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CHARACTERISTICS OF WELL-PERFORMING PUBLIC WATER UTILITIES

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Acronyms and Abbreviations

ADB	Asian Development Bank
AQUA, Poland	City of Bielsko-Bialav Water Utility, Poland
ATM	automatic teller machine
BOT	build-operate-transfer
CEAG	Comisión Estatal de Agua de Guanajuato (State Water Commission, state of Guanajuato), Mexico
CEF	Federal Economic Bank (<i>Caixa Econômica Federal</i>), Brazil
CNA	National Water Commission (<i>Comisión Nacional del Agua</i>), Mexico
D	dong (Vietnamese currency)
DWQR	Drinking Water Quality Regulator, Scotland
EPA	U.S. Environmental Protection Agency
EPNA	<i>établissement public à caractère non administratif</i> (public nonadministrative entity)
FINNIDA	Finland International Development Agency
FRAP	Financial Recovery Action Plan
FX risks	Foreign Exchange Risk
GASC	General Assembly of State Companies, Burkina Faso
GDP	gross domestic product
HPPC	Haiphong Provincial People's Committee, Vietnam
HPWSC	Haiphong Provincial Water and Sewerage Corporation
ICT	information and communication technologies
IFI	international financial institution
IMF	International Monetary Fund
ISO	International Standardization Organization
JNB Water	Johannesburg Water Utility, South Africa
JOWAM	Johannesburg Water Management (JOWAM) company
MAERH	Ministry of Agriculture, Environment, and Hydraulic Resources, Tunisia
MAEWR	Ministry of Agriculture, Environment, and Water Resources, Tunisia
MWLE	Ministry of Water, Lands and Environment, Uganda
NEA	National Environmental Agency, Singapore
NEMA	National Environment Management Authority, Uganda
NGO	nongovernmental organization
NPM	New Public Management
NWSC	National Water and Sewerage Corporation, Uganda
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation and Development
ONEA	Office National d'Eau et d'Assainissement [National Water and Sanitation Company], Burkina Faso
PaDEP	Pennsylvania Department of Environmental Protection
PDAMs	Water Public Utilities, Indonesia
PHARE	The PHARE programme is one of three pre-accession instruments financed by the European Union to assist countries in Central and Eastern Europe in their preparations for joining the Union.
PLC	public limited company
PLN	Polish zloty (currency)
PPIAF	Public-Private Infrastructure Advisory Facility
PPWSA	Phnom Penh Water Supply Authority

PRAGUAS	National Program of Water and Sanitation, Ecuador
PROSANEAR	Water and Sanitation Program for Low-income Communities, Brazil
PUB	Public Utilities Board, Singapore
PUC	State's Public Utility Commission, United States
PWD	Philadelphia Water Department, United States
SANASA	Water Supply and Sanitation Corporation (<i>Sociedade de Abastecimento de Agua e Saneamento</i>), Campinas, Brazil
Scottish Water	Scotland Water and Sewerage Corporation, UK
SDA	Service Delivery Agreement
SEAWUN	South East Asian Water Utilities Network
SEPA	Scottish Environmental Protection Agency
SIMAPAG	Municipal Drinking Water and Sewerage System of Guanajuato (<i>Sistema Municipal de Agua Potable y Alcantarillado de Guanajuato</i>), Mexico
SOE	state-owned enterprise
SONEDE	National Water Supply Authority (<i>La Société Nationale d'Exploitation et de Distribution des Eaux</i>), Tunisia
SW	Scotland Water and Sewerage Corporation, UK; Scottish Water
TUPWS	Transport, Urban, and Public Works Department, Haiphong
UCPU	Uganda Consumer Protection Unit
UFW	Un-Accounted for Water
UNBS	Uganda National Bureau of Standards
WIC	Water Industry Commissioner, Scotland
WPWiK	Provincial Water Supply and Sewage Enterprise, Poland
WSP	Water and Sanitation Program
WUP	Water Utility Partnership

1 INTRODUCTION

1.1 Background

Urban water supply and sanitation services have commonly been provided by state-owned, monolithic water organizations. As part of a general move to market-led systems in the 1980s and 1990s, a new paradigm emerged to transform utilities into more modern service delivery organizations that emphasize operational and financial sustainability.

For many of those years there was wide optimism that the private sector would resolve much of the performance problems of utilities and mobilize scarce financing to sustain growth and expand coverage. While private sector involvement has indeed increased in the last decade, it has substantially fallen short of expectations that it would help turn around this sector (Box 1). In essence, private financing has only accounted for less than 5 percent of the total investment in water supply and sanitation over the last 20 years.

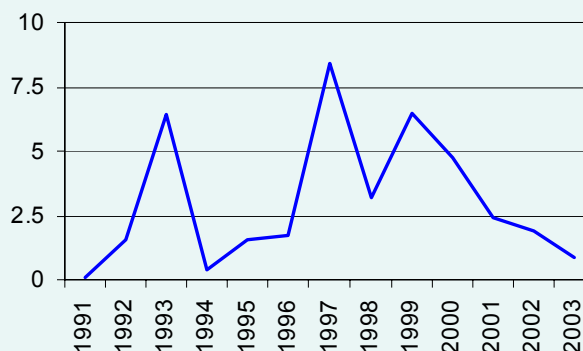
At the same time, some public utilities have become more autonomous and accountable. Some have improved their performance without involving the private sector and working totally within a public environment of key stakeholders and funding sources. Moreover, in many countries, there has also been a move to decentralize decision making down to the lowest practical level and place greater policy and oversight responsibilities on municipal governments.

Successful public utilities are still the exception, however, and since most people in developing countries are under the jurisdiction of public utilities, much of the world's population is still not adequately served. Many utilities find themselves locked in a vicious cycle from which it is difficult to escape (Spiller and Savedoff 1999; WSP-PPIAF [Public-Private Infrastructure Advisory Facility] 2002). This spiral combines weak performance incentives, low willingness of customers to pay cost recovery tariffs, and insufficient funding for maintenance, ultimately leading to a deterioration of assets and a squandering of financial resources. As illustrated by Figure 1, the downward cycle attracts further political interference and regenerates the downward trend with increased velocity.

The vicious spiral is largely a consequence of ineffective and misdirected policies, coupled with the monopolistic nature of the sector. Water is politically sensitive, and most politicians have not been able to effectively balance the trade-offs between affordability and expansion of coverage to poorer communities with the utility's need for financial viability (Hughes 2003). Policy makers pursue multiple unaligned objectives, often leaning toward the attainment of short-term political interests. Failure to discipline utilities to perform may appease the short-term interest of the political constituency, but will ultimately deprive the same of better and more efficient services.

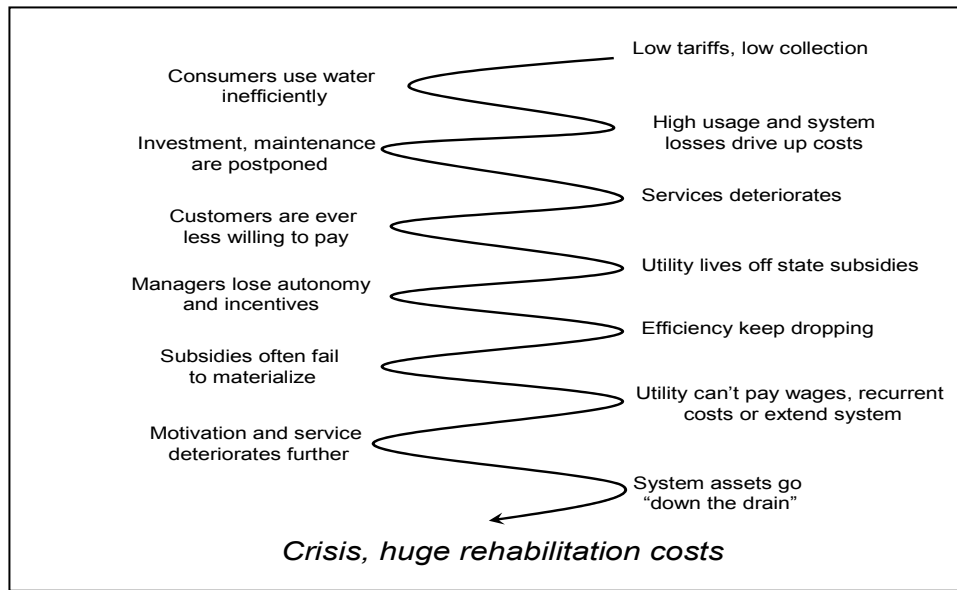
Box 1 How Private Sector Participation in Water Supply and Sanitation in Developing Countries Evolved from 1990 to 2003

Over 200 water supply and sanitation projects with private sector participation were awarded in developing countries between 1990 and 2001. This reflects only a small percentage of the thousands of utilities. Private flows to the water sector in developing countries have declined in recent years, alongside declines in private flows to other infrastructure sectors (see box figure, investments in US\$ billion per year).



Source: <http://ppi.worldbank.org>.

Figure 1 The Vicious Spiral of Performance Decline of Utilities



Source: New Designs for Water and Sanitation Transactions: Making Private Sector Participation Work for the Poor, WSP/PPIAF, 2002.

Few governments have induced utilities to perform, particularly when it may mean shedding power or granting autonomy in setting tariff decisions or in allocating resources. With practically no financial management accountability, public utilities have generally responded by placing the interests of their political masters as well as their own selected personnel above serving customers effectively, especially the poor.

In the past decades, some governments have tried to improve their water utilities, but unfortunately most have had only limited success. Often, these shortcomings can be traced back to poor execution of investment projects, which in many cases could have been overcome through better management. Despite the best intentions, however, systems have often been overbuilt, not reflecting the true needs of consumers and what they "could" and "would" be willing to pay for. Inherent inefficiency reflected by an oversized or unaffordable system has often initiated this downward cycle and forced poor performance from the outset. At this point, there is very little that can be done to put these utilities back on a performance track, besides carrying out a major and politically painful restructuring.

Many performance improvement programs have focused only on changing the utility, but have neglected the institutional environment that surrounds it and, more importantly, the decision makers or actors that influence incentives both within and outside the enterprise. The critical first step is for the government to properly recognize its ownership interest, as distinct from its policy interest, and the financial risks it runs as owner. Without this, and the establishment of a strong, highly professional monitoring unit, the incentives for the managers will be weak. Most performance improvement programs have also been overly optimistic, focusing on system and organization improvements without modifying basic financial incentives for utilities to perform well (World Bank 2004b).

1.2 The Taxonomy of Public Water Utilities

This study focuses on public providers that seek to improve performance while remaining in the public sector. A public utility is defined here as an organization that is majority owned and controlled by government and could consist of number of different forms, some of which may be undistinguished from the government unit that they may be part of. Further, the public utility has not engaged a private operator beyond a short-term period and has engaged the private operator for very specialized functions. The water supply sector includes a wide range of organizational models, most of which involve some mix of the public and private involvement. The number and types of organizational models and ownership structures have increased substantially over the years since the introduction of private and public-private hybrid models.

Table 1 Basic Characteristics of Three Types of Organizations in Government

	<i>Ministry or department</i>	<i>Statutory body (or parastatal)</i>	<i>Company</i>
Legal foundation	Normally an executive order	Statute	A memorandum and articles of association (registered under a companies act or the like)
Status as legal entity	Normally unincorporated, thus without legal personality separate from that of the government	Either incorporated or unincorporated	Incorporated (thus has own legal personality)
Basis of ownership	Notionally owned by the government as creator	Notionally owned by the government as creator	Owned by the government as creator and shareholder
Legal framework	Operating under public law	Operating under public law	Operating under private (company) law

Source: Based on Thynne (1994)

For the purpose of this report, the “public” aspects of a water utility relate largely to the legal basis of the organization, ownership, and management of the service. In many respects, it is the public ownership and management aspects that drive the character of the utility and how it interacts with its external environment. In distinguishing “public” utilities from “private” utilities, the study largely adhered to the types of organizations in government as identified by Thynne (1994)¹ and shown in Table 1.

The “ministry” or “department type” of organization relates to the archetypical municipal waterworks departments found in many countries (Braadbaart, Blockland and Schwartz, 1999). The “statutory body” organization type coincides with what has been referred to as parastatals or corporatized utilities. The essence of the statutory body is that the utility enjoys autonomous corporate status under a special law or act drawn up specifically for the utility in question. Finally, government-owned companies involve utilities that are incorporated as a company under company law, but their shares are owned by local, provincial, or, less frequently, national government agencies. The organizational structure of the government-owned company does not differ from that of a privately owned company. The only difference relates to the ownership of the shares.

The specific terms of public utilities will be utilized in this paper when there is a need to differentiate the unique characteristics of one form of institutional setup versus another. Otherwise, the more generic terms will be utilized. The relevance of making the distinction between the different types of public organizations lies in the fact that as they move from a department to a statutory body to a government-owned company, the essence of the organization increasingly resembles that of a private company, in which a number of important tasks in the functioning of a utility are separated. Whereas functions of ownership, corporate oversight, and service provision are not necessarily separated in public utilities that are organized as a ministry or department, they are often separated in government-owned companies, in accordance with company law.

1.3 Objectives, Audience, and Scope of the Report

This report presents findings on attributes of well-run public utilities and attempts to identify important factors that influence their performance. The scope is also largely oriented to utilities that serve urban communities, but with varying characteristics and service objectives. The report is primarily intended for policy makers in central and local governments but can be also useful to utility managers as well as sector professionals supporting utilities and governments in such endeavors.

The route to change for a given utility is unique, and there is no predetermined action plan of corrective measures that must necessarily be followed in sequence. Yet, as the findings of this study reveal, there is a broad process and some basic norms that are fundamental to success or, by contrast, similar actions that have helped to cause organizations to fail. The intent is therefore to share with practitioners such findings but allow them sufficient flexibility to structure these into a coherent reform program that would be appropriate to the specific conditions of the utility and the environment in which it operates. As such,

¹ Thynne also distinguishes the government “trust” as a possible type of organization in the water sector. This type of organization, however, does not appear to be very common in the water supply and sanitation sector.

the intention of this report is to move away from “one size fits all” and “best practice” approaches to one of “best fit” given the unique circumstances surrounding a given utility.

1.4 Methodology

The findings of this study were derived from a combination of different sources, including field research of public utility cases, a desk review of literature, and surveying operational experience from sector professionals. The study carried out an extensive review of 11 water utilities which for the most part represent better-performing public water utilities in different country settings. Moreover, 5 utilities functioning in a similar institutional environment in the state of Guanajuato, Mexico, were also studied.

To supplement the case research, the study drew from a wide body of literature in the areas of public sector management, with particular focus on the water supply and sanitation sector. Consultations were also carried out with experts in water supply and sanitation reform. This was done through (a) two small workshops with World Bank staff in Washington, DC, in spring 2002 and 2004, (b) a workshop with local consultants in August 2003, (c) an international workshop in London organized jointly by the World Bank and WaterAid in August 2004,² (d) one-on-one interviews, and (e) other correspondence and exchange of materials.

Despite the extensive research efforts undertaken for the study, the methodology is not without its limitations. The variables, processes, and mechanisms that affect performance are many and, more important; it is very difficult to fully document subtle and behavioral characteristics of decision makers that often are key determinants of outcomes. For this reason, the study does not present a unified framework for improving performance for public utilities, but identifies important contributing factors.

1.5 How the Report Is Organized

Following this introduction, the paper is divided into four main sections as follows:

Sections 2 and 3 deal primarily with the presentation of findings from the individual case studies. These cases are described in more detail in volume II of the report. The findings are presented under a common analytical framework based on the concepts of New Public Management (NPM).³ The analytical framework incorporates two main perspectives. The first deals with the external environment, describing the institutional, social, and economic context in which providers operate. The second deals with the internal functioning of the utility, mostly oriented toward management practices and decision-making processes, and involves areas such as strategic planning, financing, human resource management, management information systems, and so forth.

Section 4 draws lessons learned and additional observations from the case findings as well as from existing literature, one-on-one interviews and consultations at workshops. Such observations go beyond strictly the case study material and draw on experiences and insight of professionals in the sector. Because this study is considered a work in progress, it does not purport that the lessons herein are definitive by any means. Instead, they are presented to stimulate discussion.

Finally, while the research does not purport to draw a comprehensive set of recommendations on reform of public sector water utilities, it does identify certain actions that are believed to be very helpful in improving the incentive framework for “owners” of utilities, whether they may be central agencies or local governments. Section 5 lists a number of these actions to improve the manner in which governments exercise their ownership function (ownership values) at both the central and local government levels. The study has shown that utilities must adopt good management practices to improve performance. But beyond that, it provides a better understanding of how the external environment influences the performance of public sector utilities in developing countries. The study points to “ownership” as the key function needed to create the appropriate incentive framework, because success is seldom achieved without it. Since owners of public utilities are often trading off various conflicting objectives, they themselves need to be motivated in a direction that will foster service expansion and performance improvements.

² See WaterAid (2004).

³ NPM is a trend in public sector reform that focuses on outputs (using management processes from the private sector) as an alternative to traditional, hierarchical, rule-bound systems.

2 OVERVIEW OF PUBLIC WATER UTILITY CASES

2.1 Sample of Case Studies

The case selection process considered criteria that were believed to be insightful or perhaps could explain certain aspects of success or failure within the enterprise, and to some extent could serve as a basis for general policy formulation across institutional setups, countries, and country income levels. The criteria included different institutional models of service provision, both decentralized and national utilities, and geographical distribution and country income level.

The institutional model. The cases included utilities owned by the national government as well as by municipal governments. In most of the cases, the utilities are organized as public corporations, either as public companies or statutory bodies. As public corporations, a board of directors is appointed, executive management is placed in charge of day-to-day operations, and the accounts are separated from other state organizations. Government-owned corporations are regulated by the laws of public enterprises, and in the case of statutory bodies, they are defined as public corporations by virtue of the law that created them. There are three exceptions: AQUA (AQUA S.A.) and SANASA (Sociedade de Abastecimento de Agua e Saneamento S.A.) are governed by private corporate law and therefore operate as private sector corporations in which government is just a shareholder, and the Philadelphia Water Department is working as part of the Philadelphia municipal government, albeit a ring-fenced department with separate financial accounts.

Country income level and geographical distribution of the sample case studies. Public water utilities in the sample are distributed across various income levels and across all regions. Three operate in very low per capita income countries in Africa and Southeast Asia (Burkina Faso, Uganda, and Vietnam);

Table 2 Summary Comparison of Case Studies

Case study, country	Institutional model	Decentralization level	Country income level	Per capita income, US\$/year	Tariff US\$/m ³ , (% per capita income/month)	Working ratio	Unaccounted for water (UFW)
AQUA, Poland	Mixed company	Regional	Middle income	4,570	1.00 (0.26%)	36%	42%
HPWSC, Vietnam	Statutory body	Municipal	Lower income	430	0.18 (0.50%)	62%	32%
JNB Water, South Africa	Government-owned company	Municipal	Middle income	2,500	0.68 (0.33%)	53%	35%
NWSC, Uganda	Statutory body	National	Lower income	240	0.40 (2.00%)	79%	39%
ONEA, Burkina Faso	Government-owned company	National	Lower income	250	0.69 (3.31%)	66%	17%
PUB, Singapore	Statutory body	National	High income	20,690	0.68 (0.04%)	58%	5%
PWD, USA	Ring-fenced department	Municipal	High income	35,400	1.88 (0.06%)	67%	32%
SANASA, Brazil	Mixed company ^a	Municipal	Middle income	2,830	0.26 (0.11%)	79%	26%
Scottish Water, UK	Government-owned company.	National	High income	25,510	1.79 (0.08%)	52%	42%
SIMAPAG, Mexico	Statutory body	Municipal	Middle income	5,920	0.35 (0.07%)	77%	18%
SONEDE, Tunisia	Statutory body	National	Middle income	1,990	0.41 (0.25%)	98%	20%

a) SANASA is actually owned by the Campinas municipal government, which has 99.9 percent of its shares.

Source: Compiled from original case material.

five are located in middle per capita income countries Africa, Latin America, and Eastern Europe (Poland, South Africa, Brazil, Mexico and Tunisia); and three operate in high per capita income countries (Singapore, Scotland [United Kingdom], and the United States).

User tariff levels. All water utilities cover operating and maintenance costs. Also, a majority generates a surplus large enough to service their debt obligations and in some cases to contribute toward new investments from internally generated funds. Tariffs were considered to be fairly high in the poorer countries when measured against of per capita incomes. In Burkina Faso and Uganda, the average tariff for one cubic meter represents 3.31 percent and 2 percent, respectively, of the average monthly income, while in Singapore, it is only 0.04 percent.

UFW. Only PUB has achieved a very high productive efficiency in terms of UFW—its losses are only 5 percent, compared with losses in the range of 17–42 percent for all other public water utilities. AQUA, the government-private sector venture in Poland, has one of the highest system losses (42 percent) although it possesses one of the lowest working ratios.⁴

Box 2 Unique Features that Make the Sample Utilities a Good Informative Case Study

- AQUA S.A., Bielsko-Biala Poland—Joint stock company partly owned by private investors-operators.
- Haiphong Provincial Water Supply Company (HPWSC), Vietnam—Turnaround utility, which adopted the *phuong* model (focusing on improvements in one ward at a time).
- Johannesburg (JNB) Water, South Africa—Public utility using extensive public-private partnerships in which the municipal owner has gone to great lengths to clearly separate out all the roles and responsibilities within the utility and the external environment.
- National Water and Sewerage Corporation (NWSC), Uganda—Turnaround utility with impressive performance improvements, using performance contracts extensively and adopting a wide range of change management tools to improve performance.
- ONEA, Burkina Faso—Utility with a good track record over the past decades despite being in one of the poorest countries in the world.
- Public Utilities Board (PUB), Singapore—Superior performing utility extensively involving the private sector by way of service contracts.
- Philadelphia Water Department (PWD), Philadelphia, United States—Ring-fenced department of the Philadelphia city government.
- SANASA, Campinas, Brazil—Turnaround utility, which strongly mimics the functioning of private sector companies but is owned by the municipality of Campinas.
- SIMAPAG—One of five utilities operating in the same institutional environment in Mexico.
- Scottish Water, Scotland—Utility accountable to the Scottish Parliament and subject to an external, independent economic regulator.
- SONEDE, Tunisia—National utility that mainstreams a two-pronged approach by delegating responsibilities to line managers and extensive contracting out to the private sector.

Source: Compiled from original case material.

2.2 Summary of Case Studies

A brief introduction to the case studies is presented in Box 2. A summary of each case follows.

- **AQUA S.A., Poland.** AQUA is a public limited company (PLC) established in 1990 under the Code of Commercial Companies. The utility is a mixed joint stock company with the city of Bielsko-Biala owning 51 percent; International Water United Utilities Holding B.V., a strategic private partner, owning 33.18 percent; and other shareholders owning the remaining interests. AQUA works according to private corporate law and gets its financing from commercial banks, multilaterals (for example, the World Bank), and the European Union PHARE program. The utility supplies drinking water to 14 communities and bulk water to 4 others. It also collects and treats wastewater for 6 communities. It prices water services aggressively and has introduced decreasing block tariffs. The utility is managed by a two-person Management Board, one appointed by the city and the other by the strategic private partner. The Management Board is overseen by a Supervisory Board composed of five individuals appointed by the major

⁴ The working ratio is the relationship of operating expenses to operating revenues. The higher the ratio, the less contribution margin is available to cover non-operating costs, such as depreciation and financial charges. While the operating ratio is a measure of operational efficiency and can provide some notion on the enterprises profitability, it is not their sole test because ratios can change materially depending on the cost structure of the utility and the levels of the tariffs. Therefore benchmarking the working ratio of one utility against another is not a very useful comparison. It is more useful to benchmark the working ratio of one utility against itself over time.

shareholders. The Management Board runs the daily affairs of the company, and the Supervisory Board is principally responsible for evaluating performance and business proposals, which it then summarizes in an annual report for the shareholders meeting.

- **HPWSC, Vietnam.** The HPWSC is organized as an autonomous water board under the 1996 State-Owned Enterprise Law. It functions under the city's Transportation and Urban Public Works Service Unit. The HPWSC began to overcome some of its operating and financial difficulties in the late 1980s after the government of Vietnam decided to reduce subsidies or withdraw them entirely and allow the HPWSC more freedom to dictate its own future. These events led to impressive performance improvements over the period 1993–99. For example, UFW declined from more than 70 percent plus to about 32 percent, metered connections increased from 0 to 81,000, employees per connection declined from 30 per 1,000 to fewer than 7.4 per 1,000. Moreover, the HPWSC went from a loss of 3.1 billion dong (D) in 1993 to a profit of D 6.9 billion in 1999. The HPWSC operational improvements are also attributed to the implementation of the *phuong* model, which focused on overhauling water supply services of a whole *phuong* (ward) at a time. As part of the *phuong* model, gradual closing of poorly performing public water tanks has been implemented as the connection rate approaches 100 percent in the improved *phuong*s. The HPWSC recognizes that the utility is accountable to both its owners (the city) and its customers. It is also important that the reforms for improvements were forced on the HPWSC after a crisis in service delivery that led to riots and a fatality.
- **JNB Water, South Africa.** JNB Water is a government-owned company responsible for providing water and sanitation to 3 million residents of the city of Johannesburg. The utility was established in January 2001 as an independent, limited liability company, with the city of Johannesburg being its sole shareholder. The utility is governed by an independent board of 11 directors, who are appointed by the shareholder. The utility buys water in bulk from Rand Water, the state water resource monopoly. The city of Johannesburg entered into two contracts with JNB Water, a sale of business agreement and a service delivery agreement. In addition, JNB Water entered into a performance management contract with an operating consortium, Johannesburg Water Management (JOWAM) company, consisting of ONDEO services, Northumbrian Water, and the WSSA [Water and Sanitation Services South Africa (Pty) Ltd]. In practice, JOWAM fills various executive management functions within JNB Water. Currently, revenues from water services provide a surplus for the Johannesburg City Council after covering operating and capital expenses.
- **NWSC, Uganda.** The NWSC is a statutory body established in 1972 that has considerably improved its services in the past decade with the help of international donor support. It is fully owned by the government of Uganda and operates as an autonomous water board with a separate legal status. The NWSC is responsible for water supply in large urban areas, currently covering 15 major cities and serving a population of approximately 2.1 million people. The NWSC falls under the jurisdiction of the Ministry of Water, Lands and Environment, which appoints its Board of Directors to formulate the policies by which the corporation is run. The NWSC has shown impressive improvements over the past years in water service coverage (currently at 62 percent), billed revenue, UFW, and percentage of metered accounts. Many of these achievements were realized by a series of innovative measures, such as management change programs (stretch program) and performance contracts between the NWSC and both the Ugandan government and its various operation and service delivery arms. The NWSC has recently partnered with Rand Water (South Africa) and Vitens (the Netherlands) to win a management contract with the government of Ghana to improve water service provision in 80 towns.
- **ONEA, Burkina Faso.** ONEA is a limited liability company (*société d'état*) owned by the government since nationalization of the utility in 1977. With a per capita gross domestic product of US\$252, Burkina Faso is one of the poorest countries in the world. In this context, ONEA posted a respectable performance record, including a service coverage of 78 percent, UFW at 17 percent, 8.15 staff per 1,000 connections, and cost recovery of about 70 percent. The average tariff is approximately US\$0.69 per cubic meter, which takes about 3.3 percent of the average monthly per capita income. ONEA is an autonomous water board responsible for service provision of water supply and sanitation in all urban areas with more than 10,000 inhabitants; it currently covers 35 cities and secondary urban areas. Reforms in the urban water sector have concentrated on restructuring and strengthening ONEA, increasing private sector participation

through performance-based service contracts (a hybrid between a traditional service contract and a performance-based management contract).

- **PUB, Singapore.** PUB is a statutory body established under the Public Utilities Act of 2001. It handles commercial and non-commercial water services-related operations. Water supply and sanitation services are part of its commercial operations. PUB is perhaps one of the best-run utilities in East Asia and the world. UFW stands at 4.8 percent and coverage at 100 percent; there is a staff-to-connection ratio of only 2.95 per 1,000, and accounts receivable are outstanding at less than one month. PUB was originally set up to take over the electricity, water, and piped gas operations from the Singapore City Council. In 2001, it was restructured to become the national water authority under the Ministry of Environment. Over the years, PUB has shown impressive performance improvements. Moreover, what makes the case of PUB interesting is the extensive use of private sector involvement in the provision of water services. The involvement of the private sector is illustrated by both the widespread use of service contracts as well as a recently implemented liberalization of water supply whereby PUB will, under a single wholesale buyer market structure, purchase desalinated water from private desalination plants.
- **PWD, United States.** The PWD is a ring-fenced municipal department established in 1799. It operates without a board of directors or similar statutory body; instead, the PWD Commissioner reports directly to the mayor. Under the Philadelphia Home Charter Rule, the PWD has the power and duty to operate, maintain, repair, and improve the city's water and wastewater systems. Under the Philadelphia City Charter and various bond covenants with investors, the PWD is not allowed to operate with a deficit; therefore, its rates and revenues must be sufficient to meet all its financial requirements. With less than 2 percent of its funding coming from state and federal subsidies, the PWD is financially autonomous, and it has attained a single "A-minus" rating from Standard and Poors for the issuance of revenue bonds. The PWD finances its investments with funding raised in the capital markets by issuing bonds and with surpluses generated from its tariff revenues. It has developed its own set of service standards in agreement with the city of Philadelphia.⁵ Water quality standards are set nationally and monitored by the U.S. Environmental Protection Agency. The PWD is fairly autonomous in its day-to-day decision making, but it has fairly limited discretion on staff-related issues such as recruitments, promotions, and salary adjustments.
- **SANASA (Sociedade de Abastecimento de Agua e Saneamento), Campinas, Brazil.** SANASA is a government-owned company. The municipality of Campinas owns 99.99 percent of the shares of this joint stock company. The remaining 0.01 percent of the shares are owned by others. SANASA is responsible for the treatment and distribution of potable water and the collection and treatment of sewerage in the city of Campinas, which has a population of approximately 1 million. It was established in 1974 by municipal law, when the municipality transformed its municipal department into a wholly owned PLC. The National Agency for Water is responsible for formulating policy and regulation of the water supply and sanitation sector. SANASA is overseen by a Surveying Council, whose members are chosen by the municipality of Campinas. SANASA has shown impressive performance improvements over the past decade. UFW has declined from a level as high as 41 percent in 1988 to the current 26.6 percent. SANASA has also established a credit rating with Moody's.
- **Scottish Water, United Kingdom.** Scottish Water is an autonomous water board answerable to the Scottish Parliament. It was created in 2002 by merging the three former water authorities that served Scotland. Scottish Water is structured and managed like a private company. It has 12 board members (5 executive directors and 7 non-executive directors). Scottish Water is responsible for water and wastewater services for approximately 5 million customers in homes and businesses across Scotland. The utility operates on a full cost recovery basis. It is regulated by a number of independent government bodies, one of which is the Water Industry Commissioner for Scotland, whose role is to ensure value for money and service standards for consumers. The water and sewerage charges are collected on behalf of Scottish Water by the local councils, which incorporate these fees, as fixed charges, into the local council tax bill. This covers the provision of all services within a locality.

⁵ As a municipal department, the PWD is not subject to the regulatory service standards set by the state of Pennsylvania's Public Utility Commission, which would apply if it were a private company.

- **SIMAPAG, Mexico.** SIMAPAG is a statutory body established by the municipality of Guanajuato in 1992. Management oversight is provided by a Board of Directors consisting of nine members plus a non-voting representative from the municipality. SIMAPAG has a legal status separate from that of the municipality and works according to commercial principles. The members of the Board of Directors are representatives from rural communities, neighborhood associations, chambers of commerce or services, established businesses, professional institutes, workers' organizations, non governmental organizations (NGOs), users' organizations, and higher education institutions. SIMAPAG has been able to cover all its operating and maintenance (O&M) costs and currently contributes to financing of investments through internally generated funds.
- **SONEDE, Tunisia.** SONEDE is a statutory body. It was created by Law 68-22 in July 1968 to supply drinking water to urban centers and large villages throughout the country, serving about 1.6 million customers. It is organized as an autonomous water board, with separate legal status as a commercial and industrial activity. SONEDE operates under the supervision of the Ministry of Agriculture, Environment and Water Resources (MAEWR), and it is entrusted with investment in, maintenance of, and renewal of facilities for water resource development, treatment, and distribution. Over the past decades, it has made impressive gains in expanding coverage and providing dependable service to its customers, adopting a two-pronged approach by delegating responsibilities to line managers and extensive contracting out of services to private companies. During the 1990s, SONEDE signed three program contracts covering the periods of the Eighth Plan (1992–96), the Ninth Plan (1997–2001), and the Tenth Plan (2002–06). SONEDE has also signed annual and multiyear performance contracts. Although the utility can charge a tariff that covers operating and financing costs and yields a surplus for financing investments, in practice, tariff increases have not always been granted. However, it operates very close to cost recovery levels, and other performance has been quite respectable. The MAEWR reviews tariff adjustment proposals before approving them jointly with the Ministry of Finance.
- **The state of Guanajuato, Mexico, a cross-country case.** In addition to the 11 individual cases mentioned, 5 utilities functioning in a similar institutional environment were studied to better understand the relationship between the external environment and the performance of individual enterprises (see Box 3).

Box 3 Water Supply Services in the State of Guanajuato, Mexico, a Cross-Country Case

Water sector reforms in the state of Guanajuato. In the early 1980s, the Mexican Constitution decentralized water services to the municipal level. In the state of Guanajuato, 41 of the 46 municipalities created municipal water departments; the other 5 created statutory bodies independent from the municipality. The statutory bodies are overseen by an independent council, whose members are chosen from civil society. During the 1990s, the water sector in Guanajuato underwent further reform as other municipalities opted to convert their municipal water departments into statutory bodies, increasing the total to 39.

Municipal water utilities. Five water utilities were included: the cities of Guanajuato (SIMAPAG); San Francisco del Rincon (SAPAF), Valle de Santiago (SAPAM), Dolores Hidalgo (CMAPADH), and Moroleón (SMAPAM).

The regulatory entity. In 1991, the state government created the State Water Commission (CEAG) as a regulatory entity to promote improvement in water services. Rather than act as a heavy-handed regulator, CEAG focuses more on supporting municipal service providers. Since 1995, CEAG has offered additional programs supporting the utilities, often operated on a matching fund basis, with 50 to 70 percent of funds provided by the state and the utility providing the balance. From 1995 to 2000, the state government focused strongly on developing the water sector, culminating in large water infrastructure programs.

Municipalities as owners. In the state of Guanajuato, the municipalities are the owners of the water supply and sanitation utilities. The mayor appoints the water utilities board of directors, the managing director, and the board municipal representatives, while the municipal councils retain such responsibilities as (a) development, implementation, and evaluation of policies aimed at the promotion of sustainable water development; (b) approval of the tariffs for the provision of water services; (c) approval, publication, and followup on municipal water services programs; and (d) negotiation with other municipalities about the creation of intermunicipal service providers.

Main shortcomings of municipal ownership. Municipal elections in Mexico are held every three years, without the possibility of reelection, thus the representatives of the owner of the service provider change every three years.* It is also quite common for the mayor to change the entire management team or a large part of it upon entering office. The results of the reforms include:

- **Performance of the utilities.** Only SIMAPAG has shown the most consistent performance improvements in terms of UFW and working ratio, and it is the only utility that has been provided with relatively adequate tariffs—by far the highest of the utilities sampled.

