CORPORATIZING DHAKA WATER SUPPLY AND SEWERAGE AUTHORITY, BANGLADESH

by

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Abstract

Efforts to commercialize water supply and sanitation in Dhaka, Bangladesh, have been pushed vigorously by internal and external proponents of neo-liberalism. The thesis takes a critical look at these developments and analyzes the role of multinational finance institutions in this process. In particular, it looks into the role of these finance institutions in funding reform projects to corporatize Dhaka Water Supply and Sewerage Authority (WASA), examining the impacts on end users, especially marginalized sections of society. The thesis describes how, in the process of corporatization, Dhaka WASA is and will continue to be more assertive in its commercial orientation than it was previously. The paper also studies a highly touted ‘successful’ co-operative model for revenue management called Program for Performance Improvement (PPI), seen by some as an alternative to privatization. I argue that the model in fact emerged as a consequence of the commercialization efforts of neoliberal reforms and that the revenue management model has created an isolated business unit with a reclusive management that undermines the egalitarian objectives of the water utility as a public service entity.
Acknowledgements

This research could not have been completed without the many people who directly and indirectly supported and helped me throughout the past two years. First and foremost, I would like to thank my supervisor, David McDonald, for his dedication and input throughout, and also for the warm welcome his family provided. My committee members, Dr. Heather Jamieson and Dr. Gary VanLoon for their feedback and input, particularly in the beginning stages. I would also like to thank Dr. Peter Hodson for supporting my admission into the MES program, and Karen Toppings for helping me throughout in the process of settling in this new country, Canada. I also want to thank all those who agreed to be interviewed for this research and those who provided documents, reports and other information; without them this research would not be possible. Thanks especially to Ekram and Shamim for their help in securing appointments for interviews at Dhaka WASA. A special thanks to Dr. Pamela Welbourn for her continuous support.

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<th>Full Form</th>
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<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>BWDB</td>
<td>Bangladesh Water Development Board</td>
</tr>
<tr>
<td>DCC</td>
<td>Dhaka City Corporation</td>
</tr>
<tr>
<td>DFID</td>
<td>Department of International Development</td>
</tr>
<tr>
<td>DANIDA</td>
<td>Danish International Development Agency</td>
</tr>
<tr>
<td>DESA</td>
<td>Dhaka Electricity Service Authority</td>
</tr>
<tr>
<td>DESCO</td>
<td>Dhaka Electric Supply company</td>
</tr>
<tr>
<td>DPHE</td>
<td>Department of Public Health Engineering</td>
</tr>
<tr>
<td>DWSSDP</td>
<td>Dhaka Water Supply Sector Development Program</td>
</tr>
<tr>
<td>ECSCSL</td>
<td>Employees Consumer Supplies Co-operative Society Ltd</td>
</tr>
<tr>
<td>EPCL</td>
<td>Engineering and Planning Consultants Ltd</td>
</tr>
<tr>
<td>GOB</td>
<td>Government of Bangladesh</td>
</tr>
<tr>
<td>JICA</td>
<td>Japan International Cooperation Agency</td>
</tr>
<tr>
<td>LGD</td>
<td>Local Government Division</td>
</tr>
<tr>
<td>MFIs</td>
<td>Multinational Finance Institutions</td>
</tr>
<tr>
<td>MLGRD&amp;C</td>
<td>Ministry of Local Government, Rural Development and Co-operatives</td>
</tr>
<tr>
<td>MOE</td>
<td>Ministry of Establishment</td>
</tr>
<tr>
<td>MOF</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>PPI</td>
<td>Program for Performance Improvement</td>
</tr>
<tr>
<td>RAJUK</td>
<td><em>Rajdhani Unnayan Kortipokho</em></td>
</tr>
<tr>
<td>WASA</td>
<td>Water Supply and Sewerage Authority</td>
</tr>
</tbody>
</table>
Chapter 1

Introduction and Methodology

1.1 Overview of Research

Poverty, hunger, global warming and terrorism are some of the challenges of the twenty-first century. While there are many complex issues to be addressed by governments, one of the most fundamental of these relates to use of water. Water is critically related to the existence of humans as well as other living organisms. It is said an adult can only survive without water a few days, but many weeks without food (Brown 2008). Water is also related to the production of food, our ecosystems and also our climate. Therefore, the provision of water should be given top priority by global international and national policymakers.

Rights to safe and clean drinking water lead to legal obligations and responsibilities. Failure to ensure this basic human right has led to human health implications around the world. About 2.2 million people in developing countries, most of them children, die every year from diseases associated with lack of safe drinking-water, inadequate sanitation and poor hygiene (World Health Organization 2000). Nearly 1.1 billion people still remain without access to improved sources of water (World Health Organization 2000; United Nations 2008), with people in urban slum areas having the least access to safe water for household uses. A slum dweller typically has only five to 10 litres of water per day at his or her disposal, while a middle or high-income person in the same city uses
some 50 to 150 litres per day, if not more (United Nations 2006). A case study conducted at Nagaoka University of Technology in Japan, on squatter and pavement dweller communities of Mumbai City, India, revealed positive correlations between the prevalence of annual diarrhea, typhoid and malaria and low water consumption\(^1\) (Karn and Harada 2002).

Although national-level statistics suggest that between 1990 and 2002 there has been significant increase in the proportion of people with adequate access to water in low-income countries, micro-level evidence indicates that inequality in access to water persists (Anand 2007). Many argue that inequalities in access to safe and sufficient amounts of water have been produced through a system of property and governance which is dominated by a market system (Heynen and Robbins 2005). The market requires efficiency and cost-reflexive pricing, often meaning that those who cannot pay do not receive access.

Proponents of a market system\(^2\) argue that the market provides the best tools to preserve the health and sustainability of the environment. Wasteful use of water could be curbed by attaching a market price. Therefore water should be considered as an ‘economic good’. Such a mode of resource regulation promises both economic and environmental ends via market instruments (Anderson and Leal 2001). Thereby, market systems convert resources into commodities. Natural resources are quantified and given an exchange

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\(^1\) In reference to sanitation and hygiene.

\(^2\) Those who believe that by establishing private property rights, employing markets as allocation mechanisms, and incorporating environmental externalities through pricing, goods will be more efficiently allocated. Competition is the regulatory mechanism of the market system.
value. “Everything is now for sale, even those areas of life, such as social services and natural resources, that were once considered the common heritage of humanity” (Barlow and Clark 2002, p.2). Market systems have been expanded to other aspects of nature as well, such as fish and vegetation. Even carbon emissions are now being quantified and traded between polluting parties.

The problem with this growing emphasis on markets controlling natural resources is that competitive states are handing over their responsibilities to protect resources and are privatizing their ecological commons (Barlow and Clark 2002, p.2). In addition, marketization of public urban ecologies has produced uneven access to water, vegetation and clean air. Governments are giving authority away to private companies involved in resource exploitation. Private companies are over extracting and contaminating natural ground water aquifers, in cities such as Buenos Aires, Argentina (Loftus and McDonald 2001). In the latter case, the negative impact of private water company operations was mostly felt in the poorest sections of Buenos Aires, particularly in terms of escalating costs to the public and environmental degradation.

The privatization of water in cities of the world undermines public water utilities. Developing countries are even more susceptible as private water companies are relatively more powerful, and there is less regulatory capacity. Governments in the developing world are already struggling to control private manufacturing industries that are streaming pollutants into water systems. In addition, the under-regulated installation of thousands of private deep tube wells has resulted in acute drinking water shortages and
arsenic contamination of groundwater in countries like India and Bangladesh. What is more surprising is that rather than investing in sustainable safe public drinking water, Third World markets are now flooded with so-called ‘safe’ bottled water with arsenic-free labels (Firoj 2003).

This thesis considers a case study of water privatization in Dhaka Water Supply and Sewerage Authority (WASA) - a public utility organization for the capital city of Bangladesh. The World Bank, the Asian Development Bank and several bilateral donor countries are providing development loans to Dhaka WASA to privatize parts of the water supply authority and to induce institutional reforms emphasizing cost recovery for the supplied water. The thesis elaborates how cost recovery strategies are going to affect marginalized sections of Dhaka, with rising rates for water and inequitable distribution. Dhaka WASA is to expected to be corporatized into a Public Limited Corporation (PLC) that will foster beliefs of a private enterprise but still be a part of public sector organization. The thesis also studies a revenue management model of public employees as a possible alternative to privatized service provision for urban utilities.

1.2 Research Purpose, Approach and Objectives
There are currently numerous development projects underway within Dhaka WASA to ensure safe drinking water supply for city dwellers, but little research has been undertaken into the possible results or outcome of these projects. Therefore, there is a need for investigation into these development projects. Also, an interesting participative employees co-operative revenue management model is being practiced at Dhaka WASA, which has been touted as a highly successful co-operative model for public utilities for
other Third World countries (Hoque 2003). However, the few studies that have been conducted on this revenue management model were mostly superficial. The purpose of my study is to critically analyze this model and internally evaluate the potential of the model to be an alternative to privatized service provision.

The thesis is broadly structured around the following research objectives:

Objective A - To understand privatization efforts of the development banks and funding agencies in the context of Dhaka WASA.

- Understanding the development project’s organizational and managerial restructuring reforms for Dhaka WASA.
- Understand the extent to which Dhaka WASA would be privatized.
- Investigate implications for water supply and end users – particularly low-income households.

Objective B - To understand to the extent to which the Employees Co-operative revenue management initiative is a reflection of a positive alternative to privatized service provision.

- Program for Performance Improvement (PPI): Employee’s Co-operative revenue management model.
- Issues surrounding the revenue management model.
- Is it a successful alternative to privatization?

I hope to also disseminate these findings to the government of Bangladesh through academic and popular publications, as well as making the thesis available to relevant stakeholders.
1.3 Thesis Organization
The thesis is divided into five chapters, including this introduction. The first chapter is intended to provide a general overview of the research and introduce issues of market control in access to water and other environmental resources. The second chapter deals with the definitional and conceptual parameters of privatization and also outlines the extent to which privatization has been taking place in Bangladesh. The third chapter examines Dhaka WASA and the role of the development banks (The World Bank, Asian Development Bank, etc) in shaping commercialization of water in the region. The fourth chapter is a case study of a revenue management scheme composed of a employees co-operative, where I explore the possibility of an alternative solution to privatized service provision. Finally, the fifth chapter presents recommendations and areas for further research as well as some general conclusions.

1.4 Methods and Methodology
The research is based on secondary sources as well as a three month period of primary research in Dhaka, Bangladesh, between September and December 2007. The latter consisted of semi-structured interviews with representatives from the World Bank, Asian Development Bank, national and local government, Dhaka WASA Management and decision makers, trade union representatives, staff and employees. The secondary sources were drawn from academic articles, grey literature and government documents as well as project reports prepared by major donor agencies.

Since many of the interviews were transcribed in full, and the review of all grey literature was quite in-depth, the result was a profusion of documented information. It was thus
necessary to select and use only the information which was most pertinent to the emergent research objectives. Analysis focused around the research objectives and in finding answers to the questions that were posed as part of these.

1.4.1. Interview Process

Semi-structured conversational style interviews were conducted from September-November 2007 with relevant stakeholders. The respondents were chosen based on their position at Dhaka WASA or their knowledge of the organization. The interviewees came from nine key groups: Dhaka WASA Board members, Dhaka WASA management officials including the Managing Director and three Deputy Managing Directors, Dhaka WASA administrative officers, Dhaka WASA staffs and employees, members of Employees Co-operative, Management of Program for Performance Improvement (PPI), representative of Donor Agencies, NGO workers working at the water supply and sanitation sector of slum areas and government officials of relevant ministries. A total of thirty (n=30) interviews were conducted. Although, not all interviewees were directly quoted in the thesis, most provided valuable information supporting key arguments. The sample size was based on the availability and willingness of participants to be involved in the process. There were several vital stakeholders and concerned parties who were interviewed but opted to remain anonymous. The chart below summarizes each anonymous respondent’s affiliation, gender, the interview date and the identification code that is connected to each respondent.

Table 1.1 Anonymous Interviewee Information

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>Gender</th>
<th>Interview Date</th>
<th>Identification Code</th>
</tr>
</thead>
</table>

7
Most interviewees preferred not to have the interview recorded, and did not wish to be identified in the research. Therefore, official titles and names are not always used in this thesis and all transcriptions remain confidential with only the researcher having access to them.

Although field research began from the middle of September, 2007, it took more than a month to secure appointments for interviews. No interviews were conducted in the month of *Ramadan* due to irregular office hours coinciding with unavailability of the respondents for the interview. The approximate lengths of the interviews were no less than an hour. They took place most often at the respondents’ offices.

Although the semi-structured style of interviews were based on an interview guide (see Appendix B), the conversation tended to evolve spontaneously throughout the meeting, depending on the respondent’s interest and background. The interview guide did, however, provide enough structure as to allow for inter-interview comparison during the analysis stage.

The key informant interviews required and received ethics approval from Queen’s University General Research Ethics Board (GREB) (see Appendix A). A letter of

![Data table]

<table>
<thead>
<tr>
<th>Dhaka WASA- Revenue Zone</th>
<th>Male</th>
<th>19 November 2007</th>
<th>D1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhaka WASA—Management</td>
<td>Male</td>
<td>5 November 2007</td>
<td>D2</td>
</tr>
<tr>
<td>Dhaka WASA-Finance/Revenue Division</td>
<td>Male</td>
<td>11 November 2007</td>
<td>D3</td>
</tr>
<tr>
<td>Dhaka WASA— WASA Board Member</td>
<td>Male</td>
<td>4 November 2007</td>
<td>D4</td>
</tr>
<tr>
<td>Dhaka WASA-Finance/Revenue Division</td>
<td>Male</td>
<td>21 November 2007</td>
<td>D5</td>
</tr>
<tr>
<td>Program for Performance Improvement (PPI)</td>
<td>Male</td>
<td>20 November 2007</td>
<td>P1</td>
</tr>
<tr>
<td>Asian Development Bank</td>
<td>Male</td>
<td>12 November 2007</td>
<td>A1</td>
</tr>
</tbody>
</table>
information was provided to all interviewees at the start of the interview, stating that their names would not be released and that a digital recording of the meeting would take place at their discretion.
Chapter 2

Contextual Overview

2.1 Introduction

In most parts of the world, urban water supply systems vary widely, ranging from public to private management. Public water supply enterprises vary considerably in their functions of investment, returns and services to the public. Within the European Union, most public sector water services are restructured into corporatized entities. In countries such as Sweden, The Netherlands, and Germany, water facilities are municipally owned, public, limited companies (Lobina and Hall 2000).

Although multinational finance institutions and private consultancies propose and endorse privatization models for developing countries, many water supply facilities prefer to compromise by setting up public limited corporations (Jafri 2007). The present chapter will explore the nature of these public limited companies and their contribution toward the increasing trend to the commercialization of water. The discussion begins with the typological delineation of the term “public limited corporation,” and I argue that the term refers to a pro-privatization approach pledged and guided by the state and funded by neoliberal devotees such as the World Bank. The notion used to organize the argument is commercialization—that is, the process of putting market forces to work, making even the basic needs of human life such as water into commodities.

In the following sections I portray the nature and the legal basis of public corporate entities responsible for utility provisions and analyze the degree to which market forces
are controlling the commodification of water, especially in Third World countries. The main focus of this discussion is the commercializing of water services in Third World countries, and its reflection of the ongoing accumulation process of capitalism and its quest for wealth intensification (Brenner and Theodore 2002).

2.2 Corporatizing Public Resources

Public resources, such as water, are currently experiencing commercialization in most parts of the world and particularly so in Third World countries. Since the Dublin International Conference on Water in 1992, the management of water as an economic good has been promoted as a solution to the challenges facing urban water management in transition economies and developing countries (Nickson 1996). Water is listed as a “good” by the World Trade Organization and in the North Atlantic Free Trade Agreement (NAFTA). NAFTA also considers water to be an “investment” (Barlow et al. 2002). As one senior water advisor to the World Bank suggests, “[The] urban water sector is emerging: it is one in which a growing number of private companies will compete with revitalized (and often corporatized) public utilities. Capital will, increasingly, come from the private capital markets, with the critical government role being that of light, transparent benchmarking and regulation” (Briscoe 1999, p.459).

Interestingly, the water supply system is inherently anti-competitive because the construction of many networks is not appropriate for the same service area. Therefore, it is the management, ownership, and funding of these network facilities that serves as the focus of public and private sector involvement.
Private sector investors are mostly entrepreneurs or shareholders funded and regulated by the market. On the other hand, the public sector is usually dominated by the state, funded through taxation, and controlled by political forces. In other words, the public sector is meant to be dominated by the political system rather than the economic system (Dahl and Lindblom 1953).

While providing services, the public sector is sometimes reformed into “autonomous” or “quasi-autonomous” agencies that are funded publicly and operate at an arm’s length from the central government without an immediate hierarchical relationship existing with a minister or a parent department (Thiel 2004). Consequently, the public sector becomes more complex organizationally, with a large number of structures responsible for individual segments of policy, each with varying degrees of connection to the public authority. The motivation behind this reform is to separate policy-making from administration. This separation could contribute to greater managerial freedom and enhance efficiency for the organization. In the long run, these semi-public autonomous organizations aspire to attain greater financial freedom along with managerial liberty, largely supported and funded by development partners and their vision of market forces controlling public utility services.

The reformation in managerial operation is justified by a failure on the part of governments, in terms of the operational management of quality water supply and distribution. Subsequently, the poor quality services of the public sector provide a contrast to private services and suggest that market forces can provide better services at
competitive prices. The lack of finances for public sector investment in water provision is also regarded as a justification for a marketization system (Bakker 2002).

As a condition of lending for developing countries, development banks and other multinational funding institutions increasingly prescribe the conglomeration of private and public sectors. The World Bank estimates that a $30-billion-a-year investment in water supplies and sanitation is needed to meet the Millennium Development Goal for sustainable access to safe drinking water and basic sanitation (World Bank 2008). The World Bank and other multilateral credit institutions insist that a significant proportion of this financing must come from the private sector (Bakker 2002).

