy, given the magnitude of the sector's operational problems.

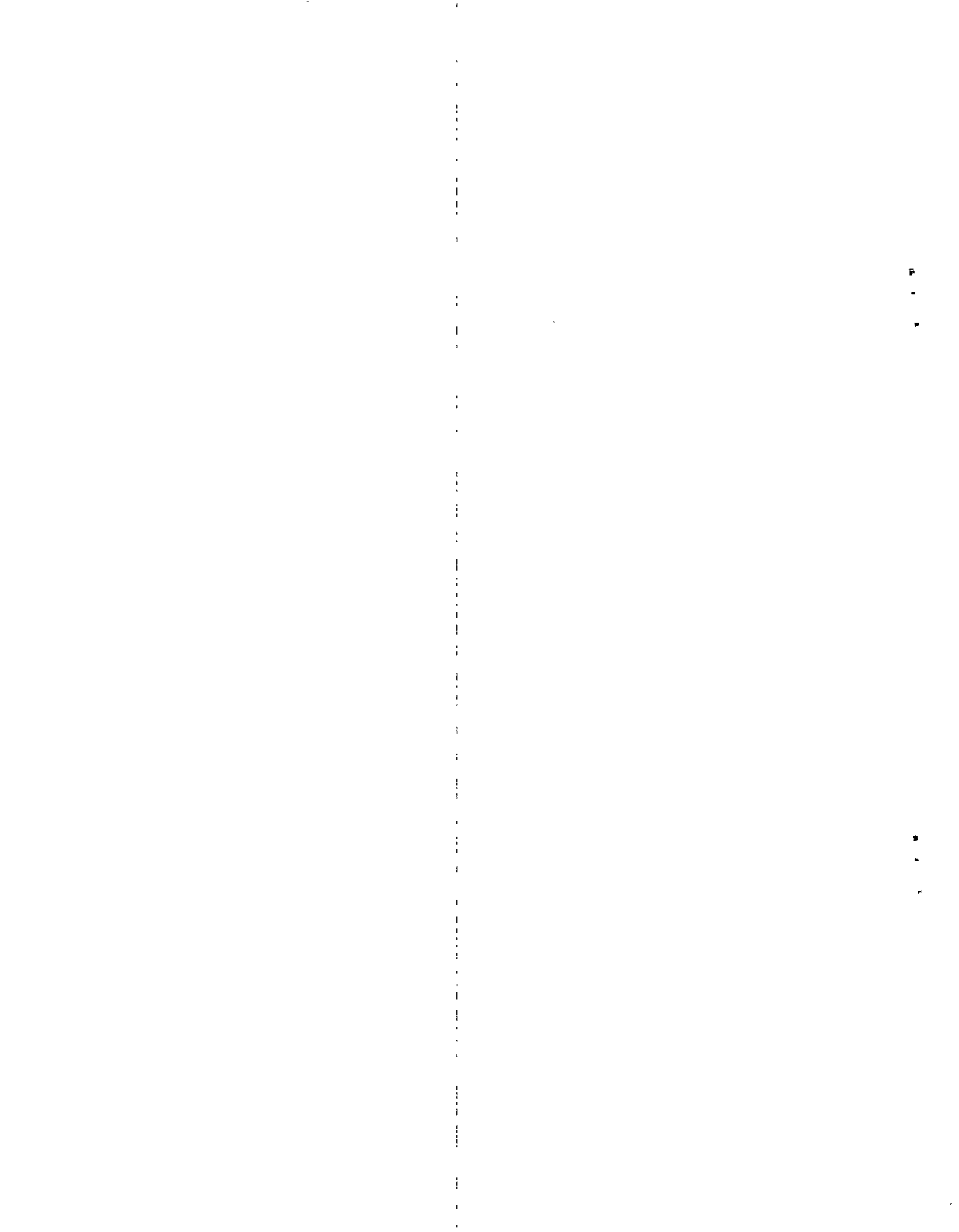
Separation of Investment and Operations

6.6 Under the current arrangement, responsibility for planning, investment, and debt service is separated from responsibility for operations. The first responsibility is SONEG's; the second, SEEG's. Under existing circumstances, this separation was unavoidable. Even though the arrangement gives each entity a large degree of accountability, it has some shortcomings. SONEG may not be best placed to make wise investment decisions, and it labors under a certain vulnerability vis-à-vis SEEG; SEEG has no voice in planning new investments, and therefore its incentives to operate efficiently may be compromised. Consequently, once the bulk of heavy urban investments has been completed, it may become desirable to convert the lease contract to a concession or partial concession.