(continued)

- **Only one utility is able to attract and retain qualified staff.** SIMAPAG is the only utility that is able to offer both high salary levels and development opportunities for staff. In SAPAF, staff also receive a favorable salary, but potential for staff development and promotion is limited. The other cities are able to offer only security of employment as a means of attracting qualified staff.
- **Only two utilities are subject to consistent external accountability.** Only SIMAPAG and SAPAF are annually subject to external accountability and the representation of external groups in the oversight agency (the council). In the case of SAPAM and CMAPADH, this representation does not exist.
- **Market orientation of utilities is limited.** Either the utilities do almost no outsourcing (such as SAPAM and SMAPAM) or they outsource between 20 percent and 30 percent of their operational budget. None of the utilities partake in market testing.
- **Only two utilities are customer oriented.** SIMAPAG is by far the most customer-orientated of the utilities. It runs daily surveys of customers who come in contact with the utility, resulting in about 200 completed surveys per month. In addition, SIMAPAG and SAPAM have a tracking system for complaints filed by their customers.

*The frequent changes of mayors are considered by many to have a negative impact on the functioning of the water utilities in Mexico (Saade 1997).

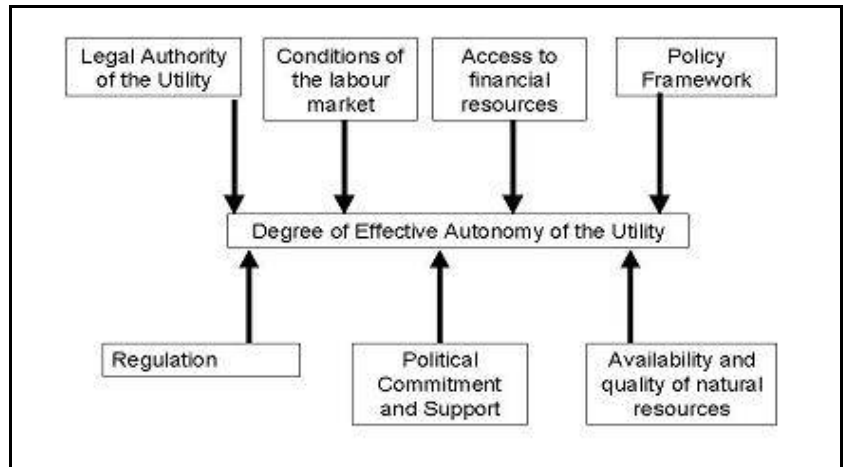
Source: Compiled from original case material.

3 CASE STUDY FINDINGS

The cases studies were analyzed from two perspectives:

- The first analysis focused on the institutional environment in which the utility operates and assesses such factors as external autonomy and external accountability. To a significant extent, the way in which a utility functions is intrinsically linked to the environment it functions in. For example, as illustrated in Figure 2, the legal authority bestowed upon a utility is often restricted in practice by the external environment, which includes conditions in the labor markets, access to financial resources, policy and regulatory frameworks, political commitment, and availability of natural resources. [Figure 2 source: authors' renditions.]

Figure 2 Factors that Influence Effective Autonomy of a Utility



- The second analysis looked at the internal functioning of the utility, consisting of such factors as corporate culture, customer orientation, internal accountability for results, and the ability to delegate within the organization.

The case study findings below are presented according to this framework.

3.1 External Autonomy

External autonomy is concerned with the degree of independence from external interference that is provided to utility managers for important decision making that could significantly affect the results achieved by the utility, such as setting tariffs, assumption of debt, and procurement. The case studies revealed that legal authority bestowed upon a utility is often restricted in practice by the external

environment, including political interference by the government. The research investigated a number of factors that provide insight into the degree of external autonomy provided to management in the running of the utility. These included key indicators shown in Table 3, such as responsibility for setting tariffs, determination of pay scales, procurement, financing policy, and the responsibility for the appointment of top management and board members.

Table 3 Indicators of External Autonomy

	<i>Responsible for tariff setting</i>	<i>Public sector pay scales</i>	<i>Who sets salaries</i>	<i>Follows country procurement rules</i>	<i>Financing, international financial institution (IFI) loans and credits</i>	<i>Appointment of board members</i>
AQUA	Council of Communes	No	Management Board	Yes	Yes	City (1), private sector (1)
HPWSC	Haiphong Provincial People's Committee (HPPC)	Yes	Ministry of Construction and Ministry of Finance, management of the HPWSC	Yes	Yes	HPPC
JNB Water	City of Johannesburg	No	JNB Water	Yes	No	City Council panel, based on open applications
NWSC	Ministry of Water, Lands and Environment	No	Board of Directors	Yes	Yes	Ministry of Water, Lands and Environment
ONEA	Government of Burkina Faso	No	Board of Directors	Yes	Yes	Based on skills and experience
PUB	Cabinet, Parliament	Yes	PUB	Yes	No	Ministry of Environment
PWD	Commissioner	Yes	Municipality	Yes	No	N/A (not applicable)
SANASA	Municipality	No	Administration Council	Yes	Yes	Stakeholders
Scottish Water	Scottish executive	Yes	Scottish executive	Yes	No	Government, Chairman of the Board, Chief Executive
SIMAPAG	Municipality	No	Municipality	Yes	Yes	Municipal government, based on applications; municipal representatives
SONEDE	Tunisian government	Yes	Government	Yes	Yes	N/A

Source: Compiled from original case material.

Although utilities do not have complete authority to set their tariffs, they are able to put forward proposals that are consistent with their overall revenue requirements. Managers of public water utilities request tariff increases as part of financial policies outlined in business, investment, and financing plans, which are submitted to their board for approval. Thus tariffs are set based on well-defined financial principles that aim at recovery of O&M and investment costs and are consistent with any subsidies the utility receives from the central government—that is, successful public utilities always have funded mandates. For example, AQUA annually proposes tariffs to cover all expenses and obtains approval from the Council of the Communes. The HPWSC proposes tariffs that cover all O&M

and investment costs and generate a surplus for the government. It receives approval from the HPPC. JNB Water proposes tariffs that cover all costs and produce a surplus for the city. JNB Water obtains approval from the City Council of Johannesburg. The cases also provided examples of utilities that did not achieve full cost recovery through user tariffs. One example is the NWSC, where tariffs are set to cover all O&M costs but only partially cover investment costs. The central government finances the balance as investments through capital subsidies. Another example is PUB, where the central government finances a large part of sewage treatment investments through subsidies.

Public procurement rules, though considered to be intrusive, were followed without a significant impact on performance. All utilities operate under sound financial management and procurement rules to ensure competitive input prices and flexibility in the acquisition of needed inputs or services from the market. For example, AQUA's management approves procurement of goods and services for O&M and assets with value of less than 20 percent of stock capital; the shareholders have to approve any purchase above 20 percent. In the HPWSC, the Department of Materials (provincial government) purchases goods and services on behalf of the utility. The Managing Director is responsible for key decisions that involve financial flows, such as the outsourcing of non-core activities, monitoring and replacement of meters, maintenance of assets, and expansion of the network. In JNB Water, in line with South African procurement rules, managers are free to decide on purchases of items that are within their approved budgets and within well-defined purchase ceilings. The NWSC and ONEA follow public procurement regulations. PUB also follows public sector procurement rules with well-defined ceilings.

Although most utility managers do not have total control of setting staff salary scales, they are able to hire and retain qualified staff. Under company law, most utilities can offer competitive salaries to their staff, as illustrated by the cases of AQUA, the PWD, PUB, Scottish Water, SANASA, SIMAPAG, and SONEDE. Those that are limited by public sector pay scales have also found ways to offer competitive salaries, as illustrated in the cases of the HPWSC, ONEA, JNB Water, and the NWSC. For example, the HPWSC has the flexibility to determine its own salary scale by introducing bonuses funded through its own internal cash. The bonuses constitute a major part of the HPWSC staff's total compensation. Both PUB and Scottish Water determine their own salary scales but use government salary levels as a guide. However, the study cases also reveal that water utilities are constrained by government labor regulations, according to which several of them cannot fire staff when necessary. For example, the HPWSC is induced to hire more personnel, and it finds it difficult to fire when necessary. It is often good to have greater autonomy in wage setting, but there are limits. If corporate governance and supervision are not adequate, autonomy can be used to simply ratchet up salaries. As such, such freedoms must be appropriately accompanied by regulatory or supervisory oversight.

Most public utilities rely on government to source investment financing. Most utilities depend on government authorities, as opposed to raising funds in capital markets, for securing financing for investments. For example, in the case of the HPWSC, the HPPC provides assistance in accessing financial resources from IFIs (including loans and grants from the World Bank and the Finland International Development Agency [FINIDA]) while it allows the HPWSC to set water tariffs at a level consistent with its obligation to finance part of investments out of internal revenues. In the case JNB Water, the city of Johannesburg finances all capital projects. The city is also in charge of metering, billing, and revenue collection, so financial control lies outside the company. In the case of the NWSC, the government obtains loans and grants from IFIs to finance NWSC investments. Notwithstanding, the NWSC is expected to finance a minimum of 20 percent of total investment costs from internally generated funds. Similarly, ONEA raises a portion of the investment costs through internal sources, and the remainder are provided by the government through IFI loans and grants. In the case of PUB, the government provides subsidies for sewerage and drainage investments. PUB itself finances the rest of its capital investments through internally generated funds. AQUA funds more than 46 percent of investments from internally generated funds; other sources include environmental protection subsidies (7.1 percent); loans from multilaterals, including the World Bank (20.7 percent), and the European Union PHARE program (23.4 percent).

Board members are generally appointed by the government to represent the interests of owners. Owners are well represented on boards of the utilities. For example, AQUA has a Management Board consisting of two managers for day-to-day operations. One board member is appointed by the city of Bielsko-Biala, and the other is appointed by International Water UU Holdings B.V. The Management Board reports to a Supervisory Board (with three representatives from the city of Bielsko-Biala and two designated by International Water UU Holdings B.V.). Board members in the HPWSC are political appointees. The Managing Director reports to the board members monthly. JNB Water has an

Independent Board of Directors, appointed competitively (anyone qualified can apply) by a panel from the City Council of Johannesburg. In the NWSC, the Board of Directors is appointed by the Minister of Water, Lands and Environment on the basis of expertise in the fields of water utility management, public finance, engineering, or public health. In ONEA, the board is appointed by Council of Ministers decree based on experience and competence and includes members from ministries, the municipal government, and consumers. In the case of PUB, the Board of Directors is selected by the Minister of Environment and represents owners as well as a broad spectrum of external groups, who can add value to discussions on the workings of PUB.

3.2 External Accountability

External stakeholders fulfil a number of important functions in the planning and operation of a utility. These include (a) *policy making*, which guides the management of the utility, its service delivery objectives, and quality standards; (b) *ownership*, which sets performance targets and financial objectives to maximize the value and efficiency of the assets; (c) *regulation* or authority to monitor compliance with the legal and contractual obligations and service standards placed upon operators, determining tariff levels, and resolving conflict between regulated companies and their customers;⁶ (d) *demand for service* or entitlement to receive services provided by the utility that are commensurate with tariffs paid and acceptable quality; and (e) *financing* or authority to secure financing in both debt and equity.

The exercise of these functions implies multiple accountabilities to the various external stakeholders, which may include central and local governments, customers, donors, and financial institutions. All these pull the utility in a specific direction based on their underlying interests, in both transparent and non-transparent ways. As a general rule, the utility is best served when multiple actors are able to offset the short-term political interests of politicians with other objectives, such as financial sustainability, good management, and service quality improvements. The leverage that each external stakeholder can exert generally depends on the functions it fulfils in relation to the strategic management of the utility and the power base that has evolved among the various actors participating in the external environment.

Commensurate with the autonomy that is provided, the utilities are held accountable for certain performance standards. Key indicators include whether performance targets are set, use of external auditors, financing on its own, external groups represented in advisory or oversight bodies, and whether they are subject to an independent regulator. See the summary of results on key indicators in Table 4.

Table 4 Indicators of External Accountability

	<i>Performance targets set</i>	<i>Annual report audited by an external auditor</i>	<i>Secured financing from commercial banks or private investors on own credentials, ability</i>	<i>The utility is subject to an independent regulatory office</i>
AQUA	Yes	Yes	Yes	Owner
HPWSC	Yes	Yes	No	Owner
JNB Water	Yes	Yes	No	Owner
NWSC	Yes	Yes	No	Owner
ONEA	Yes	Yes	No	Owner
PUB	Yes	Yes	No	Owner
PWD	Yes	Yes	Yes	Owner
SANASA	Yes	Yes	Yes	Owner
Scottish Water	Yes	Yes	No	Independent
SIMAPAG	Yes	Sometimes	No	Owner
SONEDE	Yes	Yes	Yes	Owner

Source: Compiled from original case material.

⁶ Foster (2005)

II utilities are subject to well-defined performance targets.

All utilities in the case studies have well-defined targets for key performance indicators, including total revenue, water production, drinking water quality, customer service, financial performance, water consumption, new connections, and contribution to the owner's budget. Utility managers are accountable to their board (or the mayor in the case of the PWD) for achieving the targets. Most utilities have a reward system for achieving targets. However, only Scottish Water and AQUA apply financial penalties for lack of compliance with performance targets. Scottish Water reports monthly to its owner and directly to the Scottish executive about its performance against a basket of key performance indicators. AQUA has to establish long-term plans for the development and modernization of its facilities; if targets in this plan are not met, it may lead to a withdrawal of the license for providing services. Under its company statutes, AQUA must provide quarterly information about the financial situation of the company to its Supervisory Board, which in turn has to report to the shareholders annually. If the company did not reach targets, the shareholders may take action as provided for in the regulations, as happened in 2003.

Box 4 How the Bond Holders Balance External Accountabilities of the PWD

The PWD is a ring-fenced municipal department. The management of PWD reports directly to the mayor of the city. Its operating expenditure is funded entirely from revenues, and capital expenditure is funded by a mixture of revenues, bond proceeds, and federal grants (only 2 percent). The PWD's revenue bonds are rated by Moody's (Aaa/VMIG) and by Standard & Poor's (AAA/A-1+). Because it is a municipal department, PWD is not subject to regulation by the state's Public Utility Commission. The municipality combines the functions of owner, de facto regulator, and policy maker. Both the city and the PWD have to meet a number of covenants in the revenue bond contract. The PWD has to meet debt service cover ratios. The city has to grant continued financial independence to the PWD and the non-retention of monies collected by the city on behalf of the PWD. The private financier thus limits the municipality's interference and balances the accountability framework the utility functions in.

Source: Compiled from original case material.

Performance contracts are useful tools for sharing information but have limitations for enforcing performance.

Performance targets are usually incorporated into performance contracts that utilities sign with their public owners; for example, SONEDE has signed three program contracts covering the periods of the Eighth Plan (1992–96), the Ninth Plan (1997–2001), and the Tenth Plan (2002–06). The NWSC has also signed annual and multi-year performance contracts. However, faced with multiple constraints (including availability of appropriate financing, timely increase of tariffs, and inflexibilities in labor markets), in several cases, performance contracts have resulted in good exchange of information with limited impact on the achievement of performance targets. For example, in the case of SONEDE, tariffs have been adjusted just to cover O&M costs, sometimes with delays; in the case of the NWSC, lowering the amount of UFW has been more difficult than anticipated, given that tariffs were not increased as requested.

The use of external auditors to enhance fiduciary responsibilities is almost universal. All utilities, with the only exception of SIMAPAG, have their financial statements audited by external auditors. In a few cases, such as in PUB, JNB Water, and Scottish Water, financial audits are required under the public financial management system regulations. In other cases, financial audits are required as part of the financial covenants agreed with IFIs, as in the cases of the HPWSC and NWSC. In some cases, such as in JNB Water and ONEA, auditing procedures and techniques are also applied to technical and operational areas other than those related to the financial statements.

Most public utilities require authorization to secure external financing. Most of the public utilities in the case studies have traditionally been financed by development agencies through sovereign loans signed with their respective governments. Indeed, most public utilities in the case studies have not secured financing on their own credentials. However, JNB Water, PUB, Scottish Water, and the HPWSC all appear to generate sufficient revenue to cover a substantial portion of their investment requirements. There is therefore little doubt that they would be able to raise funding on their own financial credentials if allowed to do so. One such case can be illustrated by the PWD, which has been able to raise financing from the capital markets in part based on well-defined financial covenants with its owner, the city of Philadelphia.⁷ As illustrated by Box 4, raising funding from the capital market provides specific means to exercise external accountability, shifting the power to

⁷ The PWD has a working ratio of 67 percent, compared to JNB Water with 53 percent, PUB with 58 percent, and the HPWSC with 62 percent—that is, the latter have equal or better credentials to raise financing from capital markets.

determine the right structure of financing from municipal government to individual financiers, who will demand both good financial results and less interference from municipal authorities.

External groups can be represented in utilities advisory or management oversight bodies. Five of the 11 utilities have external groups represented in their advisory or oversight management bodies. External representation in oversight bodies can include customer organizations and non governmental special interest groups, as in the case of the NWSC and ONEA, or a broad composition of the stakeholders, as in the case of PUB. AQUA has two representatives on its board, one from the city and the other from the private sector—the first representing the interests of a broad spectrum of stakeholders.

Independent regulatory arrangements are the exception rather than the norm because most utilities are regulated by their owners. With only one exception (Scottish Water), all the utilities are regulated by their owner with regard to economic and quality of service. Owners were able to strike a good balance among financial sustainability and customer service quality and politically acceptable tariffs. In the case of Scottish Water, the regulator is expected to have an impact on its performance outcomes by ensuring that the utility meets its service standards on behalf of the Scottish Ministry of Environment and Rural Affairs and implementing price cap economic regulation rather than indicating actual tariff levels. The regulator will also receive reports from the five water customer consultation panels about Scottish Water's performance.

3.3 Internal Accountability for Results

Internal accountability looks at how management and staff are held accountable for effectiveness (the degree to which the utility realizes its goals) and efficiency (the cost effectiveness of resources used to produce its water services). The case studies show that where accountability and autonomy within the utility are enhanced, this is often seen as a key ingredient for improving performance. Indicators highlighting internal accountability in a utility include responsiveness of the chief executive to the board; whether performance targets are well defined and provide incentives, sanctions, or both; whether staff are subject to annual performance evaluations; whether they are also subject to incentives for achieving performance targets; and whether staff are trained to perform well. Table 5 shows the results in the sample case studies.

Table 5 Indicators of Internal Accountability for Results

	<i>How often chief executive meets with the board</i>	<i>Rewards and penalties to chief executives for achieving performance targets</i>	<i>Staff subject to annual performance evaluation</i>	<i>Rewards and/or penalties to staff for inducing performance?</i>	<i>Training costs as percentage of operating expenditure</i>
AQUA	Twice per month	Bonuses but not penalties	Yes	Yes	0.30%
HPWSC	Monthly	Non-financial penalties and rewards	Yes	Yes	0.73%
JNB Water	Quarterly	Yes	Yes	No	0.06%
NWSC	Monthly	Rewards but not penalties	Yes	Yes	1.5–3.0%
ONEA	At least twice a year	No	Yes	No	1.52%
PUB	Once every two months	Yes	Yes	Yes	1.80%
PWD	Does not have a board	No	Yes	No	0.40%
SANASA	Monthly	Rewards only	No	Rewards only	0.39%
Scottish Water	Monthly	Yes	Yes	Yes	0.60%
SIMAPAG	Twice per month	No	Yes	No	0.46%
SONEDE	At least twice a year	No	No	No	N/A

Source: Compiled from original case material.

Senior management systematically reports to their boards on performance. In the majority of cases, reporting is done monthly. Two report bimonthly (AQUA and SIMAPAG), and ONEA and SONEDE are required to report only every six months. The frequency of reporting is important, but it is more important to have well-defined objectives, targets, and measurable indicators. Such information is contained in business plans and institutionalized in the management reporting systems, founded on good accounting and meaningful information. All utilities have well-defined business plans, which are approved by their boards and used to monitor progress toward targets. In some cases, as in JNB Water and PUB, the reporting requirements are part of the overall financial management regulations.

Incentive-based systems for top management are common. Most utilities utilize incentive-based systems to reward good performance. In most of the cases, the incentives are only on the positive side, (for example, if the targets are met); in the case of JNB Water, PUB, and Scottish Water, penalties can also be applied to top management.

Staff members are also subject to rewards and penalties to achieve well-defined performance targets. In most cases, annual performance reviews of staff have been institutionalized—they have become part of the management and staff performance efficiency assessment system. For example, JNB Water applies annual contracts within the various operational departments. Approximately half of the utilities utilized an incentive system for their staff. Although JNB Water and SONEDE do not formally utilize an incentive-based scheme, there are strong financial management governance rules for setting targets and achieving them.

Most public utilities have focused on training for improving staff skills. In most utilities, staff skills are regarded as a critical input to improve staff performance. Three utilities (the NWSC, PUB, and ONEA) allocate between 1.5 percent and 3.0 percent of operating expenses to training activities for their staff; and the majority allocate between 0.3 percent and 1.0 percent. Other instruments to improve staff efficiency include the implementation of external certification to the adherence of International Standardization Organization (ISO) 9001 standards relating to key business processes within the water utility. For example, PUB has already obtained ISO 9001 certification and is obtaining the Singapore Innovation Class Certification. SANASA and the NWSC are in the process of obtaining ISO certification.

3.4 Market Orientation

At various levels, utilities in the case studies look for opportunities to lower costs through outsourcing certain functions, gradually making greater use of market forces and the introduction of market-style incentives within their organizations. In doing so, water utilities have been defining the core functions and activities that they prefer to perform themselves, which is in line with the rationale for the organization of modern market-sensitive corporations.⁸ As presented in Table 6, indicators of market orientation include outsourcing as a percentage of operational expenditure, nature of functions outsourced, frequency and areas of benchmarking, and whether the utility is engaged in market testing.⁹

Utilities outsource mostly non-core functions and retain core ones. Water utilities outsource non-core functions and activities, mostly according to national procurement rules. Functions more frequently outsourced to outside companies include information technology services, information and telecommunication technology services, engineering design, and engineering project implementation. The criteria for outsourcing include (a) the highly specialized nature of the services—such as those that are not under the scope of skills of the professional staff, including information and telecommunications and specialized engineering; (b) non-recurrent nature of the services that could be learned, but the cost would be too high, as in the case of tariff studies, development of operational manuals, and so on; (c) specialized maintenance of buildings and equipment; and (d) services related to such problem areas as reading meters, billing, and collection, which in some cases can be performed better by private contractors, as illustrated by the cases of the NWSC, SANASA, and SIMAPAG. Six utilities presented information on outsourcing indicating that value can vary between 5.8 percent and 40.0 percent of the utility's operating expenses.

⁸ Such rationale is outlined in Oliver E. Williamson's 1975 study of the economics of internal organization in modern corporations in his book, *Markets and Hierarchies, Analysis and Antitrust Implications*. According to this rationale, a modern corporation retains production of whatever it can produce at a less expensive cost than what it gets when buying in the market, net of any transaction costs.

⁹ Market testing is the process of benchmarking the price of internal functions or services to determine whether the utility is best suited for undertaking that function or whether it should be contracted out.

Table 6 Indicators of Market Orientation

	<i>Outsourcing of operational expenditure (%)</i>	<i>Nature of functions or activities outsourced</i>	<i>Frequency of utility's benchmarking exercises</i>	<i>Areas where benchmarking activities are undertaken</i>	<i>Utility engaged in market testing</i>
AQUA	16.40	ICT, post, and courier services; sewage sludge and screenings disposal	Ad hoc	Management efficiency	No
HPWSC	5.80	Some non-core functions	Once a year	Water quality, service standards, finance, efficiency	No
JNB Water	10	Specialized functions	Benchmarking is in its infancy	Benchmarking is in its infancy	Yes
NWSC	30-40	Billing and collection, fleet and building maintenance, works, engineering design	Annually and ad hoc if needed	Management change, internal reforms, water losses, energy costs, revenue collection	Partially
ONEA	N/A	Non-core functions, works, engineering design, other	Once a year	Water quality, service, finance and efficiency, other	No
PUB	25	Information technology, billing, security, plant maintenance, cleaning, pipe laying, building construction	Has begun only recently	Customer relations management and personnel management	No
PWD	N/A	Collection, meter reading, engineering design, public works asset maintenance, repairs	Very little benchmarking undertaken	Activities confined to processes rather than specific operations	No
SANASA	20.77	Consulting services, billing and collections, certain operation functions	Once per year	Water quality, service, environment, finance and efficiency, other	No
Scottish Water	N/A	Information technology, capital program, maintenance of assets, legal services, and training	Not often	Quality and service standards	Partially
SIMAPAG	20.37	ICT, public works and engineering projects, specialized and feasibility studies, external audit, uncollected bills	Every two months	Water quality, service levels, financial performance, efficiency indicators	No
SONEDE	N/A	Works, engineering design, connections	Once per year	Water quality, service, environment, finance and efficiency, other	No

Source: Compiled from original case material.

Although benchmarking exercises are becoming common, there are no clear-cut paradigms for using data collected for improving performance. The frequency of benchmarking exercises varies across utilities. The general vision seems to be that such exercises will obtain reference data for setting efficiency improvement targets by looking at other comparable utilities, but the practicalities of doing so are not obvious. The nature of activities and functions that are benchmarked also varies across utilities. Service quality is the most benchmarked parameter. General services and efficiency standards are commonly benchmarked, and finance efficiency is also tracked extensively. In the NWSC, specific indicators include water losses, energy cost, and revenue collection, areas in which the utility is striving to get good results. Other utilities benchmark financial performance and operational efficiency indicators.

Most public utilities are not involved in market testing. Only JNB Water indicated that it is regularly doing market testing, and the NWSC and Scottish Water are doing only some market testing. JNB Water has tested and implemented a free water meter, manufactured in South Africa, in the poorest neighborhoods. The meter delivers five cubic meters per month of water free of charge to every household and then automatically shuts down. Thereafter, households can activate the meter to deliver more water upon demand. JNB Water has also tested chemical toilets in poor neighborhoods

and thereafter has implemented that program on a wider scale to improve sanitation in areas that are not reached by the sewerage system.

3.5 Customer Orientation

To what extent do public utilities “listen” to clients, work to better meet their needs, solicit their views regarding standards and level of service, or answer promptly to their complaints? Most utilities in the case studies raise a substantial share of their revenue from consumers, and although they are monopolistic providers, they are concerned about customer satisfaction. Important measures of customer orientation include friendliness of the customer billing and collection system, orientation toward seeking customers’ opinions and views, availability of options for service delivery, timely information to customers on developments in relation to water services, and response to customers’ complaints. A summary of customer orientation indicators is presented in Table 7.

Table 7 Indicators of Customer Orientation

	<i>Ways bills can be paid</i>	<i>Ways utility seeks opinions and views of its customers</i>	<i>Menu of options for service delivery the utility provides</i>	<i>Ways utility alerts customers about service changes</i>	<i>Complaints addressed (%)</i>
AQUA	Banks, bank transfers, or postal orders	Anonymous opinion poll held every few years	House connections	Press, radio, company’s website, and so on	100
HPWSC	Bank transfer, bill collector; <i>phuong</i> offices	Suggestion boxes	House and block connections	Newspaper ads, radio, letters	95
JNB Water	Electronic banking, cash, debit order	Customer surveys, suggestion boxes, ward committee meeting	House connections, providing and servicing chemical toilets in poor settlements	Press, radio, and ward committee meetings	N/A
NWSC	Banks and automatic teller machines (ATMs), NWSC Cash Offices	Customer surveys, suggestion boxes, alliance meetings	House and bulk connections, yard-tap standpost, water kiosks	Flyers, newspaper ads, radio, alliance meetings	95–100
ONEA	Bank transfer, front desk	Customer surveys	Bulk water, house connection, public standpost	Newspaper ads, radio, TV	No data
PUB	Bank transfers, checks, cash, ATMs	Customer surveys, focus groups, suggestion boxes, feedback forms	House connections	Notices, Internet, newspaper ads, radio and TV announcements	More than 99
PWD	Direct debit, mail (check), at utility’s offices (cash or check)	Point of service surveys; Customer Advisory Committee	Household connections	Flyer sent with bill, letters to households, ad in local newspaper	100
SANASA	In banks, in lottery selling points	Customer surveys	House and block connections, periurban standpost	Newspapers, Internet, radio, speaker car	100
Scottish Water	Bank transfers, direct debit, postal payment	Customer and point of service surveys, focus groups, NGOs, public meetings	Metered or unmetered house connections	Public notices, local media, public meetings, mail, Internet.	100
SIMAPAG	Banks, <i>cajas populares</i> , utility’s office, small shops	Customer surveys, suggestion box at the utility’s office	House connection, block connections, tank trucks to rural areas	Flyers sent with customer’s bill, newspapers, radio, speaker car	100
SONEDE	Local offices, bank transfer, post offices	Customer surveys, suggestion boxes	House connection, public standpost	Newspaper ads, radio, TV	More than 90

Source: Compiled from original case material.

Public water utilities have developed billing and collection systems that best overcome specific constraints faced by various groups of customers.

Most public utilities offer multiple options for their customers to pay their water bills. To a great extent, the availability of various options for customers to pay their water bills is related to the ability of the water utility to use various services provided by commercial banks and electronic banking. Very few utilities utilize door-to-door collectors, and where it happens in the lower-income countries, collectors are paid in proportion to collected bills, as in the cases of the HPWSC and NWSC.¹⁰ Even in these two cases, customers have the option to use banks to make their payments.

Public utilities actively survey their customers to learn their opinions and views.

Nine of 11 utilities use specially designed customer surveys (7 utilities) or point of service surveys (2 utilities) to find out the opinions and views of their customers in relation to the service received. One utility uses anonymous opinion polls every few years to find out if its customers are satisfied. Six have permanent suggestion boxes where customers can deposit their views. Three utilities (JNB Water, the NWSC, PWD) routinely participate in meetings at the community level to inform customers and learn customers' opinions and views. Two utilities, PUB and Scottish Water, also implement focus group studies, in addition to surveys, to reach their customers and learn their views. Only one, the HPWSC, has a single option (customer box) to receive customers' opinions in relation to the services it provides. As illustrated in Box 5, the NWSC shows that water utilities can institutionalize customers feedback mechanisms for a customer-oriented management of the utility.

Customers have the opportunity to express their preferences regarding service options. Most public utilities have a well-developed piped network and offer a sensible menu of options for service delivery. Service delivery of water and sewage collection through piped systems is available to most customers primarily through individual house connections; however, in five cases (the NWSC, ONEA, SANASA, SIMAPAG, and SONEDE), the options have been based on willingness and ability and include standpost, yard tap, and truck distribution options in addition to house connections. Scottish Water offers both metered and unmetered service. JNB Water provides all connected customers with free entitlement of five cubic meters of water per month. Thereafter, water services are priced at increasing block tariffs. JNB Water also offers chemical toilet services to its customers in slums and isolated areas.

Customers are informed about service changes or interruptions. Most utilities use several means to make their customers aware of service changes or interruption. Newspapers ads are used most frequently, but these are also complemented with TV and radio announcements. Various utilities send flyers or individualized notices to their customers or other communication written on their customers' bills. The NWSC and JNB Water use community meetings as a vehicle to communicate about scheduled service changes.

Utilities have developed effective complaint mechanisms. More than 90 percent of complaints filed by customers are resolved. All the utilities consider the complaints concerning quality standards specified in service agreements as valid. Normally, the response time is also pre-specified, and most utilities have set up a customer service department to address complaints from customers. Six companies report 100 percent compliance with customer complaint procedures, of which three (PUB, the PWD, and Scottish Water) have well documented the actual times taken for responding. It is also important to underscore that most utilities have well-defined quality standards, which if not met can give rise to customers' complaints.

Box 5 How the NWSC Involves Its Customers in Its Decision Making

Customers are involved in NWSC decision making mainly through "strategic alliance meetings. All NWSC areas of operations have mapped out stakeholders among the customer base (customer segments). These include water vendors, water kiosk and public standpipe operators, urban authorities, large government consumers, urban poor communities, restaurant operators, industries, educational academic institutions, and so on.

The NWSC area management teams conduct regularly scheduled strategic alliance meetings with the different customer segments. At the strategic meetings, customers can state what they require from the NWSC. These requirements are taken as action items for the NWSC area management. The action items sometimes require the area management to sell the ideas agreed upon in the strategic alliance meetings to the NWSC head office and seek the necessary assistance and support. For instance, strategic alliance meetings in the Fort Portal area with the managers of tea estates (Mitchell Cots, Rwenzori, and so on) resulted in an action item of making 12-kilometer mains extension to the estates, which was financed by the NWSC head office. The mains extension was commissioned in October 2003.

Source: Compiled from original case material.

¹⁰ In the NWSC, billing and collection for services are done at the area level, without interference by the head office.

3.6 Corporate Culture

Good corporate culture of public water utilities is shaped by the chief executive and top management and involves moral, social, and behavioral norms that inspire staff and managers to excel. Corporate culture is established through clear mission statements and performance objectives for service quality and coverage. It shapes the beliefs, core values, attitudes, and ability of the staff to set priorities to achieve their mission. Indicators that illustrate the existence of a good corporate culture are presented in Table 8 and include whether the utility's mission statement is well understood by its members, whether the utilities have put in place criteria for promotion and salary, the level of staff turnover, and the amount of training provided to staff and management.

Well-defined mission statements provide an internal indicator of good corporate culture. Managers in most public water utilities accept the notion of corporate culture and acknowledge that mission statements guide how employees think, act, and feel regarding their mission. Seven of 11 water utilities have well-developed mission statements, and others have developed other programs that are similar. PUB indicated that it had spent the greater part of a year in developing its mission, vision, strategies, and core values. AQUA and the HPWSC also have well-defined mission statements, although they were not clearly visible. SIMAPAG indicated that it has replaced vision and mission with score card methodologies to improve performance, and the PWD sees itself as a public service institution with technical excellence as a core value, which is in fact its vision and mission. SANASA does not have a mission statement, but it has its 5S program¹¹ that influences its corporate culture; and ONEA is still in the process of putting together a well-defined mission statement.

Table 8 Indicators of Corporate Culture

	<i>Mission statement internally visible</i>	<i>Factors that influence promotion and salary</i>	<i>Annual staff turnover (%)</i>	<i>Expenditures for training (% of operational expenses)</i>	<i>Staff informed about management meetings</i>	<i>Support to technical staff-management ratio</i>
AQUA	No, but it is well known	Performance review, certification, longevity	1–2	0.30	Yes	12.8:1
HPWSC	No, but it has one	Meeting performance targets	5.2 in, 0.9 out	0.73	Partially	83%
JNB Water	Yes	Performance review, years of service, inflation-linked	4.9 (126)	0.06 (excluding trainees)	On a need to know basis	17:1
NWSC	Yes	Performance review, years of service, union bargaining, academic	< 0, mostly lower levels	1.5–3	On a need-to-know basis	Between 3:1 and 5:1
ONEA	No	Performance review	6.60	1.52	Yes	3:1
PUB	Yes	Performance, current estimated potential, years of service	2.20	1.80	Yes	70:30
PWD	No, public service mission	According to the civil service rules	N/A	0.40	Yes	9.5:1
SANASA	No	Skills and qualifications	2.05 in 2002	0.39	On a need to know basis	1.4: 1
Scottish Water	Mission is currently developed	Promotion based on open selection, salary, performance review	N/A	0.60	Yes	1 manager:23 staff
SIMAPAG	No (it has score cards)	Performance review, education, availability of a position	4.33 in 2003 (January to June)	0.46	No	62.30%
SONEDE	Yes	Longevity, performance review	N/A	N/A	Yes	2.3 :1

Source: Compiled from original case material.