Involvement of private businesses is emphasized with the notion that the poor can be much better off when they are treated as “revenue-generating customers,” and hence water should be managed as an economic resource. A senior water advisor of the World Bank suggests that, if endowed, the “subsidies follow the water, and the water flows to power and influence and away from the poor” (Briscoe 1996, p.12). Citing the example of Conakry, Guinea, the same advisor to the World Bank concludes that when services are poor, people are not willing to pay, and revenues are inadequate. Thus, leasing out to a private operator is efficient because it allows for charging a fee that reflects the full cost of the service. However, as the studies of Bayliss (2002) reveal, private firms in Guinea adopted only the profitable aspects of the business and did not take on the loss-making component that stayed with the government. As a result, the private operator made a profit while the state-owned enterprise continued to acquire losses (Bayliss 2002).
Nonetheless, the cost of connections reflecting the full cost of service was so high that it prohibited poorer consumers from networked services.

Despite the unprecedented anecdote detailing the effects of privatization on poverty, donors are giving it little attention in their concern with efficiency and markets. A guide published for the planning and provision of water and sanitation services for the urban poor by the United Nations committee on Economic, Social and Cultural Rights (2004) argued that corporatization is a sound institutional and strategic framework for delivering water supply to the urban poor. The committee wrote: “An extremely effective and increasingly common mechanism, either as a permanent public sector arrangement or as a step towards the ultimate privatization of service provision, is that of corporatization, which, within a multi-functional authority, is usually preceded or accompanied by ring fencing of water services. The corporatized entity is managed professionally at arm’s length from the policy and strategy that is required to implement, with a financial structure that would normally look for cost recovery within the business, subject to debt relief, capital financing, or targeted subsidy that may be provided from a higher level of government” (United Nations 2004, p.20).

2.3 Corporatized Service Units

Corporatization promises to bring a more businesslike approach to the running of public services. It establishes a working environment for a public enterprise that replicates the internal and external conditions of successful private enterprises. A public enterprise, as Mariam and Mengistu (1988, p.3) argue, is an organization which
• is owned by public authorities . . . to the extent of 50 per cent or more;
• is under the top managerial control of the owning public authorities, such as public control, including inter alia, the right to appoint top management and to formulate critical policy decisions;
• is established for the achievement of a defined set of public purposes, which may be multi-dimensional in character;
• is engaged in activities of a business character;
• is consequently placed under a system of public accountability;
• and involves the basic idea of investment and returns and services.

However, a public enterprise is different from a corporate entity as it puts the public entity on a level playing field with the private firms by removing barriers to entry, by providing subsidies and special privileges, by forcing it to compete for finances on an equal basis with private firms, and by giving public managers virtually the same powers and incentives as private managers (Shirley 1999). When these public enterprises are brought down to compete with private businesses, they employ commercial principles in their service delivery and functions to survive and thrive. Commercialization, therefore, is an underlying process that goes on when these public sector entities adopt commercial strategic approaches to resource management. Table 2.1 provides a glossary of the key terms used in this thesis, with reference to water supply services.

Table 2.0.1: Privatization Glossary

<table>
<thead>
<tr>
<th>Terms</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Privatization</td>
<td>Process of transferring ownership and</td>
</tr>
</tbody>
</table>
management of a service from the public sector (government) to the private sector (business).

<table>
<thead>
<tr>
<th>Pricing</th>
<th>The process of applying prices to purchase and sales orders. Creating an exchange value.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodification</td>
<td>Transformation of goods and services (or things that may not normally be regarded as goods or services) into a commodity.</td>
</tr>
<tr>
<td>Commercialization</td>
<td>Introduces commercial principles into the public institution that manages goods and services.</td>
</tr>
<tr>
<td>Corporatization</td>
<td>Bringing a more businesslike approach to the running of public utility services.</td>
</tr>
</tbody>
</table>

The purpose and consequence of corporatization is well defined by Teo (2000, p. 558):

“Corporatization is considered to be a structural reform process, which changes the operational conditions of public sector organizations in order to place them on a commercial basis in a competitive environment. At the same time, it allows the government, as owner, to intervene by providing broad direction in key performance targets (including financial and non-financial) and community service obligations…. Corporatized public sector organizations are required to adopt a strategic perspective to the management of scarce resources”.

Corporatized water services remain owned and operated by the state but function as an independent body for management and accounting purposes. The primary reason of this “ring fencing” (segregating business of providing prescribed services from its other
business activities) is to isolate incomes and expenditures related to water treatment and delivery (McDonald and Ruiters 2005). Although publicly owned and publicly managed, corporatized water services nevertheless introduce private sector principles such as cost recovery and financially rewarding performance targets for managers. Corporatized water utilities can also outsource some of their functions as an operating strategy (and generally do) and have been used as a first step towards outright privatization once the unit is deemed to be “profitable”.

Corporatization involves changing the institutional structures of a public institution to incorporate private sector principles in the provision of services. Almost always in this process, whether a public service corporatizes or privatizes, it undergoes a process of commercialization. Therefore, corporatization is said to be a step toward market oriented management that is based on market situation and customer feedback (Seppala et al. 2001) and very similar to the ethos of the private sector.

The private sector mindset is to recover costs in order to run a corporatized entity along commercial lines. Cost recovery attempts to recover the full cost of the production and provision of a service. Warford (1994, p. 1) describes this as follows: “[The] price of any service or commodity is equated to the cost of producing an additional unit of it, or in other words, to its marginal or incremental cost. If consumers are willing to pay a price that exceeds marginal cost, it means that they place a value on the marginal unit consumed at least as great as the cost to the rest of society of producing that unit, and output and consumption should therefore be expanded when system capacity is reached. If, on the other hand, the market clearing price is less than marginal cost, it can be
assumed that there is oversupply of the commodity, the cost of additional output exceeding the benefits.”

There are three essential approaches for corporatization of a public service organization. These include ring-fencing, setting up business units, and performance based management (Smith 2004). The first component, financial ring fencing, is said to aim at making income and expenditures associated with running a service more transparent and, thus, to separate all financial and human resources directly involved in the delivery of a particular service from all other service functions. “Where services are shared by other departments (e.g., information technologies or scientific services) the ring-fenced entity pays a full-cost fee for these services. Financially, ring-fencing creates a transparent form of accounting where all costs and revenues related to the service can be identified, along with any subsidies in and out of the ring-fenced entity. This is intended to reveal the ‘real’ costs/surpluses of running a service and allows managers to identify areas of financial loss/gain, which may otherwise be ‘hidden’ in the intricate accounting systems and cross-subsidization mechanisms of an integrated service delivery scheme with centralized accounting” (Smith 2004, p. 381).

The second component of corporatization is transforming a given sector into a business unit that is still fully owned by a local authority but operates at arm length. This allows the state to “leverage greater dividends for meeting equity concerns through community service agreements” (Palmer Development Group, cited in Smith 2004, p. 381) and to ensure management autonomy. Notably, corporatization can be as costly politically as
privatization for those who view corporatization as a more partial reform (Shirley 1999). Political costs can include job losses, an end to subsidies and privileges, closures of services, and higher prices for consumers or lower prices for suppliers.

The third and final component in corporatization is performance-based management, where managers are rewarded if they achieve cost-recoveries by lowering the bottom line (Smith 2004).

2.4 The Larger Trend toward the Commodification of Water
Public amenities in urban spaces are expected to promote the well-being of citizens, disadvantaged groups, and communities, and they are often funded by the state. In contrast, amenities that focus more on selling services, products, and other commercial activities do not simply rely on private or public funding but on income from the market. The change in the resource from being publicly funded to being income generating drives the service to seek profit/surplus, commercializing itself in the process. Services are to be bought, sold, or traded through market transactions (Brown 2003). In other words, services are commodified.

Commodification is the transformation of goods and services into a commodity. Commodities are things of value that are produced by different producers in quantities for which there is demand. However, Marxist political and economic literature identifies commodification as consigning commercial value to something not previously considered in economic terms. Thus, non tradable goods and services are redefined as tradable commodities, adding exchange value to them.
Commodification is distinct from commercialization in that it uses procedures that enable the stereotyping of goods or services. Commercialization, on the other hand, only requires changes (introducing commercial principles) in the institution that manages these goods and services. In the process of commodification, natural resources are given a price value and assigned proprietorship. The outcome is that ownership of these resources is exchanged based on market standards. Commodification of water followed a similar trend with an increasing emphasis on the market forces involved. Water was transformed “from a non-commodity produced for its use value into a commodity produced for its exchange value” (Bakker 2005, p.545).

Water is increasingly viewed as a commodity, yet many are concerned about the ethical, environmental, and social consequences of this trend. Arguments against the commodification of water include problems associated with the inevitable emphasis on profit maximization and increased consumption to generate profit in contrast to the long-term sustainability of this resource. Opposition to the commodification of water dates back to the nineteenth century when, for the first time, British citizens demanded clean and affordable domestic water as a public service rather than something offered by private companies looking for profit (Wilk 2006). The notion of water as a human right was constantly asserted in fiercely fought political campaigns that were furthered by an emerging notion of citizens as consumers with rights that the government must protect against profit-seeking private companies. “During the last 20 years, as neoliberal economic policies and conservative philosophies of the market have become more
dominant, the privatization of water has become a material and symbolic political issue that has sparked protest and popular movements in developing countries like Bolivia, as well as in wealthy liberal democracies like Canada” (Wilk 2006, p.305). In Johannesburg, South Africa, water supply services were partially privatized under Suez Lyonnaise des Eaux, and water became less accessible and less affordable for many. There was also an outbreak of cholera, and thousands of people were disconnected from their supply of water. Likewise in Argentina, when the same multinational water company, Suez Lyonnaise des Eaux, operated the state-run water company Obras Sanitarias de la Nacion, water rates doubled but water quality deteriorated. In Casablanca, Morocco, the price of water increased threefold after the water service was privatized (Van Overbeke 2004). Developing countries are most susceptible to the detrimental effects of water privatization and increased prices, because access to water supply is closely linked with income and public health, especially for disadvantaged groups.

2.5 A Contextual Overview of Commercialization

In parts of the United Kingdom, the model for water supply management began to shift from state-based to market-based commercial management 30 years ago. Prior to this, during the mid to late twentieth century, state management of water and sewerage was favored in most parts of Britain. Municipalities invested heavily in water services, which were owned by the government (Holland 2005). These institutions had the sole goal of expanding networks of potable water to reach common people. Billing was mostly based on property value rather metering, and the service was supported by cross subsidies between consumers and between levels of governments (Bakker 2005). Diseases like cholera and dysentery were closely linked with polluted water and sanitation facilities,
and it was thought to be problematic to rely on private companies to solve these sanitation issues.

During the late 1970s and early 1980s, the government of Great Britain decreased its water infrastructure investment in an effort to improve the national economy and to meet its political obligations. This decrease had a damaging effect on the infrastructure and quality of water service. The government was nevertheless forced to decrease water services spending because international finance institutions, such as the International Monetary Fund (IMF), demanded that the government rein in its public expenditures (Holland 2005). In the United Kingdom, stringent policy restrictions on spending and pricing were brought about by the Labor government, and these were vigorously taken up by the subsequent Conservative government of Margaret Thatcher (Herrington and Price cited in Meredith 1992). Afterward, Thatcher, with her “ideological overvaluation of privatization” (Holland 2005, p.8), initiated the commercialization of the water supply sector in the early 1980s, with new Water Act of 1979. Notably, these institutional changes were part of an overall neo-liberal economic policy of the Thatcher government which aimed at reducing the role of the state. Before initiating privatization, the government wrote off all the debts of these water authorities without giving them an opportunity to raise capital (Holland 2005). The Conservative government made some policy reversals before going ahead with the initiative (Richardson et al. cited in Bakker 2005). To attract sufficient interest by investors, 10 regional water authorities were sold off to private companies at prices below the market value. The companies became owners of the entire water service infrastructure, as well as the operations, maintenance, tariff
collection, and investment aspects of the business. The result was a full divestiture by the government and an outright privatization of the water service—a case that is unique to England and Wales.

Nowadays, a privatization scheme as rigid as the one put in place by the United Kingdom is not practiced in many parts of the world. Instead, many states prefer to avoid a full transfer of assets transfer and to simply handover the managerial and operational functions of water services to private companies (McDonald and Ruiters 2005).

In much of the developing world, countries privatized water and sanitation services to meet demands of international finance corporations, such as the IMF and the World Bank, to be eligible for loans. This change was most prevalent at the turn of the 21st century. However, soon after adopting the privatization model, many of these companies began to experience problems In Argentina for example, Aguas, the private water firm, was crippled by a massive currency devaluation and defaulted on millions of dollars of debt. This was exacerbated by the company’s overoptimistic calculations and a lack of efficiency. The result was a water service crisis—and the esteem of the world’s flagship company for water service privatization visibly plummeted (Holland 2005). In other countries, such as Indonesia and the Philippines, multinational water companies such as Suez and Thames Water began to pressure their host governments for rate increase to combat losses. In the case of Argentina’s Aguas, the company was forced to postpone investment in water infrastructure development after the government refused to increase the tariff despite pressure from the company. In Jakarta and Manila, the companies had
better luck; they were able to increase water prices after threatening the government that they would simply withdraw from their water service contract obligations.

In many cases in the developing world, water and sanitation service companies receive loans from the World Bank and other lenders with the understanding that they will guarantee a certain level of investment in the service within the terms of the contract (Holland 2005). In reality, the commercial risk often weighs so heavily on these companies that they focus more on cost recovery of capital invested rather than expanding infrastructure.

Although direct private sector control of water services has little support nowadays, more complex and covert forms of privatization are becoming more common. International financial institutions increasingly emphasize public-private partnerships (PPPs) for the management of urban water supply and sanitation. “Financing for water resources infrastructure … requires public-private partnerships, both in investment and operation. While private investment and management are playing, and must play, a growing role, this must take place within a publicly established long-term development and legal and regulatory framework… Attracting private investment into low-income countries is particularly important” (Gourbesville 2008, p.285).

In PPPs, participation of the private sector is emphasized through a reform of the service’s governing framework. The government signs a long-term contract with a private consortium to supply a service, and the private consortium designs, builds, owns, and
runs the physical assets required for the delivery of the service (Grout 2003). Typically, therefore, the government becomes a purchaser of services.

Notably, PPPs are a particularly flexible form of privatization. They avoid the stirring effect of complete privatization for those who are ethically opposed to it. However, in practice, the PPP structure passes on crucial decision making responsibilities from public to private hands, and transforms ‘public goods’ to ‘private profit’, altering the social commitment of the state to its citizens (McDonald and Ruiters 2005). PPPs camouflage the control and managerial principles of public services. Proponents of the market economy, for example, see PPPs as a more feasible and publicly palatable way to promote the commercialization of services.

Commercialization—that is, the result of the hardline profit-seeking behavior typical of business institutions—can still occur within public organizations even without private sector involvement. As mentioned earlier, the case of corporatization introduces commercial/private sector principles in its service delivery and management. In corporatization, a public water system that is fully owned and operated by the state can become more commercial than its privatized counterparts. Managers of these corporatized services aggressively promote and enforce cost recovery and other market principles. This was the case in Durban and Cape Town, South Africa, where the commercial ventures and the stringent cost-recovery mechanisms of the public water service provider for the cities resulted in massive crisis in service cutoffs and evictions,
jeopardizing the potential for millions of low-income families to lead healthy and productive lives (McDonald and Ruiters 2005).

In the late 1990s, international lending agencies introduced corporatization models for developing countries as an alternative to existing public water governance models. Whether a state-run organization corporatizes or privatizes, it often undergoes a process of commercialization (Smith 2004). In the case of Dhaka, Bangladesh, for example, corporatization of the water supply and sanitation service sector was the first step towards a privatization process that is transforming the institution into one that is commercially viable enough to attract private sector involvement.

2.6 The United Nation’s Model of Regulatory Framework
The United Nations Committee on Economic, Social and Cultural Rights developed a unified framework for corporatized water and sanitation services in 2004 (Figure 2.1). The framework states that corporatization of these services is essential for developing countries, as “the majority of potential new customers are likely to come from the poor, vulnerable and disadvantaged sectors” (United Nations, 2004, p.19). The obligation for providing water and sanitation service is said to rest with governments, but it is, instead, delegated to Water Service Authorities (WSAs).

WSAs are regulated by a professional regulator with the authority to secure a fair balance between the government, consumers, and non-public service providers. Water Service Providers (WSPs) are (usually) private sector entities that are integrated and controlled by WSAs. In addition, there can be a separate Water Resources Board responsible for
supplying raw bulk water to WSPs. For example, in Chile and the United Kingdom private sector participation has been introduced at the WSA level. In France and the United States, on the other hand, municipalities generally exercise the WSA function. In France, the WSP function is almost wholly privatized with contractual regulation only. Irrespective of service arrangements, the United Nations framework requires that the real cost components be passed on to the main Water Services Providers to secure a balanced economic approach to non-revenue water and revenue recovery, “If the bucket is leaking, there is limited value to be gained from increasing its size!” (United Nations 2004, p.25).

**Figure 2.1 Generalized Institutional Framework for Corporatized Water and Sanitation.**

2.6 Corporatization in Bangladesh

In an effort to manage public resources efficiently, the government of Bangladesh has opted for corporatization, and has withdrawn subsidies to utility services, such as electricity, and allowed prices to rise. For the delivery of water services, a public limited corporation model proposed by the Asian Development Bank (ADB) employs a similar commercialization strategy. Under this scheme, Dhaka Water Supply and Sewerage Authority (WASA) would function as a truly commercial water utility\(^3\).

Currently, in the absence of direct subsidization, the government of Bangladesh follows a policy of under-pricing of water in order to keep water tariffs low. This is obviously not the most financially-minded strategy for utility management, but, compared to more market-oriented practices, it is more in line with traditional public sector operating principles. These traditional principles include integrated planning, subsidization, supply-driven decision-making, and equity orientation (McDonald and Ruiters 2005).