Guidelines for Lease Contracts and Concessions

6.7 After much internal discussion and delay, it was decided that the FIM would be selected on the basis of the lowest LCR bid, following the procedures outlined in the Bank's guidelines for procurement of goods and services. Though the procurement guidelines were applied to the selection of the contractor, the goods and services to be procured under the terms of the contract are not subject to international competitive bidding; rather, the contractor is free to procure these goods and related services according to its own procedures,

as long as they come from Bank-eligible countries. An understanding was reached among the various actors within the Bank so that this project could go forward, but the issue has not been resolved definitively. There are currently no Bank guidelines for the selection of contractors for lease contract or concession arrangements. Given the growing interest of borrowers in private sector operation of public services, and the response of the private sector, this gap needs to be eliminated through the development of appropriate guidelines that reflect the special nature of such arrangements.



Contractual Arrangements for Private Sector Participation in Water Supply Operations

Service contract: A government-owned entity enters into a small management or service contract with a private firm for the provision of specific services. This is the type of arrangement under which technical assistance services are typically provided, but more operational services (such as metering, billing and collection, maintaining private connections, or operating production facilities) may also be contracted. The public authority retains overall responsibility for operation and maintenance of the system, except for the specific services contracted. It bears all of the commercial risk and must finance fixed assets as well as working capital. Compensation may be on a time basis; on a lump-sum, cost-plus, or fixed-fee basis; or it may be proportional to some physical parameters. Service contracts are usually for periods of less than five years.

Management contract: The public authority transfers to a private company the entire operation and maintenance function of the municipal service. Compensation is usually proportional to physical parameters. This arrangement is similar to a service contract, except that the private company assumes overall responsibility for operation and maintenance of the system, with the freedom to make day-to-day management decisions but without assuming the commercial risks. A profit-sharing arrangement, under which the private firm would bear a small part of the commercial risk, is possible but unusual. The duration of management contracts is generally about five years.

Lease contract: The system owned by the public authority is leased to a private company for operation and maintenance, but unlike a management contract (with or without profit sharing), the financial risk for operation and maintenance is borne entirely by the lessee. Moreover, the lessee must finance working capital and replacement of components with a short economic life, but not extensions to the fixed assets. The equipment must be returned to the authority in good repair at the end of the contract. The lessee retains a portion of tariff revenues as compensation and pays the remainder to the authority as a rental fee. The portion retained by the lessee is established in the lease contract as a result of competitive bidding or negotiation, and it may be adjusted regularly to reflect changing cost conditions or renegotiated at a specified time during contract execution. The tariff level and the rental fee are usually specified by the public authority or a regulatory body. The duration of this type of arrangement is usually from six to ten years, with the possibility of renewal for up to twenty years.

Concession contract: This arrangement goes a step further than the lease contract in that the concessionary must also finance investment costs. Compensation is through tariff revenues, part of which may have to be turned over to the public authority if it has contributed to capital costs. Such contracts are usually for a longer period (maximum fifteen years) than service, management, or lease contracts to allow the firm to recoup capital costs.

Summary of Key Legal Documents Governing the Guinea Water Supply Sector¹

Enterprise Contract Between the State of Guinea and SONEG

This document specifies SONEG's objectives and the mutual obligations of SONEG and the state as its only shareholder for a limited period of time. SONEG is authorized to set tariffs at levels that gradually will fully cover operating costs, depreciation and debt service, and will contribute to new investments. Minimum tariff levels for the period 1989-1992 are established. The state assumes responsibility for ensuring that the projected costs of administrative and municipal water consumption are budgeted and that bills are paid as scheduled. An initial investment program is presented. SONEG is required to submit annually a budget, four-year consolidated financial projections for the sector, annual consolidated accounts for the sector, and an independent auditor's report.