¹¹ The 5S program aims to simplify the work environment, reducing waste and non-value activity, while improving quality efficiency and safety. Based on Japanese words that begin with 'S', the 5S Philosophy focuses on effective work place organization and standardized work procedures.

Performance is the basis for salary increases in most utilities. As part of their ethics and rules of professional behavior, the majority of the water utilities have institutionalized performance reviews as the basic criteria for salary determination and promotion. Such systems provide senior management the ability to reward the specific contributions of staff to stated goals or objectives. Salary and promotions were also based on seniority, reflecting overall experience. This provides incentive for workers to stay with the company. Formal certification and education credentials, although important, are less significant determinants of salary and promotions. In one case (the NWSC), trade unions also influenced salary levels. In the case of the PWD, civil service rules apply.

Utilities provide ample career opportunities to their staff and experience low turnover. Staff turnover was found to be generally low, and various water utilities pointed out that their staff turnover is fundamentally related to retirement of personnel, as in the cases of PUB and the PWD. Water utilities that have relatively high turnover, as in the case of the NWSC, indicated that it was related to lower-level employees who were offered better opportunities by service contractors. Therefore, most water utilities showed stable employment and provided good career prospects for most of their staff.

Water utilities have training programs for their staff as part of their annual performance agreements. All water utilities have institutionalized training programs in order to keep abreast with technology changes and improvements in managerial know-how. Utilities spend 0.6–1.8 percent of their total operational budget on training, not counting that some utilities receive training through various technical cooperation agreements with donor organizations, as in the case of the HPWSC. PUB allocates 1.8 percent of its operational expenses to training activities, and the NWSC allocates between 1.5 percent and 3.0 percent.

Staff members are informed of management decisions on a need to know basis. Management communicates information to various heads of departments mostly on a need to know basis.

3.7 Conclusions on Public Utility Cases

The utilities in the case studies show a common adherence to sound management philosophies and practices, public or private. Most have been afforded a certain degree of external autonomy, although understandably, this autonomy in many areas is naturally limited, particularly in setting tariffs, procurement, and sourcing external financing. Moreover, the enterprises also had limited authority to set pay scales or to downsize personnel. Nevertheless, the cases did reveal that most were capable of attracting and retaining qualified staff, implying that salaries may have been set along market references.

The legal authority bestowed upon a utility is often restricted in practice by the external environment. By their very nature, public utilities are part of a larger public finance formula that renders them dependent in many ways on the government's overall fiscal situation and debt ceilings—and no utility is fully autonomous unless it is financially autonomous. At the heart of this dilemma is the paradox that resources may be denied to a utility not because of its own financial constraints but because of the government's overall fiscal situation. Working within this additional challenge is, in many ways, at the heart of the public sector reform process for water and sanitation.

Beyond that, management is left to run operations as they deem fit, albeit with strong reporting requirements and prescribed performance objectives. In many cases, the government-owner has set specific performance targets that the utility must meet, along with a strong reporting framework including financial audits and annual and periodic performance status reports. It is not uncommon for utilities to put together business plans indicating their operational goals and performance improvement plans that are then monitored periodically during their implementation.

The organizational autonomy emanates from the enterprises' legal status and the governance system set up to represent owners and other constituents and stakeholders. Many of the utilities were organized as autonomous entities either by statutory law or by company law. Only the PWD in the United States is set up as a ring-fenced department of the city municipal government. However, that status, in contrast to the more independently organized utilities, did not appear to weaken the utility's financial autonomy or lower its performance opportunities. On the contrary, PWB is capable of issuing revenue bonds based on the strength of its own financial operations.

In most cases, independent directors were appointed as part of the governance system. In many of the cases, an "owner"-regulated framework was adequate to ensure minimum service standards and

an appropriate tariff adjustment process. Only Scottish Water was overseen by an independent regulator.

All the utilities had a strong customer orientation, although few actually reported formally to a consumer organization. PUB established a Customer Advisory Committee from which it receives advice; in Scottish Water, consultation panels have been established by law to hold consultations with consumer groups. These bodies have no powers per se and act purely in an advisory capacity. The other utilities have demonstrated a strong customer orientation in a number of different ways, among others by carrying out service quality surveys, specifying consumer rights on contract documents that hold the utility accountable for certain service standards, or implementing more customer-friendly billing and collections systems.

However, it is not clear from the case material whether greater customer orientation is a determinant of well-performing utilities or one of its outcomes. It may simply be that well-performing utilities become more appreciative of consumer interests and needs, which in turn reinforces the objective for continued performance improvements. It should also be noted that although most of the utilities did collect information on their customer base, few actually used the information for decision making. The case studies also reveal that market orientation plays a far less important role in a utility's success, at least in the less developed world, during the initial stages of utility reform. In only a few cases were there concerted efforts to outsource organization functions to outside suppliers, and although most utilities engage in some form of benchmarking, the exercise is mostly for external reporting purposes and not utilized by the utility itself.

The analysis offers a better understanding of why public utilities can succeed like their private counterparts, and the case studies have demonstrated that many are functioning with sound management principles and practices. The case information has also provided much information on specific methods, processes, procedures, and approaches for improving performance in public sector utilities. Yet the case information also underscores the fact that utilities do not necessarily have to adhere to *all* that is prescribed in order to succeed. Each case is unique, with each utility possessing a mix of attributes that has worked for it in its own institutional and country setting. A good example is how PUB has increased its efficiency through a combination of measures that include developing a culture of excellence within the organization, a flexible personnel policy based on merits and qualification and extensive training, and the implementation of a multilayered organization (see Box 6).

Box 6 How PUB Has Increased Its Efficiency through a Combination of Measures

PUB is a statutory body that has continuously improved its performance over the years. These improvements are being achieved through the development of a culture of excellence within the organization. Innovation is made possible by flexible and transparent hiring and promotion, a culture of learning, and transparent systems that put accountability and autonomy with departmental heads.

PUB recruits staff as and when necessary without specific constraints. Hiring and firing at all levels is based on merit and qualification. PUB determines its own salary scales using government salaries as guide. Staff salaries are competitive with those in the private sector. The chief executive officer is appointed by the board with the approval of the minister after consultation with the Public Service Commission. Other appointments are made by set hiring committees involving various management levels within PUB.

A systematic and objective approach is adopted for the career development of staff. The performance of employees is evaluated yearly through a staff appraisal exercise. Employees may be rewarded in the form of performance bonuses or promotions. Those who display high potential are groomed. Staff rotate within the organization to wider experience and perspectives. Poor performers are counseled and advised how to improve on their performance. If adverse performance persists, dismissal is an option. Absenteeism is low. Employee turnover is about 2.2 percent, and this is mostly due to retirement.

An extensive training plan focuses on professional and competency development, as well as corporate culture and supervisory development. Emphasis is placed on the selection and training of frontline staff who come into direct contact with customers.

PUB is a multilayered organization. Many operational decisions are made at lower levels. The PUB Financial Manual stipulates expenditure approval ceilings for various management levels. Internal communication is maintained through a set schedule of regular meetings. Business processes and systems – such as a performance measurement system and automated complaint tracking – are key to PUB's success. All key business processes within PUB have attained ISO 9001:2000 certification. PUB outsources 25 percent of the operating budget following public procurement rules. Performance indicators are reported bimonthly to the Board of Directors and published annually in the annual report.

Source: Compiled from original case material.

4 LESSONS LEARNED—INSTILLING GOOD PERFORMANCE AMONG PUBLIC UTILITIES

Going beyond the case material, the research canvassed sector professionals to attempt to distill key determinants—what can actually make the difference in performance. A number of promising observations are discussed below.

4.1 The Reform Process Is Inherently Political and Requires the Full Commitment of Its Policy Makers to Correctly Balance Financial and Political Objectives

Water supply and sanitation services possess a number of characteristics that make the process of reform inherently political. Water has many social dimensions and is often regarded as a public good. Curiously, the other infrastructure sectors possess similar dimensions, yet tariffs are not politicized to the same degree as in water and sanitation. There is much more willingness to adhere to objectives of financial sustainability in the energy and telecommunications sectors, and in some transport services, than in water. So what makes water supply unique beyond these initial attributes?

First, unlike power and electricity distribution, water utilities can be gradually starved of resources without inducing a total collapse of service. Water services can decline over a long time frame before a total shut down would occur. In fact, many poorly performing water utilities are often relegated to a minimal standard of “life support,” where the enterprise is just barely recovering its operating charges and performing only essential maintenance. Therefore, service quality can drop considerably and still function, albeit poorly. However, withholding resources from the power sector will at some point bring about a complete and sudden stoppage of service, which may initially start with “brown outs” when systems are overloaded. Such stoppages create havoc in any economy and its productive sectors, whether highly developed or developing.

Another main difference between water supply and the other service infrastructure lies in the characteristics of a typical consumer base, with power and telecommunications serving a higher percentage of business customers which are dependent on the service for their economic livelihood. Again, any stoppage in electricity service would have serious consequences on the productive sectors, particularly if the power grid spans the entire country.

Water supply and distribution is normally confined to local geography and is typically owned by a municipal government. The other infrastructure services, however, are normally centralized enterprises overseen by central government regulatory agencies. Industry lobbying groups and business leaders are thus more motivated to apply pressure at the central level for improved services in the electricity and telecommunications sector than are consumer groups in water supply services. Generally, as borne out in the case material, it is only in more developed environments that consumer groups begin to establish and strengthen as effective lobbying organizations at the local level.

Finally, although politics has much to do with the cost recovery problems of the sector, there is also a finance perspective to this. Many local politicians have used the excuse of affordability in resisting tariff increases, but countless studies have contradicted this because customers not only pay much more to informal water vendors, but also have voiced their willingness to pay if services were to improve. The reality is that increases in customer tariffs to cost recovery levels would place added accountability with politicians to improve services as well as for them to come up the additional funding that would be required.

Because the expansion or improvement of services will more often than not require a new injection of funds besides what can be generated from user tariffs,¹² many political leaders foresee serious political risks in increasing tariffs if the counterpart funds are not there to fund the improvements—in a sense, holding up their part of the bargain with customers. It is interesting to note that in most of the cases, investment financing was provided through loans and grants from international financial and donor institutions. As such, in many of the poorer countries and communities where such financing is scarce or unpredictable, the safest political course is to hold tariffs down to keep customer expectations low.

For these reasons, local politicians, faced with financial constraints of short-term political objectives, tend to starve water utilities of funds to the extent they can, without being held accountable. They appease community with promises of holding down tariffs and effectively block the road to reform. Political commitment to reforms is therefore viewed as the all important ingredient needed to initiate and sustain the process because it puts in check the behavior of the “owner” when confronted with a policy trade-off that may be in conflict. Political consensus is essential to properly align both the social and financial objectives of the enterprise.

4.2 Success Is Often Unattainable without Reforming the External Environment, with Emphasis on the Role of the Owner

Effective reform involves an interaction between the utility and its direct institutional environment. The reforms that can be undertaken by a utility are thus dependent on the reforms that the environment supports (World Bank 2004b). Similarly, improvements in the environment in which the utility operates, are likely to have only a limited impact if the utility has insufficient internal capacity to make the most of this favorable development.

Today, there is a very good understanding that past approaches to and interventions in reform will not work. The record has been poor. Part of the reason for this failure is the fact that efforts were inordinately focused on changing the utility by strengthening its management and its processes, but without making commensurate advances on the governance framework or the institutional environment in which the utility operates. In the end, utility managers respond according to the wishes of important external stakeholders, most notably national government, municipal officials, community leaders, and lenders. Misdirected incentives on their part will have direct consequences for the internal incentive systems of utility managers and their staff.

The World Panel on Financing Water Infrastructure chaired by Michel Camdessus released their report, “Financing Water for All,” in March 2003, drawing attention to the governance system as a major impediment to improving performance in the water supply and sanitation sector. Public or private, a poor governance system will stand in the way of mobilizing greater investment financing for the sector.

History has taught us that real progress can be achieved only if advances are made on both fronts. The external environment can dramatically strengthen governance, limit corruption, enforce regulation, and open up opportunities for finance. The external environment can also create the proper constituency for improved services among the various key stakeholders and instill the correct value system in its owners. This is a system that seeks to preserve or increase the valuation of the enterprise rather than starving it of essential resources.

¹² This is due to the lumpiness of water and sanitation investments that cannot be financed purely from user tariffs, even at cost recovery levels. Cost recovery tariffs, however, are essential for sourcing and servicing debt or repaying capital that has been invested. Public sector utilities that have not developed formal ties with financiers because of creditworthiness issues would be totally dependent on transfers from local and central government for undertaking service improvement and expansion. Some of these funds may be available through donor institutions, but the resources available to meet the entire needs for expansion and improvement are actually quite limited.

As the case discussed in Box 7 shows, every good intention to reform can end up in a futile exercise if attempts are not made to institutionalize the process. One practical way to do this is to depersonalize the reforms by creating the necessary governance infrastructure (laws, procedures, rules, guidelines, processes, and so on) such that they will not be derailed by changes in political leadership. As is often the case, important reform movements are usually the result of one or several political leaders who have been willing to use up political capital to initiate substantive change. Successions to power are therefore particularly troublesome, because a new city mayor or central government official may not necessarily ascribe to the same values or priorities as his or her predecessors.

Box 7 How Performance Improvements in Peru Were Hindered by the Absence of a Few Critical Measures

Until 1990, water services in Peru were the responsibility of the central government. After 1990, the water sector moved to a decentralized system under the responsibility of municipalities. A law stipulated that operators in the larger urban areas must transform themselves into government-owned companies. As part of the reform process, measures aimed at restoring the financial stability of the companies were undertaken. A centralized regulatory agency was tasked to design tariff rules and propose tariff levels to municipalities, which got the final say over tariff levels. A three-stage convergence to full cost recovery was planned: (1) In the first 18 months, tariffs must cover operating expenditures while water companies work on defining their investment plans; (2) a five-year period in which tariffs must rise progressively to the level of long-run marginal cost; and (3) the final period in which tariffs remain stable. However, by 1998, eight years after the reform process started, 50 percent of the utilities were still experiencing financial losses, without signs of a significant recovery, because the decisions of municipalities concerning tariff setting and investments remained politicized at the local level. Efficiency gains were limited as excessive staff level and a high turnover among management continued. Also, total revenues increased less than expected as collection rates went down as tariffs increased.

Source: Corton (2003)

4.3 Fundamental Reforms Are Not a Quick Fix and Cannot Be Substituted by Private Sector Participation

For many years, private sector participation was viewed as the logical alternative for turning performance around in the water and sanitation sector. After a series of disappointments were experienced over the last decade with purely private models, there is now the fear that the pendulum may be swinging the other way, and the public sector is again being looked to, to provide the quick-fix solution to the problems of water and sanitation. The reality is that there are no quick-fix solutions, and the sooner the focus is shifted toward fundamental reforms in the sector, the sooner real improvements will be achieved for either public or private models.

A study¹³ carried out in 2000 on the effect of the East Asia financial crisis on private participation in infrastructure had similar conclusions on why private participation in infrastructure had been affected so harshly: Most of the countries in the region still had much work to do in forcefully moving forward on four fundamental areas of reform, including (a) market reforms to transform state monopolies into competitive market structures, (b) financial discipline to ensure cost recovery and returns on debt as well as equity through tariff reforms and improved accountability standards and reduce the inherent financing risk associated with the currency mismatch in the sector through the development of the local capital markets, (c) a business environment to depoliticize decision making by creating and fostering independent regulatory bodies, and (d) ownership reform to introduce the essential element of corporate governance into infrastructure enterprises.

4.4 There Must Be an Adherence to Financial Sustainability Objectives

Financial sustainability of water supply and sanitation investments and operations is an essential determinant for ensuring the provision of safe, reliable drinking water. For many public utilities in developing countries, however, this has become a very difficult goal to attain because cost recovery is often pinned against social welfare objectives by the same politicians who are supposed to look after their financial security. The case studies contradict this notion of conflicting objectives and have unquestionably demonstrated that even in the poorest countries, such as Burkina-Faso, Uganda, or Vietnam, successful utilities have been able to price services to recover O&M costs and, in some

¹³ Baietti (2001).

cases, contribute toward the recapture of investment costs. The irony in these countries is that tariff levels constitute a high percentage of per capita income, much higher than in the more developed economies.

Cost recovery for the utility also means gaining greater financial independence by reducing its reliance on governmental transfers or subsidies in order to meet ongoing operations. For politicians, it means recognizing that financial sustainability objectives do not necessarily undermine the welfare of society but, on the contrary, enhance it. For politicians, it also means creating the mindset of "ownership" within this stakeholder group, which is essential for preserving the value of water investments and for the sector to prosper.

Subsidies can play a role for the poorest of the community. However, subsidies must be handled quite cautiously under some basic, but important, financial guidelines. First, subsidies work best for discrete one-off activities such as to defray the cost of connection fees for poor customers or fund a discrete capital investment in a particular coverage area. In contrast, subsidies are most financially troublesome when they are used to meet ongoing or recurring O&M costs because any sudden cutback in financial support would have serious financial consequences for the utility, its maintenance programs, and its technical performance.

In the event that such an operational subsidy program is necessary, governments must provide sufficient assurances of continued financial support or, minimally, provide ample notice as to the period and amount of support. When the period is defined, a realistic plan must also be devised for phasing out the support and replacing the funding gap through other revenue sources, such as tariff increases.

There is no justification for operational subsidies ever to be in the form of loans to the utility, despite how concessionary they may be. Loans for operational expenses will only balloon the utility's debt burden with no foreseeable debt service workout. Very simply, if a utility cannot meet its operational costs, it certainly cannot meet debt service requirements for repayment of loans, interest charges, or both.

Despite how obvious this simple rule may appear, there are countless incidences where central and local governments have onlent subsidies to water utilities, knowing very well that they cannot ever be repaid. The misguided hope is that somehow tariffs will eventually be adjusted when affordability levels increase, after which the servicing of this ballooning debt can begin. Such a policy cannot ever be regarded as well-intentioned because although it purports to resolve the financing gap in the short term, it only transfers the hemorrhage from one institution to another. For politicians, postponing the problem may be acceptable, but debt has its own way of spiralling out of control.

The case studies have demonstrated that both utility management and policy makers must deal with financing gaps squarely and without trickery to ensure long-term sustainability of the institution. Achieving long-term financial sustainability for water utilities in developing countries should thus entail (a) lessening the dependence on governmental subsidy transfers, (b) increasing reliance on user tariffs as the main source of internally generated financing, and (c) gaining financial independence to source external private financing based on the enterprise's own creditworthiness (Baletti and Curiel 2005). Fortunately, the process toward financial sustainability can be implemented gradually and methodically to respect both affordability issues of consumers as well as the financial interests of the utility in the short term.

4.5 Other External Stakeholders May Be Important to Balance Potentially Conflicting Objectives of Politicians

The direct institutional environment of a utility refers to those entities that exert direct authority or influence on it. The study revealed a wide range of situations of how different external groups influence utilities, how they make them accountable, and how they make important management decisions. Despite the differences observed, there was one important area that all well-performing utilities had in common: They had been able to fractionalize the power of politicians in pursuit of short-term political interests. This allowed the utilities to pursue service quality and financial objectives without substantial interferences.

Mapping the utility and other actors, including the level of power that each actor has on the utility, is useful in analyzing the dynamics of accountability and autonomy. The figure in Box 8 shows two different situations in Vietnam and Uganda (see Box 8).

In decentralized settings, local governments tend to exert the most influence on utilities, often assuming multiple functions, including ownership, financing, regulation, and policy making (Foster 1996). This overt concentration of functions distorts the balance of power and captures utility management. Combining regulatory oversight with the other functions also leads to severe conflict of interest issues and a misalignment of objectives, where utility performance is blurred against social as well as personal objectives of city administrators.

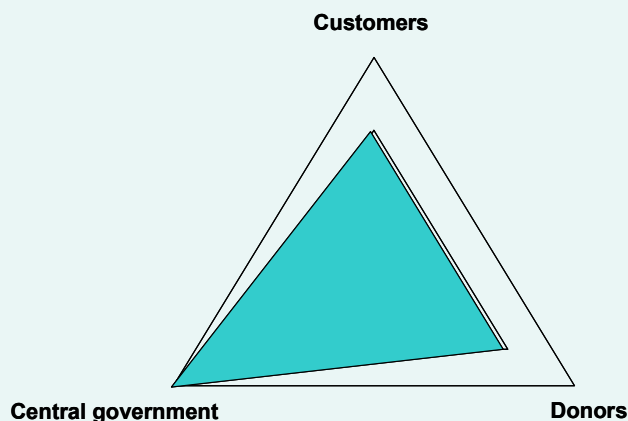
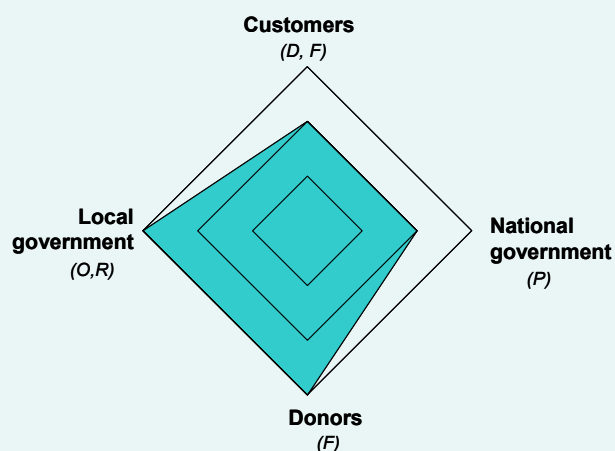
Customers can also seek accountability from their utility, but the degree to which they can exert this influence depends very much on whether they have effective channels to voice their discontent. Customers that pay full cost recovery tariffs, as in the case of Scottish Water, will usually command a high level of accountability for service quality, and the utility will seriously include their interests and complaints along with the interests of other external actors. In contrast, customers that are heavily subsidized will typically relegate this influence to another actor, usually the government agency that finances the subsidy. In doing so, they may give up altogether a rightful lobby for their interests.

External donor agencies can and do play a significant role in balancing power when it can be heavily distorted in any one direction. This is usually a transitional role until other actors can step up and assume their rightful role in realigning incentives. As in many cases where donors are involved, a large part of the capital investment in Haiphong is financed with conditions for achieving specific performance improvement targets.

Box 8 How the HPWC and NWSC Balance Their Accountabilities

In Haiphong, four main actors affect the water utility. Most important is the provincial government (the HPPC), which has a strong hold on the utility because it regulates both the tariff level and the quality of services provided. The influence of customers is largely linked to the revenue they generate for the utility. Approximately 85 percent of the utility's revenue is derived from customers. International agencies such as the World Bank and FINNIDA have been instrumental in providing access to financial resources (through the Ministry of Finance). The national government sets out the main policy lines to which the utility must adhere through the Ministry of Construction. Moreover, it also plays a role in the availability of financial resources for the utility because investment decisions on water supply and sanitation are made by Ministry of Planning and Investment Department in consultation with other ministries and the HPPC.

In Uganda, three main actors influence the functioning of the NWSC. Most influential is the central government, which appoints and is represented on the Board of Directors, formulates the policy for the water sector, regulates tariffs and quality of services, and, at times, subsidizes investments, which are in line with the government's social mission policy. Donor agencies provide funds and hold the utility accountable through covenants in their financing agreements. Customers hold the utility accountable through strategic alliance meetings. Because cost recovery from customers generates a considerable amount of the revenues, their voice is quite strong.



Key to functions: D = demand for service, F = financing, O = ownership, P = policy making, R = regulation.

Source: Authors' rendition.

4.6 Certain Decisions Must Be Left to Utility Managers

A public utility may never become totally financially independent, but that is not necessarily the end goal. The utility will always need to blend equity with debt to finance new investment and will in most cases source part of this financing from its owners as any private enterprise would, particularly the equity portion. That means that the utility will be restricted in total decision-making autonomy in some form or another, because the ultimate approvals would rest with others outside the organization.

However, this is quite normal, as shown by the case studies. Not one utility was left totally free to make all its operational and financing decisions. Most required approvals for major financing decisions, some required outside approvals for compensation and salary scales, and all required prior authorization to set or revise tariff levels. Quite the contrary, tariff regulatory oversight is very much advocated for natural monopolies, and financial oversight is necessary. Moreover, the restrictions on internal decision-making authority that were observed did not negatively affect performance in those utilities that were the most restricted.

So what is it that makes the difference with regard to internal decision making? In addition, what are the important barriers to overcome? The answer here is not straightforward and perhaps does not necessarily lie with the "total" amount of decisions that the utility is free to make on its own, but rather captures the combined internal decision-making powers that would allow the utility to run its daily operations effectively with minimal intervention.

Most organizational decisions involve incurring some form of expense or a spending activity, thus the manner in which the budget and procurement process are set up is particularly significant and can lead to operational problems if not structured properly. Typically, public administration principles focus on cost containment, where budgets act as ceilings for incurring certain line-item costs. Utility managers would then be required to seek approvals for any deviation in excess of the established limits, which normally translates into significant operational constraints. Moreover, if procurement limits were set much below what would normally be considered typical spending levels, then again external authorization would be needed to execute an inordinate amount of transactions, causing bureaucratic delays, red tape, and efficiency losses.

Commercial practices, however, provide management with ample freedoms to adjust total operating expenditures to meet consumer needs. If consumer demand rises, for example, management would be free to adjust its operations and hence its expenditures in response. That may mean overrunning initial budget line items for power, chemicals, spare parts, and staff resources but would nonetheless be acceptable because revenues would have also increased. Commercial principles of management also rely more on ex post financial audits rather than ex ante approvals in the decision-making process. In the former, management is provided sufficient flexibility based on pre-established financial guidelines. The audits then serve to ensure compliance. In the latter case, compliance is factored into the approval process itself, thus stripping management of much needed flexibility to operate as it deems fit.

The utility's right to disconnect for nonpayment is a critical decision that needs to be totally left to management discretion. It is also a power that should be enforced without exception. Otherwise, the utility's revenue-generating capacity is completely undermined. Over the years, policy makers have come to acknowledge that indeed customers who do not pay their water bill should be disconnected. However, in many situations, government customers and the military remain a particular problem area. Left to their own authority, managers of public utilities have little power to enforce payment among this class of customers, thus central government support here is essential to the overall reform agenda.

Finally, staffing decisions are often cited as critical factors. The ability to recruit and pay competitive salaries, the ability to provide financial and other incentives for good performance, and the ability to scale down staffing are all important decisions that utility managers need to make. Studies of poorly performing utilities consistently point to faulty human resources practices as one of the main reasons for failure (for example, see Hoffer [1995] and Nickson and Franceys [2003]).

The case studies, however, also showed that pay scales were mostly guided by civil service rules that provide management with little flexibility in providing incentives for its employees. In addition, almost all of the utilities in the case studies have introduced annual performance evaluations for staff, but only half have introduced performance-related salaries. Therefore, the evidence here indicates that utilities can actually adapt to staffing regulations as long as they are not overly restrictive on the

organization. Moreover, as indicated, if there are serious constraints on downsizing in an institution, this is best addressed when the reform is triggered, because it is at this time that most concessions to policy can be obtained.

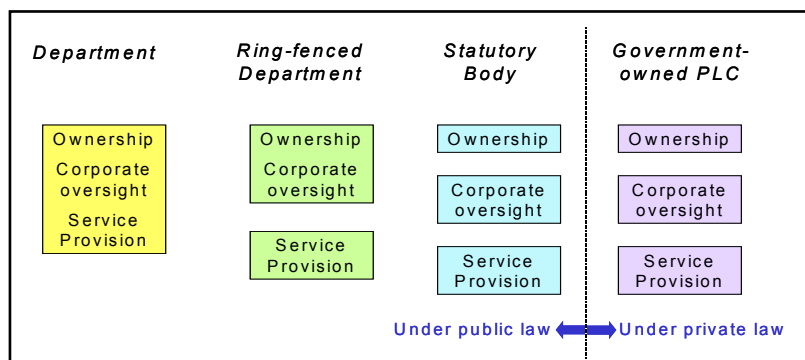
4.7 Separating Functions and Arm’s Length Transactions Are Important Elements of the Institutional Setup

The separation of institutional functions lies at the heart of public utility reform because it reduces the inherent conflicts that may arise in, say, determining policy, regulating service standards and tariffs, and operating and owning a water utility. Prior studies have shown, however, that although the likelihood for success may increase with this separation, it does not necessarily ensure performance, one way or the other (World Bank 2003a and b).

Our study reinforces this point, showing that each organizational model, including a ring-fenced municipal department, can instill the proper governance process and produce the quality of output comparable to the best-running public utilities organized under company law. The constraint faced in most developing countries, however, is that proper governance cannot be easily established when the same individuals are fulfilling multiple and often conflicting roles. The risks of moral hazard are too high. More developed environments that have a well-established culture of good governance and low corruption are obviously better suited to organizations and individuals carrying out multiple functions that might be in conflict. But here, too, systems of internal controls, operational compliance, and financial audits are also quite prevalent.

For these reasons, the preferred solution is to separate a number of functions within the institutional environment of the utility and break up roles and responsibilities within the organization itself. Splitting regulation from service provision and establishing a separate oversight board within the utility are perhaps the more important actions. But given the peculiar characteristics of public utilities in developing countries, it may also be important to separate the lender functions from ownership and the ownership function from service provision.

Figure 3 Split of Function among Various Organizational Modes



The greater the number of stakeholders, the less likely that one will capture the utility with its own specific agenda. This establishes a system of checks that presumably will balance the individual interests of each group. Figure 3 shows how certain functions are split among the various organizational modes.

Going beyond the broad institutional framework, the utility should also set up its own organization and financial

accounts such that it is organizationally separate from other departments and its performance can be planned and easily monitored as a self-contained unit. That means that in a traditional department, separate financial accounts should be established and management oversight and service provision should be assigned to different individuals reporting to either the municipality or a ministry.

Ring-fencing a municipal department can be as simple as setting up a checking or cash account for the utility service. The account would accrue revenues from customers and pay the related costs of the operation. This would include a well-developed accounting system so that assets can be separated from the other municipal accounts and booked specifically to this activity.

Based on this, all of the utility’s financial transactions can be easily tracked and accounted for and its performance reported back to the main stakeholders. Moreover, the setup should be designed to ensure “arm’s length” transactions such that different departmental units behave much like business parties. In other words, all staff and organizational expenses, including overheads incurred for the activity, should be accounted for on a cost basis and charged to the utility account. Transactions between different departments would be handled as if different organizations were involved.

4.8 Customers Can Be an Important Voice for Improving Performance

Consumers can be an important constituency for public utilities, as has often been demonstrated when they have been willing to pay a fair price for good service. This usually counters the perception of politicians that tariffs must be kept low despite the effects this has on service quality and coverage levels.

Customers can play an effective role in supporting well-intentioned public utilities. However, civil society in developing countries tends to be more passive and less informed than its counterparts in the developed world, and consumers in developing countries are typically not accustomed to either participatory approaches or voicing their demands in an organized manner, if not at or near a crisis situation.

Utilities must therefore take steps to turn passive service recipients into effective customers with rights and responsibilities. Customers need to be organized and to create a power base that forces the rebalancing of powers and accountabilities toward their interests. Often this requires a level of maturity on the part of utilities that goes hand in hand with an orientation toward good performance. For this reason, customer orientation is an important indicator of a utility's organizational maturity because it links financial sustainability with the notion that the utility is actually serving a customer base.

Utilities can then better serve consumers by providing them with more information. This can be done in a number of different ways, including (a) involving the communities in strategic decision making by providing a menu of levels of service delivery at different price options, (b) improving the information value of billing and collection systems such that customers are more informed of the cost of specific services, (c) establishing a timely and effective complaint process, and (d) periodically surveying customers on their satisfaction levels and interests in improved services (Water Utility Partnership and WSP 2003).

It should also be noted that the unserved community can also be an important voice for promoting expansion and coverage, particularly if tariffs have not been adequate to expand to higher-cost areas, where the unconnected typically reside. The unserved should thus be encouraged to express their views so as to influence their political leaders on service and tariff levels.

5 ACTIONS FOR ALIGNING “OWNER” INCENTIVES

Governments can look at a number of ways to strengthen the opportunities for success, particularly in fostering good governance among their central agencies and local government units. Numerous studies have been done in the area of public management, but there is still much work needed in developing ways to better align incentives among the owners of public utilities in such a way that natural forces are pulling to improve water service quality, coverage, and financial and operational performance. A number of possible actions that can be taken to improve the role of governments as responsible owners of public utilities are presented below.

5.1 Creating a Central Policy and Oversight Body for Water Supply and Sanitation Services

Central agencies should maintain strong policy and oversight functions over utility performance whether the utility is centrally or locally owned. The void for central oversight becomes particularly apparent during the decentralization process, where the powers of central agencies may be substantially reduced as authority for major functions is shifted to local government units. When oversight functions are devolved, it generally creates conditions for service levels and utility performance to fluctuate widely among different towns and at the whim of local politicians.

To overcome this, central governments could retain an oversight and policy-making role in the sector. Central governments can provide guidelines on sector performance, including (a) minimum standards of service and water quality that will be achieved, (b) adherence to fiduciary responsibilities in spending for improved services, and (c) principles and guidelines for financial sustainability.

5.2 Establishing a National Benchmark System to Monitor Performance

National benchmark systems provide the opportunity to monitor sector performance across the country. With a national utility, this is best achieved by establishing cost or profit centers for each self-contained system within the entire network and monitoring performance regularly on this basis. In a decentralized setting, governance needs to be tightened considerably by increasing transparency and the accountability of mayors for improving local services. Benchmarking performance of the government units themselves is one way of making mayors more accountable to their constituents because comparative results can be made available to the public on a periodic basis.

5.3 Creating Incentives through Intergovernmental Transfers

Central governments have traditionally transferred grants to local governments and national utilities to subsidize operations or absorb losses. Recently, however, many governments have been changing the principles upon which these funds are transferred by making them conditional on good performance. Incentive-based grants and loans are proving to be a strong driver for reform because control or withholding of funds is an expedient sanction. They are showing very good results in a number of countries that have instituted them and are effectively introducing a new element of governance for local mayors and administrators.¹⁴

Intergovernmental transfers should also look at ensuring equity, particularly for smaller rural towns that have very few other financing choices. The financing framework for intergovernmental transfers needs to be structured to make a greater relative allocation to smaller and poorer towns for financing a critical mass of basic local infrastructure services, including water supply and sanitation.

Box 9 How the Australian Central Government Played a Strategic Role in Stimulating and Sustaining Reform

The provision of water supply and sanitation is a responsibility of state governments in Australia. However, the commonwealth (central) government has been an important driver for change in the water supply and sanitation sector through its 1995 National Competition Policy. This policy is a multisectoral package of reforms. It combines enabling measures with mandatory requirements and financial incentives for states and territories that achieve certain milestones, such as commercial viability, transparency of subsidies, separation of functions, and introduction of performance monitoring and public consultation. Although annual payments have been small (most states receive about 0.65–0.70 percent of their total receipts this way), they provided sufficient incentive for the states to stay committed to the reform path.

The actual reform path is left to the discretion of the states. This has led to a number of institutional models, including single state-owned utilities, municipal utilities, and aggregated regional utilities serving a number of municipalities. All utilities are government-owned companies, with a government-appointed expert board of directors. Price regulation is carried out by an independent (often multiple-utility) regulator in some states; in other states, regulation is done by state or local governments.

Prices have increased but—also as a result of extensive awareness campaigns—usage has gone down. As a result, average water bills have decreased by 5.5 percent over the five-year period ending in 2000–01. The reforms in Australia have taken more than 15 years to be completed, well beyond the timetable of 5 to 7 years. However, the progress has been impressive across the board because of the sustained strategic role of the central government.