Over the years, the operating principles behind both the public and private sector in Bangladesh have come under the influence of various economic reform policies adopted by consecutive governments. After independence from Pakistan in 1971, Bangladesh incorporated the economic reform policies of the socialist government led by Sheikh Mujibur Rahman and focused on the development of the country’s public sector. State intervention strengthened the public sector, and policies encouraged import substitution (protecting domestic producers from the competition of imports) and the nationalization of heavy industries (Uddin and Hopper 2003). However, with the demise of the socialist

\(^3\) Asian Development Bank Final Report TA 4651-Ban-Dhaka Water Supply Project
government in 1975, the new military ruler, General Ziaur Rahman (Zia), adopted a number of market-oriented economic reforms, including the withdrawal of subsidies, cuts in government expenditures, denationalization, and the privatization of many economic activities (Rahman 1990 cited in Nuruzzaman 2004). The fiscal policies revised after 1975 emphasized the development of a more vibrant private sector and provided enormous incentives to spur private investment. Between 1975 and 1981, Bangladesh privatized 247 formerly state-owned enterprises (Government of the People’s Republic of Bangladesh 2007).

The policies adopted in Bangladesh are believed to have been driven by the Western ideologies of “Thatcherism” and “Reaganism” (Uddin and Hopper 2003 cited in Uddin 2005, p.159). The neoliberal influence of the state was transformed to help the transition process from socialist structure to liberal market capitalism (Jessop 2003). The change reflected the influence of international politics on the policies of the Bangladeshi government which Sobhan (1982) has identified as stemming from the nation’s economic dependence and political weakness.

In 1982, President Hussain Muhammad Ershad came to power in Bangladesh. Ershad’s rule capped several military takeovers in Dhaka, and the political and economic turmoil meant that Bangladesh became susceptible to the influence of international lending agencies. Most of these agencies pressured the government to adopt market-oriented adjustment policies, emphasizing the privatization of existing state-operated enterprises, regardless of whether or not they were running a loss or a profit (Uddin 2005). The
ascendancy of the private sector and market forces over the public sector to foster economic development was the motivation behind the advocacy of these lending agencies (Osbourne 2000 cited in Miraftab 2004).

Consequently, Bangladesh’s strong push for privatization resulted in rapid divestitures of public sector enterprises up until the 1990s (Nuruzzaman 2004). Many public sector enterprises were put into a holding company as joint stock companies (Uddin 2005). The government divested as many as 449 state-owned enterprises in this period, but as the findings of the Board of Investment (BOI) in 1991 concluded, around 133 of the divested enterprises were closed down and another 141 enterprises were non-existent (Nuruzzaman 2004). The buyers simply sold out the assets to make quick money, and became rich overnight (Farid 1993 as cited in Nuruzzaman 2004).

The privatization prescription does not always cure the malady that often affects the public sector; rather, in some cases, it results in demand contraction and the problem of default (local private companies are particularly susceptible to bankruptcy) (Rahman, 1992 cited in Nuruzzaman 2004), because private entrepreneurs are given free access to credit from development finance institutions and national commercial banks. Notwithstanding, international lending agencies continued to buy policy changes, and subsequent governments in Bangladesh authorized the expansion of the private sector by liberalizing foreign trade, relaxing exchange controls, and restructuring import tariffs.

In truth, the inefficient management, poor financial control, and lack of accountability within the public sector in Bangladesh provided a perfect justification for subsequent
indiscriminate privatization. However, many studies have shown that the reasons behind these public sector management inefficiencies included political and bureaucratic interference, politicized internal decisions, and regular conflicts among union leaders, managers, and other authorities (Jones and Sefiane 1992; Ouibrahim and Scapens 1989; Wickramasinghe 1996 cited in Nuruzzaman 2004).

Chang and Grabel (2004, p.46) explore the myth that “developing countries need the discipline provided by international institutions” and conclude that public sector officials are not always more corrupt, more ambitious, or less efficient than their counterparts in the private sector. Indeed, corruption occurs with equal frequency in the public and private sectors. Citing the example of the United States where the private sector is seen as the ideal model of sound business practices, the authors note that the country also experienced numerous corporate corruption scandals in 2002 (e.g., the debacles of Enron and Arthur Andersen). By generating distrust and disregard for the public sector, neoliberalism provides a rationale for transferring policymaking authority to politically independent institutions.

The service sector reform in Bangladesh began in 1991 with an industrial policy that removed the telecommunications sector from the list of industries reserved exclusively for public sector investment. Parts of the distribution network of Dhaka Electricity Service Authority (DESA), the capital city’s public authority for power generation, were taken over by Dhaka Electric Supply company (DESCO). The formation of this company was observed as a step towards the “corporatization and commercialization” of the sector.
Later, in 1996, the government approved its Private Sector Power Generation Policy, which exempted private investors in power businesses from income tax and customs duties. Under this power generation policy, nine international and domestic private power companies began operating in Bangladesh between 1999 and 2003. The government, meanwhile, began to buy electricity from these companies to transmit and distribute it. Initially, it was agreed that the tariff should increase or decrease with the decrement or increment of plant operation costs. It was also agreed that the price should be recalculated with the devaluation of money with respect to U.S. dollar (Dey and Khan 2006).

Today, almost a decade after the private power plants first began their operations Bangladesh is still struggling to cope the demand for electricity. A report from Dhaka city’s major newspaper, *The Daily Star*, states that “severe load shedding and power outages are still common issue in the city. Tired of frequent power cuts, many people are allegedly using small, gas-fired power generators, contributing to gas supply shortages, according to a high official with Dhaka WASA. The water pumps at Dhaka WASA and the treatment plants have been failing to supply their full capacity of water because of the heavy load shedding, coupled with low and fluctuating voltage” (April 22, 2008). Dhaka WASA official interviewed for that article added that almost half of their electric pumps remained inoperative for a certain period every day. As a result, the private plants are producing less power than their capability. An official with the Bangladesh Power Development Board mentioned, “The situation might have improved a bit, if the new 90MW Fenchuganj power plant came into operation this month as per the schedule. But, due to a feud between the plant's Chinese builder Harbin and the National Board of
Revenue (NBR) over exemption of import duties, the plant's operation is still uncertain.”
(The Daily Star, April 22, 2008)
When these international or multinational private power plants make a profit, they often transfer the money to their home countries directly in U.S. currency and do not reinvest it (Dey and Khan 2006). Sometimes, the conduct of power companies is even more egregious. On June 2nd 2008, The Daily Star published news that arrest warrants had been issued against the incumbent managing director (MD) of Dhaka Electricity Supply Company (DESCO), the former Dhaka Electricity Supply Authority (DESA) chairman, and 13 others in the case of a DESCO share scam. The accused were charged with illegally buying shares, violating the rules and provisions of the government and buying shares at lower than market rates causing a loss of 70 million U.S. dollars to the government.

Problems of corruption, scams, and bribery often occur—and in some cases are more likely to occur—in independent private institutions. The ownership of assets matters. When you corporatize an entity, significant and crucial decision-making control shifts from public to private hands. Although services such as water and power are still “in public hands” in Bangladesh, there is a hovering commercialization of the services that will essentially lead to further commodification.
Chapter 3

Corporatizing Dhaka Water Supply and Sewerage Authority

3.1 Introduction

Water supply sector reforms in Bangladesh are sponsored by multilateral finance institutions (MFIs). For Dhaka Water Supply and Sanitation Authority Water Supply (WASA), MFIs are the driving force in structural or managerial reform. The reforms are not always designed to solve problems of equitable distribution and resource constraints; instead, they can be seen as a test of the MFIs belief in pro-privatization schemes and an attempt to expand the MFIs’ core business area in urban water services. These reforms are also validated by a discourse about market economies that often only benefit the elite of the country and have very little consideration for the disadvantaged.

Over the years, policy prescriptions by MFIs, such as the World Bank and the Asian Development Bank, have shaped the ownership and management structure of Dhaka WASA. In 1963, Dhaka WASA was transformed from a public service government organization to a semi-autonomous body under corporate management (WASA Act 1996). Currently, the ADB is playing a major role in supporting restructuring programs together with the World Bank. Under the restructuring programs, Dhaka WASA would be transformed into a Public Limited Corporation (PLC). This would make Dhaka WASA a publicly owned commercial organization that operates on private sector principles and that outsources some of its services directly. On the whole, the ADB is trying to promote the corporatization of this government-owned utility as a probable prelude to deeper forms of privatization. It is also promoting the entry of the private
sector through service contract options. While full privatization (i.e. divestiture) of the organization might not be the ultimate outcome, the intent of further private sector participation was indicated and supported by key decision makers at the organizational and state level in Bangladesh. In the process of corporatization, Dhaka WASA is and will continue to be more assertive in its commercial orientation than any business organization dealing with public resources such as water.

The present chapter will provide a comprehensive understanding of how Dhaka WASA fits with the corporatization model. It will also outline the process involved in the early stages of commercializing Dhaka WASA, highlighting the reform processes that have been guided mostly by MFIs and supported within by key decision makers and management. The discussion begins with a brief history of the organization, followed by a review of the regulatory amendments that prepared Dhaka WASA for corporatization. The paradigm applied in the reform of Dhaka WASA follows a neoliberal orientation in management philosophy with a rapid diffusion of market principles\(^4\). The analysis that follows quotes the main players involved in the decision-making and execution of reform policies. They were interviewed for this research.

### 3.2 The History of Dhaka WASA: Reforms Underlying Commercialization

Dhaka WASA was created under the East Pakistan ordinance of 1963, with the prime objective of supplying and maintaining potable water, sanitation, and storm water drainage facilities at affordable prices. Almost 50 years later, the focus of the organization has shifted towards operating on a commercial footing (Dhaka WASA

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\(^4\) Such as instance introducing the ideology of competition, cost recovery and profit maximization in public service organizations.
citizen charter 2007) and supplying water for those who can afford to pay. A review of the history of Dhaka’s urban water supply system provides insight into this transformation in Dhaka WASA’s management ethos.

A modern water supply system at Dhaka City dates back to 1874, with the first-ever surface water treatment plant, a few hundred street taps, and house service connections for a few rich residents and aristocrats. After the Partition of India in 1947, the new nation of Pakistan declared Dhaka to be the capital of the province of East Pakistan. The city had to house an increasing number of government offices, firms, industrial establishments, government employees, and migrants coming from other parts of the province. The influx of people raised the population from 335,925 in 1951 to 556,712 in 1961, an increase of 65.7 percent (Dhaka City Corporation). This population surge created increased demands for basic city services. The most important of these was the demand for a safe and reliable water supply.

The Bangladesh Water Development Board (BWDB) started operations in 1959 as the principal agency of the government for managing water resources in the region. However, under the authority of the Ministry of Local Government, Rural Development and Co-operatives (MLGRD&C), the Department of Public Health Engineering (DPHE), a national agency, was also entrusted with supplying water, sanitation and hygiene throughout the nation’s urban and rural areas. Moreover, to meet the growing demands for water and sanitation services for the two largest cities in the region, Dhaka and Chittagong, Dhaka Water Supply and Sewerage Authority and Chittagong Water Supply
and Sewerage Authority (Chittagong WASA) were created. Since then, Dhaka WASA has been operating as a semi-autonomous organization under the MLGRD&C.

After Bangladesh gained independence from Pakistan in 1971, the population of Dhaka, the new nation’s capital, began to expand in all directions. New areas of residential, administrative, business, and commercial importance began to develop (Table 3.1 and Figure 3.1). At the same time, numerous slums and unplanned low-income residential areas occupied by squatters grew in the mainly low lying parts of the city. These slums and squatters suffered from inadequate water supply and poor sewerage and drainage facilities.

Table 3.1 and Figure 3.1: The Area and Population Growth of Dhaka City Since 1951.

Source: Talukder, SH. (2006)

<table>
<thead>
<tr>
<th>Year</th>
<th>Area in Sq. Km</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>85.45</td>
<td>411,279</td>
</tr>
<tr>
<td>1961</td>
<td>124.45</td>
<td>718,766</td>
</tr>
<tr>
<td>1974</td>
<td>335.79</td>
<td>2,068,353</td>
</tr>
<tr>
<td>1981</td>
<td>509.62</td>
<td>3,440,147</td>
</tr>
<tr>
<td>1991</td>
<td>1352.87</td>
<td>6,487,459</td>
</tr>
<tr>
<td>2001</td>
<td>1530</td>
<td>9,912,908</td>
</tr>
</tbody>
</table>

BBS: Bangladesh Bureau of Statistics 2001
Because the old municipal water supply system could not cope with the growing demand, the water supply service was in substantial need of an overhaul. However, in the late 1970s and early 1980s, the government lacked the financial resource base to support development projects for many public sector organizations. It resorted to international lending agencies. Dhaka WASA, in particular, sought the assistance of funding agencies for a variety of projects (Table 3.2). The first to implement some of these external
assistance projects was the World Bank, in association with International Development Association (IDA), in 1973.

**Table 3.2: The History of External Assistance to the Water Supply and Sanitation Sector of Bangladesh.**


<table>
<thead>
<tr>
<th>Name of Project</th>
<th>Executing Agency</th>
<th>Amount Approved ($ million)</th>
<th>Implementation Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Asian Development Bank (ADB)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Southwest Area Water Resources Management Study</td>
<td>BWDB</td>
<td>3.8</td>
<td>1991</td>
</tr>
<tr>
<td>2. Southwest Area Water Development</td>
<td>BWDB</td>
<td>3.5</td>
<td>1993</td>
</tr>
<tr>
<td>3. Small-scale Water Resources Development Sector</td>
<td>LGED</td>
<td>32.0</td>
<td>1996</td>
</tr>
<tr>
<td>4. Command Area Development</td>
<td>BWDB</td>
<td>30.0</td>
<td>1995</td>
</tr>
<tr>
<td>5. Flood Damage Rehabilitation</td>
<td>BWDB</td>
<td>20.0</td>
<td>1998</td>
</tr>
<tr>
<td>6. Southwest Flood Damage Rehabilitation</td>
<td>BWDB</td>
<td>13.2</td>
<td>2000</td>
</tr>
<tr>
<td>7. 2nd Small-scale Water Resources</td>
<td>LGED</td>
<td>34.0</td>
<td>2001</td>
</tr>
<tr>
<td>8. Jamuna-Meghna River Erosion Mitigation</td>
<td>BWDB</td>
<td>42.2</td>
<td>2002</td>
</tr>
<tr>
<td>9. Emergency Flood Damage Rehabilitation</td>
<td>BWDB</td>
<td>31.8</td>
<td>2005</td>
</tr>
<tr>
<td><strong>B. World Bank / IDA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Dacca Water II</td>
<td>DWASA</td>
<td>22.00</td>
<td>1979-1984</td>
</tr>
<tr>
<td>3. Dacca WASA III</td>
<td>DWASA</td>
<td>30.00</td>
<td>1988-1994</td>
</tr>
<tr>
<td>5. Bangladesh Arsenic Mitigation Water Supply Project</td>
<td>DPHE</td>
<td>22.08</td>
<td>1998-2005</td>
</tr>
<tr>
<td>7. DWASA Sanitation and Drainage</td>
<td>DWASA</td>
<td>&lt;100&gt;</td>
<td>&lt;2007-2012&gt;</td>
</tr>
<tr>
<td><strong>C. Danida</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1. Water Supply, Sanitation, Drainage And Waste Management Project at Pouroshave, Thana and Growth Center At Coastal Belt</td>
<td>DPHE</td>
<td>22.85</td>
<td>1996-2005</td>
</tr>
<tr>
<td>3. Water Supply and Sanitation Sector Programme Support (WSSPS) Phase II</td>
<td>DWASA</td>
<td>60.82</td>
<td>2006-2010</td>
</tr>
<tr>
<td>4. Saidabad II Water Treatment Plant (phase II)</td>
<td>DWASA</td>
<td>8,840MtK</td>
<td>&lt;2008-2011&gt;</td>
</tr>
<tr>
<td><strong>D. UNICEF</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. Environmental Sanitation, Hygiene Water Supply in Rural Areas of Bangladesh</td>
<td>DPHE</td>
<td>20.06</td>
<td>1996-2005</td>
</tr>
<tr>
<td>3. Study on Arsenic Affected Area of Bangladesh</td>
<td>DPHE</td>
<td>0.19</td>
<td>1996-2000</td>
</tr>
<tr>
<td>4. Environmental Sanitation, Hygiene and Water Supply Project in Slum Areas</td>
<td>DPHE</td>
<td>2.42</td>
<td>1997-2005</td>
</tr>
<tr>
<td>5. Action Research on Community Based Arsenic Mitigation in 15 Upazila Projects</td>
<td>DPHE</td>
<td>2.11</td>
<td>2001-2005</td>
</tr>
<tr>
<td>7. Sanitation Health Education and Water Supply Project</td>
<td>DPHE</td>
<td>65.83</td>
<td>2006-2010</td>
</tr>
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</table>
Throughout the period from 1973 to 1996, the World Bank was the major international lending institution providing assistance to Dhaka WASA, totaling almost $150 million. Most of these projects aimed at testing the virtue of introducing commercial management into the operations of the public sector enterprise. Consider the example of the World Bank’s third water supply and sewerage project (1986-1994). The stated aims of the project were to improve Dhaka WASA’s operational and financial performance, to expand existing water supply and sewerage systems in metropolitan Dhaka, and to strengthen the sectoral training and planning of the authority. The project aimed to achieve these ends through (1) the implementation of a large-scale leak detection
program to reduce leakage and unaccounted-for water and (2) the installation of a computer system in Dhaka WASA to help in the commercial management and monitoring of operations (Asian Development Bank 2007a).

Under the leak detection program, a consumer survey was conducted to generate a database to reveal the underlying problems in Dhaka WASA’s financial performance. The survey report revealed that Dhaka WASA was losing substantial revenues each year due to an increasing number of illegal connections, arrears bills, and system losses (Asian Development Bank 2007a). Dhaka WASA was struggling to cope with a shortfall in the supply of water in the face of growing demand at the same time that the indiscriminate installation of deep tube wells by private sector companies throughout the city intensified the extraction of ground water, lowering the aquifer level from between one and three meters annually. The government concluded that it needed to switch to an alternative source of water that would decrease the demand on ground water while meeting the city’s growing water requirements. Surface water treatment plants offered a solution to this problem, but the government needed financial assistance from lending agencies to implement the project.

The World Bank proposed helping Dhaka WASA in the construction of a 225 million-litres-per-day treatment plant—the World Bank’s fourth project with the water authority. The aim of the project was to initiate institutional reform, add capacity, reduce losses, improve sanitation and efficiency, and implement institutional development through technical assistance at Dhaka WASA.
The institutional reform, which was put in place with the ratification of the WASA Act 1996, enabled Dhaka WASA to gain greater autonomy from the government, “placing Dhaka WASA in approximately the same circumstances as those facing companies, and thereby gaining greater management autonomy from government (although the Government of Bangladesh would still own the institution)” (The World Bank 2002, p.3).