Urban Water Sector General Regulations

A *Cahier des Charges* attached to SONEG's enterprise contract lists the permanent regulations governing sector planning, management, and financing. The respective roles of the oversight ministry and of SONEG are defined. The oversight ministry is charged with establishing long-term objectives for water service; approving and monitoring SONEG's investment program and program contract; approving decisions of SONEG's Board of Directors regarding tariffs, long- and medium-term loans, lease contracts, etc.; and monitoring SONEG's performance. SONEG is charged with identifying urban water supply needs in light of the long-term objectives; carrying out feasibility studies; preparing annually a three-year investment program; proposing annually a three-year program contract; preparing ten-year financial forecasts; preparing annual financial and technical reports; and maintaining an accurate and up-to-date map of the system. SONEG's assets and sources of income are identified. It is established that tariffs should cover the full cost of water supply including operations, depreciation, and debt service, and that, in the event tariffs are inadequate to cover costs, the state will subsidize SONEG in the amount of the shortfall. SONEG is required to depreciate the value of its assets in its annual accounts, maintain and replace equipment and installations as needed, and ensure that the lease contractor respects its maintenance obligations. SONEG's exclusive responsibility for the execution or subcontracting of all urban water supply projects, and the subcontracting of urban water supply operations, is affirmed. Applicable procurement regulations are identified.

SONEG's Statutes

This document specifies SONEG's organization, administrative and financial procedures. It outlines the powers and responsibilities of the Board of Directors, the General Director, and the role of the Secretariat of State for Energy, under the tutelage of which SONEG has been placed.

1. All of these documents are in French. They are available in the Project File in the Africa Information Center.

SEEG Shareholders' Agreement

The two shareholders--the Republic of Guinea and a consortium of two French companies, the *Société d'Aménagement Urbain et Rural* (SAUR) and the *Compagnie Generale des Eaux* (CGE)--agree to create SEEG. The Republic of Guinea owns 49 percent of the stock and the French partner, the foreign investor-manager (FIM), 51 percent. The amounts and schedule of capital contributions are specified. The government guarantees to the company the right to conduct business, hire and fire, and obtain visas for expatriate personnel, subject to the existing laws of Guinea. The government also guarantees certain privileges regarding monetary exchanges and transfers. The company agrees to hire Guinean nationals for unskilled positions and, to the extent possible, for other positions, to train Guineans to eventually take over all positions of responsibility, and to use Guinean products and services to the extent that they are competitive.

Lease Contract Between SONEG and SEEG

SEEG is assigned responsibility for operating the water supply services in ten urban areas with the possibility of being assigned additional systems as they are built. SEEG's tax and tariff liabilities and exceptions are established for a period of six years. The date and duration of the contract are specified, as is a schedule for the transfer of the urban water systems once the contract takes effect. SEEG's right to open bank accounts and transfer currency freely is ensured.

Detailed Operating Specifications

The *Cahier des Charges d'Exploitation* is a detailed attachment to the Lease Contract. The main document is 42 pages long and contains 76 articles which detail performance standards, maintenance responsibilities, and procedures for adjusting the lease-contractor rate. A number of annexes are attached: demand projections (large variations from which would serve as a basis for renegotiating the LCR); tables of agreed connection charges and charges for rehabilitation of connections; rules governing water service accounts; detailed inventory of each installation turned over to SEEG (to be attached each time an installation is turned over and revised to reflect rehabilitation work); and technical documents for the installations.

SEEG's Statutes

This document specifies the division of stock of SEEG between the two shareholders, rules governing transfers of stock, the composition of the Board of Directors, rules governing selection of the chairman of the Board and the director general, the responsibilities and powers of the Board and of the director general, and the percentage majority required for passing certain important decisions by the Board of Directors.

Management Contract Between the FIM and SEEG

The foreign investor-manager is engaged to provide management and technical services to SEEG for the rehabilitation program, operations, logistics, financial management, staff training, and other administrative services as needed. The services to be provided include the provision of information, analysis, and advice from the FIM's headquarters, short-term

consultancies, recruitment of expatriate personnel for positions that cannot be filled by Guineans, and procurement of equipment and parts. Remuneration of the FIM for these services is set at 2 percent of the lease-contractor rate (SEEG's portion of collected tariff revenues and connection charges). In addition, SEEG must pay 5 percent of the cost of procured goods, any expenses that the FIM incurs outside its headquarters for recruitment, and the expenses of FIM personnel on short-term missions to Guinea.