Source: WSP (2004a).

¹⁴ Australia's federal government provided grants to states to reform the water sector. The South African government used central fiscal incentives to support reform of urban services, including water and sanitation. Ethiopia has recently introduced a simplified system that provides grants for reforms and loans for investments to towns based on a series of institutional and financial milestones. India's federal government is exploring a similar policy instrument—the City Challenge Fund—to create incentives for general urban reform, including municipal services. Several countries in Latin America, such as Brazil, Ecuador, and Colombia, are also using fiscal incentives (Organisation for Economic Co-operation and Development 2004; World Bank 2003b).

Box 10 How the Ecuadorian Government Creates Incentives for Its Municipalities

For the past four years, Ecuador has pioneered an interesting case of urban water sector reform in which the national government offers some 220 municipalities free technical assistance and financial incentives if they agree to delegate the provision of water supply and sanitation services to autonomous (public and private) operators. Most Ecuadorian municipalities have traditionally provided water and sanitation services directly through the municipal government. Under the National Program of Water and Sanitation's rural and small towns water and sanitation project, incentives are calculated according to a standard table as a function of (a) the model adopted (more autonomous = higher incentive), (b) the cost recovery achieved through tariffs (again, more cost recovery = higher incentive), and (c) size of municipality. So far, 41 municipalities have entered the process and are in some stage of delegation.

Source: World Bank 2003b

5.4 Promoting Arrangements with Multiple Stakeholders

As indicated above, external stakeholders can be helpful in better aligning incentives of owners toward financial sustainability and away from short-term political interests. For example, involving local banks that operate under commercial principles can bring in a significant element of governance that normally does not exist in traditional relationships between national and sectoral agencies. Public or private, there is generally more respect for the financial sustainability of banks among governments, and to have them involved would likely reduce the incidence of political interference that would undermine the utility's capacity to fully service its debt obligations. Private contractors and suppliers as well as consumer groups could also be very helpful in reducing the inordinate control that owners may have on utilities, particularly when performance objectives are blurred.

5.5 Establishing Governments as Guarantors for Utility Performance

As the study has shown, the short-term political interests of elected officials can often interfere with the sustainability objectives of their utility. To better realign such incentives toward performance improvements, governments can act as partial risk guarantors on loans extended to utilities by financial institutions. The central and local government administrators would guarantee against policy changes they may make that would undermine the utilities' capacity to repay their loans. In this way, governments would be confronting trade-offs through financial sanctions in the event that their policies may interfere with the financial sustainability of the utility. Moreover, having local governments as guarantors, local banks would be more prone to take the credit risk on water investments because of the ability to intercept central transfer to local governments.

5.6 Establishing Performance-Based Agreements between the Owner and the Utility

In the 1980s, many development agencies advocated the use of public-public agreements as a means to improve sector performance. Public-public performance contracts between governments and service providers (contract plans) were introduced in the early 1970s in France (Nellis 1988). However, the success of such agreements was limited, and they went out of vogue in the 1990s with the emergence of private sector participation. Many of the limitations of public-public contracts mentioned in the literature in the mid-1990s are still valid (Shirley 1998).

Despite their weaknesses in the past, agreements between public entities are returning with some promising results. Performance-based agreements can be utilized not only to hold utility managers accountable for improving performance, but also to ensure that governments as owners do their part. Moreover, there has been more work done on improving their design and approaches to their implementation. As a general rule, agreements should be simple and easy to understand and should include other important elements, such as (a) they should clearly specify the responsibilities of each party, including performance targets that are being sought; (b) performance targets should be attainable by that party that is bound by them; (c) the indicators to measure compliance should be realistic and few; (d) the contract should specify format and frequency of reporting on progress; and (e) the sanctions should also be realistic.

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ANNEX A PUBLIC UTILITY ANALYTICAL FRAMEWORK

A.1 The Utility and Its Environment

A.1.1 Establishing the Degree of Autonomy

Policy Formulation

Aspects of this responsibility that are dealt with include:

- Which organization is responsible for setting quality standards for water supply and wastewater treatment?
- What are the standards for water supply and wastewater treatment with which the utility must comply?
- Which organization is responsible for setting service standards to which the utility must adhere?
- What service standards are specified?
- Which organization is responsible for determining the institutional setup of the water supply and sanitation sector?

The organizations responsible for formulating these policies determines the policy framework within which the utility is to operate.

Regulation

The term *regulation*, as it is used here, in essence relates to enforcing regulations that have been formulated by the organizations responsible for policy formulation. The case studies respond to the following questions:

- What organization is responsible for ensuring that the utility meets the standards for water supply and wastewater treatment that have been set?
- What organization is responsible for ensuring that the service standards for provision of services have been met?
- Which organization is responsible for economic regulation of the utility?

The Legal Authority of the Utility

- What type of organization is the utility? (description of the legal status of the utility)
- Which organization owns the utility?
- What is the general governance structure of the utility as specified by laws and statutes?
- What are the responsibilities of the utility, and to what criteria must the utility adhere (for example, financial self-sustainability) as defined by law and statutes?

Other External Limitations

- What is the nature of political support and commitment to the utility?
 - Description of the working relationship between the political environment and the utility.
- What is the condition of the labor market?
 - Is it possible to attract qualified staff to the utility?
- What is the availability and quality of natural resources required for providing water and sanitation services?
- From what sources does the utility have access to financial resources?
 - Is the availability of financial resources sufficient?

A.1.2 Performance Targets

The questions below concern performance targets in relation to the effectiveness of service provision as well as the efficiency of service provision.

- Does a set of clear and measurable performance targets exist for the quality of drinking water? If so, is there a transparent, adequate, and agreed upon system for measuring achievement of these targets?
- Does a set of clear and measurable performance targets exist for the treatment of wastewater? If so, is there a transparent, adequate, and agreed upon system for measuring achievement of these targets?
- Does a set of clear and measurable performance targets exist for the services provided? If so, is there a transparent, adequate, and agreed upon system for measuring achievement of these targets?
- Does a set of clear and measurable financial performance targets exist for the functioning of the utility? If so, is there a transparent, adequate, and agreed upon system for measuring achievement of these targets?

A.1.3 Accountability for Results

Government

- Is the utility subject to a performance contract or the like with the government?
- If so, what are the characteristics of this performance contract?
- What are the penalties and rewards that this contract allows for?
- To what extent have measures allowed by the contract been implemented by the government?

Regulator

Quality

- What is the procedure (reporting requirements and so on) used to regulate the utility's achievement of the specified standards for water supply and wastewater treatment?
- What are the measures (penalties and rewards) that this organization has to ensure that the utility complies with these standards?
- To what extent has the regulator applied these measures to the utility?

Service Standards

- What is the procedure (reporting requirements and so on) used to regulate the utility's achievement of the specified service standards?
- What are the measures (penalties and rewards) that this organization has to ensure that the utility complies with these standards?
- To what extent has the regulator applied these measures to the utility?

Tariffs

- What is the procedure used for establishing tariffs of the utility?

Investment requirements

- Is the utility subject to minimum investment requirements?
- If so, what are these requirements, and what is the procedure that determines these requirements?
- What are the measures that can be taken to ensure that the utility complies with these standards?
- To what extent have these measures been applied?

Financial Institutions

- What are the reporting requirements that the utility must adhere to in order to satisfy the institutions that have provided loans or grants to the utility?
- What are the measures that the financial institutions can take when the utility has not met these requirements?
- To what extent has the application of such measures occurred?

Customer Organizations

- Is there a formal customer organization that represents the interests of the consumers?

- If so, what are the powers of this organization?
- To what extent are these powers used?
- Are customers in any other (formal) way involved in the functioning of the utility?
- Does the utility publicly report on its performance?

Nongovernmental Special Interest Groups

- Are there any nongovernmental special interest groups that have involved themselves with the functioning of the utility?
- What has been the nature of their involvement?
- Has the utility been the subject of many media reports?
- If so, what has been the nature of these media reports?

A.2 Internal Functioning of the Utility

The internal functioning of the utility is assessed in three steps: first, general information in relation to the organizational structure and the utility company objectives; second, application of the New Public Management (NPM) four core criteria; and, third, performance of the utility by way of set of performance indicators.

A.2.1 General Description, Organizational Structure of the Utility and Company Objectives

Aspects of this dimension that should be described include:

- history of the utility;
- organizational chart;
- description of the functional differentiation within the organization and the deployment of staff over the different functions;
- broad responsibilities of the departments in the utility;
- general description of the financing of the utility operations and investment (sources and amount of revenue, sources and amount of capital obtained, distribution of expenditure over different categories, and so on)
- the mission, vision, and objectives of the utility.

A.2.2 New Public Management (NPM) Core Criteria

Market Orientation

- The use of outsourcing of tasks and responsibilities in service provision:
 - What is the degree of outsourcing?
 - What is the nature of the services and tasks that are outsourced, and what is the nature of these outsourced arrangements?
 - What is the process by which services are outsourced (is there a public tender and so on)?
- The use of benchmarking in the utility:
 - What are the nature and scope of the benchmarking activities that the utility implements?
- The use of performance contracts within the utility (personnel contracts):
 - Does the utility use internal performance contracts?
 - If so, what is the nature of such contracts?
 - To what extent are such contracts used?

Customer Orientation

To assess to what extent a utility has adopted a consumer orientation, the following aspects are to be investigated:

- To what extent is the utility dependent on its customers for financing?
- Are any instruments or practices used to establish what customers' opinions are concerning the functioning of the utility (for example, customer surveys, customer councils, focus groups, customer interviews, and so on)?

- How are these results incorporated into the operation of the utility?
- Are any instruments in place that arrange for rights of the customers (for example, customer charters, customer contracts, and so on)?
- Do these arrangements also incorporate compensation payments in case the utility fails to meet its obligations?
- Are any instruments or practices in place to train employees of the utility in dealing with customers?
- What are the ways in which customers can get access to the utility (phone, in person, Internet, and so on)?
- To what extent are customers involved in decision making in the utility (suggestion boxes, customer councils, and so on)?
- What have been the number and nature of complaints over the past years?
- Has the number increased or decreased?
- Has the nature of the complaints changed?
- How does the utility use the information generated by the complaints?

Decentralization of responsibilities

To assess to what degree the decision-making responsibilities have been decentralized within the utility, four broad categories have been selected: financial management, operations management, human resources management, and customer management. The main idea is to establish at what level in the utility the decisions in each category are made.

Financial Management

The case study should document (if applicable) at what level within the utility decisions are made on:

- billing and collection for services
- determination of the tariff structure
- setting of water tariffs and connection fees
- entering of loan agreements (decisions about capital sourcing)
- appointment of an external auditor.

Operations Management

Operations and maintenance of the facilities for service provision are key activities for every service provider. The case study should provide information about the level at which decisions are made with respect to:

- procurement of goods and services
- procurement of assets
- definition of internal work processes and standards
- outsourcing of activities
- rehabilitation of the existing network and facilities
- expansion of the network
- maintenance of assets
- monitoring and replacement of meters
- strategy for reducing unaccounted for water
- strategy for increasing energy efficiency.

Human Resources Management

Wage and labor problems are recurrent difficulties in public sector utilities. Excess staff and low labor productivity characterize many a public utility. In the category of human resources management, information should be included regarding the level at which the following decisions are made:

- hiring and firing of individual staff members
- promotion and demotion of individual staff members
- determination of the salary and incentive structure of employees
- hiring and firing of the managing director or general manager

- appointment and dismissal of board members.

Customer Management

In the category of customer management, information should be included regarding the level at which the following decisions are made:

- termination of service provision to defaulters
- way in which customer complaints are dealt with
- educational and public relations campaigns
- establishment of alternative ways in which bills can be paid.

Accountability for Results

Investigating three accountability relationships assesses the internal accountability for results. They are the relationship between the owner of the utility and the management oversight agency, the relationship between the service provider and the management oversight agency, and accountability within the service provider.

Between Owner and Management Oversight Agency

- What are the reporting requirements that the management oversight agency must adhere to?
- How often do the owners meet with the management oversight agency?
- Do the owners provide clear and measurable targets that must be achieved by the management oversight agency?
- What are the measures that the owners can take if performance is not in line with the expected and agreed upon performance targets?
- Have these measures ever been used?

Between Management Oversight Agency and Service Provider

- What are the reporting requirements that the service provider must adhere to?
- How often do the management oversight agency and the management of the service provider meet?
- Does the management oversight agency provide clear and measurable targets that must be achieved by the service provider?
- What are possible measures that the management oversight agency can take when the service provider does not achieve the agreed upon performance targets?
- Have these measures ever been used?
- Can the management oversight agency reward the management of the service provider for achieving performance targets?
- If so, how, and how frequently are these rewards used?

Within Service Provider (Managerial Accountability)

- How is the performance of the employees evaluated?
- To what extent are the accountability mechanisms based on procedural accountability and to what extent on the achievement of performance targets?
- Does the utility use (internal) performance contracts (either personnel contracts or contracts between departments)?
- If performance is evaluated against set performance targets, what measures are available to punish or reward the employee for failing to achieve or succeeding in achieving the performance targets?
- How does that system of penalties and rewards work?
- How often are penalties imposed?
- How often are rewards applied?

A.3 Performance

Ultimately, the decisions made by the various actors and the resulting implementation of these decisions will lead to a certain performance. Indicators (preferably over a long time series) of this performance that could be included in the case studies are discussed below.

A.3.1 Financial Indicators

Financial indicators that preferably should be included:

- unit operational cost
- average tariff
- total revenues per population served/GDP
- residential fixed charge
- ratio of industrial to residential charges
- connection charge
- contracted-out service costs as a proportion of operational costs
- investments
 - ~ net fixed assets/capita
- efficiency indicators
 - working ratio
 - operating ratio
 - collection period
 - accounts receivable/collection period
 - percentage contribution to investment
- leverage indicators
 - debt service coverage ratio
 - debt-equity ratio
- liquidity indicator
 - ~ current ratio
- profitability indicators
 - return on net fixed assets
 - return of equity.

A.3.2 Operational Indicators

Operational indicators that preferably should be included:

- water consumption
 - water coverage
 - sewerage coverage
 - number of connections
 - composition of users (connection)
 - number of people served
 - total water produced
 - total water distributed
 - total water sales
 - consumption by main users category
 - metered water consumption
 - proportion of connections that are metered
 - proportion of water sold that is metered
- water distribution system
 - length of piped water system (mains)
 - number of pipe breaks
- unaccounted for water
 - water losses
 - composition of unaccounted for water

- Wastewater
 - length of sewer system
 - treatment of sewerage
 - sewerage blockages.

A.3.3 Personnel Indicators

Indicators relating to human resources management that preferably should be included:

- labor productivity (staff per 1,000 water connections, staff per 1,000 W&S connections, staff per 1,000 served, staff per 1,000 W&S population served)
- labor cost as a proportion of operational costs
- staff costs as a percentage of company expenditures
- annual training budget per staff member.

A.3.4 Customer Management Indicators

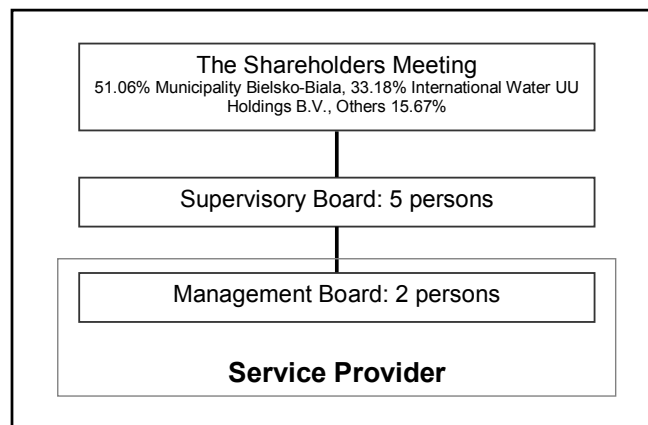
Performance indicators relating to customer management that preferably should be included:

- percentage of budget spent on customer management
- annual number of complaints
- response time to complaints
- continuity of service.

ANNEX B THE AQUA PRODUCTION-TRADE-SERVICE ENTERPRISE STOCK CORPORATION (AQUA S.A.), BIELSKO-BIAŁA, POLAND

B.1 Introduction and General Description

AQUA S.A. is a public water Public Limited Company (PLC) established in 1990, that operates under the Code of Commercial Corporations. Its main shareholders are the city of Bielsko-Biała, which owns 51.06 percent of the shares, and the International Water UU Holdings B.V., a strategic (private) partner that owns 33.18 percent of the shares. The remaining 15.67 percent of the shares belong to other shareholders, including the communities of Podbeskidzie and private investors. AQUA S.A., which is also the asset owner, supplies potable water to 14 Podbeskidzie communes. Bulk water is also provided to 4 other communes. Moreover, AQUA S.A. collects and treats wastewater from 6 communes.



The utility is managed by a management board consisting of two persons, one of whom is appointed by the city of Bielsko-Biała and one being appointed by International Water UU Holdings B.V. A Supervisory Board (with three representatives from the city of Bielsko-Biała and two designated by International Water UU Holdings B.V.) oversees the management board. The management board manages the daily affairs of the company. The supervisory board's duties include evaluating the previous year's financial report and management board report, evaluating proposals of the management board, and submitting an annual written report to the shareholders meeting about the result of the evaluations. The supervisory board cannot give the management board instructions regarding the management of the company.

<i>General Characteristics of AQUA S.A.</i>	2000	2001	2002
Population served			239,400
Unaccounted for water	44%	46%	42%
Working ratio	0.40	0.41	0.36
Staff per 1,000 connections	14.7	10.1	9.5
Staff per 1,000 population served	2.4	1.7	1.6
Accounts receivable as a share of annual revenue, expressed in month's sales	1.6	2.3	2.0
Service coverage, water supply	74%	80%	84%
Service coverage, sewerage	58%	58%	59%
Average domestic tariff (U.S. dollars per cubic meter)	0.40	0.61	1.00

B.2 Institutional Environment

B.2.1 External Autonomy

The Ministry of Health sets standards for the quality of drinking water. Water supply and sanitation fall under the responsibility of the commune. The council of the commune, on the basis of proposals from the utility, sets standards for water supply and sanitation that are binding in that particular commune. With AQUA covering multiple communes, they are also operating under different licenses for each of the communes they serve.

Tariffs for water supply and sanitation services are determined annually by the utility and approved by the council of the commune. AQUA may disconnect a customer if the recipient of the services fails to pay their bills.

The nature of the labor market in Poland enables AQUA to attract qualified staff, and the utility does not face any external constraints or obligations in the recruitment of staff. The company can determine its own human resources policy and pay rates.

Renovations and investments are financed from a variety of sources. In recent years, own sources have financed about 40 percent of investments per year. Other sources have included funds for environmental protection (7.1 percent), the World Bank (20.7 percent) and PHARE, a European Union facility (23.4 percent). The availability and quality of water resources is sufficient for AQUA's demands.

<i>Key Indicators on External Autonomy</i>	
Who determines the pay scales for the various levels within the utility?	The management board
What is the basis for appointing members to the Board of Directors?	<ul style="list-style-type: none"> • Three persons are representatives of Bielsko-Biala • Two persons are representatives of the strategic partner
Is the utility able to take out loans without prior approval from the owner?	Yes, up to €50,000
Is the utility allowed to terminate service delivery to defaulters?	Yes
Who is responsible for setting tariffs?	The tariff is proposed by the utility, but has to be approved by the councils of the communes
Does the utility follow public sector procurement rules?	Yes

B.2.2 External Accountability

Because AQUA operates under the Code of Commercial Corporations, it must submit reports (quarterly and annually) to the Securities and Exchange Commission and the Central Table of Offers (which is responsible for organizing and operating public trading in securities). Also, AQUA has to establish long-term plans for the development and modernization of its facilities. These plans have to be in accordance with the commune's spatial planning. Moreover, if targets in this plan are not met, this may lead to a withdrawal of the license for providing services, although this has not happened yet.

The main lines of accountability for AQUA are:

- To its owner—under the company statutes, AQUA must provide quarterly information about the financial situation of the company to its shareholders. The supervisory board has to report to the shareholders annually. In case the company did not reach targets, the shareholders may take actions as provided for in the regulations. This occurred in 2003.
- To its regulators—AQUA presents quarterly reports to the president of the Silesian province on the quantity and quality of abstracted water, quantity and quality of sewage discharged, and waste management indicators. In addition, weekly reports are sent to the National Sanitary Inspection on quantity and quality of water supplied to the customers.
- To financial institutions—for the International Bank for Reconstruction and Development, a half-yearly report on the progress of the project(s) is required. Additionally, for PHARE, monthly reports on the project's progress are required (with information about cofinancing of the project on a quarterly basis).
- To customer organizations and nongovernmental special interest groups—the customers of AQUA are not formally involved in the functioning of the utility.

Key Indicators on External Accountability for Results

Does the utility have a customer charter that specifies performance targets, and are there any financial penalties for nonperformance?	The rights and duties of customers are provided for in the permit for providing services issued by the commune. A customer can receive compensation for services below the agreed standards.
Does the utility have to meet specified performance targets set by or agreed upon with the owners?	Yes
Is an annual report produced, which is audited by an external accountant?	Yes
Are external groups represented in advisory or management oversight bodies of AQUA?	No
Have the utility secured loans in the commercial market on its own credentials or ability?	Yes
Does the utility participate in some form of credit-rating scheme?	No
Do lenders impose financial covenants on AQUA?	Yes

B.3 Internal Functioning of the Utility

B.3.1 Internal Autonomy: Decentralization of Authority within the Utility

Procurement of goods and services is done by the departments if the price for the goods and services is below PLN 100, or US\$26, per week or by the Department of Materials Management and Supplies if the goods to be procured cost more than PLN 100. If assets that are procured amount to more than 20 percent of the stock capital, approval needs to be obtained from the shareholders' meeting.

Decisions relating to the salary levels of employees are initiated by the heads of departments, but have to be approved by the executive director and the management board. Decisions relating to firing of employees are made by the executive director at the initiative of the head of department.

In relation to customer management, decisions about terminating services to defaulters are made by the executive director. Following up complaints made by customers is the responsibility of the Customer Service Department.

Key Indicators on Decentralization of Authority within the Utility

What is the purchasing ceiling for procurement of operational departments as a percentage of operational budgets?	Purchases not exceeding net value of US\$26 (PLN 100) per week are within a competence of a department. Every purchase above this sum has to be approved by the head of a section.
Does the hiring of staff members in departments require prior approval from the managing director?	Yes
How many layers of management separate the chief executive and the entry-level workers?	Five levels
At what level are internal work processes and standards defined?	At the level of the management board and at the level of the executive director and the deputies to the director
In what areas do field staff have decision-making powers?	None

B.3.2 Internal Accountability for Results

The utility operates in the framework of a business plan, which contains the targets that the utility and the various departments must meet and actions they must take. These targets include a date by which these actions should be taken. The Division of Organization, Control, and Analysis is responsible for monitoring the completion of these tasks.

There is no formal system to evaluate the performance of the employees. Instead, procedural responsibility tends to dominate in the utility. Employees can be held financially responsible for mistakes, lack of competence, and so forth.

There are two systems for rewarding staff, depending on the department in which they work. In the first system, the employees can be rewarded up to one-third of their regular monthly salary. This reward is

not based on results achieved, however, and this reward is always given. The second system relates to reward at discretion, which is determined (within limits) by the head of the employee's department.

Departments and their employees perform their activities within defined budgets. The main criterion used for assessing the effectiveness of the department is its ability to remain within the limits of the budget. Assessment is positive if the budget is not exceeded. If the budget is exceeded, financial penalties may be imposed on the staff of that department.

Key Indicators on Internal Accountability for Results

How often does the chief executive meet with the board?	Once per two weeks on average
Are penalties and rewards applied to the chief executive and directors for failing to achieve or achieving specified performance targets?	Only bonuses are applied by the supervisory board.
Are penalties and rewards applied to the staff by the management for failing to achieve or achieving specified performance targets?	Yes
Are staff subject to annual evaluations of their functioning?	Yes

B.3.3 Market Orientation

The utility is partly owned by a private company. This company contributes managerial and technological expertise to the utility with the aim of improving efficiency. Moreover, the partly private ownership provides an incentive to improve efficiency because this will increase profits. In 2000, supporting services were separated from core functions of the utility. Employees responsible for these supporting services were integrated into companies outside AQUA. AQUA then contracted these companies to perform the supporting services. Functions that were outsourced in this way included design services, security services, and network construction and renovation. As a result, the amount of services outsourced as a percentage of the operational budget rose considerably, from 5.3 percent in 2000 to 16.4 percent in 2002.

The company implements internal contracts between departments of the utility, which are intended to run on a self-supporting basis. An example of such contracts is a contract between the Department of Investments and the Department of Maintenance and Metering with respect to the assembly of pumps and valves. There is also a contract between the Kobiernice Department of Water Management and the Department of Maintenance and Metering concerning the repair of nonfunctioning installations. These contracts relate to departments of the utility and not to individual staff.

The utility does not engage in benchmarking exercises or market testing.

Key Indicators on Market Orientation

What is the value of contracts outsourced as a percentage of the operational budget?	16.4%
What is the nature of the functions that are outsourced?	ICT (Information and Communication Technologies) services, post and courier services, sewage sludge and screenings disposal, and so on
How often does AQUA engage in benchmarking exercises?	Ad hoc
In what areas are benchmarking activities undertaken?	Management efficiency
Does AQUA engage in market testing, and does it develop internal markets?	No

B.3.4 Customer Orientation

Every few years, a customer survey is conducted to learn the opinions of the customers concerning the standard of services. The outcomes of this survey serve as pointers to the areas where the company should improve its performance. The outcomes are also included in the performance targets in the business plan.

The utility runs obligatory training courses for staff who are in direct contact with customers.

The service standards, rights, and duties of AQUA differ from commune to commune. In general, the contract between AQUA and its customers states that clients cannot claim compensation if service interruptions are caused by factors beyond the control of the utility. However, a customer can claim a 10 percent reduction in charges if the quality of water supplied or pressure is below standards set in the contract.

Complaints are submitted to AQUA by phone, by mail, or in person. All complaints are processed by the Department of Customer Services, where they are analyzed and transferred to the relevant department(s).

Key Indicators on Customer-Orientation

In what ways can the bills be paid?	At AQUA, in banks, and via bank transfers or postal orders
In what ways does AQUA proactively seek the opinions and views of its customers?	Every few years, an anonymous opinion poll is conducted.
What options for service delivery does AQUA provide?	In-house connections
In what ways does AQUA actively inform its customers about changes related to service provision?	Press, radio, company's Web site, and so on
What is the percentage of complaints addressed?	100%
What are the average response times to complaints?	N/A (not available)

B.3.5 Corporate Culture

There are two mechanisms of information sharing between the management board and the departments. One of them is realized by the Department of Public Relations, which submits information in the name of the management board directly to the departments. The other way of providing information is through monthly meetings of the management board with the heads of departments and deputies of the executive director of the company. The heads of departments then inform staff about the management meetings.

The company invests approximately 0.30 percent of the operational budget in staff training. A training plan is established by the heads of departments and is approved by the executive director and the management board. Training related to operation and maintenance skills is particularly emphasized.

The heads of departments prepare proposals for promotion and salary adjustments based on subjective performance estimates, length of employment, and certification. Proposals are approved by the deputy director of a section and the executive director.

A significant drop in staffing levels in 2001 (by 115 persons) resulted because some of the employees joined corporations that provide services to AQUA S.A. (see section on market orientation). AQUA continues its efforts to reduce staffing levels.

A program for registration of employee's absenteeism has been introduced. The main reason for absence is illness. Absenteeism is about 2 percent of working days.

The mission and vision of the company are well known to its employees.

With 33 percent of the shares of the company in the hands of a private company, some friction has resulted because there have been different expectations regarding rate of return of invested capital, profitability of the company, and staff productivity. Moreover, some disagreement exists concerning the profitability of certain investments.

Key Indicators on Corporate Culture

What factors influence promotion, salary adjustment decisions, or both?	Longevity, performance review, and certification
What is the annual staff turnover?	1–2%.
What are the training costs per year as a percentage of operational budgets?	0.3%
Is the staff informed about meetings of management?	Yes
What is the ratio of support and technical staff to management?	12.8:1
Is the mission statement internally visible in AQUA?	No, but it is well known.

B.4 Sequence of Reforms

The sequence of reforms for AQUA S.A. followed social and political changes in Poland. Until 1975, Bielsko-Biała formed part of Katowice province. Water supply and wastewater collection services were provided by Provincial Water Supply and Sewage Enterprise (WPWiK). WPWiK had a number of local branches, one of them in Bielsko-Biała.

In June 1975, a new administrative structure was introduced in Poland. Bielsko-Biała was made capital of a newly formed province. As a result, WPWiK was split into two enterprises. One of these new enterprises had its headquarter in Katowice City, the other in Bielsko-Biała. The new company in Bielsko-Biała consisted of 12 local divisions and served all municipalities in the province. The reintroduction of local governments in 1990, and subsequent remunicipalization of those state-owned companies that carry out municipal tasks, signified another change in organizational structure. In early 1991, the Bielsko-Biała WPWiK was liquidated and broken up into 12 municipal water supply and wastewater treatment enterprises.

The Gmina municipality of Bielsko-Biała decided to reform its own local water utility. The newly formed utility was named AQUA S.A., a public limited company. In 1991, the City Council of Bielsko-Biała approved the transfer of all the assets from the now dissolved Bielsko-Biała WPWiK to AQUA, which was to manage the water supply and wastewater treatment systems within the municipal boundaries. Eight, later 10, small adjacent municipalities chose to delegate the management of their water supply and wastewater systems to AQUA. As such, AQUA's concession area comprised most of the former province of Bielsko-Biała. Initially, the municipality retained a large controlling stock (92. percent) in the new company. In 1999, the municipality sold a large part of its shares to International Water U.U. Holdings B.V.

B.5 Conclusions

Since the political changes in Poland at the end of the 1980s, AQUA has developed considerably. With the aim of privatization, AQUA was organized as a stock corporation in 1990. In 1999, the privatization process was partly accomplished by the sale of 33 percent of the shares to a private company. AQUA's strengths consist of:

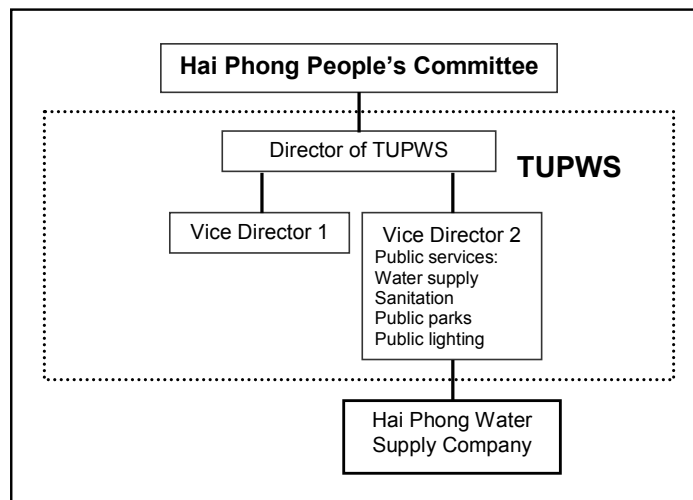
- the managerial and technical expertise provided by the private partner, although some friction exists between the views of the partners concerning the objectives that the utility should strive for;
- The utility's ability to reduce staffing levels by contracting services to companies set up with former employees of the company.

Decentralization of authority within the utility is limited to only a few activities in operations and maintenance and customer management.

ANNEX C HAIPHONG WATER SUPPLY COMPANY, VIETNAM

C.1 Introduction and General Description

Haiphong Water Supply Company (HPWSC) is a statutory body. The Haiphong Provincial People's Committee (HPPC) is the owner of the utility. The Transport, Urban, and Public Works Department (TUPWS), which operates under the HPPC, oversees the management of the service provider. The vice director of TUPWS, who is responsible for overseeing the management of the HPWSC, is appointed by the HPPC. The primary responsibility of the HPWSC is to deliver water supply to the inhabitants of Haiphong. As a state-owned enterprise (SOE), the HPWSC has to observe the Law on State Enterprises of April 20th, 1996. According to this law, SOEs are granted larger autonomy in decision making procuring inputs, introducing new technologies, borrowing, acquiring or lessening assets, hiring and firing employees, and allocating after-tax profits. However, public service utilities have the obligation of using capital and other resources provided by the government for production and delivery of public services to the users, with prices or costs regulated by the government.



The HPWSC has 762 employees among five main departments (production, construction, support, project management, and consumption). The largest of these departments is the consumption department, which is responsible for water distribution and customer relations.

<i>General characteristics of the HPWSC</i>	2000	2001	2002
Population served	460,900	480,000	538,600
Water supply connections	94724	112,427	131,136
Number of employees	713	730	762
Unaccounted for water	44%	41%	32%
Working ratio	0.82	0.67	0.62
Staff per 1,000 connections	7.20	6.49	5.66
Staff per 1,000 population served	1.550	1.382	1.270
Accounts receivable as a share of annual revenue, expressed in month's sales	1	1	0.1
Service coverage, water supply	75%	80%	85%
Average domestic tariff (U.S. dollars per cubic meter)	0.18	0.18	0.18

C.2 Institutional Environment

C.2.1 External Autonomy

Many national and local agencies nominally regulate the HPWSC. At the national level, the HPWSC is regulated by the Ministry of Construction (for construction standards), the Ministry of Planning and Investment (for investment), and the Ministry of Finance (for financial operations). Labor policies are set by the Ministry of Labor and Social Affairs. Standards for drinking water are set by the Ministry of Public Health. Despite this multitude of organizations, only a few agencies at the local level influence the functioning of the utility in practice. At the national level, the ministries predominantly play an indirect role through sector policies and regulations.

The HPPC has considerable influence over the water supply company and is responsible for decisions relating to investments and tariffs. In the past decade, the HPPC has provided important support to

the HPWSC during the introduction and implementation of the *phuong* model (focusing on improvements in one ward at a time). This was done by providing assistance in accessing financial resources (including international loans from FINNIDA [Finland's Department for International Development Cooperation] and the World Bank) and allowing the HPWSC to increase its water tariffs five times in the past the 10 years. Moreover, the HPPC has not interfered much in the day-to-day functioning of the utility as long as no problems with regard to the provision of water services arise. One area where the influence of the owner is noticeable, however, is in the staffing levels of the utility (which continue to increase because of "external pressures" although the utility is already overstaffed).

The process of tariff setting is initiated by the HPWSC, which prepares a tariff proposal and submits it to the TUPWS and the Financial Department. These two organizations check the validity of the proposal and then submit it to the HPPC for final approval. Water pricing is politically sensitive, thus increasing tariffs is a long and complicated process.

Service standards in Haiphong are set by the HPWSC itself. The HPWSC uses pressure in the network, continuity of supply, and response time to complaints as indicators of service standards.

The soft salary (see section 3.3.2, "Internal Accountability for Results") plays a major part in the total income of individuals employed by the HPWSC. As such, the HPWSC has considerable flexibility in determining its own pay scales.

Key Indicators on External Autonomy

Who determines the pay scales for the various levels within the utility?	Government for the hard part; utility for the soft part
What is the basis for appointing members to the Board of Directors?	Political representatives
Is the utility able to take out loans without prior approval from the owner?	No
Is the utility allowed to terminate service delivery to defaulters?	Yes
Who is responsible for setting tariffs?	Owner
Does the utility follow public sector procurement rules?	Yes

C.2.2 External Accountability

The HPPC sets annual performance targets that the HPWSC has to meet. These targets include total revenue, water production, water consumption, new connections, and contribution to the owner's budget. The actual targets that are set appear to be quite low in comparison to actual achievements. It appears that the HPPC does not view the performance targets as a way of pressuring the utility to achieve greater efficiency. Rather, as long as the HPWSC accomplishes its task of providing reliable water services, the HPPC will not intervene.