Changing the management structure of a publicly owned organization and bringing it to face commercial challenges amounted to the World Bank’s first attempt to fit Dhaka WASA into a corporatization model. The governance of Dhaka WASA was shifted to a board of directors that would be responsible for policy matters relating to corporate planning, tariff setting, and organizational structure. Meanwhile, the corporate management was “strengthened by the appointment of a managing director from the private sector, to focus upon efficiency and commercial aspects of Dhaka WASA's operations” (The World Bank 2002, p.5).

The World Bank’s intent was to introduce “commercial regulations and to reduce the Government of Bangladesh’s role” (The World Bank 2002, p.5), providing Dhaka WASA with greater autonomy. The background of the project is explained in the World Bank’s 2002 report. The report suggests that, during the period from 1989 to 1995, emerging international evidence supported an increased role for the private sector in utility operations. This influenced the World Bank’s interest in including more of this private sector approach in the fourth project for Dhaka WASA (The World Bank 2002). The World Bank wanted to test this private sector approach by contracting-out two of
Dhaka WASA’s revenue zones, and it made this change a condition for credit effectiveness.

This concept, however, was heavily resisted by the workers’ union, which saw private sector involvement as a threat to jobs. Soon, the World Bank realized “the importance of institutional development early on in the project's life” (World Bank 2002, p.4). Although the physical objective of setting up the surface water treatment plant was successful the project outcome was declared unsatisfactory by the World Bank as it failed to achieve its major objective of “a program of institutional and policy reforms that would lead to efficient operation of the water and sanitation services in Dhaka on a commercial basis” (World Bank 2002, p.5).

The physical component of the project was successfully completed with the establishment of the Saidabad Water Treatment Plant (SWTP). The project was also successful in planting the seed of corporatization by creating the impetus for the WASA Act 1996. The act itself was drafted and revised by the World Bank before it was subjected to changes and the eventual approval by the Government of Bangladesh. As a public service institution, Dhaka WASA has always been under direct or indirect financial (through development grants) and administrative control of the Government of Bangladesh. In the WASA Act 1996, for example, the government retained control to fix the tariff rates for Dhaka WASA. The World Bank perceived this arrangement as
unsatisfactory because the project was “not owned by the client” (Dhaka WASA) (World Bank 2002, p.4). Nevertheless, after proposing revisions to this aspect of the law, the World Bank acquiesced to including necessary tools within the act that would restore government control over the organization. Dhaka WASA was yet to be managed fully by commercial management.

3.3 Legislative Changes in the WASA Act 1996

The WASA Act 1996 has governed Dhaka WASA to the present. The following discussion will focus on special features of the Act that exemplify the nature of Dhaka WASA public corporation. Under Clause 2, Subsection 10, Chapter II, the Act enabled the government to delegate power to a board of directors as required by the World Bank and ensured that Dhaka WASA operated in a commercial manner (Dhaka WASA 1996). On the other hand, under Clause 1-3, Subsection 22, Chapter IV, the law safeguarded financial control over the authority by the Government of Bangladesh and permitted only the Government of Bangladesh to approve tariff increases above a five percent inflation rate (Dhaka WASA 1996).

The management structure of Dhaka WASA was reformed under Subsection 5, Chapter II, of the WASA Act. This created a board of directors consisting of 13 members drawn from different professional bodies and civic society. While the World Bank anticipated the board structure would create autonomy from the government, the Government of Bangladesh countered by requiring the appointment of two government representatives.

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5 Government still controlled the financial decision at Dhaka WASA, or in other words Dhaka WASA was not fully autonomous.
on the board (Subsection 6). These members must be from each of the MLGRD&C and the Ministry of Finance.

In theory, the political culture of Bangladesh could further compromise the independence of the Dhaka WASA board. This culture is so heavily politicized that any representative appointed to important posts usually comes from the ruling political party. For example, representatives on the Dhaka WASA board from the bar council, medical associations, or any other civic or professional body could be influenced by the government and the ruling political party.

Another common complaint about the Dhaka WASA board is that not all the members pay close attention to the operations of the organization, especially when board meetings are held only once a month. A staff consultant with the ADB explains some of the shortcomings of the board structure: “I do not support such a huge number of members from different parts of society,” says Mohammad Delwar Hossain. “The size appears to be too big; the bigger it is the more difficult it is to arrive at a decision. To get all the board members together is problematic. The managing director (MD) is part of the board but does not have voting power. The MD’s power is limited to running the organization in an efficient manner. The main problem with the board is the trouble getting them all together to convene a meeting and then to make decisions which I feel could be taken by the MD” (Mohammad Delwar Hossain 31 October 2007, personal interview).
Under Clause 2, Subsection 32, Chapter 6, of the WASA Act 1996, the Government of Bangladesh also interferes with the financial autonomy of Dhaka WASA (Dhaka WASA 1996) by requiring the authority to meet government conditions before it can borrow money directly from any commercial financial institution. This is because the government remains the guarantor for the fund. For instance, the government requires that any interest rate charged for this sort of debt must not be above the published bank rate.

Currently, funding for developmental projects or loans for Dhaka WASA usually comes from the World Bank or other MFIs. Most of the time, the government, which is often struggling to cope with financial deficits, borrows money and approves projects on whatever terms and conditions are set by these lending agencies. Once a project proposal is approved, there is not much the government can do to alter the already approved proposals. However, according to Dr. M. Feroze Ahmed, vice chairman of the Dhaka WASA board, “government approval is required only for projects involving significant amounts of funding. Other than that, up to certain limits, the awarding of big contracts relies on the Managing Director of Dhaka WASA” (M. Feroze Ahmed, November 11 2007, personal interview).

Meanwhile, many donors complain that the implementation of the WASA Act 1996 has failed to transform Dhaka WASA into their ideal of a commercial entity (e.g. Asian Development Bank 2007b). According to the ADB, if Dhaka WASA was intended to
operate as a commercial entity it should conform to the ADB’s defined “building blocks of a commercial entity, [including]:

(i) a clear mandate of responsibilities;
(ii) the ability to plan and realize development for the future;
(iii) control over its own human and financial resources;
(iv) control over tariffs; and
(v) timely accounting and reporting to owner” (Asian Development Bank 2007b, Supplementary Appendix H, p.3).

In other words, the ownership of Dhaka WASA needs to be redefined. “Any revision of the WASA Act 1996 must ensure all these conditions are unequivocally met” (Asian Development Bank 2007b, Supplementary Appendix H, p.3).

In September 2005, the ADB moved to bring Dhaka WASA closer to the bank’s vision of a commercial water service as a part of the new two-part proposal for a Dhaka Water Supply Sector Development Program (DWSSDP). The Asian Development Bank would be part of this larger development partnership of the DWSSDP project between Britain’s Department of International Development (DFID), the Japan International Cooperation Agency (JICA), the Danish International Development Agency (DANIDA), and the World Bank6. The policy matrix of how the development partnership project would work is explained in detail in Table 3.3. The development partners will be working closely in collaboration with the Government of Bangladesh. Different Ministries under the

6 ADB, DANIDA, DFID, JICA and WB collectively referred to as the “Development Partners”
government will support both reform actions and investment loans for urban water supply and sanitation. The Ministries which will be involved are the Ministry of Finance (MOF), Ministry of Establishment (MOE), Local Government Division (LGD), Dhaka City Corporation (DCC) and Dhaka City Development Authority (named RAJUK - *Rajdhani Unnayan Kortipokho*).

This DWSSDP project would involve, first, investing in distribution systems and quality improvement (Dhaka WASA). This would entail DANIDA financing a new surface water treatment plant and the World Bank funding a sewerage and drainage project. The second part of the project will include the Asian Development Bank, with a proposal of institutional reform for Dhaka WASA and also capacity building with a specific emphasis on a revision of the WASA Act 1996. The disbursement of loans for the first part of the DWSSDP project, the World Bank and DANIDA projects, would be tied closely to the ADB-directed institutional reforms and capacity building (the project’s second part), which the government has to approve. “Donors, therefore, must then convince the government of the need to not only effect these changes (changes in the WASA Act), but to honour them” (Asian Development Bank 2007b, Supplementary Appendix H, p.3).
Table 3.3: Policy Matrix – Dhaka Water Supply Sector Development Program (Actions for Tranche Release indicated in Bold).


<table>
<thead>
<tr>
<th>Policy Actions</th>
<th>2007 - 2008</th>
<th>2009 - 2010</th>
<th>Responsible Agency/Target Date</th>
</tr>
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<tbody>
<tr>
<td><strong>A. STRENGTHEN DHAKA WASA GOVERNANCE AND ORGANIZATIONAL STRUCTURE</strong></td>
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<tr>
<td>1. Implementation of WASA Act 1996</td>
<td>LGD will approve and issue the implementing rules and regulations of WASA Act 1996. These will, among others things, stipulate responsibilities and day-to-day business procedures of Dhaka WASA.</td>
<td>LGD and Dhaka WASA / [Nov. 2007]</td>
<td>Dhaka WASA Board of Directors will issue an administrative order or circular on the staff recruitment, promotion and remuneration in DHAKA WASA.</td>
</tr>
<tr>
<td>2. Clarification and confirmation of Dhaka WASA organization</td>
<td>The first organization chart (Organogram) of Dhaka WASA that has been pending for 10 years is approved by the Secretaries Commission. Once approved Dhaka WASA shall issue a circular or decree to declare Organogram effective.</td>
<td>Ministry of Establishment, Ministry of Finance and Secretaries Committee (followed-up by LGD) / [Nov. 2007]</td>
<td>Dhaka WASA prepare and approve a Human Resource Development medium term strategy. The strategy will include plans for staff appropriation, staff training and development and salary increase projections.</td>
</tr>
<tr>
<td>3. Strengthening of Dhaka WASA Management, Board and Functional Unit Structure</td>
<td>Dhaka WASA will have appointed a Managing Director, who will be selected on competitive basis</td>
<td>1.1 LGD / [Sep. 2007]</td>
<td>3.1. Dhaka WASA, with the approval of LGD, will issue an administrative order or circular that provides clear delineation of roles and</td>
</tr>
<tr>
<td>4. Increasing Transparency and Accountability on Dhaka WASA</td>
<td>Adoption of a Performance Agreement and a Performance Improvement Plan between GOB and Dhaka WASA. Action plan to strengthen information flow and reporting systems within Dhaka WASA's organization structure.</td>
<td>LGD and Dhaka WASA / [June 2008]</td>
<td>Annual operational and financial audits of the results made public.</td>
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<td>5. Improve planning and operational functions in Dhaka WASA</td>
<td>A comprehensive Dhaka WASA business plan (minimum 5 year plan) is developed and implemented. The business plan will include a comprehensive investment plans.</td>
<td>Dhaka WASA / [end of 2008]</td>
<td>5.1 Dhaka WASA will prepare and issue an Operations Manual. The Operations Manual will be implemented and distributed to all departments within Dhaka WASA and published in Dhaka WASA website. Board approves a comprehensive “5-year Rolling Business Plan (RBP) 2009 - 2013” including</td>
</tr>
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</table>
investment, repayment, tariff setting, etc, after confirming the financial viability of RBP using updated Financial Model.

A joint Dhaka WASA/DCC/Rajuk strategic investment plan is prepared and published.

**6. Clarity of Dhaka WASA Mandates**

| Official circular is issued by GoB confirming Dhaka WASA’s mandate in stormwater drainage management. Decrees published confirming LGD and Dhaka WASA responsibility for ensuring that all citizens of Dhaka, including slum dwellers, have legal access to water supply and sanitation services. | LGD/Dhaka WASA / [by Nov. 2007] | Service provision to the slums issue is clearly stated in the revised rules and regulations as clear responsibilities of Dhaka WASA services | LGD/Dhaka WASA / [end of 2009] |

**B. IMPROVED FINANCIAL MANAGEMENT CAPACITY OF DHAKA WASA**

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<tr>
<td>8. Improving DHAKA WASA’s financial planning capacity</td>
<td>First draft of financial forecast and model developed.</td>
<td>LGD / DHAKA WASA / [Sep. 2007]</td>
<td></td>
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<tr>
<td>9. Improving transparency, timeliness and accuracy of financial and operational information</td>
<td>Action plan to improve financial management through comprehensive integrated systems throughout the entire organization (with timelines) developed.</td>
<td>DHAKA WASA / [Sep. 2007]</td>
<td>Prepare and develop comprehensive asset inventory.</td>
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<td></td>
<td>Adoption of internationally acceptable and transparent accounting systems.</td>
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<td>Starting from fiscal year 2010, full Audit report with proper audit opinion is produced and made public. Findings, Qualifications and recommendations of the audit are respectively reviewed, remedied and implemented in not later than 6 months from the date of submission of the audit report.</td>
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<td>DHAKA WASA produces annual reports on key operational and financial performance which are made publicly available.</td>
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C. SUSTAINABLE SERVICES DELIVERY

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<tr>
<td>10. Improve traceability of service delivery operations</td>
<td>Dhaka WASA has embarked on a comprehensive metering program, and has put in place a clear operational guideline (including divisional responsibilities) for meter maintenance and sustainability.</td>
<td>DHAKA WASA/end of 2010</td>
</tr>
<tr>
<td>11. Ensuring Equity and Affordability</td>
<td>Comprehensive and transparent review of tariff and clear action to reset the tariff structure to ensure sustainable, equitable and affordable service to all customers</td>
<td>Dhaka WASA / [end of 2008]</td>
</tr>
<tr>
<td>12. Improve quality of raw water/ river water.</td>
<td>A new raw water intake and transmission line are established that will supply sufficient and good quality raw water for the Saidabad Water Treatment Plant – Plant I and II.</td>
<td>LGD/DHAKA WASA / [end of 2015]</td>
</tr>
<tr>
<td>13. Reduction of illegal connections</td>
<td>DHAKA WASA will establish baseline for survey on illegal connections by the end of 2009. Based on the survey, DHAKA WASA will issue time bound action plan to address the problem of illegal connections. DHAKA WASA will reduce illegal connections in the 4 zones of Dhaka city covered under the DWSSDP, by the end of 2010.</td>
<td>DHAKA WASA / [end of 2009]  DHAKA WASA / [end of 2010]  LGD/DHAKA WASA / [end of 2010]</td>
</tr>
<tr>
<td>15. Improving Communications and Feedback</td>
<td>DHAKA WASA to have developed and started implementing a communications program, including a public media campaign, on:</td>
<td>DHAKA WASA / [end of 2009]</td>
</tr>
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| 16. Improve quality of wastewater service delivery | • correct meter reading  
• slum service tariff and implementation arrangements  

Established a grievance and complaint mechanism to address the concerns of customers and stakeholders.  

Institution of a standard for complaints and reports response time | DHAKA WASA / [end of 2010]  

DHAKA WASA / [end of 2010] |
|---|---|
| 17. Improve the quality of the installation of tubewells. | Prepare wastewater management Plan | [MOF]/LGD/DHAKA WASA/Ministry of Industry/Ministry of Environment / [end of 2010]  

Conduct study on better performance on maintenance and prepare guidelines on standards for tubewell installation procedures. | LGD/DHAKA WASA / [end of 2009] |
During interviews conducted for this research, in November and December 2007, both the DWSSDP projects involving the ADB proposal for institutional reform and capacity building were under the review by the Government of Bangladesh. Nevertheless, there was strong indication from the relevant government officials, decision makers of Dhaka WASA management and also Asian Development Bank’s regional employees that the government has initially approved the DWSSDP project proposal and is in the process of signing the loan agreement.

In the following sections of this chapter only the second part of the DWSSDP project – the ADB proposal for institutional reform and capacity building – will be discussed in detail. The discussion will assume the likely scenario of the DWSSDP project being approved by the government and discuss the possible outcomes of this for Dhaka WASA.

### 3.4 Fitting Dhaka WASA into a Public Limited Corporation Model

Institutional reform has been identified as a vital component in the proposed two-phased DWSSDP project. According to the ADB, institutional reform of Dhaka WASA is necessary to establish a sense of “ownership” like that of a commercial organization so that the results of the first part of the project—namely, an improved distribution system and a new surface water treatment plant—could be owned by Dhaka WASA itself. A transformation or an extension of the ownership of a public service authority into that of a commercial entity requires full financial freedom, strict control over the provided services, and full cost recovery measures. These are the measures that would be taken by the ADB for Dhaka WASA under the terms of the project’s capacity-building and
institutional-strengthening components. The following is a detailed analysis of the project components outlined by the ADB.

**Capacity Building and Institutional Strengthening/Reform**

Capacity Building and Institutional Strengthening will involve:

(a) Improved Financial Management comprising

   (i) the implementation of computerized accounting systems based on commercial accounting principles;

   (ii) tariff reforms to meet cost recovery; and

   (iii) the institutionalization of efficient and transparent billing, revenue collection, and customer record systems.

When trying to understand what the ADB is hoping to achieve with its broad plans, it is necessary to understand the nebulous nature of terms such as “institutional reform” and “capacity building.” Currently, a commercial structure is not present in the financial management of Dhaka WASA. This, of course, is common with many public service institutions. The ADB’s aim is to run Dhaka WASA like a “utility business” with strategic business planning, result-oriented budgeting, tariff reforms, accurate billing and payment collection, and an efficient and accurate accounting system (Asian Development Bank, 2007a, p.46). The utility business or business unit model (such as can be seen in the case of South Africa) functions as a specific stand-alone business, isolated financially and managerially from other public institutions. This is often a step towards more explicit forms of privatization.
Dhaka WASA was proposed to be insulated financially as well as managerially by ensuring independence from government control. According to the ADB, “Dhaka WASA has to act according to commercial principles at all levels. To this purpose, management independence is a necessary condition to achieve other objectives such as:

(i) tariff determination based on cost recovery principles;
(ii) an ability to recruit staff from the open market; and
(iii) the introduction of a merit-based remuneration and promotion system in order to link remuneration with performance, thus creating the right incentives for the employees toward efficient service delivery especially at the level of zonal offices (Asian Development Bank, 2007a, p.46).