PRE Working Paper Series

	<u>Title</u>	<u>Author</u>	<u>Date</u>	<u>Contact for paper</u>
WPS455	A Formal Estimation of the Effect of the MFA on Clothing Exports from LDCs	Junichi Goto	June 1990	M. T. Sanchez 33731
WPS456	Improving the Supply and Use of Essential Drugs in Sub-Saharan Africa	S. D. Foster	June 1990	Z. Vania 33664
WPS457	Financing Health Services in Africa: An Assessment of Alternative Approaches	Germano Mwabu	June 1990	Z. Vania 33664
WPS458	Does Japanese Direct Foreign Investment Promote Japanese Imports from Developing Countries?	Kenji Takeuchi	June 1990	J. Epps 33710
WPS459	Policies for Economic Development	Stanley Fischer Vinod Thomas	June 1990	WDR Office 31393
WPS460	Does Food Aid Depress Food Production? The Disincentive Dilemma in the African Context	Victor Lavy	July 1990	A. Murphy 33750
WPS461	Labor Market Participation, Returns to Education, and Male-Female Wage Differences in Peru	Shahidur R. Khandker	July 1990	B. Smith 35108
WPS462	An Alternative View of Tax Incidence Analysis for Developing Countries	Anwar Shah John Whalley	July 1990	A. Bhalla 37699
WPS463	Redefining Government's Role in Agriculture in the Nineties	Odin Knudsen John Nash	August 1990	K. Cabana 37946
WPS464	Does A Woman's Education Affect Her Husband's Earnings? Results for Israel in A Dual Labor Market	Shoshana Neuman Adrian Ziderman	August 1990	V. Charles 33651
WPS465	How Integrated Are Tropical Timber Markets?	Panos Varangis	August 1990	D. Gustafson 33714
WPS466	Is There An Intra-Household Kuznets Curve?	Lawrence Haddad Ravi Kanbur	August 1990	J. Sweeney 31021
WPS467	Structural Adjustment and Living Conditions in Developing Countries	Nanak Kakwani Elene Makonnen Jacques van der Gaag	August 1990	B. Rosa 33751
WPS468	Does the Structure of Production Affect Demand for Schooling in Peru?	Indermit Gill	August 1990	M. Abundo 36820

PRE Working Paper Series

<u>Title</u>	<u>Author</u>	<u>Date</u>	<u>Contact for paper</u>
WPS469 Modeling Economic Behavior in Peru's Informal Urban Retail Sector	J. Barry Smith Morton Stekner	August 1990	M. Abundo 36820
WPS470 What Do Alternative Measures of Comparative Advantage Reveal About the Composition of Developing Countries' Exports?	Alexander J. Yeats	August 1990	J. Epps 33710
WPS471 The Determinants of Farm Investment and Residential Construction in Post-Reform China	Gershon Feder Lawrence J. Lau Justin Lin Xiaopeng Luo	August 1990	C. Spooner 30464
WPS472 Gains in the Education of Peruvian Women, 1940 to 1980	Elizabeth M. King Rosemary Bellew	August 1990	C. Cristobal 33640
WPS473 Adjustment, Investment, and the Real Exchange Rate in Developing Countries	Riccardo Faini Jaime de Melo	August 1990	R. Sugul 37951
WPS474 Methods for Measuring the Effect of Adjustment Policies on Income Distribution	Anne Maasland	August 1990	P. Dixon 39175
WPS475 Does Divestiture Matter? A Framework for Learning from Experience	Ahmed Galal	August 1990	G. Orraca-Tetteh 37646
WPS476 Health Insurance in Sub-Saharan Africa: A Survey and Analysis	Ronald J. Vogel	August 1990	K. Brown 35073
WPS477 Private Participation In the Delivery of Guinea's Water Supply Services	Thelma A. Triche	August 1990	M. Dhokal 33970
WPS478 Interrelations Among Child Mortality, Breastfeeding, and Fertility in Egypt, 1975-80	John Marcotte John B. Casterline	August 1990	S. Cochrane 33222