The main lines of accountability for the HPWSC are:

- To the owners—the HPWSC submits annual reports to its owner, which include measurable performance targets. These performance targets are set relatively low. In case the utility performs significantly worse than expected, the HPPC can dismiss the managing director (this last occurred in 1993). Financial reports, including information such as balance sheets, financial statements, cash flow, and contribution to the city budget, are submitted monthly and quarterly to the TUPWS, the local Tax Department, and the Local Finance Department. End-of-the-year accounts are audited by the HPPC.
- To the regulators—the Haiphong Preventive Medical Centre is the regulator for water quality. This agency takes water samples in various locations and tests them in their laboratory. If these samples fail to meet national standards, the agency has no authority to apply any penalties on the utility. They can only inform the utility and TUPWS. No external agency exists for monitoring service standards.
- To financial institutions—the utility has to prepare annual reports to international lending agencies (such as the World Bank) concerning revenue, profit, loss, and contribution to the city budget. This report is audited by firms acceptable to the international lending agencies.

- To customer organizations and nongovernmental special interest groups—there are no formal customer organizations to which the HPWSC is accountable. The utility does have a standard water supply contract in which rights and obligations of the customers are explicitly mentioned.

Key Indicators on External Accountability for Results

Does the utility have a customer charter that specifies performance targets, and are there any financial penalties for nonperformance?	No
Does the utility have to meet specified performance targets set by or agreed upon with the owners?	Yes, but financial performance targets are low.
Is an annual report produced that is audited by an external accountant?	Yes
Are external groups represented in advisory or management oversight bodies of the HPWSC?	No
Has the utility secured loans in the commercial market on its own credentials or ability?	No
Does the utility participate in some form of credit-rating scheme?	No
Does the lender impose financial covenants on the HPWSC?	Yes

C.3 Internal Functioning of the Utility

C.3.1 Internal Autonomy: Decentralization of Authority within the Utility

Decision making in the HPWSC is generally highly centralized, with the managing director making most of the operational decisions. Procurement of goods and services is undertaken by the Department of Materials, but any decisions relating to the outsourcing of activities, monitoring and replacement of meters, maintenance of assets, and expansion of the network are the responsibility of the managing director. Similarly, any decisions relating to the hiring and firing of staff and the possible promotion or demotion of staff are made by the managing director.

Key Indicators on Decentralization of Authority within the Utility

What is the purchasing ceiling for procurement of operational departments as a percentage of operational budgets?	No level exists. All procurement requires approval from the managing director.
Does the hiring of staff members in departments require prior approval from the managing director?	Yes
How many layers of management separate the chief executive and the entry-level workers?	Three layers
At what level are internal work processes and standards defined?	Management and departmental levels
In what areas do field staff have decision-making powers?	None

C.3.2 Internal Accountability for Results

In SOEs in Vietnam, the income of an employee consists of two parts: an official or “hard” part and an unofficial or “soft” part of the salary. Nationally, the hard salary is set by the Ministry of Labor and Social Affairs. This pay scale is applicable for all employees of SOEs. Soft salary levels vary from company to company, depending on the specific policy of each company. Soft salary comes from internal cash of the company. According to findings of the Ministry of Finance, the soft salary is on average two to three times higher than the hard salary.

The HPWSC has created attractive pay scales in comparison to other public utilities operating in Haiphong, and it has connected the soft part of the salary to individual performances. In the production sector, for example, individual performance is measured based on an agreed set of indicators, such as chemical and energy consumption and monthly water production. Achievement of set targets will decide the magnitude of the soft salary. The income of bill collectors is connected to the amount of money collected by these collectors. In the HPWSC, the average monthly income of a

bill collector is about 1.2 million dong (D). The average income level of employees of SOEs in Haiphong is D 800,000.

The performance of the employees is evaluated at the departmental level on a quarterly basis. The outcomes of evaluations are sent to management, who will consider these evaluations based on the nature of work of each individual.

Key Indicators on Internal Accountability for Results	
How often does the chief executive meet with the board?	Once every month
Are penalties and rewards applied to the chief executive and directors for failing to achieve or achieving specified performance targets?	Penalties and rewards are applied (but not financially).
Are penalties and rewards applied to the staff by the management for failing to achieve or achieving specified performance targets?	Rewards and penalties are applied (both nonfinancially and financially).
Are staff subject to annual evaluations of their functioning?	Yes

C.3.3 Market Orientation

The level of outsourcing in the HPWSC is rather limited, with less than 6 percent of its operational budget being outsourced. Part of the explanation may lie in the relatively high staffing levels, which minimizes the potential benefits that outsourcing may have.

Benchmarking is in its infant stages in Vietnam. The HPWSC does participate in the national benchmarking exercise, which covers technical, financial, and commercial performance. However, HPWSC management questions the reliability of the data collected from its peers in the sector. Therefore, the utility does not use the outcomes of the benchmarking exercise in its strategic or operational policy. The HPWSC does make use of benchmarking with foreign water supply companies on an ad hoc basis. It has not engaged in market-testing exercises.

Key Indicators on Market Orientation	
What is the value of contracts outsourced as a percentage of the operational budget?	5.8%
What is the nature of the functions that are outsourced?	Some noncore functions
How often does the HPWSC engage in benchmarking exercises?	Once a year
In what areas are benchmarking activities undertaken?	Water quality, service standards, finance, and efficiency
Does the HPWSC engage in market testing, and does it develop internal markets?	No

C.3.4 Customer Orientation

Opinions of customers concerning performance of the HPWSC are reflected through such public media as TV, radio, and newspapers. In addition, there are customer officers in *phuong* offices and suggestion boxes in the utility main office. These receive comments from customers on various aspects of water services, such as water quality, leakage, or accuracy of water meter readings. Customer surveys are normally used to obtain opinions from the customers for new projects, for example, expansion of the network to new areas.

In Haiphong, the public media are quite powerful because the HPPC is quite sensitive to public opinion. TV, radio, and newspapers have all established hotlines to receive comments from Haiphong citizens. Those comments related to the HPWSC are then transferred to the utility for clarification.

Relations between the HPWSC and its customers are legalized by standardized water supply contracts. The contract specifies rights and obligations of the customers and stipulates the compensation to be made by the utility in case of interruption of water supply (although this measure has never been used).

The HPWSC has developed a set of customer service indicators, which incorporate measurable indicators for water supply, customer relations, and customer development. The utility intends to publish this set of indicators to inform all customers about service standards.

Key Indicators on Customer-Orientation

In what ways can the bills be paid?	Bill collector, bank transfer, <i>phuong</i> (ward) offices
In what ways does the HPWSC proactively seek the opinions and views of its customers?	Suggestion boxes, feedback provided to customer officers in <i>phuong</i> offices
What options for service delivery does the HPWSC provide?	In-house connections, block connections
In what ways does the HPWSC actively inform its customers about changes related to service provision?	Newspaper advertisements, radio, letters
What is the percentage of complaints addressed?	95%

C.3.5 Corporate Culture

The HPWSC can be seen as an overstaffed enterprise, in which maximizing staff productivity is less important as long as its primary function, providing water services, is achieved. In addition, workers in SOEs in Vietnam represent one of the most important constituencies of the government of Vietnam. Many of them were given their jobs as a reward for their sacrifices during the war with the United States.

With regard to training and capacity-building activities, the HPWSC has provided considerable opportunities to its employees. This has been done both at the instigation of the former managing director, who believes that one of the factors of the HPWSC's success was that they "trained everyone," and with the help of international donors such as FINNIDA. Training, only a fraction of which is paid for from the utility's budget, is focused at both technical and managerial skills.

Although mission and vision statements exist, they are not visible within the utility. The main objectives for the period of 2000–07, however, are circulated among functional departments by internal memos. Internal memoranda and regular meetings are the main methods of sharing information between management and departments as well as between departments.

Key Indicators on Corporate Culture

What factors influence promotion, salary adjustment decisions, or both?	Meeting performance targets
What is the annual staff turnover?	5.2% in and 0.9% out
What are the training costs per year as a percentage of operational budgets?	0.73%
Are staff informed about meetings of management?	Partially
What is the ratio of support and technical staff to management?	83%
Is the mission statement internally visible in the HPWSC?	No

C.4 Sequence of Reforms

In the summer of 1993, the city of Haiphong was faced with an acute water shortage resulting in rioting directed against the utility (which even resulted in the death of a company employee). After this, the owner (the HPPC) changed the utility management team and gave a clear mandate to the new director to produce results. Pressure from both the owner and the customers was the initial motivation for changes in management of the utility, with the new managing director as a major instigator of change. The first institutional reform was made in 1993.

The first step in reforming the utility really consisted of a number of steps. The managing director received support from the HPPC (as illustrated by its allowing three tariff increases in the 1993–97 period) and received the leeway to implement a new model for managing the utility (the *phuong* model). At the same time, the new management worked hard on changing the corporate culture of the utility (basically, convincing everyone of the need for change). Training of utility staff, through the use of international donor support, formed an important component of this change process. Also important in this respect is that the managing director of the HPWSC during this period of reform was a member of the HPPC; this provided a useful platform to generate support from the government for

reforms and tariff increases. The *phuong* model by necessity decentralizes some of the responsibilities to the *phuong* level within the organization. Having customer offices in the *phuong*s allowed the utility to develop a strong customer orientation. Furthermore, the utility developed internal processes and systems in which performance is connected to measurable indicators. Recently, the utility has started participating in the national benchmarking exercise, but these activities are still in their infancy at the moment.

C.5 Conclusions

The comparison between the HPWSC's performance in 1993 and 2003 is impressive in terms of the progress the utility has achieved (for example, unaccounted for water reduced from 70 percent in 1993 to 32 percent in 2003). A combination of factors (a new managing director eager to implement the *phuong* model, a supportive owner, donor assistance, and so on) appears to have laid the basis for this turnaround. At this time, the main strengths of the HPWSC appear to be:

- The utility enjoys considerable autonomy from the government owners. As long as the HPWSC contributes to the budget of the government owners and meets the relatively low performance targets, interference from the government owners is limited.
- The *phuong* model, with its strong customer orientation, continues to perform well.
- Well-trained staff are working under a strong performance-based incentive structure.

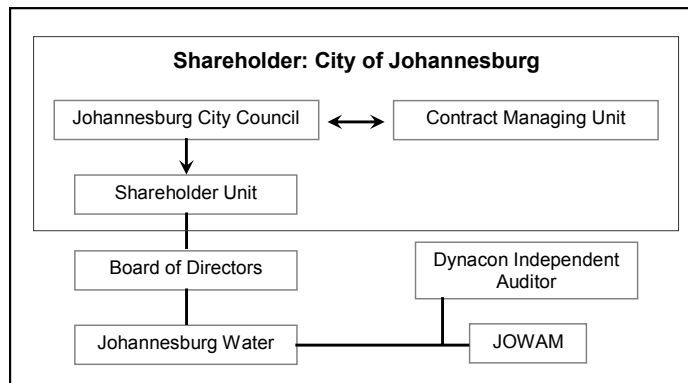
Although the remarkable turnaround of the HPWSC must be acknowledged and deserves praise, some concerns do exist with regard to the next steps of reform (consolidating and internalizing the progress made). The HPWSC is dependent on the HPPC for setting tariffs, and it seems the HPPC is becoming more reluctant to increase tariffs because water pricing is a politically sensitive issue. At the same time, external pressures appear to lead to an increase in staffing levels when the utility is already overstaffed. Improvements are needed within the utility with respect to the internal autonomy at operating levels because many of the decision-making procedures are still highly centralized. In essence, it is obvious that future successes are highly dependent on the attitude of the owner and the professional ability of the managing director.

ANNEX D JOHANNESBURG WATER, JOHANNESBURG, SOUTH AFRICA

D.1 Introduction and General Description

Johannesburg Water in Johannesburg, South Africa, is a government-owned company. The company has the mandate of providing water and sanitation services to the 3 million inhabitants of Johannesburg. The only shares issued are owned by the city of Johannesburg, represented by the City Council.

Johannesburg Water has entered into a five-year management contract with the Johannesburg Water Management (JOWAM) company, a consortium of French and South African operating companies. Dynacon, which reports to both Johannesburg Water and the Contract Managing Unit, audits the performance of JOWAM.



General Characteristics of Johannesburg Water	2001	2002	2003
Population served	3,225,800	3,354,832	3,489,025
Water supply connections	471,776	519,621	541,533 ^a
Sewerage connections	467,126	499,668	524,106 ^a
Number of employees	2,371	2,539	2,564
Unaccounted for water	42%	37%	35%
Working ratio	0.36	0.50	0.53
Staff per 1,000 connections	5.0	4.9	4.7
Staff per 1,000 population served	0.74	0.75	0.73
Accounts receivable as a share of annual revenue, expressed in month's sales	N/A	N/A	3.2
Service coverage, water supply	94.0%	95.6%	97.2%
Service coverage sewerage	86.0%	87.7%	89.3%
Average domestic tariff (U.S. dollars per cubic meter) ^b	0.48	0.42	0.68

a. 2003 data estimated from 2004 data.

b. Based on annual average rand to dollar rates.

D.2 Institutional Environment

D.2.1 External Autonomy

With only one shareholder, the potential influence of the government owner can be considerable. However, the managers interviewed for this study felt that sufficient political support was provided. The utility is governed by an independent Board of Directors with 11 members, none of whom are council members. Vacancies for the board are publicly advertised, and anybody can apply. A panel from the City Council of Johannesburg interviews the applicants, and the names of selected board members are subsequently published.

Labor market conditions are favorable for recruitment. However, in some instances, the quality of new staff members was found to be unsatisfactory, and additional training was required. Vacancies are first advertised internally. If no suitable applicant is found internally, vacancies are publicized externally. Johannesburg Water itself sets the pay scales within limits set by the city of Johannesburg.

Johannesburg Water receives bulk water from Rand Water, with whom it has a supply contract that is currently being renegotiated to ensure a better quality of the water supplied. Johannesburg Water does not have the facilities to treat the water supplied by Rand Water, other than to control the bacteriological quality by secondary disinfection.

Johannesburg Water obtains all capital through the City Council and does not have any direct dealings with financial institutions. The funds are sourced from central government grants or as loans from the private sector. Infrastructure development forms part of the general city budget and has to be approved by the City Council. Johannesburg Water is responsible for billing only the top 20 percent of its customers. The city of Johannesburg is responsible for meter reading, billing, and collecting the revenue on behalf of Johannesburg Water for other customers. The revenue is handed over to Johannesburg Water.

Key Indicators on External Autonomy

Who determines the pay scales for the various levels within the utility?	Johannesburg Water
What is the basis for appointing members to the Board of Directors?	Sector professional and community representatives
Is the utility able to take out loans without prior approval from the owner?	Johannesburg Water does not take out loans.
Is the utility allowed to terminate service delivery to defaulters?	No
Who is responsible for setting tariffs?	The city of Johannesburg
Does the utility follow public sector procurement rules?	Yes

D.2.2 External Accountability

The main lines of accountability for Johannesburg Water are:

- To its owner—Johannesburg Water must report quarterly to the Contract Managing Unit on a set of performance indicators. It maintains regular contact and reports daily on certain matters. The board reports to and meets the Mayoral Committee of the City Council of Johannesburg monthly. Performance targets for service delivery are set in the service delivery agreement between Johannesburg Water and the city of Johannesburg. These targets are monitored quarterly. Neither rewards nor penalties are applicable. Financial targets are set in the business plan.
- To its regulators—the Department of Water Affairs and Forestry has traditionally been the regulatory authority for wastewater standards. In line with current government policy, the role is developmental rather than punitive.
- To financial institutions—the utility must report to the city of Johannesburg's Mayoral Committee and the Contract Managing Unit on the predicted and actual cash flows according to the different sources of the funds. This is done quarterly.
- To customer organizations and nongovernmental special interest groups—there are no formal customer organizations interested in the delivery of water services. There are other organs of civil society that are not solely concerned with water services but who have avenues through which complaints and problems can be registered.

Key Indicators on External Accountability for Results

Does the utility have a customer charter that specifies performance targets, and are there any financial penalties for nonperformance?	Yes, but it has not been implemented.
Does the utility have to meet specified performance targets set by or agreed upon with the owners?	Yes
Is an annual report produced that is audited by an external accountant?	Yes, audited for use by the owners
Are external groups represented in advisory or management oversight bodies?	No
Has the utility secured loans in the commercial market on its own credentials or ability?	No
Does the utility participate in some form of credit-rating scheme?	No
Does the lender impose financial covenants on the utility?	N/A

D.3 Internal Functioning of the Utility

D.3.1 Internal Autonomy: Decentralization of Authority within the Utility

Managers in Johannesburg Water enter into contracts up to a certain ceiling value, which is included in the business plan and for which there is an approved budget. Other contracts and major tenders require board approval. Approval ceilings are determined for different managerial levels.

Standard operating procedures have been drawn up that the managers must adhere to. There is therefore relatively little devolution of decision-making responsibility.

Managers have full discretion at the second level to recruit or dismiss staff but not at lower levels. Dismissal is subject to various checks in accordance with legislation and cannot be undertaken lightly and without just cause. Salary scales are in accordance with those of the city of Johannesburg. Final salaries are set by the managers and are dependant on the starting grade of a new employee.

Johannesburg's City Treasurer's Department decides on cutoffs, which means that Johannesburg Water has no discretion in this area.

Key Indicators on Decentralization of Authority within the Utility

What is the purchasing ceiling for procurement of operational departments as a percentage of operational budgets?	Purchase ceilings depend on the level of the manager, provided that these purchases are approved in budget and business plans.
Does the hiring of staff members in departments require prior approval from the managing director?	No
How many layers of management separate the chief executive and the entry-level workers?	There are four layers of top management, nine reporting levels in operations, and six in human resources.
At what level are internal work processes and standards defined?	Management and departmental levels
In what areas do field staff have decision-making powers?	Field staff have minimal discretion.

D.3.2 Internal Accountability for Results

The management of Johannesburg Water reports to the board on regular occasions. Failure to meet the objectives may result in corrective action, but there is no sanction against the service provider as such.

Internal performance appraisals are conducted annually for all management positions. Aspects covered include reduction of overtime worked by staff, reduction of absenteeism among staff, implementation of the training and development program, implementation of the HIV/AIDS project, reaching the equity in employment targets and the implementation of the workplace skills program.

A system of bonus rewards is being established.

The performance of staff is measured and assessed against output in a manner that is perceived to be transparent. This does not apply to the fourth and lower levels. Rewards and penalties are reflected in salary adjustments, which take place annually.

Key Indicators on Internal Accountability for Results

How often does the chief executive meet with the board?	Quarterly
Are penalties and rewards applied to the chief executive and directors for failing to achieve or achieving specified performance targets?	To the two executive directors only, which include the chief executive officer
Are penalties and rewards applied to the staff by the management for failing to achieve or achieving specified performance targets?	No
Are staff subject to annual evaluations of their functioning?	Yes

D.3.3 Market Orientation

Johannesburg Water has entered into a five-year management contract with JOWAM, a consortium of French and South African operating companies. JOWAM fulfills various executive management functions. The initial 13 executives will be reduced to 2 over the period of the contract. The purpose of the contract is to transfer expertise to Johannesburg Water in order to increase the capacity of the organization. JOWAM assumes operational risk under this performance-based contract. The performance of JOWAM is audited by Dynacon, an independent consulting entity. Dynacon reports to the board of Johannesburg Water and also forwards its reports to the Contract Managing Unit.

In the capital procurement area, some 27 percent of the design and project management is done internally. The balance is outsourced to consultants. Johannesburg Water considers that it is more competitive in design costs compared to the private sector. The situation is reviewed from project to project. All construction work is put out to public tender.

Excluding the management contract with JOWAM, specialized functions are outsourced amounting to approximately 10 percent of the operating budget. There is a general policy to minimize the use of outside contractors other than for specialized services. Other services that are outsourced, not necessarily to the private sector but to other companies formed and owned by the city of Johannesburg, are road reinstatement, the provision of vacuum tanker services, grass cutting, and security services.

The city water managers of the six major cities of South Africa have created a forum with the aim of collecting data on performance in certain key areas. Johannesburg Water also internally benchmarks certain activities in the procurement of services. This initiative is only just starting. There is an informal metric benchmarking system with Suez, one of the principal companies within JOWAM. The results are not usually made available to the operating staff. Factors that are compared are bursts per year, blockages, and sewer maintenance. There is no attempt at process or performance benchmarking.

Market testing is performed in relation to design. With regard to other services, the market is tested through a rates contract to ensure that the services performed by Johannesburg Water are competitive.

Key Indicators on Market Orientation

What is value of contracts outsourced as a percentage of the operational budget?	10%
What is the nature of the functions that are outsourced?	Specialized functions
How often does the utility engage in benchmarking exercises?	Benchmarking is in its infancy.
In what areas are benchmarking activities undertaken?	Benchmarking is in its infancy.
Does the utility engage in market testing, and does it develop internal markets?	Yes

D.3.4 Customer Orientation

Johannesburg Water is dependent on the payment of the water revenues collected on its behalf by the city of Johannesburg's Treasurers Department. Various methods of payment are available, either by direct Internet banking, payment through the post (by check), or direct, over-the-counter transaction either by cash or by check.

No formal customer organization with direct access to Johannesburg Water represents the interests of the consumers. Forums are established for each ward of the City Council, which can act as public forums for the expression of problems.

Staff of the customer care center attend courses on dealing with the public and the technical issues that may be raised by callers. Johannesburg Water has drawn up a customer charter, which has not yet been approved by the board because the utility is not in a position to deliver services in accordance with the charter.

The city of Johannesburg operates a customer care and call center where complaints may be registered or accounts paid. In addition, Johannesburg Water operates its own separate call center, to which all complaints of a technical or service nature are referred by the central call center. The

number of complaints has increased by 36 percent over the past year. This is a normal occurrence as the existence of the customer care and call center becomes better known. There is no formal follow-up procedure to ascertain if the complainant has been satisfied or not.

Key Indicators on Customer-Orientation

In what ways can the bills be paid?	Cash, electronic banking system, or check
In what ways does the utility proactively seek the opinions and views of its customers?	Suggestion boxes, annual customer surveys, attendance at ward committee meetings
What options for service delivery does the utility provide?	A full range of services, including providing and servicing chemical toilets in informal settlements
In what ways does the utility actively inform its customers about changes related to service provision?	The press, radio, and ward committee meetings
What is the percentage of complaints addressed?	N/A
What are the average response times to complaints?	N/A

D.3.5 Corporate Culture

Without exception, every member of Johannesburg Water’s staff knew the vision of the company. Although a small number were hesitant in reciting the mission, many staff display the vision and mission prominently in their offices.

Johannesburg Water compiles an annual workplace skills plan identifying training needs for all employees and focusing on its business objectives. Training is carried out in-house and through courses with accredited external service providers.

Key Indicators on Corporate Culture

What factors influence promotion, salary adjustment decisions, or both?	Inflation-linked increments, performance, and length of service
What is the annual staff turnover?	126 (4.9%)
What are the training costs per year as a percentage of operational budgets?	0.06% (excludes time of trainees)
Are staff informed about meetings of management?	On a need-to-know basis
What is the ratio of support and technical staff to management?	17:1
Is the mission statement internally visible in the utility?	Yes

D.4 Sequence of Reforms

Water services have traditionally been one of the operating departments of the city of Johannesburg. Toward the end of the 1990s, Johannesburg started a process of developing a new vision of a streamlined administration, of which the separation of management authority and service provision was one of the aims. This required the city to be much sharper in its role as a regulator, and in to support this function, the Contract Managing Unit was established as an expert support capacity.

To increase the capacity of the organization, Johannesburg Water entered into a five-year management contract with JOWAM to obtain managerial expertise.

D.5 Conclusions

Johannesburg Water is in a formative stage, and its culture is still maturing and breaking away from the rigid thinking that characterizes many “traditional” municipal utilities. The concept of creating independent utilities by the city of Johannesburg is in principle a good one. However, there are certain difficulties that need to be highlighted. South Africa is undergoing a period of transformation as black capacity is built up and empowered. This creates certain tensions. A further problem is the change in the manner of thinking of managers, who grew up in a public service environment and are now learning to manage a private company.

Johannesburg Water is handicapped by not being able to control its own finances. It is financially dependent on the city of Johannesburg for loan funding of capital projects, the bulk of its revenue collection, and the metering and billing of the majority of the consumers. Financial control lies outside the company.

The introduction of JOWAM has benefited the establishment of the utility enormously, and many of those interviewed commented on this aspect. The nature of the contract with JOWAM has ensured optimum support from the members of the company. The appointment of an independent auditor for the contract has no doubt assisted in this.

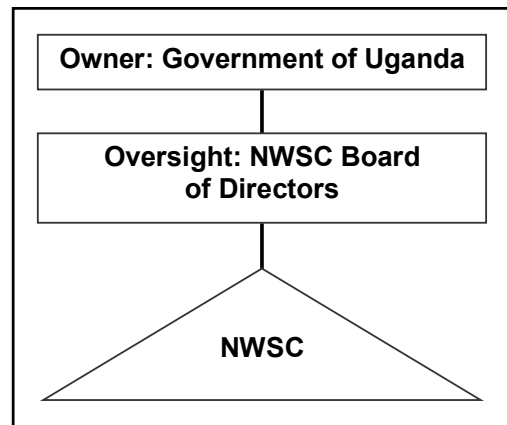
An important aspect of the business for Johannesburg Water is the extension of service to all inhabitants of the city. The situation is complex in that informal settlements can be established in a very short time frame sometimes on land that does not fall under the control of the city of Johannesburg and for which it is very difficult to provide the service.

Johannesburg Water is not yet in the vanguard of water service providers on a world scale but is expected to reach this in due course as it evolves and grows in capacity.

ANNEX E NATIONAL WATER AND SEWERAGE CORPORATION, UGANDA

E.1 Introduction and General Description

The National Water and Sewerage Corporation (NWSC) is a statutory body established in 1972 with the responsibility of delivering water supply and sewerage services in 15 large urban centers in Uganda. The functions of ownership, oversight, and service provision have been separated in the NWSC. Ownership lies with the government of Uganda. The NWSC Board of Directors has the role of management oversight, and the managing director undertakes service provision with assistance from the management and staff of the corporation. The Board of Directors is appointed by the Minister of Water, Lands and Environment on the basis of expertise in the fields of water utility management, public finance, engineering, or public health. The managing director also acts as a board member.



There are five divisions, each headed by a chief manager, under the managing director. The divisions are Engineering Services, Management Services, Finance and Accounts, Commercial and Customer Services, and Internal Audit.

<i>General Characteristics of the NWSC</i>	2000–01	2001–02	2002–03
Population served	N/A	N/A	1,315,000
Connections	N/A	N/A	87,172
Number of employees	N/A	N/A	950
Unaccounted for water	43%	40%	39%
Working ratio	0.85	0.79	0.79
Staff per 1,000 connections	17	12	11
Staff per 1,000 population served	N/A	N/A	0.72
Accounts receivable as a share of annual revenue, expressed in month's sales	4.9	5.6	4.7
Service coverage, water supply	N/A	N/A	63%
Average domestic tariff (U.S. dollars per cubic meter)	0.38	0.38	0.40

E.2 Institutional Environment

E.2.1 External Autonomy

The Uganda National Bureau of Standards (UNBS) is responsible for setting quality standards for water supply, and the National Environment Management Authority (NEMA) is responsible for setting quality standards for wastewater treatment. Service standards are jointly set by the Ministry of Water, Lands and Environment (MWLE) and the URU, which falls under the Ministry of Finance, Planning and Economic Development. The NWSC is allowed to terminate service provision to defaulters even if they are government entities.

The appointment of the managing director by the NWSC Board of Directors is based on competitive selection from among suitably qualified Ugandans.

The Directorate of Water Development issues abstraction permits for raw water and discharge permits for treated wastewater. There is no constraint in terms of quantity of raw water, but raw water quality varies considerably from season to season.

NWSC management initiates tariff-setting procedures and proposes changes or improvements in the tariff to the board. After board review and approval, the tariff changes are forwarded to the MWLE for approval and eventual gazetting. In effect since April 2002, the tariff is indexed annually to take into account inflation and the depreciation of the Uganda shilling against foreign currency.

The NWSC struggles to attract qualified staff because its salary structure is set by the board jointly with the unions. The salary structure is based on the projected income and the obligations that the NWSC has to meet (such as debt servicing, depreciation, asset renewal, and counterpart funding of investments). As a result, the remuneration levels are not as competitive as those of some other corporate bodies in the country. The NWSC is subject to and follows public procurement regulations.

Key Indicators on External Autonomy

Who determines the pay scales for the various levels within the utility?	The Board of Directors
What is the basis for appointing members to the Board of Directors?	Expertise and experience
Is the utility able to take out loans without prior approval from the owner?	Yes, in principle
Is the utility allowed to terminate service delivery to defaulters?	Yes
Who is responsible for setting tariffs?	The MWLE
Does the utility follow public sector procurement rules?	Yes

E.2.2 External Accountability

The government sets clear and measurable targets that the NWSC has to achieve. This previously was done through the minister's review and acceptance, or revision, of the corporate plan. Since 2000, this approach has been strengthened through the introduction of a performance contract framework. If the government is not satisfied with the performance of the NWSC, the minister may remove any or all of the NWSC directors other than the managing director. There are scheduled meetings between the ministry and the NWSC board. These meetings are held when needed and deal with performance targets, performance of the utility against the set targets, the NWSC's contribution to the ministry policy statement, and the presentation of the annual report and audited accounts to parliament.

The main lines of accountability for the NWSC are:

- To its owner—the NWSC is engaged in a performance contract with the owner, stipulating a level of performance that the utility must meet.
- To its regulators—the NWSC prepares monthly reports on quality compliance for the regulating bodies (the UNBS and NEMA).
- To financial institutions—the lenders impose financial covenants on the NWSC, including a minimum target of 20 percent of funds from internal sources to be used for either capital investment or counterpart funding, reducing employee related costs by 18 percent, and timely submission of audited accounts to the lender.
- To customer organizations and governmental special interest groups—a formal customer organization, the Uganda Consumer Protection Unit (UCPU), represents the interests of consumers and works hand in hand with the National Bureau of Standards. The UCPU can alert the responsible organs to take action if certain products or services are below standards.

Key Indicators on External Accountability for Results

Does the utility have a customer charter that specifies performance targets, and are there any financial penalties for nonperformance?	Yes, but financial penalties are not specified.
Does the utility have to meet specified performance targets set by or agreed upon with the owners?	Yes
Is an annual report produced that is audited by an external accountant?	Yes
Are external groups represented in advisory or management oversight bodies of the NWSC?	Yes
Has the utility secured loans in the commercial market on its own credentials or ability?	No
Does the utility participate in some form of credit-rating scheme?	No
Does the lender impose financial covenants on the NWSC?	Yes

E.3 Internal Functioning of the Utility

E.3.1 Internal Autonomy: Decentralization of Authority within the Utility

Significant decision-making responsibilities have been decentralized to the area service providers. The relatively bigger areas have total connections of more than 3,500, and the relatively small areas have fewer than 2,500 service connections. Billing and collection for services are done at area level. These areas all have billing centers and produce their own bills. Areas outsource activities and functions without the interference of the head office, including hiring of guards and collectors and maintenance of premises, office equipment, or vehicles. The areas also carry out the expansion and minor rehabilitation of the network and existing facilities. The areas formulate and implement strategies for reducing unaccounted for water. Finally, the areas have the power to disconnect nonpaying customers, and they can determine the way in which customer complaints are dealt with, provided they achieve the response-time targets.

The decisions regarding the procurement of goods and services are made at different levels, depending on the monetary value. The areas procure goods and services up to values of US\$2,500. NWSC head office management procures goods up to values of US\$9,000, and the Board of Directors procures goods and services up to values of US\$25,000. Beyond this latter threshold, the Solicitor General must clear the NWSC management's procurement decisions before the NWSC board can endorse them.

Currently, the area managers can hire and fire contract staff as well as staff below a specified salary position. The staff on higher salaries are hired and posted to the areas by the head office in consultation with the area manager. The salary structure of all staff members is determined and approved by the Board of Directors; the incentive structure is determined by the managing director in consultation with the board.

Key Indicators on Decentralization of Authority within the Utility

What is the purchasing ceiling for procurement of operational departments as a percentage of operational budgets?	Between 4% and 7.5% of the monthly operational budget
Does the hiring of staff members in departments require prior approval from the managing director?	Yes, for some positions
How many layers of management separate the managing director and the entry-level workers?	Four layers of management
At what level are internal work processes and standards defined?	Internal work processes are defined at the area level; standards are defined at by head office management.
In what areas do field staff have decision-making powers?	In maintenance and partially in customer service

E.3.2 Internal Accountability for Results

The government of Uganda sets performance targets for the NWSC through the performance contract. The NWSC head office ensures that targets in the performance contract are consistent with the corporate plan. Based on the performance targets set in the government's performance contract, the head office sets and negotiates performance standards with the areas. The principle used by the NWSC head office is to set higher targets for the areas than stipulated in the performance contract. Therefore, when the areas achieve or exceed their individual targets, the NWSC will automatically achieve the government contract targets. However, the areas retain the right to define internal work processes. When targets have been set for the areas, the areas then hold workshops to determine the logistical requirements needed to meet the targets. Having determined these requirements, a harmonization session with the head office is conducted, during which commitment of the head office to provide the required logistics is secured.

The board can reward management for achieving performance targets. These rewards are usually in the form of annual salary increments or bonus payments. The performance of employees is evaluated annually by use of standardized performance appraisal systems. The recently introduced "one-minute management concept" has strengthened this process: Every employee has an individual "pseudo contract" outlining specific, key, verifiable tasks and deliverables.

Achievement of the performance targets is accompanied by incentive payments that can be as high as 50 percent of the basic salary. However, underachievement of the performance standards below a certain level may lead to members of the area management team forfeiting 25 percent of their basic pay. These rewards or penalties are implemented as frequently as good or poor performance occurs.

Key Indicators on Internal Accountability for Results

How often does the managing director meet with the board?	Once a month
Are penalties and rewards applied to the managing director and management for failing to achieve or achieving specified performance targets?	Yes, in principle—no penalties have been applied so far.
Are penalties and rewards applied to the staff by the management for failing to achieve or achieving specified performance targets?	Yes
Are staff subject to annual evaluations of their functioning?	Yes

E.3.3 Market Orientation

The degree of outsourcing ranges from 30 to 40 percent of the total operating expenses. Most of the outsourcing arrangements are set up as one-year service contracts. The largest contract, representing 14 percent of total operating expenses, is the management contract for the distribution of water, billing, and revenue collection in the Kampala Water Supply Service Area. This contract is expiring, however, and it appears unlikely that it will be renewed.

Procurement is carried out according to the Procurement Act, with the aim of being transparent, fair, and competitive. The available procedures range from open competitive bidding with or without prequalification to restricted or selective bidding, shopping, or sole sourcing.

The NWSC partakes in benchmarking exercises within the African region through the African Water Utility Partnership. It also indirectly partakes in benchmarking exercises through the World Bank. Additionally, the NWSC carries out internal benchmarking among its areas of operation. It has also undertaken benchmarking exercises with energy utilities and other industries in Uganda.

The NWSC has taken part in market testing activities on an ad hoc basis.