3.4.1 Cost Recovery
During the DWSSDP project implementation period (2006-2013), full cost recovery through tariff increases is considered vital to phase in the transformation to a commercially feasible Dhaka WASA. “Dhaka WASA has already initiated the process of reforming the tariff structure. The capacity building consultant will work closely with Dhaka WASA to assist Dhaka WASA in designing the most appropriate and financial sustainable tariff structure and to implement it during the project period” (Asian Development Bank, 2007a, p.47).

According to the ADB, an increase in water tariffs is necessary to cover increases in operating and maintenance costs (e.g., 40 percent increases in staff salaries) (Asian Development Bank 2007b, Appendix 20, p.1). Therefore, a drastic 50 percent increase in
tariffs has been proposed within a year of the DWSSDP project initiation (5.25 Taka to 7.88 Taka, or $0.08 to $0.11), followed by a 10 percent increase and another 45 percent hike by the year 2013 (Table 3.4). Evidently, this increase will have a greater impact on low income residents such as those living in informal settlements with no proper house connections. For instance, low income households will see the proportion of their income spent on water increase from 1.63 percent to 4.38 percent (Figure 3.2). Households with average incomes, meanwhile, will experience only 0.3 to 0.8 percent increases in the proportion of their income to be spent on water during these years.

Table 3.4: Proposed Increases, 2006 – and nominal prices (Taka/m3).


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<tbody>
<tr>
<td>% Increase</td>
<td>50%</td>
<td>10%</td>
<td>45%</td>
<td>5%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Proposed Tariffs 2006 prices (Taka/m³)</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Residential</td>
<td>5.25</td>
<td>7.88</td>
<td>8.66</td>
<td>12.56</td>
<td>13.19</td>
<td>14.51</td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>17.50</td>
<td>26.25</td>
<td>28.88</td>
<td>41.88</td>
<td>44.97</td>
<td>48.37</td>
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<tr>
<td>Proposed Tariffs, nominal prices (Taka/m³)</td>
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<tr>
<td>Residential</td>
<td>5.25</td>
<td>8.27</td>
<td>10.53</td>
<td>17.67</td>
<td>21.48</td>
<td>27.35</td>
</tr>
<tr>
<td>Commercial/Industrial</td>
<td>17.50</td>
<td>27.56</td>
<td>35.10</td>
<td>58.91</td>
<td>71.61</td>
<td>91.20</td>
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Figure 3.2: Percentage Increases in Household Water Expenditures across Lower to Upper Income Areas (2006-2013).


The disproportionate impact of these increases on people of low and higher incomes is acknowledged by the ADB. The ADB suggests that average households in lower income areas will face water affordability problems, especially during the mid term of the project when the tariff is at its maximum. The ADB has proposed, as a possible solution to this problem, limiting the meter unit water consumption for these low income households, reducing it by as much as 25 to 33 percent (Figure 3.3) (Asian Development Bank 2007b).
The ADB’s harsh cost-recovery measures are clearly a market driven strategy that defies any public service ethos that argues for the social responsibility inherent in supplying water. The measures seek to transform the operation of Dhaka WASA to be more in line with the operations of private businesses. Meanwhile, a sudden increase in the tariff rate could potentially have devastating effects on low income groups, restricting water consumption at a level that will affect the health of households and the quality of life of people living there. In the cities of South Africa, a similar cost recovery policy led to increases in the number of people who had their water service cut, hitting poor...
communities hardest. The lack of clean alternative sources of water resulted in an outbreak of cholera that claimed the lives of many (McDonald and Ruiters 2005).

Under the cost recovery component of the second part of DWSSDP project, ADB also suggested that a stepped tariff, or increased block tariffs (IBTs), could be used to ensure tariffs work as an efficient constraint on unit consumer consumption. Blocks are intervals of unit consumption quantities. Under the proposal, the tariff would increase with block quantity. That means the tariff would increase for connections that consume more than 10 m³ per month. By 2013, there will be four such blocks. The second block would be higher than the needed average tariff by 15 percent, and the third block would be 50 percent higher than the needed average tariff. The third block would be introduced in 2010 for consumption above 50 m³ per month, and by 2013, it would move down to consumption above 25 m³ per month. By 2013, the fourth would be introduced with a price that is 100 percent higher than the needed average tariff for consumption above 50 m³ per month (Asian Development Bank 2007b).

The IBT structure has been proposed by ADB as a tool to minimize the impact of future tariff increases on poor communities. But just how effective is this tool for helping the poor? International standards for basic water needs are usually in the range of 25-30 liters per capita per day. Therefore, for a household of five, this amount is about 4-5 cubic meters per month per household (WHO 1997; United Nations 1993; Gleick 1996 cited in Boland and Whittington 2000). Most low income people in Dhaka City live in slums and some share a single water connection between 10 or more families. Others buy water
from private vendors. In the case of several families sharing one metered connection, the water used will likely exceed the first block of 10 m$^3$ per month and reach the higher-priced blocks. ADB project officials working with Dhaka WASA have confirmed that a future tariff increase based on the implementation of an associated block tariff structure would leave the poor paying higher average prices for water than the rich. Manila, the capital of the Philippines, provides a good example. There, many of the poor use shared standpipes, and the total water consumption pushes the price paid up to the high end of the block structure (Rosenthal 2001).

In another study conducted on South Asian cities in municipal water pricing and tariff design, the IBT structure was reviewed (Whittington 2003). The researcher found that, for poor households who share connections, the water bill is often calculated on the basis of an IBT designed for a private connection of a single household. The more households that share a connection, the higher the total water-use billed through that single meter and the higher the average cost of water used. Poor households sharing a connection thus typically pay higher-than-average per unit costs than middle- and upper-income households. That said, most of the existing subsidies also benefit middle- and upper-income households connected to the piped distribution system (Whittington 2003).

Arguably, coming back to the current study on Dhaka WASA, the amount of water a household needs for essential purposes cannot be met with a single block of 10 m$^3$ per month. This is particularly true for low-income households where the number of family members tends to be higher than among higher-income households. A possible outcome
of tariff-constrained water use for households is a reduction in the overall household water consumption that might have a detrimental effect on public health. In practice, IBTs are likely to promote inefficiency, inequity, unfairness, net revenue instability, and other negative consequences (Boland and Whittington 2000).

Another important aspect of the IBT structure is that as water prices tend to raise high with increasing use, high-end users are expected to restrict their consumption. The IBT structure is said to promote equity by creating desirable cross-subsidies (Boland and Whittington 2000). But as the end users restrict consumption, subsidies for lower-end users will dwindle. If prices are too high, they will have a negative effect on low-income households by reducing high-end consumption to the point that the money available for cross-subsidies is diminished. However, according to Dhaka WASA management, concerned government officials, and consultants with the ADB, the ADB proposal for Bangladesh does not include any plans for the cross subsidization of lower-income people.

Prior to the DWSSDP project, the ADB funded a socio-economic survey of areas not served by Dhaka WASA. These areas consist of mostly low income families. The survey report revealed that “all of the slum population is not poor” (Asian Development Bank 2007b, Appendix 15 p.5) and, thus, Dhaka WASA market area could be expanded to those areas. The Government of Bangladesh, meanwhile, recently approved guidelines that would allow Dhaka WASA to extend basic water and sanitation services to slums within its service area. This service would include providing legal connections and
introducing formal billing and collections. However, the DWSSDP project targets the poor only in terms of providing community water taps, shared stand pipes and yard taps, etc. (Asian Development Bank 2007b). No direct house connections or piped connections would be provided in these poorer areas.

The approach of the ADB raises the possibility that the bank including the other development partners is only interested in providing nominal water service to the poor to create the impression that it is helping the economically disadvantaged. The DWSSDP project may simply be politically expedient and would expand the market area only to those poor households that are able to pay and that would pay the same price as middle or higher income households - but for an inequitable service.

3.4.2 Regulatory Commission

The DWSSDP project to restructure Dhaka WASA into a truly autonomous body with minimum interference from the government includes a guarantee that financial management would be unfettered, with regulation only from an independent “Regulatory Commission.” The Regulatory Commission will monitor the phasing in of plans to create commercial/financial viability based on cost recovery through tariffs. The commission would place the financial control of the organization outside of the circle of influence of the government and Dhaka WASA. Regulation rather than privatization is said to have been responsible for the largest gains for public utilities (Cook 1999). However, recent experiences in the developing world suggest that regulation can coexist with privatization and is not necessarily contrary to it. Regulations are put in place to control and monitor
privatized service providers. The case of the Bangladesh Telecommunication Regulatory Commission is a good example, where a regulatory commission is responsible for monitoring service quality and the adherence to rules and regulations by private telecom operators.

Figure 3.4: Changes in Dhaka WASA Management Structure from 1963 to 2007.

NOTE: This diagram explains how the management structure of Dhaka WASA has changed since 1963, with more and more levels added to reduce state controls. From 1963 to 1996, the government had sole responsibility for managing and operating Dhaka WASA. From 1996 to 2007, Dhaka WASA Board of Directors was created. Under the ADB’s current proposal, another stratum would be added with the Regulatory Commission.

Proponents of privatization suggest that the creation of regulatory structures provides the most tangible benefits to consumers, resulting from the establishment of competition (Cook 1999). In the monopolistic environment of the water supply service sector, where
only Dhaka WASA is providing water, establishing a regulatory commission only for tariff regulation is redundant. According to the key decision makers with the ADB and Dhaka WASA, however, the regulatory commission is essential to run Dhaka WASA as a commercial organization. The privatization of selected, smaller operations and services (like for instance billing, meter reading, etc.) has also been proposed, bringing in competition that is also controlled by the regulatory body. Among Dhaka WASA management officials, the common consensus is that it is better to reduce state control over the organization, adding the regulatory commission to play a regulatory role. According to ADB staff consultant Mohammad Delwar Hossain, “the ADB and also the World Bank think that Dhaka WASA should be made as free as possible, so it can make its own decisions. Under the present circumstances, I also personally feel that the WASA should be free of government control to an extent that the government will have a regulatory role. Therefore, the appointment of a regulator so that things do not get out of hand has become very important. For the telecommunication sector, they have the regulatory commission. Now, they keep a lid on so that it does not get out of hand. They keep some control ensuring people’s rights. Similarly, a regulatory commission has also been recommended for the ADB project” (Mohammad Delwar Hossain 31 October 2007, personal interview).

Under the DWSSDP project, members of the regulatory commission would be appointed by the state and accountable to the government. This makes it necessary to understand how state control could still be moderated under the proposal. According to Dhaka WASA Commercial Manager Mohammad Nurul Huda Khan, “The members of the
regulatory commission would be appointed by the government. The commission will be accountable to the government, and Dhaka WASA will be accountable to the commission. If the WASA needs to increase water rates they will get permission from the commission only” (5 November 2007, personal interview).

**Figure 3.5: Roles and Responsibilities under the Proposed Regulatory Framework for Dhaka WASA.**

Source: Adapted from the Generalized Institutional Framework for Regulatory Commission (Figure 2.1 Chapter 2), United Nations *Water Services for the Urban Poor: A Guide to the Planning and Provision of Water and Sanitation Services to the Urban Poor* [2004].
The regulatory commission, therefore, would act as a circuit breaker between the government and the public utility organization, giving Dhaka WASA freedom to achieve full cost recovery through tariff increases over the implementation period of the DWSSDP project. Although, under the proposal, the state would be delegated some powers to control the regulator, success would be constrained by the capacity of the government to enforce regulatory rules. This is commonly the case, especially for developing countries (Levy and Spiller 1996).

Moreover, the proposed program would privatize many different smaller service operations, and the cost of providing water would undoubtedly increase. In addition, in areas where the government had a civic responsibility to supply water at subsidized rates, subsidies will be reduced and tariffs will rise after the regulatory commission is in place and insisting on full cost recovery. “A complete breakdown of all costs associated with the business including all capital costs is the only way to analyze tariff structure and future tariffs rises be justified” (SODEV et al. 2007, p.10).
Table 3.5: Strategic Objectives for Dhaka WASA.

Source: SODEV, Draft Diagnostic Report for Performance Improvement Programme (PIP): (Package # DS-6), Credit no. Q4780 Under Dhaka-Chittagong Water Supply and Sanitation Project,[2007])

<table>
<thead>
<tr>
<th>O U T P U T</th>
<th>Customer and Stakeholder</th>
<th>Satisfies Customers</th>
<th>Meets its Regulatory Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>T P U T P T</td>
<td>Supports Government Objectives</td>
<td>Satisfies the requirements of the 1996 Act</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>Financial</td>
<td>Maximise Profit</td>
<td>Maximise revenue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reduce Subsidy</td>
<td>Maintain stable cash flow</td>
</tr>
<tr>
<td>E N A B L E</td>
<td>Internal Processes and Innovation</td>
<td>Introduce new work practices</td>
<td>Apply Asset Management Planning principles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use systems effectively</td>
<td></td>
</tr>
<tr>
<td>L E R E S</td>
<td>Organisational Capacity</td>
<td>Improve Competency of employees</td>
<td>Improve knowledge Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Seamless transition</td>
<td>Empowerment of Employees</td>
</tr>
</tbody>
</table>

The concept of regulatory structures overseeing services such as telecommunications can be justified where companies are involved in the production as well as the distribution of a product. In the case of Dhaka WASA, however, the production cost is also supplemented by service costs that will depend on the different privatized smaller service
operations. How privatizing smaller service operations can have an effect on the overall cost of supplying water will be illustrated in Chapter 4 in which the particular case of the employee’s co-operative revenue management model will be examined.

3.4.3. Dividing Dhaka into Smaller Hydraulically Isolated Districts

The DWSSDP project includes a “zonal approach” to improving Dhaka WASA's services. The idea is to divide Dhaka city into smaller hydraulically isolated districts where upgrades of the service to 24-hour water supply will be undertaken in one district at a time (Asian Development Bank 2008). In general, the donor agency projects in Bangladesh are most often based on studies conducted by appointed consultants who have very little grass-roots knowledge. For instance, assessing the compliance of existing networks is necessary before setting up sophisticated technologies. In the case of the first surface water treatment plant at Saidabad that was funded by the World Bank in 1996, consultants provided a ground-level report upon which the project was ultimately based. However, the impact of the new plant began to surface only after the project was complete. The Chairman of Dhaka WASA’s Project for Performance Improvement (PIP) program explained, “After the opening of the Saidabad surface water treatment plant, technical system losses increased. The existing pipe lines are not strong enough to stand the thrust of water produced at the treatment plant. When we visited the streets, we could easily observe [the problem]. The pipes of main lines are rehabilitated, but the ones at the periphery are not and continue to leak.” (Aftab Ahmed 20 November 2007, personal interview).
As mentioned earlier, the current DWSSDP project includes building another surface water treatment plant in Dhaka City. In order to reduce water loss and leakage because of the thrust of the new plant’s water supply injections, the rehabilitation of the existing pipelines is being proposed.

Determining a safe and clean source of water for these surface water treatment plants is also important. This problem was overlooked in the case of the Saidabad facility. In that instance, the intake source selected by the World Bank-employed consultants was located where the contamination of the Meghna River was highest. According to a report in The Daily Star, “A technical committee comprising local and foreign environment experts suggested the government to shift Saidabad Water Intake unit from Sarulia to Meghna River to ensure safe and ammonia-free water for city people. The committee in its strategic plan for improvement of Dhaka City environment observed that the mistake that was done during selection of intake point at Sarulia would be repeated if the proposed two other phases of Saidabad Treatment Plant were implemented without solving the ammonia problem. It said that in the absence of any land-use and zoning regulation, the increased trend of urbanization and industrialization across the Sitalakhya, Balu, and Turag basins will further contaminate the Sitalakhya water and aggravate the ammonia problem in near future” (January 28 2005). As a result, most of the city residents have to deal with smelly and contaminated water (Kamal 2007).
For Dr. M. Feroze Ahmed, a professor at the *Bangladesh University of Engineering and Technology* and also the vice chairman of Dhaka WASA board of directors, the Saidabad mistake typified the problems with relying on donor agency prescribed planning when implementing similar infrastructure projects. “Saidabad water was taken from a wrong point,” he said. “Because this is a point where all the contaminants accumulate, we cannot run the treatment plant continuously for two months. The treatment we do even after that quality of water cannot be improved. In the World Bank meetings, the Bank blames Dhaka WASA for failing to control pollution or the quality of water. There were no local consultants involved in the planning of the design of this plant; everything was done by World Bank consultants. And this is a decision they have taken to put the intake at a point where no sensible engineer would put it. So, this is the fault of the engineers and consultants employed by the World Bank” (11 November 2007, personal interview).

### 3.4.4 Performance Based Remuneration

The second part of the DWSSDP project under ADB will also introduce merit-based remuneration and a promotion system to link remuneration with the performance of Dhaka WASA employees. The idea is to create incentives for efficient service delivery, especially at the level of zonal offices (Asian Development Bank 2007b). Performance-based remuneration always creates the risk that employees will shift their focus toward “those things easily measured at the cost of those things not easily measured” (Klitgaard 1997, p.498). This situation risks replacing the social responsibility for providing water with a drive to earn performance bonuses or a higher base pay. On the other hand, this
approach would complement efforts to transform Dhaka WASA into a commercially viable organization with employees motivated by profit making.

3.4.5 Public Awareness Campaigns and the Increased Cost of Water

Attaining full cost recovery in the future under the ADB proposal of institutional reform and capacity building for Dhaka WASA requires that consumers are amenable. In order to raise consumer awareness of the need for increased costs in accordance with the proposed water tariff increase, campaigns have been designed under the terms of the proposal, involving the following:

(i) mass media campaigns using a public relations firm or an advertising firm, and using mediums such as the television, radio, cinema, etc;

(ii) the engagement of non-government organizations to develop educational materials and to engage and coordinate field workers in conducting community meetings and household visits; and

(iii) the development of information materials, such advertisement brochures and display boards before, during, and after rehabilitation work in the supply zones. (Asian Development Bank 2007b)

3.4 Conclusion

International donors that support regional-level projects in developing countries often implement policies that are developed centrally and reflect a commitment to the market as a decisive mechanism for providing services. Local, grass-roots, practical, and “proletarian” concerns are lost to this centralized, ideological vision. Evidently, the DWSSDP project for Dhaka WASA envisioned by the development partners’ central
policy makers has very little scope to allow those working at the implementation level to deviate from policy to accommodate local concerns. According to one regional-level officer of with the ADB, “This is a very sensitive project. The project head is not in Bangladesh. He will be in Manila overseeing the entire project. But I was told by some ADB consultants that the project was tested in Nepal and in certain other places. It did not really work well. I don’t know the reason why it failed. Even within the team, very few are supportive of this. But this is a brainchild of the director of the urban sector (for the ADB). He proposed it” (A1, 12 November 2007, personal interview).