Key Indicators on Market Orientation

What is the value of contracts outsourced as a percentage of the operational budget?	Between 30percent and 40percent
What is the nature of the functions that are outsourced?	Premises maintenance, collections, billing, fleet maintenance, works, and engineering design
How often does the NWSC engage in benchmarking exercises?	Annually and on an ad hoc basis if needed
In what areas are benchmarking activities undertaken?	Internal reforms, change management, reducing water losses, optimizing energy and pumping costs, revenue collections, and so forth
Does the NWSC engage in market testing, and does it develop internal markets?	The NWSC has partially engaged in market testing, especially for noncore functions.

E.3.4 Customer Orientation

The NWSC has a training program that delivers training to employees who work with customers in customer care and service. Initially, the training was carried out for front desk officers only, but it was later expanded to include other staff who meet with customers.

The NWSC has a customer charter, which details the efficient and satisfactory nature of the services that the utility commits to provide to the customers. However, the charter does not incorporate compensation payments if the NWSC fails to meet its responsibilities.

Annual customer surveys aim to establish the customers' views regarding areas where the NWSC still has to improve. Customers can currently get access to the NWSC in person, by phone, and through the Internet. (The first two methods are more commonly used than the Internet.) Customers are involved in NWSC decision making mainly through strategic alliance meetings. All NWSC areas of

operations have mapped out stakeholders among the customer base (customer segments). These customer segments include water vendors, water kiosk and public standpipe operators, urban authorities, large government consumers, urban poor communities, restaurant operators, industries, educational institutions, and so forth. The NWSC area management teams conduct regularly scheduled strategic alliance meetings with the different customer segments.

Key Indicators on Customer Orientation	
In what ways can the bills be paid?	NWSC cash offices, banks, and automatic teller machines
In what ways does the NWSC proactively seek the opinions and views of its customers?	Annual customer surveys, suggestion boxes, and strategic alliance meetings
What options for service delivery does the NWSC provide?	In-house connections, yard taps, public standpipes, water kiosks, bulk connections for institutions, and water vending
In what ways does the NWSC actively inform its customers about changes related to service provision?	Flyers, newspaper advertisements, radio, and strategic alliance meetings
What is the percentage of complaints addressed?	Between 95% and 100%

E.3.5 Corporate Culture

Promotions and salary adjustments are usually made as a result of one or a combination of the following factors: performance review, years of service, collective bargaining, and certification. There is an annual staff performance appraisal. Sometimes the recommendations for promotion made by the department heads are implemented. Years of service and good performance are recognized.

The NWSC invests substantially in staff training. It is the corporation's policy to train staff for skills acquisition rather than academic achievements. The human resource managers collect training needs compiled by the department heads after the annual staff appraisal and prepares a training program and corresponding budget.

Absenteeism is not tolerated in the NWSC. The employees have to record their attendance in the daily attendance register, and the register is audited. The staff turnover is very low and is usually limited to the cashiers.

Key Indicators on Corporate Culture	
What factors influence promotion, salary adjustment decisions, or both?	Staff performance appraisal, years of service, collective bargaining, and academic advancements
What is the annual staff turnover?	Below 10% and predominantly in the lower levels
What are the training costs per year as a percentage of operational budgets?	Between 1.5% and 3.0% percent
Are staff informed about meetings of management?	Partially (need-to-know basis)
What is the ratio of support and technical staff to management?	Between 3:1 and 5:1
Is the mission statement internally visible in the NWSC?	Yes

E.4 Sequence of Reforms

During the 1970s and early 1980s, Uganda was subject to public turmoil, and the performance of the NWSC, like many other institutions, declined considerably. Between 1986 and 1997, the NWSC embarked on major rehabilitation and expansion of its water supply and sewage systems with the help of international donor support. Even though water supply and sanitation infrastructure was rehabilitated and expanded, commercial and managerial practices were not commensurate with the improved infrastructure. This resulted in poor service provision despite improved infrastructure.

In the financial year 1998/9, a new Board of Directors was appointed. The board in turn appointed a new managing director when the position fell vacant upon the expiration of the contract of the previous managing director. Having a new team presented a rare opportunity for corporate management to review past performance and implement new strategies for improving performance of the utility.

In addition, the drivers of reform included:

- pressure from donor agencies to improve performance levels that would result in the NWSC's ability to meet its debt obligations and be more creditworthy,
- pressure from the government to see the NWSC serve customers satisfactorily,
- pressure of competition due to the possibility of increased private sector participation, and
- awareness of NWSC management and staff that there was room for improvement.

Since February 1999, NWSC management has sequentially implemented a number of programs. The "100-Days Programme" and Service and Revenue Enhancement Programmes resulted in better specification of targets for the areas. These programs also increased commitment from the head office to provide logistics to enable the areas to implement their programs. The area performance contracts were initiated to operationalize the performance contract between the government and the NWSC. The performance contract with the government increased the NWSC's accountability for results and provided for incentives for good performance. The area performance contracts in turn transferred more autonomy to the areas, defined the targets more specifically, and introduced accountability for results. The stretch-out program was designed to enhance the area performance contracts. This program resulted in a higher level of commitment from the employees because internal communication improved and higher performance targets (with correspondingly better incentives for achievement) were set. Recently, "one-minute management" has been introduced. This form of management enhances accountability for results as targets are set for individuals. Therefore, not just business units but also individuals can accurately be held accountable for their outputs.

E.5 Conclusions

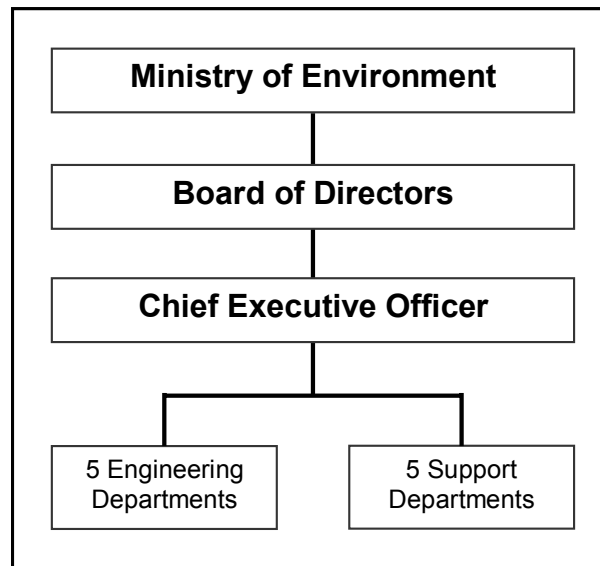
The results of the analysis of this case study suggest that the NWSC adheres to the core ideas of NPM,—that is, market orientation, customer orientation, decentralization of authority, and accountability for results. However, the relevance of the individual NPM core ideas varies with respect to the magnitude and the timing of implementing each of the ideas. The main strengths of the NWSC are:

- the performance contracts within the areas of operation, which have a large degree of autonomy regarding procurement, personnel recruitment, and management as well as decisions for capital investment;
- strong accountability on the part of management and staff for results, with a large part of the basic salary being subject to the achievement of performance targets; and
- a strong customer orientation, which has been promoted through awareness raising and training of staff, public publicity programs, and feedback mechanisms with various customer segments.

ANNEX F PUBLIC UTILITIES BOARD, SINGAPORE

F.1 Introduction and General Description

The Public Utilities Board (PUB) is a statutory body. Established under the Public Utilities Act of 2001, it operates under the Ministry of Environment and has a mandate to manage Singapore's water supply in an integrated manner. Management of the service provider is overseen by a Board of Directors comprising a chairman and no fewer than 5 and no more than 10 members selected by the Minister of Environment. The members of the board are selected to represent a broad spectrum of the stakeholders who can contribute to discussions of the workings of the organization. At present, there are 10 board members, and they are from academia, the unions, parliament, investors, the finance and auditing sector, the semiconductor and petroleum industries, the military, nongovernmental organizations (NGOs), and the public sector. Under the board are the chief executive officer, five engineering departments, and five support departments. Under these are divisions, branches, sections, and units. The five engineering departments are water supply, sewerage, drainage, water reclamation, and deep-tunnel sewerage system.



<i>General Characteristics of PUB</i>	2000	2001	2002
Population served (million)	N/A	N/A	4.19
Number of connections	1,080,512	1,126,383	1,134,380
Number of employees	2,143	3,426	3,333
Unaccounted for water	5.0%	5.3%	4.8%
Working ratio	0.369	0.518	0.577
Staff per 1,000 connections	1.98	3.04	2.94
Staff per 1,000 population served	0.53	0.83	0.80
Accounts receivable as a share of annual revenue, expressed in month's sales	N/A	0.969	0.938
Service coverage, water supply	100%	100%	100%
Service coverage, sewerage	100%	100%	100%
Average domestic tariff for water supply (U.S. dollars per cubic meter)	N/A	N/A	0.68

F.2 Institutional Environment

F.2.1 External Autonomy

For drinking water quality, PUB follows standards set by the World Health Organization. Standards for treatment of wastewater are set by the Pollution Control Division of the National Environment Agency (NEA).

The Public Services in the 21st Century Committee of the Singapore public service oversees the quality of services in the public sector. In this capacity, it provides guidance on the basis of which PUB sets service standards internally. These standards relate to issues such as response time to complaints, water supply interruptions, pressure, percentage of calls that are to be answered within three rings, time period for fixing water meters, and so forth.

The process of setting tariffs is initiated by PUB, which proposes tariff adjustments to the Ministry of Environment. The Ministry of Environment then forwards the proposal to the Ministry of Finance for

review. The Ministry of Finance then prepares a paper on tariff adjustments for approval by the cabinet. Upon approval by the cabinet, the tariffs are then presented to Parliament for final approval. The annual accounts of PUB are required to be audited by the Auditor-General or an external auditor appointed annually by the Minister of Finance in consultation with the Auditor-General.

The Public Utilities Act allows for the appointment of the chief executive officer by the Board of Directors with approval from the Ministry of Environment and after consultation with the Public Service Commission. The appointment is based on merit and qualification.

PUB is allowed to cut off water supply to defaulters, or in case of misuse or waste of water, and the utility is strict in implementing this policy. PUB can determine its own salary scales and does so using government salaries as a guide. Staff salaries are competitive with those in the private sector and are considered to be stable.

PUB has short-term credit facilities in place with commercial banks should the need for a credit arise. It may also raise capital through long-term borrowing, although approval from the Ministry of Environment would be required. PUB has not used these options in the past decade, partly because funds for capital development for sewerage and drainage have been given as grants by the government.

Singapore has limited water resources and currently imports water from neighboring Johor, Malaysia, to supplement local resources. To meet future demand, PUB has embarked on seawater desalination and reuse of treated wastewater.

Key Indicators on External Autonomy

Who determines the pay scales for the various levels within the utility?	The Board of Directors
What is the basis for appointing members to the Board of Directors?	Members represent different sectors of society
Is the utility able to take out loans without prior approval from the owner?	No
Is the utility allowed to terminate service delivery to defaulters?	Yes
Who is responsible for setting tariffs?	Tariffs are proposed by PUB and approved by the cabinet and Parliament.
Does the utility follow public sector procurement rules?	Yes

F.2.2 External Accountability

Clear and measurable targets are set for drinking water quality, customer service, and financial performance. An overview of the financial performance is published in the annual report, which is submitted to the government. Actual data for drinking water quality parameters can be found on the PUB Web site. The provision of Public Utilities Act for PUB's financial performance states that its total revenues must be sufficient to meet its obligations, including depreciation and interest on capital and a reasonable proportion of the cost of infrastructure development.

The main lines of accountability for PUB are:

- To its owner—PUB reports monthly to the Ministry of Environment. The senior management of PUB (Board of Directors and relevant department directors) meets with its parent ministry at least once a month on overall policy information and coordination. PUB submits its financial reports annually to the government.
- To its regulators—the NEA monitors drinking water quality, and the NEA's Pollution Control Division monitors compliance with treated wastewater standards. PUB reports to the Service Improvement Unit of the Public Services in the 21st Century Committee on a quarterly basis concerning its service quality levels.
- To financial institutions—because PUB has no debt at present, it is not accountable to outside financing agencies.
- To customer organizations and nongovernmental special interest groups—there is no organization representing PUB's customers. However, the Board of Directors is made up of a broad spectrum of stakeholders.

Key Indicators on External Accountability for Results

Does the utility have a customer charter that specifies performance targets, and are there any financial penalties for nonperformance?	No
Does the utility have to meet specified performance targets set by or agreed upon with the owners?	Yes
Is an annual report produced that is audited by an external accountant?	Yes
Are external groups represented in advisory or management oversight bodies of PUB?	Yes
Has the utility secured loans in the commercial market on its own credentials or ability?	No
Does the utility participate in some form of credit-rating scheme?	No
Does the lender impose financial covenants on PUB?	N/A

F.3 Internal Functioning of the Utility

F.3.1 Internal Autonomy: Decentralization of Authority within the Utility

The tariff structure, setting of water tariffs, and connections fees are proposed by PUB and subject to approval from the government. Recommendation for capital sourcing is proposed by PUB and subject to approval from the Minister of Environment.

The PUB financial manual stipulates the procurement ceilings. Expenditure of SGD 29,000 to SGD 5.8 million would require Tender Committee B approval (this committee is made up of the chairman and two department directors). Expenditure in excess of SGD (Singapore dollars) 5.8 million requires approval from Tender Committee A (made up of the chairman and two board members).

Hiring is decided by a recruitment committee convened by the human resources department. The committee is headed by a board member for hiring of senior positions and by a senior staff member for other positions. Termination of service during the probation period is decided by the head of department or by the chief executive officer if it involves senior positions. A promotion committee convened by the human resources department decides on promotion of staff members. The committee is headed by a board member for promotion to senior positions, by the chief executive officer for the other professional grades, and by a head of department for the nonprofessional grades.

Decisions pertaining to the termination of service provision to defaulters are normally made at the department level. The way in which customer complaints are dealt with is also decided at the department level, guided by quality service standards.

Key Indicators on Decentralization of Authority within the Utility

What is the purchasing ceiling for procurement of operational departments as a percentage of operational budgets?	SGD 29,000 to SGD 5.8 million: approval from committee chairman and two department directors For amounts in excess, approval from committee chairman and two board members
Does the hiring of staff members in departments require prior approval from the managing director?	Yes
How many layers of management separate the chief executive and the entry-level workers?	Four levels
At what level are internal work processes and standards defined?	At the branch level
In what areas do field staff have decision-making powers?	Managers are empowered to make customer-related decisions involving expenses up to SGD 1,000.

F.3.2 Internal Accountability for Results

A performance measurement system is in place to track the performance of PUB through key performance indicators. The performance of employees is evaluated yearly through a staff appraisal process. During this process, the staff member is evaluated on indicators relating to achieved results, planning and organization, learning orientation, communication, team building, leading change, and

so forth. Employees may be rewarded in the form of performance bonuses or promotions. The promotion and the performance bonus evaluation processes are held yearly.

To manage poor performers, a performance review process is in place. In this process, an employee is counseled by the supervisor or union and advised on how to improve performance. If adverse performance persists, dismissal is an option.

Key Indicators on Internal Accountability for Results

How often does the chief executive meet with the board?	Once every two months
Are penalties and rewards applied to the chief executive and directors for failing to achieve or achieving specified performance targets?	Yes
Are penalties and rewards applied to the staff by the management for failing to achieve or achieving specified performance targets?	Yes
Are staff members subject to annual evaluations of their functioning?	Yes

F.3.3 Market Orientation

More than 25 percent of PUB's operating budget is outsourced. In 2002, some 150 tenders and 170 quotes were let and requested, respectively, amounting to SGD130 million. Contracts are let for a variety of services, including building construction, consultancy services, pipe laying, supplies, cleaning, security, information technology maintenance, plant and equipment maintenance, and so forth. PUB follows public procurement rules.

PUB has recently embarked on two benchmarking exercises on customer relations management and people management with the Public Service Center for Organizational Excellence, which is responsible for setting national norms.

The utility is looking into market testing some of its operations and services.

Key Indicators on Market Orientation

What is the value of contracts outsourced as a percentage of the operational budget?	25%.
What is the nature of the functions that are outsourced?	Noncore functions, such as billing, information technology support, security, cleaning, pipe laying, plant maintenance, building construction, and so on
How often does PUB engage in benchmarking exercises?	PUB has only recently embarked on benchmarking exercises.
In what areas are benchmarking activities undertaken?	Customer relations management and people management
Does PUB engage in market testing, and does it develop internal markets?	No

F.3.4 Customer Orientation

PUB draws funds for its operating and capital needs from the sale of potable water to its customers. It adopts a customer-focused approach to ensure customer satisfaction in all areas. PUB actively seeks the opinions of its customers through customer satisfaction surveys held every three years, regular dialogue sessions, and feedback forms. This continuous collection of feedback is aimed at providing a better understanding of customers' needs and expectations. The feedback is also used to identify areas for improvement in PUB's operations.

Emphasis is placed on the selection and training of frontline staff who come into direct contact with customers. They are specially trained in the areas of listening skills and service excellence.

PUB operates a one-stop, 24-hour contact center (PUB One) for customers. Customers can make general inquiries and reports or provide feedback through this contact center through a variety of channels: telephone, email, fax, SMS (Short Message Service), VoIP (Voice Over Internet Protocol). A public suggestion scheme has been introduced to reward customers for suggestions that improve PUB's services.

Key Indicators on Customer Orientation

In what ways can the bills be paid?	Bank transfers, checks, cash, automated teller machines
In what ways does PUB proactively seek the opinions and views of its customers?	Through customer surveys, feedback forms, dialogue sessions, suggestions, focus groups, and regular meetings
What options for service delivery does PUB provide?	House connections
In what ways does PUB actively inform its customers about changes related to service provision?	Notices, Internet, newspaper advertisements, radio and TV announcements
What is the percentage of complaints addressed?	More than 99%
What are the average response times to complaints?	Depending on the communication channel and nature of the complaint, response time ranges from 45 minutes to five working days.

F.3.5 Corporate Culture

Decisions about promotions of staff are based on merit and are not restricted by availability of positions. Those employees who display high potential are identified and "groomed." Employees may also be rotated within departments and to other departments. Rotation of employees may be done annually, and the frequency of rotation varies according to employees' divisional status and years in their current post.

Training opportunities are provided through in-house and local courses, secondments, study trips, overseas conferences, and seminars. In 2002, 1,500 employees attended courses organized by PUB's training center, and almost all of the employees attended courses conducted locally or overseas.

Unexplained absenteeism is practically nonexistent.

The utility has not been subject to frequent changes in management. Staff turnover is mostly due to retirement only, hence it is evident that PUB is a very stable organization in terms of its workforce.

All key business processes within PUB have also attained International Standardization Organization (ISO) 9001:2000 certification. In 2003, PUB further attained the Singapore Innovation Class, which confirms its status as an innovative organization.

Key Indicators on Corporate Culture

What factors influence promotion, salary adjustment decisions, or both?	Performance, current estimated potential, years in service
What is the annual staff turnover?	2.2%
What are the training costs per year as a percentage of operational budgets?	1.8%
Are staff informed about meetings of management?	Yes
What is the ratio of support and technical staff to management?	70:30
Is the mission statement internally visible in PUB?	Yes

F.4 Sequence of Reforms

PUB was inaugurated as a statutory authority to take over the production of electricity, water, and piped gas from the then City Council on May 1, 1963. It was restructured on April 1, 2001, to become the national water authority of Singapore. The reforms and improvements are not only due to the restructuring. Continuous improvement in PUB's operation could be seen from several performance indicators over the last 10 years. For example, unaccounted for water decreased from 8 percent in 1991 to 4.8 percent in 2002, the working ratio from 0.66 to 0.58, and staff per 1,000 connections from 2.4 in 1991 to 2.0 in 2000. (It increased to 2.95 in 2002 with the transfer of the sewerage and drainage departments to PUB in April 2001.)

Starting in 2000, before the restructuring, the mission, vision, strategies, and core values took more than a year to develop. Senior managers were initially involved, and participation was brought down to the next level. The recent launch of PUB One was a consolidation of the separate call centers of the water, sewerage, and drainage departments when they belonged to different ministries. Customer-

orientation and outsourcing are part of the Singapore government's efforts to improve service delivery in the public sector and is not limited to PUB but extends to the entire Singapore bureaucracy.

F.5 Conclusions

PUB's strengths are:

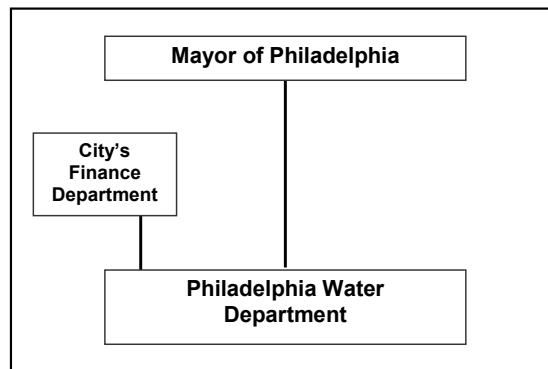
- It is largely self-regulated and autonomous in its operations. It is able to set its performance targets within established standards and guidelines set by government. These can be in the form of water quality, wastewater treatment, customer service, tariffs, staff recruitment and salaries, procurement, and so on.
- PUB enjoys political support at the highest levels of government and is able to work constructively with the unions in enhancing staff welfare and development. These are factors that allow PUB to operate effectively and efficiently without hindrances common to many bureaucratic systems in governments.
- The Singapore public service provides support to the public service sector in achieving organizational excellence in the delivery of services.
- PUB has developed a strong customer approach, ensuring a high level of customer satisfaction.
- Although the hierarchy in the organization involves several layers, operational decisions can be made at the field level, especially those dealing with customer service.

It can be said that it is this enabling environment, which may be unique in Singapore, that allows PUB to operate efficiently and effectively, just as the other public service organizations do in this city-state.

ANNEX G PHILADELPHIA WATER DEPARTMENT, UNITED STATES

G.1 Introduction and General Description

The Philadelphia Water Department (PWD) is a ring-fenced municipal department. Established in 1799, it is one of the oldest water utilities in the United States. There is no board or equivalent management supervisory body; instead, the commissioner of the PWD reports directly to the mayor of the city. Under the Philadelphia Home Rule Charter, the PWD has the power and duty to operate, maintain, repair, and improve the city's water and wastewater systems.



<i>General Characteristics of the PWD</i>	2000	2001	2002
Population served	N/A	N/A	1,672,000
Number of retail customer accounts	N/A	N/A	474,657
Number of employees (excluding revenue bureau)	N/A	N/A	2,086
Unaccounted for water	32%	32%	32%
Working ratio	0.64	0.65	0.67
Staff per 1,000 connections	4.91	4.45	4.40
Staff per 1,000 population served (water supply)	1.56	1.40	1.38
Accounts receivable	85.5%	85.7%	85.1%
Service coverage, water supply	100%	100%	100%
Service coverage, sewerage	100%	100%	100%
Average charges per year (water and wastewater) (U.S. dollars per connection)	491	491	505

G.2 Institutional Environment

G.2.1 External Autonomy

The PWD is effectively financially autonomous, with only 2 percent of its income coming from federal grants. Its operating expenditure is funded entirely from revenues, and 85 percent of its capital expenditure is funded by a mixture of revenues and bond proceeds. The financial stability of the PWD is reflected in the ratings of Moody's (Aaa/VMIG) and Standard & Poor's (AAA/A-1+). There is generally little political interference because of a combination of technical complexity, statutes, and financial covenants in relation to its issuing of revenue bonds).

However, the city of Philadelphia has imposed strict rules for recruitment, promotion and salaries, meaning that the PWD has very limited discretion in these important human resources areas.

The PWD's operation is subject to national quality standards relating to drinking water and wastewater set by the U.S. Environmental Protection Agency (EPA) and the Safe Drinking Water Act. The actual monitoring and enforcement of these standards is carried out by the Pennsylvania Department of Environmental Protection (PaDEP).

Because it is a municipal department, the PWD is not subject to the regulatory service standards set by the state's Public Utility Commission that would apply if it were a private company. In the absence of these standards, the PWD has developed its own set of service standards in agreement with the city of Philadelphia.

All permits for abstraction of water resources are issued by the Delaware River Basin Council. However, the PWD uses less than 40 percent of the water resources it is permitted to abstract.

Key Indicators on External Autonomy

Who determines the pay scales for the various levels within the utility?	The city's central personnel department
What is the basis for appointing members to the Board of Directors?	N/A
Is the utility able to take out loans without prior approval from the owner?	No
Is the utility allowed to terminate service delivery to defaulters?	Yes, with exception of the winter moratorium
Who is responsible for setting tariffs?	The commissioner
Does the utility follow public sector procurement rules?	Yes

G.2.2 External Accountability

The main lines of accountability for the PWD are:

- To its owner—the PWD reports monthly to the mayor. In addition, it must report to the Financial Budget Bureau by the 10th day of every month and attend quarterly review meetings with the bureau.
- To its regulators—the monitoring of quality standards is based on self-reporting and voluntary disclosure, with potentially heavy fines for concealment or false reporting. The PWD submits monthly reports to PaDEP detailing its performance against the EPA standards.
- To financial institutions—both the city and the PWD have to meet a number of covenants. For the city, these relate to the continued independence of the Water Fund and the nonretention of monies collected by the city on behalf of the PWD. For the PWD, the main financial covenants concern debt service cover ratios. For example, the PWD must ensure that the revenue obtained from customers, minus the operating expenditure, is at least 1.2 times the revenue bond debt service requirement in any fiscal year. In addition, the similarly derived cover ratio in respect of total debt service must not exceed 1.08.

Key Indicators on External Accountability for Results

Does the utility have a customer charter that specifies performance targets, and are there any financial penalties for nonperformance?	No
Does the utility have to meet specified performance targets set by or agreed upon with the owners?	Yes
Is an annual report produced that is audited by an external accountant?	Yes
Are external groups represented in advisory or management oversight bodies of the PWD?	Yes
Has the utility secured loans in the commercial market on its own credentials or ability?	Yes
Does the utility participate in some form of credit-rating scheme?	Yes
Does the lender impose financial covenants on the PWD?	Yes

G.3 Internal Functioning of the Utility

G.3.1 Internal Autonomy: Decentralization of Authority within the Utility

A fair degree of decision making is decentralized to lower levels within the organization (one important exception is decisions regarding salaries and promotion, which have to follow the civil service rules). However, these delegated powers are exercised according to procedures that have previously been agreed upon at a senior level.

The ultimate decision with respect to tariff setting lies with the commissioner after the PWD has proposed increases. All proposed tariff increases are, however, subject to a public hearing at which lawyers (paid for by the PWD) argue the case against the proposed increase on behalf of the customers.

All procurement above US\$22,000 is undertaken by the city's central purchasing department.

Decisions about terminating service to defaulters are virtually automatic because they follow a standard procedure whereby the collection bureau advises the PWD's operational staff of the need to terminate supply. If a complaint is made, usual practice is for a PWD customer service representative to visit the customer in order to determine the best course of action.

Key Indicators on Decentralization of Authority within the Utility

What is the purchasing ceiling for procurement of operational departments as a percentage of operational budgets?	All procurement above US\$22,000 is undertaken by the city of Philadelphia's central purchasing department.
Does the hiring of staff members in departments require prior approval from the managing director?	The decision to include additional recruitment within a departmental budget requires approval by the commissioner.
How many layers of management separate the chief executive and the entry-level workers?	Nine layers
At what level are internal work processes and standards defined?	The level depends on the impact and scope of these processes and standards.
In what areas do field staff have decision-making powers?	All field staff have decision-making powers within a defined set of procedures.

G.3.2 Internal Accountability for Results

There is no management oversight agency in the PWD, and the commissioner ultimately reports directly to the mayor. The commissioner reports to the mayor in writing on the utility's performance in respect of its key targets. These reports and face-to-face meetings generally occur monthly.

The PWD produces an internal monthly report that analyzes departmental performances in considerable detail (for example, sick leave, types of calls received, number of samples analyzed in the laboratory, and so on). The performance of each staff member is assessed at least once per year as part of the annual evaluation process. Managers are, however, encouraged to address any performance issues, good or bad, on a continuing basis rather than leaving the matter until the formal annual appraisal. The absence of any incentive mechanisms means that staff generally perceive adherence to procedures to be more important than meeting of performance targets.

Key Indicators on Internal Accountability for Results

How often does the chief executive meet with the board?	The PWD does not have a board.
Are penalties and rewards applied to the chief executive and directors for failing to achieve or achieving specified performance targets?	No
Are penalties and rewards applied to the staff by the management for failing to achieve or achieving specified performance targets?	No
Are staff subject to annual evaluations of their functioning in the PWD?	Yes

G.3.3 Market Orientation

All outsourced activities have to be procured through the city's central purchasing function although the PWD determines the framework and specification. The PWD has outsourced a number of activities, ranging from engineering design to automatic meter reading. The largest outsourced activity is revenue collection. The PWD is currently evaluating proposals for transferring the operation, maintenance, and capital investment of biosolids treatment and utilization plant to the private sector.

The use of benchmarking has been limited at the PWD and is mainly confined to examining processes rather than comparing numeric data. The PWD feels that the latter is subject to too much variability (mostly due to natural occurrences) that makes quantitative comparisons too difficult.

PWD does not use market testing.

Key Indicators on Market Orientation

What is value of contracts outsourced as a percentage of the operational budget?	N/A
What is the nature of the functions that are outsourced?	Revenue collection (Water Revenue Bureau), automatic meter reading, engineering design, maintenance and repairs of fixed assets—consideration is being given to totally outsourcing the operation and maintenance of the biosolids treatment and utilization plant.
How often does the PWD engage in benchmarking exercises?	Very little benchmarking has been undertaken.
In what areas are benchmarking activities undertaken?	Activities are confined to processes rather than specific operations.
Does the PWD engage in market testing, and does it develop internal markets?	No

G.3.4 Customer Orientation

Although the PWD does not have a specific customer charter or contract, it is totally reliant upon its customers for its revenues; as a result, it has a strong customer orientation. Illustrative of this orientation are the point of service surveys targeted at customers who have been affected by or have received a specific service from the PWD. These surveys measure customers' opinions about the performance of the PWD's staff. In addition, the city of Philadelphia conducts its own survey to assess customer satisfaction with a range of services, including water and wastewater services.

About US\$40,000 is set aside annually for training of staff members in customer service. For example, external consultants meet with call center staff twice a year to cover such topics as dealing with difficult customers.

The PWD has also established a customer advisory committee as a formal body, from which it receives advice on its customer orientation and the type of information it should be making available to the customers. The customer advisory committee, which has a purely advisory role, comprises individuals from all sectors of society.

The PWD also places great emphasis on public education, especially among young people. To this end, it has opened a water education center at one of its historic pumping stations. The center's aim is to raise awareness among not only the customers, but also the residents upstream of the pumping station, particularly in relation to the pollution of storm drains and the protection of catchments.

Key Indicators on Customer Orientation

In what ways can the bills be paid?	Face-to-face at offices (cash or check), direct debit, mail (check)
In what ways does the PWD proactively seek the opinions and views of its customers?	Point of service surveys of customers receiving or affected by specific services from the PWD and the customer advisory committee
What options for service delivery does the PWD provide?	Individual connections
In what ways does the PWD actively inform its customers about changes related to service provision?	Flyers are sent along with the customer's bill, or messages on the bill itself, if changes are systemwide. If changes are localized, letters or pamphlets are sent to individual households, and advertisements are placed in local newspapers.
What is the percentage of complaints addressed?	100%
What are the average response times to complaints?	Complaints received by telephone are usually responded to on the same day. Written complaints are dealt with within five days.

G.3.5 Corporate Culture

The PWD displays characteristics of an engineering-led organization. Training of employees is mainly aimed at increasing "hard" skills (such as mechanical engineering and customer service skills), but it also encompasses "softer" skills, such as presentations, report writing, and interpersonal communication.

Staff turnover in the PWD is mainly due to retirement.

Promotion and salary increases follow civil service rules: all candidates for promotion must have taken a test or undergone some form of measurement to have their names added to a list of eligible candidates. Managers are then allowed to interview and make a selection from only the top two candidates. Any salary adjustments are set according to fixed pay scales, with annual increments being applied until the top of a scale is reached.

Key Indicators on Corporate Culture	
What factors influence promotion, salary adjustment decisions, or both?	All processes are stipulated by the civil service rules.
What is the annual staff turnover?	N/A
What are the training costs per year as a percentage of operational budgets?	0.4%
Are staff informed about meetings of management?	Yes
What is the ratio of support and technical staff to management?	9.5:1
Is the mission statement internally visible in the PWD?	No

G.4 Sequence of Reforms

Following a period of poor performance, coupled with allegations of corruption, the municipality introduced the Philadelphia Home Rule Charter in the early 1950s in an attempt to isolate the PWD and remove it from the political arena. The charter requires the PWD to set charges and tariffs for supplying water and wastewater services in accordance with the standards laid down by the Philadelphia City Council. These standards must enable the city to obtain sufficient income from the charges and tariffs and meet the cost of operating the system, any debt service charges, and the proportional costs of other city departments that support the PWD. One major impact of this was to effectively ring-fence the finances of the PWD into an enterprise fund of the city, the Water Fund (distinct from the city's tax-derived General Fund).

The existence of this independent Water Fund allowed the PWD to raise funds from the bond market during the 1970s, a practice that continues to the present day. The bonds in turn demand the continued independence of the Water Fund. Currently, the PWD is 98 percent self-financing from customer revenues, bond proceeds, and interest. It also has a small, annual federal grant, equivalent to 2 percent of the value of the sewerage system in service, to make up the 100 percent.

G.5 Conclusions

Since the 1950s, the PWD has shown considerable performance improvements. The strengths of the PWD are a result of:

- the ring-fencing of the utility, which created more autonomy for the utility and provided a degree of isolation from the political arena; and
- raising funds from the bond market, which requires the PWD, as issuer of the bonds, to be very transparent in honoring its obligations for servicing and repaying the bonds. This means that the PWD has a strong accountability concerning its current and future financial performance.

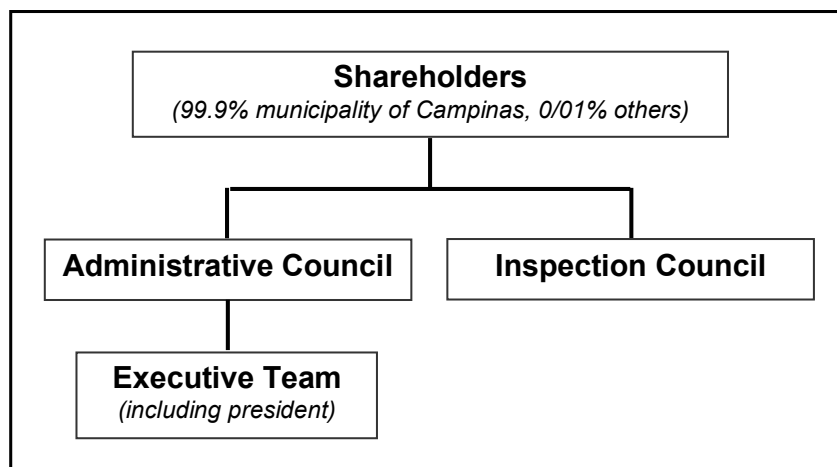
Some obstacles and threats do pose considerable challenges for the PWD. The recruitment, promotion, and salaries of its staff members are effectively dictated by the civil service rules, leaving the PWD with very limited flexibility in this area. Although the PWD is apparently successful in spite of this latter constraint, it is possible that it could have a more significant impact over the next two years because a number of very influential senior managers are due to retire and replacements have yet to be selected. On the regulatory side, the PWD is effectively and fairly regulated in relation to its water and wastewater quality standards. The one weakness in relation to service standards is the absence of a bona fide or external regulator, meaning that the PWD essentially sets and monitors its own performance targets.