International donors are controlling not only Dhaka WASA, but the overall financial policy of Bangladesh. Their aim is to privatize or commercialize state-owned organizations and services. Yet, to manage water resources from a commercial point of view will exclude poor households from subsidies altogether, because they are not connected to the network. Sustainable service provision for business-like service-oriented institutions requires customers themselves covering the costs of operation and maintenance. But in a developing country like Bangladesh with increasing urban poverty, this will further worsen inequality in income distribution and keep a greater number under the poverty line.
Chapter 4

Case Study: Revenue Management Model of Employees Co-operative

4.1 Introduction
This chapter is a case study of the Program for Performance Improvement (PPI), a “progressive” participative revenue management model for Dhaka WASA. Although the PPI was conceived of as a means to move the operations of Dhaka WASA toward efficiency through the participation of private enterprise, Dhaka WASA’s PPI project is operated by an employee cooperative known as the Employees Consumer Supplies Cooperative Society Ltd. (ECSCSL). This PPI is currently responsible for collecting revenue from three of Dhaka WASA’s seven revenue zones (Revenue Zones 3, 4, and 5).

I argue that the PPI model emerged as a consequence of the commercialization efforts of neoliberal thinkers. These efforts narrowed the mechanisms for revenue generation by Dhaka WASA and created an isolated business unit with a reclusive management that undermines the egalitarian objectives of the water utility as a public service entity.

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7 A collaborative participation of some selective employees of Dhaka WASA (under the ECSCSL) for distribution of monthly water and sewerage bills and collection of revenues. Notice PPI cannot be defined as private enterprise because it is run by Dhaka WASA employees who are officially workers of public service sector.

8 The World Bank wanted private companies and not the employees of Dhaka WASA to manage the revenue matters. But the Bank had to face resistance of the employees against privatization and compromise.
The first section of the chapter will provide a subjective review of the commercialization efforts of the World Bank that led to the birth of the PPI model. Later, I will argue that the PPI model’s ring-fenced management fosters beliefs that are analogous to those of a private business although it promises to be an alternative to the private approach. Of particular interest are the harsh cost recovery mechanisms in place in the PPI’s public water supply revenue management system. These mechanisms are similar to those encouraged in the corporatization approach discussed in Chapter 1. The PPI model focuses on a short-term financial bottom line. That is, it meets revenue targets set each year; it is a standalone business unit that generates its own income to sustain itself and, although it is still a part of the larger Dhaka WASA, it is detached from all other service functions of the utility and is only responsible for billing and collections. I conclude by arguing that the PPI’s integrated service model is not conducive to a participatory environment in which the actions of one section of the larger Dhaka WASA organization have repercussions that affect other parts of the facility. The PPI model seeks to increase revenue generation irrespective of the impact of this approach on low income citizens. Meanwhile, the model is indirectly creating pressure to increase the household cost of water.

It is important to first clarify the terms PPI ‘model’ and PPI ‘project’. The terms are synonymous and used interchangeably to define the complexity of the entity. PPI is a business model (an idea), a project (a business exercise) and a business entity (the name of an ECSCSL-run enterprise). The name PPI was proposed by the World Bank, but it is only the name that has been taken up by the employees. The World Bank has no
responsibility or connection to the project now. Also, it is important to mention that PPI has its own management which, despite being a part of a larger organization, ECSCSL, is much stronger financially and its relation is directly to the main management of Dhaka WASA.

The PPI is a contradictory model: it promises to avert “redundancy due to privatization” by emphasizing the utility’s role as a public service organization; at the same time, the model is promoted as a transition phase in the transformation to full privatization. For example, former PPI Project Manager M.A. Maleque describes the PPI model as, “‘socially better’ [than privatization] because it ensures a public-employee partnership with consumers, and the staff is comprised of public workers appointed by Dhaka WASA” (Maleque 2007, p.4). On other hand, Maleque also says the PPI is a “congenial step forward towards pure privatization in the long run” (Maleque 2007, p.4). Apparently, the PPI is a model that tests the adaptability of citizens to higher cost public services that have harsh cost recovery mechanisms in place. “Any privatization effort should recover costs plus profit from risk taking. The PPI improvements—being revenue based—prepare the needed foundation for cost recovery that is necessary for any form of private enterprise. It promises to give breathing space to consumers in under-developed and developing countries so they can afford the high costs of water and sanitation associated with the privatization [of these services].” ((Maleque 2007, p.1-8).
4.2 The Background of the Program for Performance Improvement Model

To meet the growing demand for water while reducing Dhaka’s dependence on ground water, Dhaka WASA undertook to build a surface water treatment plant in 1994. The project was financed with a loan from the World Bank and the governments of France and Japan. The surface water treatment plant project became the fourth major Dhaka water supply project to be funded by the World Bank. The Bank was the project’s major donor, and it recommended certain changes to the governance and management of Dhaka WASA in exchange for the loan. One of the conditions requested by the World Bank was that the meter reading, billing, and revenue collection services of Dhaka WASA should be contracted out to private parties. The Bank also advised Dhaka WASA initiate a PPI in one of its revenue zones. The Bank said the experience gained in the zone would be useful for replicating the program in the remaining revenue zones of Dhaka WASA and for planning the organization’s future contractual activities.

Employees of Dhaka WASA saw that the PPI model would lead to contracting out work to private companies and would likely result in job losses. The backdrop to the situation is described by a revenue officer at Dhaka WASA (who asked to remain anonymous): “The pressure of donor agencies forced the government to contract out/lease out its revenue zones to private parties. Dhaka WASA employees rebelled against the outsourcing because they feared losing their jobs. At one stage, their movement became very strong. But the government was also adamant that it must contract out the work because of the pressure from the donor agencies. Dhaka WASA employees thought of a solution: they made the existing ECSCSL into a legal entity, so they could take over the
contracted out zones themselves. As a result, the work is not fully outsourced, but the
government can still fulfill its obligations to the donors” (D1, 19 November 2007,
personal interview).

The ECSCSL was first created after Bangladesh’s liberation war of 1971. It was initially
formed to supply consumer goods to the employees of Dhaka WASA in the war torn
country. Supplying consumer goods to the employees were considered to be a part of the
coop-eratives social service. In 1973, the cooperative became legally registered under the
Cooperative Act of 1940. Later, it took up a number of commercial ventures such as
leasing out shops that were built on Dhaka WASA properties. Before the new
Cooperative Act 2001, it was not legal for any cooperatives in Bangladesh to directly
operate business ventures. Still, the co-operative went on with their commercial
operations. It appears that Dhaka WASA management approved and allowed the
ECSCSL to become involved in business operations prior to legalization in 2001. That
was likely because the cooperative gave the utility 50 percent of their earnings (P1, 20
November 2007, personal interview).

Meanwhile, the World Bank saw the need to accomplish their physical target of setting
up a surface water treatment plant, but it also wanted to satisfy its full cost recovery
calculations (World Bank 2002). The Bank realized the need for Dhaka WASA to repay
its foreign debts. This was difficult, in large measure because of the non-compliance of
the utility to increase its rates as per the Bank’s cost recovery calculations (World Bank
The Bank hoped the surface water treatment plant project would incorporate the following (World Bank 2002):

a) institutional reforms at Dhaka WASA to enhance the efficiency of the water and sanitation sector in Dhaka City by making it more commercial and by preparing a strategy for greater private sector participation

b) the privatization of consumer metering and the revenue functions of one of the revenue zone of Dhaka WASA for a test period of one year. This contracting out of revenue collection services would follow a model that the World Bank described as a program for performance improvement. It became known by its acronym—the PPI.

It was this last item in the World Bank’s terms for funding the new surface water treatment plant that most concerned employees and trade union members of Dhaka WASA. They were against the PPI because it meant private sector involvement. They protested against the proposal. One workers’ union leader of the protest sums up the position of employees: “If a private company comes, it is not going to hire our employees for the jobs, and many of us fear becoming jobless. Why should we suffer for selling water at a rate that is less than half the production cost? It is the government who forces us to sell water at lower rates and Dhaka WASA has to cope with the loss.” (P1, 20 November 2007, personal interview).

Faced with the resistance of the employees and trade unions, representatives of the government, Dhaka WASA management authority, and the World Bank held discussions
with the workers. The government representatives defended the PPI proposal and the privatization of revenue collecting services. They blamed the workers of Dhaka WASA for losses in the water supply system arising from corruption and underhanded operations. This corruption included taking bribes from consumers to falsify meter readings, concealing illegal connections, etc. Trade union leaders and employees countered by claiming that the government was interfering in the decision-making processes of Dhaka WASA management. The employees argued that their cooperative, the ECSCSL, could operate any new revenue collection program as efficiently—or even more efficiently—than a private company. They challenged the government and the World Bank to let the ECSCSL operate at the same time as a private operator in two existing Dhaka WASA revenue zones. The two entities, the cooperative and the private company, would operate under the same terms and conditions for a test period. Both would model their operations in the manner of a PPI conceived of and advocated by the World Bank.

The World Bank and the government agreed. It was decided that only one zone would be privatized experimentally for one year by calling an open tender and another zone would be given to ECSCSL. Accordingly, the service in Revenue Zone 4 was contracted out to a private enterprise called the Engineering and Planning Consultants Ltd. (EPCL). An agreement between Dhaka WASA and the EPCL was signed in November 1996. At the same time, another agreement between Dhaka WASA and the worker’s cooperative, the ECSCSL, was signed for Revenue Zone 5.
The work of both the EPCL and the ECSCSL began on September 1997. It continued for a period of one year before operations were extended for another two months without any objection from the World Bank. Meanwhile, a four-member monitoring committee was formed in 1998 to review the performance of the contracted-out services. The committee reviewed the performance of both contractors and found that the performance of the ECSCSL was satisfactory while the performance of the private firm, the EPCL, was unsatisfactory (Tables 4.1 and 4.2).

**Table 4.1: The Comparative Performance of the EPCL (1997-98) with the Base-year Performance of Dhaka WASA (1996-97) in Zone 4.**

Source: M. A. Maleque, 2007 "Background and Achievements of the PPI" (Text, Dhaka, Bangladesh)

<table>
<thead>
<tr>
<th>Name of Operator</th>
<th>Year operated</th>
<th>No. of customer accounts at year end</th>
<th>Billing (million Taka)</th>
<th>Collection (million Taka)</th>
<th>Percentage non-revenue water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhaka WASA</td>
<td>1996-97</td>
<td>31023</td>
<td>69.80</td>
<td>54.37</td>
<td>56%</td>
</tr>
<tr>
<td>EPCL (Private operator)</td>
<td>Sept.1997 to Nov.1998</td>
<td>34448</td>
<td>66.30</td>
<td>46.98</td>
<td>59%</td>
</tr>
<tr>
<td>Change: Increase(+) Decrease (-)</td>
<td>(+)3425 (-)3.50</td>
<td>(-)7.38</td>
<td></td>
<td></td>
<td>3%(+)</td>
</tr>
</tbody>
</table>

**Table 4.2: The Comparative Performance of ECSCSL (1997-98) with the Base-year Performance Of Dhaka WASA (1996-97) in Zone 5.**

Source: M. A. Maleque, 2007 "Background and Achievements of the PPI" (Text, Dhaka, Bangladesh)
<table>
<thead>
<tr>
<th>Name of operator</th>
<th>Year operated</th>
<th>No. of customer accounts at year end</th>
<th>Billing (million Taka)</th>
<th>Collection (million Taka)</th>
<th>Percentage non-revenue water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhaka WASA</td>
<td>1996-97</td>
<td>24045</td>
<td>111.27</td>
<td>105.80</td>
<td>62%</td>
</tr>
<tr>
<td>ECSCSL</td>
<td>Sept.1997 to Nov.1998</td>
<td>26519</td>
<td>268.45</td>
<td>225.98</td>
<td>30%</td>
</tr>
<tr>
<td>Change: Increase (+)</td>
<td>(+)2474</td>
<td>(+)157.18</td>
<td>(+)120.18</td>
<td>(-)32%</td>
<td></td>
</tr>
</tbody>
</table>

The monitoring committee review showed that the ECSCSL outperformed both the earlier performance of the publicly run Dhaka WASA in the zone and the performance of the private contractor, the EPCL. In the zone operated by the ECSCSL, revenue increased and unaccounted for water was reduced. The EPCL, meanwhile, failed to measure up. The reason for the private company’s failure was officially identified as a lack of past experience in revenue collection and billing. However, there is more to the success of the ECSCSL and the failure of the EPCL than this conclusion suggests.

During the field survey interviews for this research, most staff, including the top management of Dhaka WASA, commented on the non-cooperation demonstrated by Dhaka WASA workers in relation to the EPCL. One deputy managing director of Dhaka WASA, who asked not to be named, describes the situation as follows: “Although we showed that the EPCL was not running well, the real reason behind it was non-cooperation on our part” (D2, 5 November 2007, personal interview). Mohammad Delwar Hossain, an Asian Development Bank (ADB) staff consultant at Dhaka WASA
agrees: “Maybe some of the people from inside did not really cooperate. I was talking to a chartered accountant who looked into aspects of the Zone 4 operations, and he was telling me informally that there was an element of non-cooperation from inside Dhaka WASA” (12 November 2007, personal interview).

The non-cooperation occurred when members of Dhaka WASA staff were asked to supply ledger documents and customer account information vital for revenue collection and billing. Dhaka WASA staff wanted to make sure the private company failed. According to one revenue officer in Dhaka WASA revenue zone, “We wanted to make sure the performance of the ECSCSL was better, so we gave them some extra facilities just to make sure they perform better” (D1, 19 November 2007, personal interview).

The employees’ cooperative also had the added advantage of operating in a superior revenue zone. Geographical and social factors mean Zone 4 and 5 are very different. Zone 4, the zone operated by the EPCL, is a low lying area which is home to the majority of the city’s slums, squatters and low income residents. On the other hand, the ECSCSL operated in Zone 5, which consists of mostly upper income residential and commercial areas. According to Mohammad Delwar Hossain, “Zone 5 is in a posh area where people are little more law abiding and pay bills regularly. Naturally, it worked well. The other zone, Zone 4, was full of slums and low income people. So, naturally, that might not have worked well” (12 November 2007, personal interview).
According to Dhaka WASA employees, slums and squatters are responsible for half the share of non-revenue water or consequent system losses. As per Dhaka WASA rules and regulations, only formal settlements are given water and sewerage connections. These slums and squatters receive water from Dhaka WASA mostly through illegal connections set up mainly by crooks or musclemen hired by local influential people. These people then sell the water at a higher cost to the poor. One of the revenue inspectors at Dhaka WASA describes the situation: “You can disconnect the illegal connection, but as soon as you leave the place, moments afterward, they will reconnect the line. It is not possible for us to risk our lives and fight with these people” (P1, 20 November 2007, personal interview). Consequently, Zone 4 had the highest number of illegal connections, and the EPCL had to face the difficulties of managing revenue collection with very little information and experience in the locality.

The EPCL was given an extra two months to improve their revenue collection and billing and to set targets for reducing non-revenue water. Even so, the company failed to meet its targets. Furthermore, complaints surfaced that the EPCL had engaged in the rampant falsification of water bills and that it took money directly from consumers. These complaints, however, are only observations made by current Dhaka WASA employees and may reflect the workers’ bias. At the moment it is hard to find any trace or existence of the company (EPCL). After losing its bid to operate the utility’s new outsourced revenue operations, the EPCL seems to have disappeared from view and may have gone out of the business of revenue management for public organization.
Following their review, the monitoring committee recommended that the ECSCSL continue their work in Revenue Zone 5 and suggested that the cooperative—if it was willing—should take over the operations of Revenue Zone 4 as well (under the same terms of reference and bill of quantities set out in the contract with the EPCL). Dhaka WASA accepted the committee’s recommendations and requested that the ECSCSL to take over the operations in Revenue Zone 4 beginning in November 1998. Initially, this contract was for a period of six months, but it was extended to the end of October 1999. Because the performance of the ECSCSL for Zone 4 was satisfactory, Dhaka WASA decided to extend the contract for another 47 months beginning in November 1999. Later, the satisfactory performance of the ECSCSL in both Revenue Zone 4 and 5 convinced Dhaka WASA board of directors to contract out Revenue Zone 3 to the cooperative under the same terms and conditions. The Zone 3 contract began from August 2003 for a period of one year, but it was also extended. The ECSCSL has been operating in the three revenue zones of Dhaka WASA since that time.

To run these revenue operations, the ECSCSL created a separate business entity that would control the PPI efforts of Dhaka WASA. This entity is also referred to by the program acronym—PPI. PPI has a separate management and headed by a nine member governing board. The organizational structure of the two entities is quite complex but necessary for a better understanding. The governing board of PPI is also headed by a chair and three directors or co-chairs who are usually nominated by ECSCSL’s board of directors. The PPI board’s chairman also happens to be the chair of ECSCSL’s board of directors. The PPI also has a project manager, who liaises between PPI and Dhaka
WASA management. The role of project manager is explained further in later part of the chapter.

Recently, Dhaka WASA made moves to privatize yet another of its revenue zones (Revenue Zone 6), but the decision has been withheld pending a ruling in a court petition from the ECSCSL.

4.3 The Terms and Conditions under which the PPI Operates

The nature of the contract conditions of the PPI model is important for an understanding of the PPI operations. As mentioned earlier, the PPI is streamlined in its design to recover the costs needed to meet revenue targets and, in addition, to cover the salary costs of its highly paid employees. Meeting salary costs helps motivate worker efficiency. For instance, Dhaka WASA staff not involved in the PPI suggest that higher salaries drive the PPI workers to work extra hours, a key factor in the “success” of the PPI model.