Finally, though the PWD's performance with regard to customer orientation is good, there is a lingering impression that this is still in its infancy, and the PWD could (and probably will) become more customer-focused. In other words, it will likely move from an engineering-led to a customer-led organization.

ANNEX H WATER SUPPLY AND SANITATION COMPANY, CAMPINAS, BRAZIL

H.1 Introduction and General Description

The Campinas Water and Sewerage Corporation / Sociedade de Abastecimento de Água e Saneamento (SANASA) in Campinas, Brazil, is a government-owned company. The municipality of Campinas owns 99.99 percent of the shares of this joint stock company. The remaining 0.01 percent of the shares is owned by others, varying from the mayor of Campinas in 1973 to the municipal company for development of Campinas. The Administrative Council sets the general direction that SANASA follows, approves the annual plan, and supervises the executive team. Being a joint stock company, SANASA also has an inspection council, which is a consultative body that analyzes proposals and decisions on a range of issues. The Inspection Council reports to the Administrative Council and once a year to the Shareholders Meeting. The Administrative Council has a minimum of three and no more than five members, who are elected or dismissed by the shareholders. Election of members is based on both political affiliation and professional experience. Day-to-day management of the utility is the responsibility of a four-member Executive Team, which is appointed by the Administrative Council every year. The Inspection Council is a consultation body without decision-making powers. They report their views to the Administrative Council and at least once per year to the General Assembly.



General Characteristics SANASA	2000	2001	2002
Population served	N/A	N/A	982,977
Water supply connections	N/A	N/A	209,091
Sewerage connections	N/A	N/A	186,652
Number of employees	N/A	N/A	1,609
Unaccounted for water	26.66%	26.62%	26%
Working ratio	0.65	0.81	0.79
Staff per 1,000 connections	4.16	4.11	4.13
Staff per 1,000 population served	1.65	1.73	1.68
Accounts receivable as a share of annual revenue, expressed in month's sales	2.5	3.5	3.2
Service coverage, water supply	98.54%	98.60%	98.89%
Service coverage, sewerage	87.06%	87.47%	88.09%
Average domestic tariff (U.S. dollars per 10 cubic meters)	1.75	2.39	2.62

H.2 Institutional Environment

H.2.1 External Autonomy

As a joint stock company, SANASA has a strong (nominal) legal autonomy. However, the fact that SANASA has one major shareholder, the municipality of Campinas, reduces its autonomy. The municipality appoints the President and the Executive Team through the shareholders' meeting. These appointments are based on a combination of professional suitability and political affiliation. Changes in the municipal government usually lead to changes in the Executive Team.

Much depends on how the municipality uses its powers as a major shareholder. Not long ago, SANASA was losing money and had major problems in developing new infrastructure and service because of lack of financial resources and management capacity. The present municipal administration—in office since 2000—made a genuine and successful effort to improve the performance of SANASA. The challenge to SANASA is to sustain its success through future city government successions. To improve its performance, SANASA is developing a long-term strategy to consolidate its performance improvements through its Strategic Plan 2010. SANASA is also striving to obtain ISO 9000 certification.

SANASA is partially financially autonomous. Tariffs are its main source of income to cover operation and maintenance costs, but they do not cover capital costs. To cover these expenses, SANASA has taken out loans with both government institutions and private banks.

Recruitment is not a significant problem in Campinas, an industrial city with a well-established university. By law, all positions must be open for internal applications first and are opened for external application only afterwards. This requirement limits the influence of the municipal government on staffing issues. The pay scales are determined by a committee within SANASA, created exclusively for the issue of setting salaries and positions.

Water scarcity is not a major issue in Campinas. The state's Department of Water and Energy regulates abstraction of water resources. SANASA currently uses 83 percent of its allocated quantity, and the allocated water resources are expected to be sufficient until at least 2010.

Key Indicators on External Autonomy

Who determines the pay scales for the various levels within the utility?	Administration
What is the basis for appointing members to the Board of Directors?	Political representatives and professionals
Is the utility able to take out loans without prior approval from the owner?	No
Is the utility allowed to terminate service delivery to defaulters?	Yes
Who is responsible for setting tariffs?	Utility
Does the utility follow public sector procurement rules?	Yes

H.2.2 External Accountability

Performance is measured by four sets of indicators. The first set relates to the goals set for the 2000–04 municipal administration, including targets on coverage, customer service, and reliability of water supply. Second, targets have been set for the annual plan 2003–04, including indicators such as energy efficiency and absenteeism. Third, the Strategic Plan 2010 defines a set of longer-term indicators. Finally, the company must adhere to the performance targets defined in its loan agreements.

The main lines of accountability for SANASA are:

- To its owner—a report is submitted annually to the owners detailing the performance of the company. The report includes the balance sheet, all relevant financial information, and an activity report, as well as an annual plan and budget for the next year. The municipal *tribunal de contas* (accounts tribunal) evaluates the information that SANASA presents. SANASA must publish its balance accounts annually in a newspaper and submit them to a federal regulator of joint stock companies.
- To its regulators—the national Ministry of Health sets and enforces drinking water standards. The Ministry of Environment at the state level establishes and enforces wastewater standards. The abstraction of water resources is regulated by the state's Department of Water and Energy.
- To financial institutions—loan agreements between SANASA and the Federal Economic Bank (CEF – Caixa Econômica Federal) have stipulated performance indicators and targets relating to service standards. SANASA reports on these performance indicators every six months. The reports are not published, but they are available on request. If SANASA does not achieve the specified targets, it becomes ineligible for further financing from the CEF. SANASA has a Baa2.br credit rating from Moody's.

- To customer organizations and nongovernmental special interest groups—SANASA does not have its own customer organization. Dissatisfied consumers can approach the consumer agency, PROCON (Programa de Defesa do Consumidor), which protects the interests of consumers.

Key Indicators on External Accountability for Results

Does the utility have a customer charter that specifies performance targets, and are there any financial penalties for nonperformance?	No
Does the utility have to meet specified performance targets set by or agreed upon with the owners?	No
Is an annual report produced that is audited by an external accountant?	Yes
Are external groups represented in advisory or management oversight bodies of SANASA?	No
Has the utility secured loans in the commercial market on its own credentials or ability?	Yes
Does the utility participate in some form of credit-rating scheme?	Yes
Does the lender impose financial covenants on SANASA?	Yes

H.3 Internal Functioning of the Utility

H.3.1 Internal Autonomy: Decentralization of Authority within the Utility

In general, decisions are prepared by working groups within SANASA and approved and endorsed by the Executive Team and the Administrative Council, respectively. The decision-making procedure in the utility is based on using working groups or committees that incorporate the most qualified personnel for that particular issue. It is quite rare for management to reject proposals of working groups.

Internal work processes and standards are developed within the various departments and are approved by the executive team.

The tariff structure is determined by an in-house commission, which has been established for the sole purpose of developing a proposal for the tariff structure. The Administrative Council makes the final decision about the tariff structure. At present, the proposed tariff structures are passed to the municipality for endorsement, even though there is no legal obligation to do so.

Procurement is handled by groups from various departments. These groups develop a proposal on the basis of a financial, administrative, or technical analysis that is presented to the Executive Team and the Administrative Council for information, but does not require approval.

Recruitment is carried out through open applications. The vacancy is first announced internally and then externally. The decision about hiring new staff is made by the manager involved and the respective director, who inform the Executive Team of their decision. The termination of service is the responsibility of the Commercial Department and is done according to internal policy.

Key Indicators on Decentralization of Authority within the Utility

What is the purchasing ceiling for procurement of operational departments as a percentage of operational budgets?	N/A
Does the hiring of staff members in departments require prior approval from the managing director?	No
How many layers of management separate the chief executive and the entry-level workers?	Four levels
At what level are internal work processes and standards defined?	Management and departmental level
In what areas do field staff have decision-making powers?	All

H.3.2 Internal Accountability for Results

The Executive Team submits all financial information about the utility to the Administrative Council and the Inspection Council in time for the monthly meetings. The councils can request any information they desire at any time. The Administrative Council and the Inspection Council jointly approve the budget and tariffs.

There is no specific way to evaluate the performance of employees. Although some managers undertake evaluations at their own initiative, these evaluations are not structured or standardized. All employees have a contract detailing their duties and tasks, but not the performance that is expected of them.

Key Indicators on Internal Accountability for Results

How often does the chief executive meet with the board?	Monthly
Are penalties and rewards applied to the chief executive and directors for failing to achieve or achieving specified performance targets?	Only rewards are applied.
Are penalties and rewards applied to the staff by the management for failing to achieve or achieving specified performance targets?	Only rewards are applied.
Are staff subject to annual evaluations of their functioning?	No

H.3.3 Market Orientation

SANASA outsources 21 percent of its operational budget. Outsourced services include noncore functions, consulting services, billing and collections, works, and certain operational functions. SANASA outsources any activity that would require staff to work overtime. The utility follows public procurement rules.

SANASA partakes in the analysis of water and sewage services, a national benchmarking exercise undertaken annually by the National Information System of Sanitation Companies. It uses its benchmark results to prioritize future plans. SANASA has not undertaken any market testing exercises.

Key Indicators on Market Orientation

What is the value of contracts outsourced as a percentage of the operational budget?	20.77%
What is the nature of the functions that are outsourced?	Noncore functions, consulting services, billing and collections, certain operational functions
How often does SANASA engage in benchmarking exercises?	Once per year
In what areas are benchmarking activities undertaken?	Water quality, service, environment, finance and efficiency, and so on
Does SANASA engage in market testing, and does it develop internal markets?	No

H.3.4 Customer Orientation

At present, customer orientation is relatively weak. There are few mechanisms to evaluate customers' opinions. Response times to complaints are high. SANASA is aware of these shortcomings in service, and in its Strategic Plan 2010, it identifies client satisfaction as one of the indicators by which to evaluate its performance in the future.

The main feedback SANASA receives from its customers is via the participatory budgeting process. This is an initiative set up by the municipality in which the residents can decide the priority areas on which the municipality should spend its budget. The results of this consultation are submitted to SANASA, and the utility is expected to take actions in the priority areas.

A 2001 customer survey was generally positive, but identified two weak points: water quality and customer service. After this survey, programs were implemented to improve in these areas, including training courses on customer service.

Customers can contact the utility in person (through the main office, 12 service points, and one mobile unit), through a 24-hour call center, or on the Internet. All information from customers is registered in a tracking system, which is, however, not always functioning well. Each month, between 18,000 and 21,000 complaints are received in person, and between 38,000 and 55,000 complaints are received by phone. Bills cannot be paid in the utility's office, but must be paid in banks.

Key Indicators on Customer Orientation

In what ways can the bills be paid?	In banks and lottery selling points
In what ways does SANASA proactively seek the opinions and views of its customers?	Customer surveys
What options for service delivery does SANASA provide?	In-house connection, block connection, and some public standpipes for the periurban communities
In what ways does SANASA actively inform its customers about changes related to service provision?	Newspapers, Internet, radio, and <i>carro de som</i> (speaker car)
What is the percentage of complaints addressed?	100%
What are the average response times to complaints?	New connection, 11 days; leaks, 17 hours.

H.3.5 Corporate Culture

Most SANASA staff members have been employees of the company for a long time and have an in-depth knowledge of the company as a whole. Training opportunities exist for all levels in the company. Nearly 0.4 percent of the operational budget is used for staff training.

SANASA's mission and vision statements are not well known to its employees. The company is currently implementing a quality improvement program, 5S, which is one step toward achieving ISO 9000 certification. The 5S program aims to improve the work environment and reach a commitment to the program's objectives from all employees.

Salary adjustments take place once a year, and the increases for staff are standardized (except for the executive team), regardless of individual or group performance. An internal committee proposes salary adjustments based on external factors, such as the sociopolitical situation, the growth perspective of the company, and what other utilities are offering. The executive team reviews and endorses the proposal of the committee after negotiation with the unions.

Key Indicators on Corporate Culture

What factors influence promotion, salary adjustment decisions, or both?	Skills and qualifications
What is the annual staff turnover?	2.05% in 2002
What are the training costs per year as a percentage of operational budgets?	0.39%
Are staff informed about meetings of management?	On a need-to-know basis
What is the ratio of support and technical staff to management?	1.4:1
Is the mission statement internally visible in SANASA?	No

H.4 Sequence of Reforms

Under the municipal administration before 2000, SANASA faced considerable financial and service-level problems as performance failed to improve and the demands of the population kept growing. The utility faced problems of corruption, especially in relation to awarding of contracts. Another problem was that the influence of the municipality in the day-to-day functioning of the utility was strong.

When the present administration came into power in 2000, they first focused on addressing the financial problems of the utility. The problems were addressed by reviewing and renegotiating existing contracts with suppliers and adjusting the tariff structure. Following these measures and in the aftermath of the customer survey, the utility strengthened its customer focus. This included, for example, expanding service coverage to periurban areas. Another major focus was the reduction of unaccounted for water by use of state of the art technologies, which coincided with a training effort to ensure that SANASA's staff could apply these technologies. The next step is the further implementation of the 5S program, which eventually should lead to ISO 9000 certification.

H.5 Conclusions

SANASA is a well-performing utility. Its strengths are:

- The utility has considerable autonomy. Its management model of an *empresa mixta* (joint venture) gives it substantial nominal legal autonomy. However, in reality, the municipality of Campinas, as SANASA's major shareholder, has a decisive influence on the utility. SANASA is partially financially autonomous. Its lenders hold the utility accountable for its performance.
- SANASA has a strong internal management system. It attracts and maintains qualified, experienced, and motivated personnel. Its working group-based decision-making process makes use of its most qualified personnel and provides a substantial degree of autonomy to its staff.
- SANASA captures the benefits of competition between suppliers outside the utility through considerable outsourcing. It benchmarks itself in relation to other utilities.

The largest threat to SANASA's future performance is its limited institutional defense against political interference of municipal politicians. Currently, SANASA has a very good relationship with the municipality of Campinas, which supports the direction of SANASA's work. The challenge to the utility is to continue being successful upon changes in the municipal government. SANASA's management is trying to consolidate its performance improvements through its Strategic Plan 2010 and its quest for ISO 9000 certification. However, only time will tell whether it will be able to institutionalize its good performance by shielding itself from excessive political interference in the long run.

ANNEX I MUNICIPAL DRINKING WATER AND SEWERAGE SYSTEM, GUANAJUATO, MEXICO

I.1 Introduction and General Description

The Municipal Drinking Water and Sewerage System of Guanajuato, SIMAPAG (*Sistema Municipal de Agua Potable y Alcantarillado de Guanajuato*), is a statutory body. The municipality of Guanajuato established SIMAPAG in 1992 and owns it.

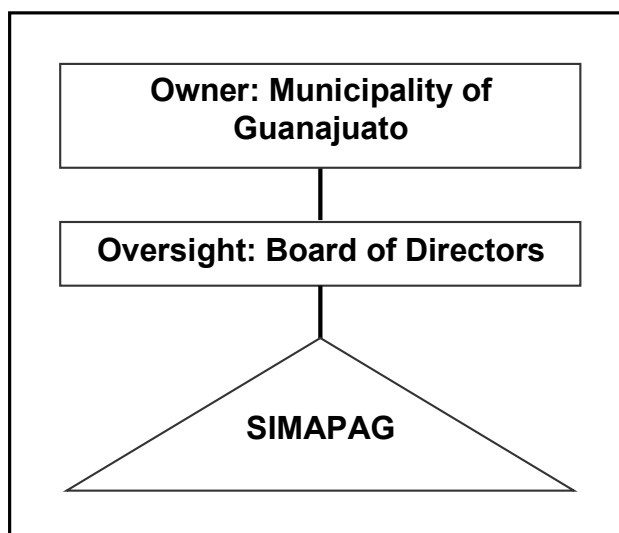
Management oversight responsibilities are held by a Board of Directors consisting of nine members plus a nonvoting representative from the municipality.

SIMAPAG has a legal status separate from that of the municipality, and as such, the utility's assets are owned by the utility rather than the municipality.

The members of the Board of Directors are representatives from rural communities, neighborhood associations, chambers of commerce or services, established businesses, professional institutes, workers' organizations, NGOs, users' organizations, and higher education.

Applications to become a board member are submitted to the Commission of Public Works, which

considers the profile and professional experience of the applicants. These considerations are then forwarded to the municipality, which appoints the board members for a limited term. A new board is appointed each time a new municipal government is elected.



General Characteristics of SIMAPAG	2000	2001	2002
Population served	N/A	N/A	141,196
Water supply connections	N/A	N/A	24,244
Number of employees	N/A	N/A	207
Unaccounted for water	26%	29%	37%
Working ratio	0.84	0.8	0.77
Staff per 1,000 connections	7	8	8
Staff per 1,000 population served	1.5	1.5	1.5
Accounts receivable as a share of annual revenue, expressed in month's sales	2.7	2.2	1.5
Service coverage, water supply	95%	95%	94.4%
Service coverage, sewerage	82%	96.8%	96.8%
Average domestic tariff (U.S. dollars per cubic meter)	0.24	0.29	0.35

I.2 Institutional Environment

I.2.1 External Autonomy

Standards for drinking water quality, set by the Ministry of Health, and discharge of wastewater, set by the National Water Commission (*Comisión Nacional del Agua - CNA*), are set and regulated by the federal government of Mexico. The water sector in Guanajuato is not subject to any service standards imposed by outside agencies. Abstraction of water resources requires licenses from the CNA.

Currently, SIMAPAG uses approximately 40 percent of the yearly volume of water it has been assigned by the CNA, meaning that the availability of water resources is not a problem for SIMAPAG.

The influence of the municipality and the state congress can be considerable because they approve tariff setting and the annual budget. Nevertheless, SIMAPAG's statutes dictate that revenue generated by the utility cannot be used for any other purposes than those of the water utility. The main income of SIMAPAG is derived from water tariffs and new connections. This income is enough to

cover operation and maintenance and a small fraction of investment costs, but the utility is dependent on grants from the state's water commission for funding investments. These grants usually require matching funds.

The main threat to SIMAPAG's level of autonomy derives from the influence of the municipal owners. Often, a change in the municipal government (which occurs every three years) will lead to a change in the utility's management team. In most cases, the new managing director is appointed on the basis of political affiliation or friendship with the new mayor.

Key Indicators on External Autonomy

Who determines the pay scales for the various levels within the utility?	The municipality approves proposals by the board and management.
What is the basis for appointing members to the Board of Directors?	Representatives of community organizations
Is the utility able to take out loans without prior approval from the owner?	No
Is the utility allowed to terminate service delivery to defaulters?	Yes
Who is responsible for setting tariffs?	The municipality and state congress approve.
Does the utility follow public sector procurement rules?	Yes

1.2.2 External Accountability

The main lines of accountability for SIMAPAG are:

- To its owner—the only clear and measurable targets that SIMAPAG must achieve are mentioned in the annual plan submitted to and approved by the municipality. SIMAPAG is obliged to send bimonthly reports to the municipal controlling agency, which checks progress according to the annual plan. In addition, the owner receives quarterly reports from the Board of Directors, detailing financial and operational issues. Moreover, a nonvoting member represents the municipality on the Board of Directors.
- To its regulators—SIMAPAG reports weekly to the Ministry of Health, and every three months to the CNA, on meeting quality standards for drinking water and discharge of wastewater. In addition, SIMAPAG must report on the levels of abstraction of water resources to the CNA every three months. SIMAPAG is also required to provide a bimonthly report about a series of performance indicators to the state's water commission.
- To financial institutions—when investment funds are acquired from the state (through the state's water commission) or from federal agencies, monthly reports detailing the way these funds are spent need to be provided to (and validated by) these financiers. In the period 2001–03, approximately US\$250,000 was acquired by SIMAPAG in this way.
- To customer organizations and nongovernmental special interest groups—SIMAPAG does not report to a customer organization. Dissatisfied consumers can approach the customer service department of SIMAPAG.

Key Indicators on External Accountability for Results

Does the utility have a customer charter that specifies performance targets, and are there any financial penalties for nonperformance?	No
Does the utility have to meet specified performance targets set by or agreed upon with the owners?	No
Is an annual report produced that is audited by an external accountant?	Sometimes
Are external groups represented in advisory or management oversight bodies of SIMAPAG?	Yes
Has the utility secured loans in the commercial market on its own credentials or ability?	No
Does the utility participate in some form of credit-rating scheme?	No
Does the lender impose financial covenants on SIMAPAG?	Yes

I.3 Internal Functioning of the Utility

I.3.1 Internal Autonomy: Decentralization of Authority within the Utility

Apart from matters relating to tariff setting, the annual budget, and the taking out of loans, most decisions are made by the Board of Directors and the Management Team. The board mainly focuses on strategic decision making, and the Management Team focuses on operational decisions. In the most recent administration, however, the board became more involved in operational decision making, which created considerable friction with the Management Team.

Procurement decisions are mainly carried out by the procurement coordinator (operating under the business and accounting director), who is responsible for purchasing goods and services at the request of other departments. However, all checks need to be signed by the managing director, the president of the board, or the administrator, meaning that any procurement decisions in essence require prior approval.

Decisions relating to hiring and firing of employees are the responsibility of either the managing director or the board (if the person being hired or fired is the managing director).

In contrast to the types of decisions previously mentioned, decisions relating to customer services are relatively decentralized. The employee in the customer services department who receives a complaint can choose to deal with it directly or, if required, can report the complaint to other departments (for further processing).

Key Indicators on Decentralization of Authority within the Utility

What is the purchasing ceiling for procurement of operational departments as a percentage of operational budgets?	In practice, all procurement decisions require approval from the managing director and president of the board.
Does the hiring of staff members in departments require prior approval from the managing director?	Yes
How many layers of management separate the chief executive and the entry-level workers?	Four levels
At what level are internal work processes and standards defined?	Management and departmental levels
In what areas do field staff have decision-making powers?	Customer service, maintenance, billing and collection, storage of materials, suspension of service

I.3.2 Internal Accountability for Results

SIMAPAG measures its performance internally by way of a balanced scorecard. The balanced scorecard incorporates a series of indicators that provide four different perspectives on the utility, which together are considered to provide a good picture of the overall functioning of the utility. These perspectives include a client's perspective (considered to be the most important), a financial perspective, a process perspective (which includes a number of efficiency indicators), and a learning perspective (which covers indicators such as absenteeism, rotation of personnel, and so on). The indicators measuring the four perspectives of the scorecard are compiled monthly and reported to the Board of Directors.

The performance of the employees is evaluated every month according to criteria of attendance and punctuality (30 percent) and job performance (70 percent). Based on an evaluation by their immediate superior, employees receive a bonus based on their score on these criteria. In management positions, however, it is rare to find any employees scoring below 100 percent.

Key Indicators on Internal Accountability for Results

How often does the chief executive meet with the board?	Twice per month
Are penalties and rewards applied to the chief executive and directors for failing to achieve or achieving specified performance targets?	No
Are penalties and rewards applied to the staff by the management for failing to achieve or achieving specified performance targets?	Yes
Are staff subject to annual evaluations of their functioning?	No

1.3.3 Market Orientation

SIMAPAG does not have a strong market orientation. It outsources about 20 percent of its operational budget, mostly for engineering works.

The utility does partake in a benchmarking exercise carried out every year by the state's water commission, but it does use the data resulting from this benchmarking exercise, mostly for ad hoc comparisons with other utilities.

No market testing exercises are carried out by the utility.

Key Indicators on Market Orientation

What is the value of contracts outsourced as a percentage of the operational budget?	20.37%
What is the nature of the functions that are outsourced?	Public works and engineering projects, development of an operations manual, feasibility studies, the external audit, ICT, collection of uncollected bills, development of a new water culture, and tariff studies
How often does SIMAPAG engage in benchmarking exercises?	Indicators are sent to the state's water commission every two months.
In what areas are benchmarking activities undertaken?	Water quality, service levels, financial performance, efficiency indicators
Does SIMAPAG engage in market testing, and does it develop internal markets?	No

1.3.4 Customer Orientation

Because SIMAPAG's customers have to pay one of the highest tariffs in the state of Guanajuato, they have become more and more demanding. SIMAPAG has responded to this development by increasing its customer orientation. The utility actively seeks the opinion of its customers by undertaking about 200 customer surveys per month in which customers are asked about their level of satisfaction with provided services. The results of the surveys are used to determine the "image indicator," which the utility uses internally as its most important performance indicator.

A few years ago, employees working with customers underwent a training program relating to customer services sponsored by the state's water commission. Employees who took that training periodically have to attend refresher courses.

SIMAPAG also implemented a tracking system for complaints that has improved the utility's ability to address complaints effectively.

Key Indicators on Customer Orientation

In what ways can the bills be paid?	At SIMAPAG's office, banks, at <i>cajas populares</i> (small local banks), and small businesses
In what ways does SIMAPAG proactively seek the opinions and views of its customers?	Customer surveys to about 200 people per month, suggestion box at the SIMAPAG office
What options for service delivery does SIMAPAG provide?	In-house connection, block connections, and tank trucks to rural areas
In what ways does SIMAPAG actively inform its customers about changes related to service provision?	Flyers added to the receipt, newspapers, radio, and <i>perifoneo</i> (speaker car).
What is the percentage of complaints addressed?	100 percent of the complaints are addressed.
What are the average response times to complaints?	Response time to a leak is about five hours. A reconnection is done in one day.

1.3.5 Corporate Culture

SIMAPAG is generally seen as a good place to work, and most staff members have worked at the utility for a long time, providing for stability and continuity in the utility's operations. However, changes in the management of the utility occur relatively frequently (because changes in the municipal government often result in changes in the management of the utility and its Board of Directors). Moreover, in the past year, the Board of Directors has involved itself on multiple occasions with operational decisions, which has led to considerable friction between the board and the managing director. This has resulted in the (forced) resignation of the managing director.

In recent years, the development of a balanced scorecard for the utility (which has effectively replaced the mission and vision) has assisted in providing the employees with a common aim and clarifying the goals and objectives that the utility seeks to achieve.

The utility provides training opportunities for its employees, but in recent years, training activities have focused more on the management level than on the SIMAPAG's operational staff.

Key Indicators on Corporate Culture

What factors influence promotion, salary adjustment decisions, or both?	Work achievements, level of education, and availability of a position
What is the annual staff turnover?	In 2003 (January to June), 4.33%
What are the training costs per year as a percentage of operational budgets?	0.46%
Is the staff informed about meetings of management?	No
What is the ratio of support and technical staff to management?	6.2:1
Is the mission statement internally visible in SIMAPAG?	No

1.4 Sequence of Reforms

As a result of a series of droughts, which led to a severe water shortage in the city of Guanajuato in the 1980s, pressure to improve water services in the municipality of Guanajuato was considerable. Because of this, strong political and popular support existed to take drastic measures to ensure reliable water services.

The improvement of water services incorporated a number of steps. First, tariffs were raised (with the tariff being indexed to ensure that it exceeded the rate of inflation), a policy of terminating service provision to defaulters was introduced, and a reliable system of billing and collection was implemented. Later, SIMAPAG focused on improving its customer orientation and the quality of service it provides to its customers. This was achieved by actions such as spreading out the collection period (to avoid a large number of people paying their bills at the SIMAPAG office at the same day of the month) and learning the opinions of users through surveys. Currently, SIMAPAG has a strong focus on developing its balanced scorecard, which will help to monitor performance and support strategic decision making over a longer time.

I.5 Conclusions

The strengths of SIMAPAG can be summarized in the following points:

- Over the past decade, SIMAPAG has developed a strong customer orientation, partly because their customers, who pay one of the highest tariffs in the state, have become more and more demanding. The strong customer orientation is also reflected in the balanced scorecard in which the client perspective is considered to be the most important perspective for assessing the utility's performance.
- The development and implementation of internal management tools such as the balanced scorecard is another strength. The balanced scorecard is used as a means of assessing the utility's performance, as well as a tool to make explicit the objectives that the utility seeks to achieve over the next three years. As such, it has replaced the largely unknown mission and vision of the utility. It is expected that in the future the scorecard will also be used to decide upon activities that have high priority. Eventually, it is to be used as a basis for evaluating the performance of employees and departments within the utility.
- SIMAPAG is seen as a good place to work and has no difficulty attracting qualified staff.

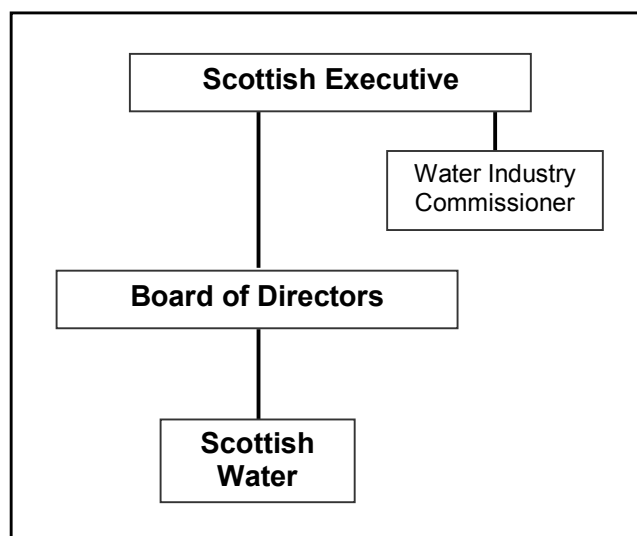
However, some questions need to be raised regarding the future performance of SIMAPAG. In the water sector in Guanajuato, the influence of the municipality and the state congress is considerable (especially in relation to tariff setting, the budget, and appointment of board members) and can therefore potentially limit SIMAPAG's autonomy. With the municipal government changing every three years and with changes in the municipal government often being associated with changes in the utility's management and Board of Directors, the utility operates in a continuously changing environment. In such an environment, one of SIMAPAG's biggest challenges is maintaining a degree of stability within the management levels of the utility.

ANNEX J SCOTTISH WATER, SCOTLAND

J.1 Introduction and General Description

Scottish Water (SW) is a government-owned company. It was established under the Water Industry (Scotland) Act 2002. It is the fourth largest provider of water and sewerage services in the United Kingdom. SW is owned by the government of Scotland and is answerable to the Scottish Parliament (through the Scottish Executive).

A legally constituted Board of Directors operates between SW and the Scottish Executive. This Board of Directors comprises 12 directors, including 5 executive directors and 7 nonexecutive directors, of which 1 is the chairman. The nonexecutives are all appointed by the Scottish Executive from outside, and they are primarily chosen for the experience and business expertise they can contribute. Of the executive directors, only the chief executive is appointed directly by the Scottish Executive; the other executive directors are appointed by the chairman and the chief executive.



<i>General Characteristics of SW</i>	<i>2002</i>
Population served	4.863 million
Number of retail customer accounts	2.389 million
Number of employees	4,543
Unaccounted for water	41.5%
Working ratio	0.52
Staff per 1,000 connections	1.9
Staff per 1,000 population served	0.92
Accounts receivable	96%
Service coverage, water supply	98.3%
Service coverage, sewerage	95.6%
Average charges per year (water and sanitation) (U.S. dollars per connection)	404.31

J.2 Institutional Environment

J.2.1 External Autonomy

Drinking water quality standards, linked to the Water Quality 1000 index, are determined by the Drinking Water Quality Regulator (DWQR), which, although part of the Scottish Executive (SW's "owner"), has legal autonomy. Environmental standards, including wastewater discharge standards, are set by the Scottish Environmental Protection Agency (SEPA).

The Water Industry Commissioner (WIC) for Scotland is the economic and service standards regulator. The WIC is officially only an adviser to the Scottish Minister for the Environment and Rural Affairs, with no direct, formal relationship to SW. As a result, there are no formal mechanisms for resolving conflict. Although the WIC officially has only an advisory role, it is considered to be a very influential organization, in terms of both determining the revenue cap and setting service standards.

Every four years, the Scottish ministers give SW a revenue cap that restricts the amount of revenue it can raise from its core business customers, but the utility can generate additional revenues from noncore business activities. Alongside the revenue cap, the Scottish ministers also determine SW's

borrowing requirement for the same four-year period. This means that the ministers effectively finance the entire operations and capital investment program of SW.

Service standards are set by the Scottish Ministry of Environment and Rural Affairs acting upon advice from the WIC. SW is subject to a number of service standards covered in its code of practice.

Regulations concerning the use of water resources are the responsibility of SEPA. However, in Scotland, no permits are required for the abstraction of groundwater.

SW determines the number of employees within the constraints of its revenue cap. The Scottish Executive approves any collective pay increases and also plays a key role in determining the remuneration of directors.

Key Indicators on External Autonomy

Who determines the pay scales for the various levels within the utility?	Directors
What is the basis for appointing members to the Board of Directors?	Open selection
Is the utility able to take out loans without prior approval from the owner?	No
Is the utility allowed to terminate service delivery to defaulters?	No
Who is responsible for setting tariffs?	The Scottish ministers set a revenue cap based on advice from the WIC.
Does the utility follow public sector procurement rules?	Yes

J.2.2 External Accountability

The main lines of accountability for SW are:

- To its owner—SW is required to report both monthly and yearly to its owner on its performance in relation to its revenue cap, borrowing limit, Opex (operational expenditures) efficiency target, and Capex (estimates for capital) efficiency target. SW also reports directly to the Scottish Executive on a monthly basis about its performance against a basket of key performance indicators.
- To its regulators—SW has to report monthly in writing to both SEPA and the DWQR about its quality standards performance. The utility has to report on monthly, quarterly, half-yearly, and annually to the WIC about its performance in service standards.
- To financial institutions—SW obtains its loans from the Royal Bank of Scotland against the guarantee of its owner, the Scottish Executive. For this reason, there are no specific reporting requirements, nor are any covenants imposed by the lender.
- To customer organizations and non-governmental special interest groups—there are five water customer consultation panels established by legislation within Scotland, each covering a specific geographical area. These have been in existence for some time, and their role is to listen to customers' views and report back to both the SW and the WIC.

Key Indicators on External Accountability for Results

Does the utility have a customer charter that specifies performance targets, and are there any financial penalties for nonperformance?	Yes
Does the utility have to meet specified performance targets set by or agreed upon with the owners?	Yes
Is an annual report produced that is audited by an external accountant?	Yes
Are external groups represented in advisory or management oversight bodies of SW?	No
Has the utility secured loans in the commercial market on its own credentials or ability?	No
Does the utility participate in some form of credit-rating scheme?	No
Does the lender impose financial covenants on SW?	No

J.3 Internal Functioning of the Utility

J.3.1 Internal Autonomy: Decentralization of Authority within the Utility

Decision-making powers are generally delegated in SW, but procedures, processes, and decision trees are approved at the board level. Any matters that could have an impact on SW's image, operation, or relationship with its owner, such as collective pay agreements, dismissals, organizational changes, or budgets, are decided upon at the highest level. This means that SW has to seek approval from its owner before embarking on any actions that are deemed to be "novel or contentious."

Key Indicators on Decentralization of Authority within the Utility

What is the purchasing ceiling for procurement of operational departments as a percentage of operational budgets?	N/A
Does the hiring of staff members in departments require prior approval from the managing director?	Yes, through the annual budget process
How many layers of management separate the chief executive and the entry-level workers?	Six layers
At what level are internal work processes and standards defined?	At any level throughout SW, depending upon their impact and scope
In what areas do field staff have decision-making powers?	All areas (within a defined set of procedures)

J.3.2 Internal Accountability for Results

The chief executive reports formally to the board about the performance of SW against its various targets on a monthly basis. However, the chief executive has frequent contact with his or her fellow executive directors and meets regularly with the nonexecutive members, particularly the chairman. The executive directors are all eligible for annual bonus payments equivalent to between 30 and 40 percent of their base salaries for achieving their personal performance targets. Because SW has been established by statute as a "public corporation of a trading nature," SW has to raise its revenues entirely from customers and operate to commercial principles. This means, for example, that SW directors are personally liable, unlike those of other public utilities.

Within SW, the performance of the majority of employees is evaluated using the "setting targets and achieving results" process. This is an annual, points-based system used to determine eligibility for pay increases. Currently, it operates on a "go/no go" basis, but the intention is to refine it so that awards can be graded. The performance of managers and senior managers is appraised annually, focusing on competencies, value added, and approach, and is linked to the payment of individual bonuses. Managers can earn between 10 and 20 percent of their salaries as bonuses; while senior managers are eligible for awards of between 15 and 25 percent.

Key Indicators on Internal Accountability for Results

How often does the chief executive meet with the board?	Monthly
Are penalties and rewards applied to the chief executive and directors for failing to achieve or achieving specified performance targets?	Yes
Are penalties and rewards applied to the staff by the management for failing to achieve or achieving specified performance targets?	Yes
Are staff subject to annual evaluations of their performance in SW?	Yes

J.3.3 Market Orientation

SW has used outsourcing across a wide range of activities. Many of these are activities commonly outsourced by companies, for example, information technology services and asset maintenance, but SW has recently embarked upon its most ambitious project with the creation of Scottish Water Solution. This is a joint venture company (of which SW holds 51 percent) with two major private consortia. This company has complete responsibility for delivering SW's Asset Development Programme.

SW uses the performance data of the 10 private water companies in England and Wales as well as other major utilities to benchmark itself. Where benchmarking has been used, this has been at a high level and involved processes rather than activities.

SW has not engaged in a much market testing, but it has made extensive use of internal markets to stimulate a more commercial approach to its business.

<i>Key Indicators on Market Orientation</i>	
What is the value of contracts outsourced as a percentage of the operational budget?	N/A
What is the nature of the functions that are outsourced?	Information technology services, delivery of the capital program, asset maintenance, legal services, and training.
How often does SW engage in benchmarking exercises?	Not often
In what areas are benchmarking activities undertaken?	Quality and service standards
Does SW engage in market testing, and does it develop internal markets?	Limited activities in this area

J.3.4 Customer Orientation

Customer service is said to be at the heart of SW's strategic vision. A vital aspect of achieving this goal is to find out what customers really want and how they perceive SW. To this end, SW runs focus groups to test new ideas, and the results from these groups are evaluated by the board. A satisfaction survey is carried out with those customers who have received a direct service or transaction, and these results are reviewed internally. Finally, SW regularly undertakes a more general survey of customer satisfaction. These results not only form part of its key performance indicators reported to the Scottish Executive, but are also used in determining the executive directors' performance payments.

The code of practice and associated guaranteed minimum standards scheme are effectively a contract between SW and its customers. The code of practice allows for compensation to be paid to customers in the event that SW fails to meet its obligations. Some of these payments are automatic; others are initiated by the customer. Customers who use large volumes of water have specific agreements that set terms for service delivery, and these customers are also allocated a key account manager.

Customer service training is a priority in SW, with the focus on customer service, dealing with customers (behavior and competencies), and meeting the public.

Customers contact SW in a number of ways—24-hour contact centers, letters, email, SW's Web site, local offices (face to face), and public meetings.

The level of complaints (particularly from the business community) has risen following recent increases in charges, and this is partly due to the raising of SW's profile. The utility estimates that only 0.5 percent of its customers complain, but it takes this seriously and undertakes root cause analysis to determine the underlying reasons for complaints and gives feedback to operational departments.

<i>Key Indicators on Customer Orientation</i>	
In what ways can bills be paid?	Direct debit, standing orders, and postal payments
In what ways does SW proactively seek the opinions and views of its customers?	Public meetings, focus groups, point of service surveys, regular customer satisfaction surveys, specific consultation exercises, water customers consultation panels, and liaison with NGOs
What options for service delivery does SW provide?	Metered or unmetered house connections
In what ways does SW actively inform its customers about changes related to service provision?	Public notice; local media, public meetings and exhibitions, direct mail, and Internet
What is the percentage of complaints addressed?	100%
What is the average response time to complaints?	Written complaints are generally responded to by the seventh day. General operational complaints are dealt with by the eighth day.

J.3.5 Corporate Culture

SW is an embryonic organization currently undergoing a considerable program of change and transformation while striving to meet its customers' increasing expectations. There is a strong public service ethic throughout the business, as well as a recognition that the organization is on trial and needs to survive in public ownership. This latter point has led to a general recognition by the staff of the need to change.

SW spends approximately £2 million (0.6 percent of its operating budget) per year training its employees. A small percentage of this is allocated to managers to meet locally determined training needs, with the balance being used to fund more general programs that are focused, specific, and deliverable.

Employee promotions within SW are given purely on an open selection basis, with a strong emphasis on the competencies for the post. Selection processes involve two interviews, with the first entirely focused on the candidate's competencies.

Key Indicators on Corporate Culture

What factors influence promotion, salary adjustment decisions, or both?	Promotion is based on open selection. Salary adjustments are based on performance-related measures.
What is the annual staff turnover?	N/A
What are the training costs per year as a percentage of operational budgets?	0.6%
Is the staff informed about meetings of management?	Yes
What is the ratio of support/technical staff to management?	1 manager:23 staff
Is the mission statement internally visible in SW?	Vision and mission are currently being developed.

J.4 Sequence of Reforms

In 1972, regional water authorities were established in the United Kingdom with river basin mandates to undertake all aspects of water resources, water supply, drainage, wastewater treatment, flood control, and sea defenses. In the 1980s, privatization of infrastructure became a key tool of the UK government as a means of improving services, but also as a means to promote change in the mindset of the population ("to halt the decline") and challenge the right of the labor unions to control the water industry. Eventually, however, the sale of the regional water authorities in England and Wales in 1989 was justified as a means of financing the necessary capital investment in new service and environmental regulations. In contrast to developments in England and Wales, the three regional water authorities in Scotland (East of Scotland Water, North of Scotland Water, and West of Scotland Water) remained in public hands. It was not until April 1, 2002, that these three authorities merged to form the SW as the result of the Water Industry (Scotland) Act 2002.

The main reasons behind the creation of SW were:

- the need to substantially increase investment in the water and sewerage networks while ensuring that charges remain affordable,
- the increasing role that competition is playing in the market for water and wastewater services, and
- to provide better value for money to customers as a result of economies of scale.

J.5 Conclusions

SW leaves the lasting impression that it is a business that currently lies between a "rock and a hard place." On the one hand, it reports to an owner that is not much older than itself and is also experiencing growing pains. On the other hand, it faces an unloving customer base largely as a result of the "baggage" left over from its predecessors. Meanwhile, SW is faced with significant cultural and organizational change if it is to succeed and survive in its current form.

The SW model is conceptually good and has, in theory, all the right ingredients necessary to provide a robust and sustainable institutional framework:

- clarity of purpose,
- ability to select and pay top managers,
- available and predictable supply of funds, and
- clear regulation.

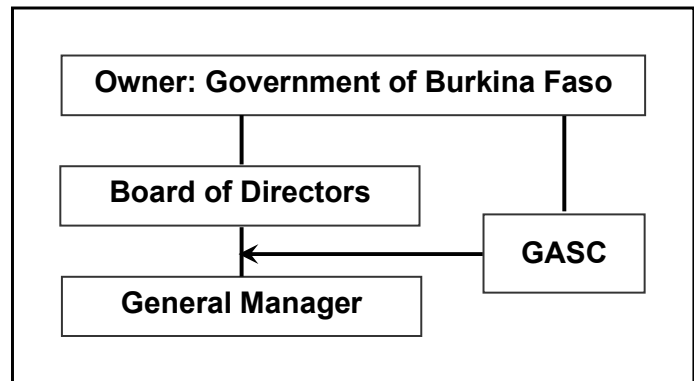
In practice, however, the reality appears to fall somewhat short of the ideal:

- Although politicians and civil servants support the conceptual business model, there is seemingly a lack of complete understanding about what that model is, how it works, and what the implications are.
- Politicians are tempted to intervene in the management of the company, especially when operational difficulties are experienced. SW has unfortunately experienced operational difficulties during its first year, albeit not of its own making. However, these have been seized upon by politicians to justify, for their own agendas, demands for a greater say in the management of the business.
- The economic regulator is an adviser to the political arm of government rather than an independent branch of the civil service with a direct link to SW, as is the case with the DWQR. This appears to have resulted in meddling by politicians in the regulation process, which has been to the detriment of customers. The image is one of a regulator operating indirectly through the backdoor, using strong political influence.

ANNEX K NATIONAL WATER SUPPLY AND SANITATION COMPANY, ONEA, BURKINA FASO

K.1 Introduction and General Description

The National Water and Sanitation Company in Burkina Faso, ONEA, is a limited liability company (*société d'état*) owned by the government since nationalization of the utility in 1977. It became ONEA in 1985 and functioned as a national umbrella organization for a number of municipal water utilities. From being a quasi-public agency (*établissement public à caractère industriel et commercial*—a public company with industrial and commercial characteristics) ONEA was transformed in 1994 into a state company with legal autonomy. This transformation took place one year after the adoption of the first performance contract, which includes financial and commercial objectives.



ONEA is managed by a general management heading five central departments. The utility is responsible for producing and distributing drinking water to the population in urban and semiurban centers in Burkina Faso. It has operated within three-year performance contracts since 1993 and has proven to be a fairly well-managed water utility. ONEA is in charge of water supply and sanitation in cities with more than 10,000 inhabitants. It covers 35 cities and secondary urban areas and has 13 autonomous water facilities. ONEA is a state-owned company with a Board of Directors operating as a limited liability company, governed by private law except for some state-regulated aspects (procurement, appointment of the general manager and Board of Directors, and so on).

ONEA belongs to the state, which is the sole shareholder. The company has a capital of CFA 3.08 billion. The Ministry of Hydraulics provides technical supervision, the Ministry of Finance provides financial supervision, and the Ministry of Trade provides management supervision.

The General Assembly of State Companies (GASC) is headed by the Prime Minister and receives a yearly report from the general management. The GASC provides guidelines and instructions to the head of the Board of Directors (HBD) and the general manager. The Board of Directors is the ultimate management body of the company. It is headed by a representative of the Ministry of Hydraulics or the Ministry of Finance (as it is now). The head of the Board of Directors must be present in the company once a month and prepare a report to the supervisory ministry. The board holds the largest power in terms of management. All very important issues are required to be referred to the board (as stipulated in the bylaws).

The board's mandate is to:

- set the objectives for the company and the strategy to be given to its administration;
- ensure the permanent control of the management, following the management mode selected by the general manager;
- make up the yearly accounts; and
- commit the company with third parties.

The government and Board of Directors have management control over the company. The general manager is appointed and replaced by the government and receives its legal mandate from the Board of Directors. The Board of Directors can hold valid deliberations only if all members have been properly invited and if at least half of the members are present or represented. Decisions are made by simple majority vote of members present or represented.

The nine members of the board are appointed by decree in the Council of Ministers according to their experience and competencies. They represent ministries. The primary mission of ONEA is to provide

drinking water to urban and semiurban centers. The performance contract and the terms of specifications allow for provisions regarding self-financing, financial balance, and investments.

<i>General Characteristics of ONEA</i>	2000	2001	2002
Unaccounted for water	21%	19%	17%
Working ratio*	N/A	66	66.13
Staff per 1,000 connections	N/A	9.03	8.15
Staff per 1,000 population served	N/A	0.3	0.3
Accounts receivable as a share of annual revenue, expressed in month's sales, private	N/A	5.85	7.17
Accounts receivable as a share of annual revenue, expressed in month's sales, public	N/A	6.47	13.54
Service coverage, water supply	75	75	78
Service coverage, sewerage Ouagadougou	N/A	N/A	40
Service coverage, Bobo-Dioualasso	N/A	N/A	20
Average domestic tariff (CFA per cubic meter)	422	420	432

* Working ratio = (annual operating costs – depreciation – funding charges)/annual gross revenues)

K.2 Institutional Environment

K.2.1 External Autonomy

As a joint-stock company, ONEA nominally has legal autonomy. However, it has only one major shareholder, the government of Burkina Faso, which implies that its effective autonomy is much less. The government appoints the general manager and the Board of Directors. These appointments are based on a combination of professional suitability and political affiliation.

At the institutional level, management oversight and regulation are separated from operations. The government establishes the sector policy and ensures sector regulation and the control of the service quality, while ONEA performs operating and planning activities. ONEA is managed by a general manager who ensures day-to-day operations. The Board of Directors, including nine representatives of the concerned ministries, supervises the utility's management. The relations with the government are ruled by a three-year performance contract. Once a year, the GASC examines the functioning and management of the utility based on a report submitted by the general management.

<i>Key Indicators on External Autonomy</i>	
Who determines the pay scales for the various levels within the utility?	General manager, Board of Directors
What is the basis for appointing members to the Board of Directors?	Representatives of ministries, mayor's association, consumer association
Is the utility able to take out loans without prior approval from the owner?	No
Is the utility allowed to terminate service delivery to defaulters?	Yes ^a
Who is responsible for setting tariffs?	General manager, board, government
Does the utility follow public sector procurement rules?	Yes

a. Except those listed in the performance contract.

K.2.2 External Accountability

The performance contract sets the targets for technical, financial, and commercial performance through 34 indicators. Its implementation is assessed by an external technical auditor and a follow-up committee including representatives of the government as well as ONEA and consumers. The committee meets three times a year and submits a report to the Board of Directors, which is, however, not distributed to the public. The performance contract does not provide for penalties or rewards.

The tariffs are proposed to the Board of Directors based on the tariff studies carried out by ONEA and on a financial balance model. The proposed tariffs are submitted to the Council of Ministers for review and approval. Quality control is carried out by the Ministry of Health, which sends a monthly report to ONEA and points out any problems that may occur. However, the results are not publicly accessible.

Of all the external pressures for better performance, the external pressure from international financial institutions is without doubt the strongest. ONEA benefits from the support of several donors, which impose covenants and requirements in terms of accounting, reporting, and procurement procedures. They also require involvement in the decision-making processes.

Customers have only a limited influence through the Consumers League, which has limited means. During water shortage periods, the consumers' voices are heard, however—mainly through the media.

Key Indicators on External Accountability for Results

Does the utility have a customer charter that specifies performance targets, and are there any financial penalties for nonperformance?	No
Does the utility have to meet specified performance targets set by or agreed upon with the owners?	Yes
Is an annual report produced that is audited by an external accountant?	Yes.
Are external groups represented in advisory or management oversight bodies of ONEA?	NGOs, customer groups, government
Has the utility secured loans in the commercial market on its own credentials or ability?	No
Does the utility participate in some form of credit-rating scheme?	No
Does the lender impose financial covenants on ONEA?	Yes

K.3 Internal Functioning of the Utility

K.3.1 Internal Autonomy: Decentralization of Authority within the Utility

Decisions regarding financial management, operation, human resources management, and customer management are centralized. The decentralized units operate according to the orientations defined at central level. An authority decentralization study was carried out within ONEA in 2002, but its conclusions have not been implemented yet.

Key Indicators on Decentralization of Authority within the Utility

What is the purchasing ceiling for procurement of operational departments as a percentage of operational budgets?	No data
Does the hiring of staff members in departments require prior approval from the general manager?	Yes
How many layers of management separate the chief executive and the entry-level workers?	Five levels
At what level are internal work processes and standards defined?	Management and departmental levels
In what areas do field staff have decision-making powers?	Billing and collection, maintenance, customer services, and so on

K.3.2 Internal Accountability for Results

The supervisory bodies for ONEA are the Board of Directors, the GASC, and the supervising ministries. The performance of the company is mainly measured in relation to the objectives set in the performance contract.

The line manager assesses the performance of employees by use of a ranking system. This is, however, not a strong incentive for performance. A new assessment method for measuring employee performance, which is based on individual annual interviews, is presently being tested for implementation.

Key Indicators on Internal Accountability for Results

How often does the chief executive meet with the Board?	At least twice a year
Are penalties and rewards applied to the chief executive and directors for failing to achieve or achieving specified performance targets?	Performance targets exist, but no rewards, and penalties are not applied.
Are penalties and rewards applied to the staff by the management for failing to achieve or achieving specified performance targets?	No performance targets exist for staff.
Are staff members subject to annual evaluations of their functioning in the utility?	Yes.

K.3.3 Market Orientation

A five-year service contract for commercial management and reinforcement of financial and accounting operations has been granted to a joint venture between an international water company and an international auditing firm. The contract period started in September 2001. This contract includes deliverables in the form of products and daily services. Part of the remuneration of the service provider depends on its performance measured through 19 indicators, of which 2 are used to determine the bonuses and penalties—the collection rate from private customers and the delay in payments.

In addition to the service contract, a number of other operational activities are outsourced through public procurement:

- sale of water to 1,600 stand posts delegated to private operators,
- network extension works,
- security and cleaning of premises, and
- equipments repairs (information technology, laboratory, and so on) and large equipment maintenance.

Key Indicators on Market Orientation

What is the value of contracts outsourced as a percentage of the operational budget?	Very small
What is the nature of the functions that are outsourced?	Noncore functions, works, engineering design, and so on
How often does ONEA engage in benchmarking exercises?	Once a year
In what areas are benchmarking activities undertaken?	Water quality, service, finance and efficiency, and so on
Does ONEA engage in market testing, and does it develop internal markets?	Neither

K.3.4 Customer Orientation

Customer orientation is only a recent concern. The creation of a customer department and service contract are among the measures that will reinforce customer orientation. A program for six ONEA customer satisfaction surveys over a three-year period was launched in 2003. The first survey addressed general satisfaction with ONEA; satisfaction with the availability, quality, and tariff of water; and satisfaction with the interventions and response at the level of front desks.

Users' rights are defined in the subscription form and the service specifications. But these documents include mainly obligations and prohibitions of users.

Key Indicators on Customer Orientation

In what ways can the bills be paid?	Front desk, bank transfer
In what ways does ONEA proactively seek the opinions and views of its customers?	Customer surveys
What options for service delivery does ONEA provide?	In-house connection, public standpost, bulk water
In what ways does ONEA actively inform its customers about changes related to service provision?	Newspaper advertisements, radio, TV
What is the percentage of complaints addressed?	No data
What are the average response times to complaints?	No data

K.3.5 Corporate Culture

Created in 1985, ONEA today counts 604 agents with a staffing rate (the percentage of management and middle management of total employment) of 25 percent. The utility is now actively developing, and it offers interesting career perspectives. It has a training center and spends almost 1.5 percent of its revenue on training.

The image of the company is changing: new headquarters are under construction, a new logo has been adopted after consultation with employees, and a mutual benefit society was created in 2000.

Key Indicators on Corporate Culture

What factors influence promotion, salary adjustment decisions, or both?	Performance review
What is the annual staff turnover?	6.6%
What are the training costs per year as a percentage of operational budgets?	1.52%
Are staff informed about meetings of management?	Yes
What is the ratio of support and technical staff to management?	3:1 ^a
Is the mission statement internally visible in ONEA?	No

a. (453 operating personnel and specialized agencies)/(151 senior staff and middle management)

K.4 Sequence of Reforms

The present management mode for water and sanitation services was dictated by the historical evolution of the country. Upon independence, the water sector was transformed from private management to public management through a process of nationalization. Following negotiations with donors, which also provided long-term technical assistance, public management evolved toward more autonomy and accountability. Given the support for the sector, doubling of the number of customers in a few years was expected. Donors also pushed for a substantial involvement of the private sector in the management of water services. As a result of opposition from the Burkina Faso authorities, ONEA's reform program was implemented only gradually. Eventually, the reforms led to the involvement of an international water operator under a five-year, performance-based contract, which strengthened the financial capacities of ONEA and granted the organization more autonomy. Several new reform actions were taken in due course, were inspired by public management. The control of compliance with service standards is achieved in the framework of the performance contract. Unfortunately, the performance assessment reports are not being distributed.

These reforms have begun to produce promising results, which are visible in a favorable trend of some of the indicators.

Despite the first positive results reached, it is now necessary to carry out more reforms to achieve the devolution of authority and internal accountability.

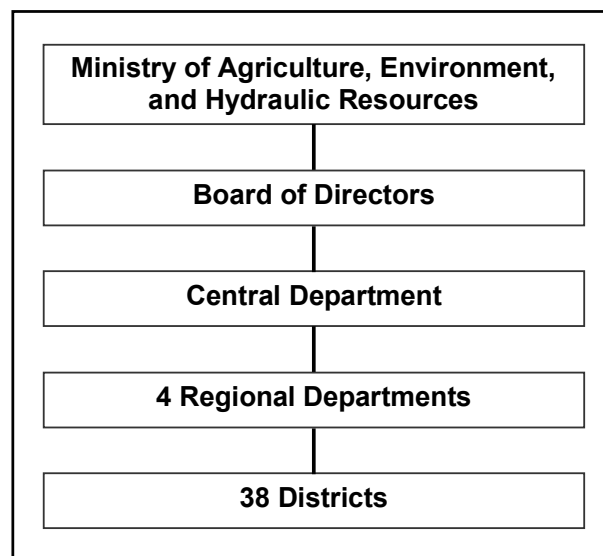
K.5 Conclusions

- ONEA is an interesting case demonstrating the important challenges facing the public water and sanitation utilities in a difficult context with regard to economic and water resources. Under pressure from donors, who coordinated their activities, ONEA accepted a number of NPM-inspired reform actions. For example, a financial simulation model has been developed, allowing ONEA to define the tariff structure necessary to balance its books. The contract also allows ONEA to terminate service provision to defaulters.
- ONEA is a well-performing utility. Several steps have been achieved in the NPM-style process: reinforcement of autonomy and accountability and improved customer orientation. The introduction of a number of instruments derived from NPM has been announced (authority delegation system, individual performance assessment) but have not yet been implemented.
- Important future challenges regarding sustainability of infrastructure, financial viability, and sufficient income generation will arise. These challenges will greatly influence the institutional evolution of the sector and, in particular, the continued functioning of public management. Equally important will be the impact of the service contract for know-how transfer to ONEA. Strengthening ONEA's capacities to allow it to meet the future challenges is very important.

ANNEX L NATIONAL WATER SUPPLY AUTHORITY, TUNISIA

L.1 Introduction and General Description

The National Water Supply Authority in Tunisia (La Société Nationale d'Exploitation et de Distribution des Eaux - SONEDE) is a statutory body. It is responsible for the provision of water supply services in Tunisia. SONEDE is a public nonadministrative entity (établissement public à caractère non administratif [EPNA]) placed under supervision of the Ministry of Agriculture, Environment, and Hydraulic Resources (MAERH). The MAERH approves the budgets and program contracts and follows their implementation. The ministry confers with the Board of Directors and approves increases in salary scales and salaries. SONEDE is managed by a Board of Directors. The 12 members of this board include representatives from six ministries, a representative of the National Sanitation Office, a union representative, a representative of the Tunisian Union of Agriculture and Fishing, and the chief executive officer of SONEDE (who is also the chairman of the board). SONEDE operates through a central operating department, four regional departments, and 38 districts.



<i>General Characteristics of SONEDE</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>
Population served	N/A	N/A	1.7 million
Water supply connections	N/A	N/A	N/A
Number of employees	N/A	N/A	7,038
Unaccounted for water	18.6%	19.3%	20.2%
Working ratio	0.96	0.93	0.98
Staff per 1,000 connections	4.6	4.39	4.12
Staff per 1,000 population served	0.952	0.932	0.907
Accounts receivable as a share of annual revenue, expressed in month's sales	N/A	N/A	N/A
Service coverage, water supply	100	100	100
Average domestic tariff (U.S. dollars per cubic meter)	0.39	0.41	0.41

L.2 Institutional Environment

L.2.1 External Autonomy

Although board members are representatives from ministries and other organizations, they are chosen on the basis of skill and experience. The chief executive of SONEDE, usually a high-ranking engineer, is appointed by the government. Although drinking water is considered highly important to the government, no interference by the government is noticeable in day-to-day management of the utility.

SONEDE covers its operation and maintenance costs (and a small fraction of the investment costs) with its tariffs. SONEDE does not set the tariff. Based on a proposal by SONEDE and following approval by the board, the tariff is ultimately approved by the government (the MAERH and Ministry of Finance), which has on occasions refused requests for tariff adjustments.

Available water resources are currently sufficient to meet water demands. Future expansion of water supply in Tunisia is hampered by the distance of fresh water sources to consumption centers, which requires construction of long transmission mains. In the near future, it will become necessary to resort to desalination for treating water.

SONEDE has no difficulty attracting and retaining qualified personnel. Within the framework of the wage policy of public entities, it can set its own pay scales subject to approval by the Prime Ministry.

Key Indicators on External Autonomy

Who determines the pay scales for the various levels within the utility?	Government, Board of Directors
What is the basis for appointing members to the Board of Directors?	Political, sector, and agency representation
Is the utility able to take out loans without prior approval from the owner?	No
Is the utility allowed to terminate service delivery to defaulters?	Yes
Who is responsible for setting tariffs?	Government, Board of Directors
Does the utility follow public sector procurement rules?	Yes

L.2.2 External Accountability

There is no strong accountability for water quality because there are no formalized procedures for quality control. Performance targets are set in the program contract between SONEDE and the government. The contract defines 23 technical, financial, and social indicators. The program contract, which was implemented in 1992, does not provide for penalties. SONEDE publishes annual brochures, which include data on coverage, operational, and financial indicators.

The main lines of accountability for SONEDE are:

- To its owner—mainly by way of the five-year program contract; implementation of the contract is monitored by a five-member unit incorporating an MAERH representative, the chief executive officer, the State Controller, a representative of the Ministry of Finance, and a representative of the Ministry Economic Development and International Cooperation.
- To its regulators—there is limited accountability because no formalized procedure for quality control exists.
- To financial institutions—loan agreements between SONEDE and the lending agencies, including activity reports, project progress reports, financial statements, audit reports, and so on are in place.
- To customer organizations and nongovernmental special interest groups—SONEDE does not have its own customer organization. Dissatisfied consumers can approach the Tunisian Organization for the Defense of Consumers. However, this organization receives few complaints about drinking water.
- SONEDE benefits from the support of many multilateral and bilateral donors to finance its projects. Each of these donors has its own requirements and procedures in terms of commitment, disbursement, follow-up, and control to ensure the proper implementation of the projects it finances.
- SONEDE has a long experience of relationships with financial institutions (the first World Bank loan dates back to 1969) and has no difficulty respecting the reporting obligations (activity reports, project progress reports, financial statements, audit reports, and so on), procurement guidelines, and more generally loan agreement conditions.
- Given the achieved level of service, the population considers the access to drinking water to be an unquestionable right. As such, there is strong political and social pressure to maintain the level of coverage and service quality. However, consumers are not represented on the Board of Directors, and there are no drinking water consumers' organizations in Tunisia.

Key Indicators on External Accountability for Results

Does the utility have a customer charter that specifies performance targets, and are there any financial penalties for nonperformance?	No
Does the utility have to meet specified performance targets set by or agreed upon with the owners?	Yes
Is an annual report produced that is audited by an external accountant?	Yes
Are external groups represented in advisory or management oversight bodies of SONEDE?	No
Has the utility secured loans in the commercial market on its own credentials or ability?	Yes
Does the utility participate in some form of credit-rating scheme?	No
Does the lender impose financial covenants on SONEDE?	Yes

L.3 Internal Functioning of the Utility

L.3.1 Internal Autonomy: Decentralization of Authority within the Utility

In general, the commercial and operational functions have been delegated to the district level; the support functions (legal, financial, human resources) tend to be centralized.

Financial management tasks are mainly undertaken at the central level. The tariff structure is determined at the central level and is approved by the government. Billing and collection are carried out at the district level.

Generally, the operational and commercial functions have been delegated to the local level, and the head of district has the power to make the necessary decisions to accomplish these functions.

Decisions on purchasing and subcontracting of goods and services are made according to ceilings set for each level of responsibility (chief executive, central purchasing manager, operation head of department, head of district).

The head of district makes proposals regarding rehabilitation of the existing network and facilities. Agreements are made at the regional and central levels to comply with the annual allocated budget. Decisions on the monitoring and replacement of meters are made at the local level according to recommendations by field teams. The strategies for reducing unaccounted for water and increasing energy efficiency are set at the central level and implemented at the district level.

Final decisions in the area of human resources management are made at the central level. Hiring and firing, as well as promotion and demotion of individual staff members, are decided at the central level according to recommendations made at the local and regional levels. Salaries and the structure of incentives for employees are decided according to the bylaws and are submitted for the ministry's approval.

Customer management functions are mainly dealt with at the district level. Complaints are managed at the district level. Termination of service provision to defaulters is also done at the district level and follows regulations and procedures.

Key Indicators on Decentralization of Authority within the Utility

What is the purchasing ceiling for procurement of operational departments as a percentage of operational budgets?	Depends on the position of the manager
Does the hiring of staff members in departments require prior approval from the managing director?	Yes
How many layers of management separate the chief executive and the entry-level workers?	Five levels
At what level are internal work processes and standards defined?	Management and departmental levels
In what areas do field staff have decision-making powers?	Billing and /collection, maintenance, and customer services

L.3.2 Internal Accountability for Results

The line supervisors assess the employees' performance through a ranking system. Promotion and salary adjustments are mainly dependent on seniority and performance grading of the employee. Rewards and penalties are given through promotion and demotion based on grades. But these measures are not a very strong incentive for performance.

Key Indicators on Internal Accountability for Results

How often does the chief executive meet with the board?	At least twice a year
Are penalties and rewards applied to the chief executive and directors for failing to achieve or achieving specified performance targets?	Performance targets exist, but no penalties or rewards are applied.
Are penalties and rewards applied to the staff by the management for failing to achieve or achieving specified performance targets?	No performance targets exist.
Are staff subject to annual evaluations of their functioning in SONEDE?	Yes

L.3.3 Market Orientation

Traditionally, SONEDE has performed the majority of its activities through in-house service provision and therefore has an important noncore business workforce. Outsourcing of services is limited to noncore activities whenever possible and feasible. In addition, SONEDE is currently exploring a build-operate-transfer (BOT) arrangement for a desalination plant. Increasing private sector participation has the strong support of the national authorities.

Currently, network extension is almost completely subcontracted, whereas security, new connections, car maintenance, and engineering design are only in part subcontracted. SONEDE's commitment to private sector participation is reflected in the program contract, which includes, as an objective for the 2002–06 period, extending outsourcing of tasks. As yet, the BOT project is only at an early stage of the feasibility study, and the outsourcing program is implemented at a relatively slow pace.

SONEDE has not undertaken any market-testing exercises.

Key Indicators on Market Orientation

What is the value of contracts outsourced as a percentage of the operational budget?	N/A
What is the nature of the functions that are outsourced?	Noncore functions, works, engineering design, connections
How often does SONEDE engage in benchmarking exercises?	Once per year
In what areas are benchmarking activities undertaken?	Water quality, service, environment, finance, efficiency, and so on
Does SONEDE engage in market testing and does it develop internal markets?	No

L.3.4 Customer Orientation

SONEDE is largely dependent on its customers for financing. Customers are also becoming increasingly demanding. Therefore, SONEDE is strengthening its customer orientation and commercial functions.

SONEDE conducted its first customer satisfaction survey in 2003. It is planned to outsource the next surveys to an independent specialized company. The 2003 survey covered 1 percent of the consumers and dealt with eight aspects of service provision.

Since 2002, SONEDE has created "quality circles" at the district level. At the end of each month, these circles are used to make an assessment of the responses to complaints. A report is forwarded to the regional department for evaluation and comments before transmission to the central operation department for a national summary.

Customers' rights are defined in the subscription form and subscription regulation. The subscription form and subscription regulation do not include provision for compensation payments to customers except in case of damage. In that case, indemnification is then covered by insurance.

Users can complain at SONEDE desks, by phone, or through the Internet. The number of complaints is relatively stable, and their nature is generally unchanging. An improvement in response time has been noted. The review for the first quarter of 2003 showed that 78.8 percent of all applications and complaints were satisfied within set terms, 12.8 percent were satisfied after the terms, and 8.3 percent were not satisfied.

Key Indicators on Customer Orientation

In what ways can the bills be paid?	Local offices, bank transfer, post offices, electricity company offices
In what ways does SONEDE proactively seek the opinions and views of its customers?	Customer surveys, suggestion boxes
What options for service delivery does SONEDE provide?	In-house connection, public standpost
In what ways does SONEDE actively inform its customers about changes related to service provision?	Newspaper advertisements, radio, TV
What is the percentage of complaints addressed?	More than 90%
What are the average response times to complaints?	Depends upon the nature of complaint (for example, one day for connection leaks)

L.3.5 Corporate Culture

SONEDE has 7,038 employees. The total number of staff is expected to decrease slowly. The utility maintains a continuous training program for its personnel. One objective for the 2002–06 period is to carry out 3,400 training sessions involving 14,800 participants at a total cost of US\$6.64 million.

Information exchange between the departments or with management occurs by mail or during management meetings, according to the procedures. An internal newsletter for SONEDE, *Echos des Eaux*, is published and distributed free to all personnel.

Key Indicators on Corporate Culture

What factors influence promotion, salary adjustment decisions, or both?	Longevity, performance review
What is the annual staff turnover?	No data
What are the training costs per year as a percentage of operational budgets?	No data
Are staff informed about meetings of management?	Yes
What is the ratio of support and technical staff to management?	2.3:1
Is the mission statement internally visible in SONEDE?	Yes

L.4 Sequence of Reforms

Before the creation of SONEDE in 1968, the drinking water service was ensured by two institutions: a government office, the RDE (*Régie de Distribution des Eaux* / water distribution authority), which was part of the Ministry of Agriculture, and the Service de l'Eau et de l'Electricité (water and electricity service) for the greater Tunis area. Since 1968, there have been no important institutional reforms of the drinking water sector. Some decentralization of authority for commercial and operational functions was implemented in the past, and currently a study on the possibility of more decentralization within SONEDE is taking place. This is due to a perceived need for more delegation of powers to lower levels in the organization.

The governance of SONEDE is determined by regulations that are common to all the public enterprises, and these regulations limit the autonomy of SONEDE. Similarly to other public enterprises, a program contract between SONEDE and the government sets the objectives, means, and obligations of both parties. Since the first program contract in 1992–96 and the second in 1997–2001, this is now the third experience.

The need for tariff control has contributed to the introduction of market orientation and customer orientation. In fact, SONEDE has regularly revised its tariff structure during the past 35 years. But now the scope for further tariff increases is becoming increasingly limited because the government does not always approve the proposed tariff increases. To control its operating expenses, SONEDE has reinforced its market orientation by outsourcing noncore activities such as network extensions and new connections.

Under pressure from increasingly demanding customers, SONEDE is improving its customer orientation. The tariff level is undoubtedly underlying the higher customer expectations. Finally, relations with a number of bilateral and multilateral financial institutions (such as the World Bank) have led to more accountability and suggestions for reforms.

L.5 Conclusions

SONEDE's case shows that a publicly managed utility can be efficient. However, many important challenges remain to be addressed in the near future, especially in terms of financial viability. SONEDE's marginal costs are likely to increase, whereas the marginal revenues are likely to decrease because of the extension of water services to rural areas and the desalination requirements in the south of the country. Moreover, the required increase in tariffs to address this challenge will not automatically be approved.

The EPNA status of SONEDE limits room for NPM-style reforms, specifically external autonomy, external accountability, and internal accountability. Factors that cannot be changed with the current public entity status include the remuneration system, public procurement rules, control of tariffs, role of the State Controller, and the supervisory authority.

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