A simple comparison is described by a senior revenue officer at Dhaka WASA: “A revenue officer in Dhaka WASA-operated zones earns at best 7,000 Taka per month in salary, whereas officers working in the same position in a PPI-operated zone receive no less than 20,000 Taka per month. They are getting full remuneration” (D1, 19 November 2007, personal interview).

Generally, public sector employees receive a nominal fixed remuneration for their performance, which makes the public sector distinct from the private sector. But when
performance is based on higher wages, inefficient workers may change their behaviour. Management is also eager to make sure that the remuneration given is cost effective. For instance, a senior revenue officer in the PPI management describes salary arrangements as follows: “To make that sort of compensation [the higher salaries of PPI workers] cost effective, workers volunteered to deal with 750 consumer accounts per month. That’s considerable compared to the job load of 250 customer accounts per month dealt with by their inspector counterparts employed by Dhaka WASA. They also volunteered to work for longer hours without overtime and with only one holiday in a week. This was accepted, and it is working like magic with respect to improved diligence and honesty” (P1, 20 November 2007, personal interview).

Along with wage incentives, the PPI contract also includes penalties for poor performance. For instance, if the PPI fails to achieve its targeted revenue collection, the contract stipulates that a penalty of Taka 10,000 apply for each shortfall amount, up to a maximum of Taka 1,000,000 in a month (Dhaka WASA 2003, p.25). A penalty applies for failures within every segment of the cost recovery scheme, including penalties for failing to achieve billing targets. In addition, the PPI has to undertake all possible follow-up measures to ensure the collection of at least 80 percent of the bills issued in a billing cycle. If shortfalls continue for a period of three months, Dhaka WASA may unilaterally terminate the contract.

The performance of all the employees is therefore crucial for the survival of the PPI. Each employee is given individual targets to achieve. When the PPI fails to reach its
overall targets (and must pay a penalty under the contract), underperforming workers responsible for the shortfall are quickly fired and sent back to work at Dhaka WASA public utility. Indeed, employees at the PPI are considered to be on deputation from Dhaka WASA. They are selected for the PPI based on their performance at Dhaka WASA. A key decision maker with the PPI management describes the process: “We only appoint the best employees from Dhaka WASA in the PPI. We select them based on their performance in issuing 80 to 100 percent of bills. And when we appoint an employee, we tell them that if you fail to achieve your given target you will be immediately deported back to Dhaka WASA” (P1, 20 November 2007, personal interview).

Interestingly, the emphasis on issuing 100 percent of bills is a financial arrangement stipulated in the PPI contract. Dhaka WASA makes monthly payments to the PPI for each task the PPI workers perform, including meter reading, the preparation and delivery of customer bills, meter installation, meter replacement, etc. Payments are made on a simple unit price basis and on the basis of the bill of quantities. Dhaka WASA also promised to pay interest at the rate of 7.5 percent per annum on payments delayed by Dhaka WASA. Additional contract incentives include the following:

- A five percent bonus for the PPI if it exceeds its collection target within a billing cycle;
- A 2.7 percent bonus for reducing unaccounted for water beyond the target amount within a billing period; and
- Bonuses of two and three percent of receivables collected, if the PPI collects up to 10 percent and 20 percent, respectively, of the receivables. If PPI
collects more than 20 percent of receivables, it will be entitled to five percent of the collected amount as an incentive (Dhaka WASA 2003, p.26-27)

The success and failure of the PPI lies in this vital monetary arrangement, because it is managerially isolated from Dhaka WASA and has to sustain itself with its own resources. In spite of being a part of Dhaka WASA, the PPI pays the full cost of using the utility’s resources. For instance, the office space of the PPI in each revenue zone is rented from Dhaka WASA. The PPI must also include in its expenditures the cost of its incentive-oriented wages and must meet its yearly revenue collection and billing targets. Nevertheless, the PPI has the added advantage and freedom to meet necessary staffing and resource shortages to help it meet its yearly financial targets. Unlike Dhaka WASA, for instance, the PPI can recruit workers from the open market, a practice that helps make it efficient. On the other hand, Dhaka WASA revenue zones that are not run by the PPI are still controlled largely by government rules and regulations, and the public-sector budget restricts their ability to hire staff to cope with manpower shortages. This has been identified as one of the key factors responsible for the poor performance of Dhaka WASA in non-PPI zones. The situation is described by a revenue officer at Dhaka WASA (who asked to remain anonymous): “In my zones, there are 50,000 accounts, I need at least 134 revenue inspectors according to Dhaka WASA rules. But I have only 60 people working. We cannot recruit more people because other government expenditures are increasing, and they have placed a freeze on new recruitment. If I had the remaining 70 people I need, billing collection would have increased, and total working capacity would have been increased. The PPI does not have this problem. If they
needed more workers, they can always recruit people from the open market. They have 160 people from Dhaka WASA. In addition, they have five times more employees from the outside” (D1, 19 November 2007, personal interview).

One of the key strategies of PPI employees is to bill increasing numbers of customers. If they can earn more from the incentives for billing alone, their financial burden for revenue collection lessens. This is explained by Mohammad Nurul Huda Khan, project director for the PPI and the commercial manager of Dhaka WASA: “PPI revenue officers and inspectors know all the ins and outs of revenue collection. They put more emphasis on their billing. If they bill more, they will get more incentives” (5 November 2007, personal interview).

The PPI is separated from all the other water activities of Dhaka WASA. The operation is focused on revenue and on supplying consumers with their monthly water and sewerage bills, and it has very little interest in inquiring about the quality or quantity of the water services these consumers are receiving. For example, the PPI contract includes a requirement to issue 100 percent of the bills in slums and to take necessary steps to collect the revenue from these issued bills and to disconnect any illegal connections. Meanwhile, 90 percent of these slums do not even have legal house connections for water and sewerage from Dhaka WASA. As mentioned in Chapter 2, slum dwellers in Dhaka pay a lot more for their illegal water connections (not house connections but standpipes) or for water they buy from local vendors. One member of the PPI management describes how the PPI fulfills the contract clause requiring 100 percent billing and collection from
slums: “In order to collect revenue from the slums, in areas where local muscleman are controlling the illegal water connections, we go to their leaders and make an arrangement with them. We tell them to keep charging the slum dwellers whatever they are charging, and we supply them with water at a very lost cost. The only condition is that they must pay whatever the metered cost would be” (P1, 20 November 2007, personal interview).

PPI staff engaged in this kind of behavior consistently rationalized their actions by citing the need to generate cash to meet yearly targets. The revenue management model offers nothing unconventional, but caters to the needs of financially motivated management. At one time, PPI management deliberated over the extent to which the PPI model was distinct from a private service provider. The common answer was that workers have a social commitment to supply water—but not necessarily at the cost of the PPI’s financial success.

Meanwhile, top management at Dhaka WASA believes the success of the PPI model may be “blown out of proportion.” Maneuvering this cost recovery mechanism has become a financial burden on Dhaka WASA, and the authority is keen to experiment with cheaper services in a competitive environment by bringing in different private service providers. According to one senior member of Dhaka WASA’s board of directors, “There has been some increase in income, but the expenditures for revenue collection have increased, so we cannot say that PPI has been successful” (D4, 4 November 2007, personal interview).
Dhaka WASA set up an independent evaluation committee in 2005 to assess the performance of the cooperative-run PPI project. The committee found that the cost of revenue collection in the PPI zones had almost doubled, and that the increase in revenue collection (up by 10 percent) in the PPI zones “was more statistical than real” (Dhaka WASA 2005, p.19). “The contracted-out system appeared to be eating up the much needed revenues of the ailing Dhaka WASA. The report suggested that the revenue collection in the contracted-out zones looked like a rather zero sum game” (Dhaka WASA 2005, p.19). The report is inconclusive, however, because it fails to provide a clear picture of what percentage of income is spent on the PPI. Nor does it show if this figure is increasing. Statistics obtained from the revenue department at Dhaka WASA show that monthly expenditures by Dhaka WASA to maintain the PPI are around five to nine percent of the revenue generated (Table 4.3).

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount Paid to the PPI (Taka in 1,00000)</th>
<th>Target</th>
<th>Achievement</th>
<th>Expenditure % of Achievement</th>
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<tr>
<td></td>
<td>PPI-III</td>
<td>PPI-IV</td>
<td>PPI-V</td>
<td>Total</td>
</tr>
<tr>
<td>2005-06*</td>
<td>30.19</td>
<td>26.105</td>
<td>37.56</td>
<td>93.86</td>
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<tr>
<td>2007-08</td>
<td>23.2</td>
<td>16.75</td>
<td>38.5</td>
<td>78.45</td>
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* Average of the Year

These increases in expenditures are, however, insignificant in comparison to the increases in revenue generation (Figure 4.1).
Figure 4.1: Trends in the Revenue Collection and Billing at PPI Zones over the Period of July-2006 to May 2008.

Source: Calculated from Statistics (See Appendix 3.2) obtained from Dhaka WASA Revenue Department During a Field Survey Sept – November 2007.
Throughout most of the three zones, PPI billing and collection improved by more than 100 percent. This achievement has been made possible because targets for billing and collection are always set low and, most of the time, they do not reflect the real situation in the field. The performance is also affected by the collection target incentives—if the PPI exceeds the collection target, it will be entitled to five percent of the amount exceeding the target within a billing cycle.

While the PPI-operated zones have seen increases in income, Dhaka WASA is also experiencing a rise in its amount receivable (Figure 3.3). This increase in receivables could not be linked to the performance of the PPI, because the PPI does not maintain separate accounts for bills receivable and current bills. If receivables could be shown separately, the current bills and revenue collection performance of Dhaka WASA relative to that of the PPI might be easier to discern.
M. Feroze Ahmed, vice chairman of the Dhaka WASA Board and a professor at the Bangladesh University of Engineering and Technology is leading Dhaka WASA’s evaluation committee analyzing the performance of the PPI. Dr. Ahmed is skeptical about the success of the PPI overall, but he concedes that Dhaka WASA’s expenditures to maintain the PPI are about four or five percent while the PPI’s earnings have been increasing by 12 percent every year. This means Dhaka WASA is in a favorable financial position with yearly seven percent increases in total earnings. According to Dr. Ahmed, “Dhaka WASA is setting targets for billing, and the PPI’s payments are based on efficiency—that is, how many bills are submitted per month. But the collection and payment of these bills by consumers is something different. Even if the PPI produces the bills and serves them, the money still may not be forthcoming for Dhaka WASA. There is
always some unpaid amount. What I have noticed in last year’s records is that the unpaid amount is increasing. Actually, how much money is received by Dhaka WASA is one thing, and the amount in the bills submitted is another. When the PPI submits a bill according to the contract, they get payment from Dhaka WASA. My analysis has found that the PPI is submitting more bills than are paid to Dhaka WASA. The unrealized amount is increasing tremendously, and that is a very bad sign. From this, at least we can understand the pitfalls. My final conclusion is that Dhaka WASA is getting some benefit by contracting out revenue services to the PPI, but the benefit is not much” (M. Feroze Ahmed, 20 November 2007, personal interview)

Among the most important clues to understanding the riddle of the PPI’s performance is the fact that most of the PPI’s financial targets are set too low. That is because Dhaka WASA managers are keen to see the PPI succeed. A top management officer at Dhaka WASA explains this phenomenon: “Dhaka WASA people favor the PPI. They set the targets low. Dhaka WASA board of directors does not get involved in setting financial targets. These are set by the commercial manager of Dhaka WASA who is also the project director of the PPI. The commercial manager proposes the targets to the executive head according to the desires of the PPI. When the targets are set low, they show revenue collection success with the additional income. If the targets were not set low, the PPI management would face the same problems that plagued the EPCL—the private company that lost in the competition with the ECSCSL” (D3, 11 November 2007, personal interview).
Reservations regarding the PPI revenue management model are related to its lack of financial transparency and accountability. There appears to be no practice of preparing a budget and planning in the PPI. This reflects the poor accountability in the financial management of the business and opens the door to speculation that corruption is occurring. One former member of the PPI management board describes the problem: “As members of the employees’ cooperative, we should get an equal share of the profit made by the PPI. But we don’t, because of this unscrupulous system. I was also a member of the PPI management board, but due to the dictatorship of the board chair, I had to leave. The board is inactive because of internal battles. No accounting or audit is maintained. Hardly any general meetings are held, and if they are, no one comes. If some members do come to a meeting, they don’t have the courage to speak up for their interests. The last time an audit was done was back in 1996-97” (D5, 21 November 2007, personal interview).

Indeed, the management board of the PPI is restricted in its power. The board’s chair, three co-chairs, and one other member are the key decision makers. At the beginning of each financial year, the management board meets with the revenue inspectors and the field workers to decide upon strategies for achieving revenue collection and billing targets. This is said to promote a sense of participation and involvement among the employees. This participatory approach contributes to the incentive employees have to meet the PPI’s financial bottom line. The employees take their jobs very seriously at the PPI, and they do not falsify meter readings, engage in under billing, or any other corrupt activities that are said to be common in Dhaka WASA-managed revenue zones.
According to one PPI manager, “their integrity and honesty have been bought with a higher salary and incentive packages” (P1, 20 November 2007, personal interview).

In reality, however, the strategies employed by revenue inspectors, field workers, and management to meet the financial targets of the PPI are unknown. The PPI management is not at all transparent regarding financial planning. One of the key reasons for this lack of transparency is the PPI’s role as a project under of the control of the larger ECSCSL organization. For example, when an audit is conducted, incomes, expenditures, assets, and liabilities are accounted for in terms of the ECSCSL as a whole, overlooking the details concerning its contracted-out parts or projects, such as the PPI. This overall gross-estimation approach fails to provide a complete accounting of the PPI as an independent financial entity. The general sense among Dhaka WASA staff is that no one knows what goes inside PPI. Indeed, many see the PPI as “an interest group for Dhaka WASA.”

PPI management, meanwhile, sees no reason to clarify their financial planning, income, and expenditure details. As one PPI decision-maker explains, “It is not required that everyone should learn about our income and expenditures. There are 10 or more private companies standing by to compete with us. Therefore, we don’t want to disclose our financial plans and policies. This is a project run by an employees’ cooperative. Therefore, an audit is done and shown as a part of that organization. The PPI’s income and expenditures are whatever the payments are from Dhaka WASA [i.e., the bill of quantities]. Dhaka WASA will provide that information, because it is Dhaka WASA’s
loss to pay our bills. So naturally, they will keep the records” (P1, 20 November 2007, personal interview).

A leader with the PPI management team reiterates the perceived need to maintain confidentiality with respect to the organization’s finances: “Trends in our revenue collection are erratic. For instance, for the month of February, our revenue collection was about Taka 60,000,000, way above the target. But just a few months later, this dropped to Taka 30,000,000, because of a failure to collect revenue from government offices and structures. But we have to meet our monthly financial targets by every means possible. How we manage to cover this sort of loss is something we don’t want to disclose. I could include 10 more items in the contract and submit the bills to Dhaka WASA, but the PPI is not required to disclose that information” (P1, 20 November 2007, personal interview).

Even so, discerning how the PPI covers its losses is not difficult. An interview with the chair of the PPI board offers some clues. For example, the chair describes how the PPI workers, who have worked at Dhaka WASA for a long time, are able to cash in on their local experience. “They know the consumers very well,” the PPI chair explains, “and they know their income and how much they can pay when billed” (Aftab Ahmed 20 November 2007, personal interview). In other words, the PPI workers know the financial threshold that can be demanded of consumers when required. One PPI management official describes how the amount billed may not even reflect the amount of water consumers have used: “When we receive the billing targets for the zones from Dhaka WASA, we are asked to bill the consumers for certain amount of water supplied.
However, when we try to verify this amount at the field level, the water cannot be accounted for. Still, we have to bill the consumers for that amount of water which we did not even supply” (P1, 20 November 2007, personal interview).

Dhaka WASA does not have the technology to determine the exact amount of water supplied to the respective zones. A debilitating system loss of unaccounted for water makes matters worse. This in combination with the rigid cost recovery mechanisms employed by the PPI (fixing a financial target for water sustenance) ultimately affects consumers. To ensure that collections reach their target, the PPI management has launched crackdown operations with the help of country’s armed forces. These involve going door-to-door to demand that consumers pay outstanding bills or to cut illegal connections. Consumers, on the other hand, are not always aware that this outsourced revenue model is being practiced under Dhaka WASA. Many still believe they are simply receiving bills from the public utility.

The relationship between the financial targets of the PPI and the amount of revenue actually billed and collected in the three PPI revenue zones can be seen in Figure 4.4. The figure shows that targets for revenue collection are consistently set lower than billing targets, perhaps with the assumption that the more a customer is billed, the more likely they are to pay. Meanwhile, the amount that is actually billed is relatively constant compared to the erratic trend in the amount actually collected. Indeed, across the three zones, revenue collection is always highest during the summer months from March to July. It plunges for the rest of year. Obviously, water consumption is higher during the
summer months. Yet, the targets remain constant while revenue collection increases three-fold and the rate of billing also increases.

**Figure 4.3: Actual Billing and Collection against Targets in the PPI Zones (July 2006 to May 2008).**

Source: Calculated from statistics (See Appendix 4.2) obtained Dhaka WASA Revenue Department During a field survey, September to November 2007.
Many of the arguments and discussions regarding the success of the PPI revenue management model revolve around the issue of accountability. Generally, the staff and officers outside of the PPI believe that the system has no checks and balances and that Dhaka WASA has very limited control over it. The contract between Dhaka WASA and the PPI stipulates that the project director has sole responsibility for the overall supervision and monitoring of the PPI’s operations. The project director is also the one responsible for liaising between the PPI and Dhaka WASA, including overseeing the contract-stipulated bill of quantities that is submitted every month for the work the PPI does. Indeed, the whole outsourced fraction of Dhaka WASA is heavily dependent on a single rank. This raises a lot of question regarding the PPI’s ownership and management. As one senior revenue inspector suggests, “There should be separation between management and the ownership of the PPI to ensure that management cannot just do anything their hearts desire. There should be a check and balance and total scrutiny of the
total turnover. Dhaka WASA should control and monitor the activity of the PPI. There should be a revenue officer and an assistant revenue officer and two staff from Dhaka WASA working in the PPI to represent Dhaka WASA and to monitor and report the activities of PPI to Dhaka WASA. They are needed just to make sure the PPI managers do not do anything that is against the interests of the organization. If all the revenue zones of Dhaka WASA are brought under PPI control, then there will be a check and balance in the system which at the moment does not exist.\(^9\) (D1, 19 November 2007, personal interview).

For its part, the PPI management is critical of any interference by Dhaka WASA. It also blames the utility for setting unrealistic financial targets. The PPI managers are also demanding that Dhaka WASA increase rates for the services they provide and include an escalation clause (a change in the rates that reflects inflation) in the contract. The PPI Chair, Aftab Ahmed, describes the PPI’s ideal scenario: “The water meter is a cash register, and yet 30 percent of our connections do not have meters installed. We need good meters for each of our connections. We need to stop surface and underground leaks. Only then will we be able to sustain bill collections that match 100 percent of the water supplied with less labor. Also Dhaka WASA needs to waive the penalty clause and increase the percentage of the incentives we receive for exceeding our targets. At the moment, we are earning just enough to survive paying our employees and issuing a bonus for the share holders of the employees’ cooperative. However, any additional profit

\(^9\) Some revenue zones are operated by Dhaka WASA and some by PPI. If they could be brought under unified management operations of the revenue zones they can be more efficiently monitored, possibly reducing the incidence of corruption.
earned is usually distributed among the PPI employees only. Dhaka WASA is not providing an ideal environment for us to come clean about our financial statements. Why don’t you ask our project director about our financial statements? Why doesn’t he say anything? Our project director is very guarded. It is up to him to disclose or not disclose our financial reports” (Aftab Ahmed, 20 November 2007, personal interview).

Recently, Dhaka WASA board of directors attempted to outsource its Revenue Zone 6 to a private company. However, the plan had to be withdrawn when the ECSCSL and the chair of the PPI petitioned against the decision in court. The PPI Chair Aftab Ahmed explains his rationale for the petition: “In order to improve our financial stance, I want to include Dhaka WASA Revenue Zone 6 under the control of the PPI. Zone 6 includes the city’s central business district. Ninety percent of the structures are commercial, and water is supplied at a high commercial rate. I want to be able to recruit those Dhaka WASA employees under the PPI” (Aftab Ahmed 20 November 2007, personal interview).

Dhaka WASA sees the court challenge from another perspective. One senior Dhaka WASA staff person explains: “When I go for law suits and court cases to save my position at the PPI, clearly there is some vested interest. I will go this far only when there is something for me to gain. No one knows what goes on inside the PPI. There is no financial transparency” (D1, 19 November 2007, personal interview).

Meanwhile, general employees at Dhaka WASA express growing concern about two wage schemes practiced within the organization (that is, PPI employees receive a much
higher salary for performing the same tasks as their Dhaka WASA counterparts.) One revenue officer at Dhaka WASA explains: “The PPI gets money from Dhaka WASA for each and every bill they generate for consumers. They get money for each meter they install. Employees in Dhaka WASA-operated zones do not. The PPI’s contract with Dhaka WASA is such that PPI employees get money for each and every bit of work they do” (D1, 19 November 2007, personal interview).

In Dhaka WASA-operated revenue zones, employees are said to be reluctant to perform better when their counterpart workers at the PPI are receiving much higher remuneration. Employees are therefore eager to be transferred to the PPI zones, but these transfers depend on the PPI management’s screening process. Moreover, PPI management is reluctant to recruit Dhaka WASA staff when it is less costly to recruit workers from the open market and to pay smaller salaries. In addition, because Dhaka WASA staff that work for the PPI are seconded to those positions, the PPI management has to pay pension contributions for these employees to Dhaka WASA.

A Dhaka WASA staff member describes his own concern about the PPI project: “I am apprehensive that someday Dhaka WASA won’t be able to pay the PPI bills. Even now, Dhaka WASA owes millions of dollars to the PPI. There is no check and balance in the system for the PPI. Nobody is there to check the bills submitted by the PPI. As a result the day-by-day expenditures for collecting revenue through the PPI is increasing for Dhaka WASA….Management in Dhaka WASA is somehow benefiting from this
arrangement, and that is why there is no check and balance” (D1, 19 November 2007, personal interview).

Given this environment, it is difficult to make conclusions about the overall success of the PPI model for revenue collection. Certainly, the program has been successful in securing the welfare of many public service employees. The PPI model has also reportedly helped eliminate such things as informal payments by consumers to revenue workers, falsified meter readings, illegal service connections, and overall administrative system losses that have typically troubled Dhaka WASA. And the PPI “is different from a private company because it does not seek profit alone at the cost of the national government, the consumers as a whole, and the poor in particular. It also avoids the exploitation of employees”(Aftab Ahmed 20 November 2007, personal interview).

Despite a challenging operational environment, the PPI appears to be providing better quality services to Dhaka WASA, if not to the consumers, without an immediate impact on existing water rates. The impact of the PPI on consumers remains, perhaps, one the most important outstanding considerations regarding the success of this model. Unfortunately, no consumer satisfaction survey has ever been conducted, and a survey of that kind is beyond the scope of this research.

4.4 An Alternative to Privatization?
The real question with respect to the PPI experience in Dhaka City water utility service is whether a revenue management model operated by an employee’s cooperative can be an
effective alternative to privatization? Responses documented from several government employees, members of Dhaka WASA board of directors, key decision makers within the organization, donor agency representatives, and staff with Dhaka WASA all indicated different perspectives. For instance, Dhaka WASA board members are skeptical about the success and legal status of the PPI, and they have already requested that the private sector manage revenue matters in certain zones (Zone 6 as mentioned before). Top management and key decision makers with Dhaka WASA acknowledge the success of the PPI, but they emphasize the potential for private enterprise to provide a much better service at competitive prices. Donor agencies blame the PPI for creating conflict because it has led to the coexistence of two different revenue models within Dhaka WASA and has led to wage gaps between workers who perform the same tasks. But the ultimate goal of donors is to successfully involve private companies for managing revenue matters. This goal is obvious from their loan proposals.

Table 4.4: Issues Regarding the PPI Revenue Management Model identified by Different Stakeholders.

Source: Compiled from interviews conducted during a field survey, Sept. to Nov. 2007.

<table>
<thead>
<tr>
<th>Stakeholders Involved</th>
<th>Opinion on Programme for Performance Improvement as a ‘Progressive’ Revenue Management model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhaka WASA Board Members</td>
<td>PPI success is minimal compared to the cost involved to manage the model. Dhaka WASA needs to explore the potentials of involving private contractors for billing and revenue collection.</td>
</tr>
<tr>
<td>Role/Group</td>
<td>Comments</td>
</tr>
<tr>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Dhaka WASA Executive Body and Key Decision Makers in Revenue Management</td>
<td>PPI model is successful and better than the conventional method of revenue collection. Until empirically tested it is hard to comment on whether or not private enterprises can better manage revenue matters for Dhaka WASA.</td>
</tr>
<tr>
<td>Dhaka WASA Administrative Officers</td>
<td>PPI is not a highly successful model. PPI is controlled by an interest group whose aim is individual monetary gains. The potentials of private enterprises to provide much better service at competitive prices should be explored.</td>
</tr>
<tr>
<td>Dhaka WASA Staffs and Employees</td>
<td>It is a good model, but highly manipulated by interest groups. There should be a system of checks and balances in place to reduce the risk of manipulation and corruption.</td>
</tr>
<tr>
<td>Members of Employees Co-operative (Outside PPI Management Board)</td>
<td>PPI is a profit making organization. However the profit is enjoyed by only those in power (at PPI management and board). PPI is not transparent in terms of financial management.</td>
</tr>
<tr>
<td>PPI Management</td>
<td>It is a successful model that recovers cost for the public water supply authority (Dhaka WASA), bringing maximum welfare for the employees and the consumers concerned, by motivating grass root employees to perform diligently with a fair degree of transparency.</td>
</tr>
<tr>
<td>Donor Agencies/Development Partners (e.g. World Bank, Asian Development Bank)</td>
<td>PPI success is blown out of proportion. It is giving birth to conflict of interest among the employees of Dhaka WASA, which should be removed by exploring private sector participation in water supply and sanitation of Dhaka.</td>
</tr>
</tbody>
</table>
Meanwhile, Dhaka WASA staff continues to strongly oppose private sector involvement, and support the PPI as a distinctive model that requires changes to limit the possibility of manipulation by interest groups. Similarly, the management of the PPI argues that the cost recovery model provides a softer form of conventional privatization, using innovative cost recovery formulas while—unlike private companies—ensuring the welfare of public employees and consumers. At the same time, the PPI avoids the bureaucracy and corruption that occurred under the monopolistic authority of the public organization.

3.5 Conclusion
Under the Dhaka Water Supply Sector Development Program (DWSSDP) project discussed in Chapter 3, Dhaka WASA is asked to set up a committee to explore private sector participation and also to review the PPI activities and make recommendations concerning existing conflicts within the organization. Donors are not keen on maintaining the revenue management model as it currently operates. On the other hand, the PPI management is representing its operations as a successful model of revenue collection which the donor agencies should take into consideration when considering private sector involvement in the water and sanitation sector of Bangladesh. PPI Chair Aftab Ahmed explains, “Unlike the World Bank, the ADB’s agenda for privatization appears softer. They may succeed. They should cost-calculate for the services as well as use cost rationalization whenever necessary. They must also have a cost recovery formula, and they should nurture successful models for revenue collection, if there is any. The ECSCSL can be highly useful to the ADB’s approach. ADB may cash in on the
experiences of the ECSCSL by nurturing it to even higher achievements” (Aftab Ahmed 20 November 2007, personal interview).

Meanwhile, despite the PPI’s success in revenue collection and billing, the ECSCSL is facing a financial crisis. In a letter of to the managing director of Dhaka WASA, the PPI Chair Aftab Ahmed outlines demands to meet the PPI’s financial deficits (Ahmed 2005). These include the following:

1) “Add an inflation clause to the existing contract between the PPI and Dhaka WASA and pay the bills accordingly.

2) Replace the incentive/penalty clause with a commission clause. Achieving a 30 percent system loss every year has become labor intensive and threatens the financial solvency and existence of the cooperative. Under the existing terms of reference, the penalty-cum-incentive clause is based on shortfalls and excess revenues, and therefore does not solve the problem because there is no recognition for target achievement. It should be replaced by a rational commission clause.

3) New items to be included under the bill of quantities:
   a. Opening new consumer accounts
   b. Meter testing costs
   c. Attending consumer complaints

4) Provide a rebate for the amount of rent paid to use Dhaka WASA zonal office space.
5) Exempt the PPI from paying pension contributions to Dhaka WASA for employees working at the PPI on secondment from the utility. The PPI can easily appoint employees from outside of Dhaka WASA from the private sector and pay less than one third the wages now being paid by Dhaka WASA. However, the PPI is not doing that and is, instead, helping Dhaka WASA to avoid employee redundancy that would accompany direct privatization. For this reason, the PPI should be relieved from paying the pension contributions.” (Ahmed 2005).

The demands presented indicate some important factors to be considered when evaluating this “progressive” revenue management model. First of all, opting to recruit employees from the private sector is anathema to the PPI’s promise to value the welfare of public employees. This promise is what makes the PPI distinctive from a private company—at least that is the way it is described by the PPI management. Stopping pension contributions would challenge the idea of what it means to be a public employee. This should be considered if the model is to continue as an alternative to privatization. In the face of financial challenges, a profit-making organization like the PPI is losing the characteristics that make it public and distinguish it from private enterprise.
Chapter 5

Conclusion

5.1 Introduction

The aim of this final chapter is to review the key objectives of the thesis and bring them together into some general conclusions regarding commercialization efforts in Dhaka WASA. It will also present some recommendations and areas for further research.

5.1 General Conclusions

In light of the findings and analysis presented in Chapters 3 and 4, it is clear that Dhaka WASA and parts of its services are undergoing a significant commercialization process. Privatization efforts of the development and funding agencies are shaping the water supply policy – from services provided as social responsibility, to one focused on cost recovery. On a smaller scale, the employee’s co-operative revenue management model is exerting pressure on Dhaka WASA with increasing service costs. The model seems to be a way forward to fuller forms of privatization, although at the moment the co-operative model is acting as a compromise between public sector inefficiency and private profit motivation.

In terms of this research’s contributions to the broader water privatization literature and debates, the case study of Dhaka WASA demonstrates that there is need to shift away from market driven approaches to approaches that ensures equitable distribution for society and nature. For the stakeholders involved, the research suggests that it is not
enough only to recognize that ‘the poor will be worst affected’. Better services for the rich will come at the cost of the poor. The primary objective should be to ensure every citizen has access to safe drinking water with special attention given to the poor and the disadvantaged.

5.2 Recommendations

With these general conclusions, several recommendations can be made for improving the planning, management and development of water supply services at Dhaka WASA. Dhaka WASA should remain as a public service organization that will promote and defend public interests. There should be better regulation of the tariff structure so that it does not punish the poor who are living in informal settlements. Funding from international finance agencies and national government should be focused on sustainable infrastructural development and access of water supply involving community participation, drawing on local knowledge. Conditionalities of private sector participation should be replaced by funding for public sector alternatives.

For the revenue management workers, instead of narrow financially motivated cost recovery management systems, an all-inclusive management is proposed where workers will be aware of planning in related services. In the larger context, the government of Bangladesh needs to move away from donor dependency to address governance challenges and develop more sustainable means of water supply and production.
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Appendix- A: Ethics Approval

August 31, 2007

Iffat Yesmin Mannan
School of Environmental Studies
Queen’s University

GREB Ref #: GENSC-011-07
Title: “Can Corporatized Management be a Viable Solution for Municipal Services in Urban Centers of the World?”

Dear Iffat Yesmin Mannan:

The General Research Ethics Board (GREB) has given expedited approval to your proposal entitled “Can Corporatized Management be a Viable Solution for Municipal Services in Urban Centers of the World?”. In accordance with the Tri-Council Guidelines (article D.1.6) and Senate Terms of Reference (article G), your project has been approved for one year. At the end of each year, GREB will ask if your project has been completed and if not, what changes have occurred or will occur in the next year.

You are reminded of your obligation to advise the GREB of any adverse event(s) that occur during this approval period (see: www.queensu.ca/vpr/greb/addforms.htm#Adverse). An adverse event includes, but is not limited to, a complaint, a change or unexpected event that alters the level of risk for the researcher or participants or situation that requires a substantial change in approach to a participant(s). You are also advised that any adverse events must be reported to the GREB within 48 hours.

You are also reminded that all changes that might affect human participants must be approved by the GREB. Examples of required approvals are: changes in study procedures or implementations of new aspects into the study procedures that affect human subjects. These changes must be sent to Linda Frid at the Office of Research Services or FRIDL@queensu.ca prior to implementation. Ms. Frid will seek the approval of the GREB Chair and/or the reviewer(s) who originally assessed your application.

On behalf of the General Research Ethics Board, I wish you continued success in your research.

Yours truly,

Steve Leighton, PhD
Professor and Chair
General Research Ethics Board

SL/If

Copy: David McDonald, Faculty Supervisor
Appendix B: Interview Guide

Opinion Regarding Dhaka WASA:

- As far as you know, when did the debate about corporatizing Dhaka WASA first begin?
- To your knowledge, what organization first proposed the idea? (e.g. Asian Development Bank, World Bank, DFID etc)
- What was the Government's opinion about corporatizing Dhaka WASA at that time?
- What influence do you think the trend towards contracting out/privatizing/corporatizing water services in other parts of the world have had on the debates about Dhaka WASA?
- In your opinion how important do you think it is to have private sector participation in water service management in Dhaka?
- Do you think the private sector can better manage water services? Why or why not?
- At the moment Dhaka WASA runs under which Government Authority?
- Please tell me what you think the main weaknesses and failures of Dhaka WASA have been?
- What do you think their main strengths weaknesses and successes have been?
- Recently the Asian Development Bank proposed loans for Dhaka WASA with the condition that it should be transformed into an autonomous and commercial organization or a PLC (public limited corporation), with no direct control by the Ministry of LGRD&C or the Ministry of Law. It was also proposed that an additional surface water treatment plant should be set up, where private companies would invest capital and operate, involving international contractors for construction purposes. Finally, it was proposed that NGO’s run and operate water to the poor in slum areas.
  - Why do you think the ADB made these proposals?
  - Do you think direct government control over Dhaka WASA should be maintained or not? Explain your position.
  - In your opinion, how effective will ADB’s proposal to separate Dhaka WASA from the direct control of the government be?
  - Are there any organizations (e.g. trade unions, NGOs, etc) that have opposed the ADB proposal? If so, do you know the reasons for their opposition?
  - To your knowledge, did the ADB or Government or Dhaka WASA itself hold any public hearings regarding the proposal? If yes when where and who attended those hearings or meetings?
• In your opinion why are international development banks such as the ADB involved in the decision making about Dhaka WASA, and how significant is their involvement in this regard do you think?
• According to the ADB proposal an additional surface water treatment plant would be set up with ADB’s loan, where private companies will invest capital and operate the plant --
  • Do you think this affect the price of potable water supply? If so, how will it affect it?
  • How do you think poor households will be affected by private companies running the operation?
• How do you think poor households will be affected by the new proposal for a block tariff [This is a method of pricing water, where pricing system begins with a low initial cost of water that increases after reaching the maximum volume within a block rate. Households that use a larger volume of water face higher prices per cubic meter]
• To your knowledge, did the cost of water increase after Dhaka WASA started contracting out its managerial operation to small business enterprises?
• Are there any groups of people who have been particularly adversely affected by these changes in water price?
• Do you think that the corporatization of Dhaka WASA would affect the long term sustainability of water supply and water quality in Dhaka city?

**Opinion Regarding Employees Co-operative and Program for Performance Improvement:**

• What kind of work were the Employees doing in Dhaka WASA before the Co-operative was formed?
• What kind of work are they doing now?
• What is the organizational structure of Employees Co-operative (EC)?
• Where do the finances come from to operate EC?
• Is EC a profit making organization?
• How many workers did EC have when it was first formed? How many workers does EC have now?
• To your knowledge, what was the average monthly income of EC workers before the Co-operative was formed and what is their monthly income now?
• What is the legal status of EC?
• Does EC follow a formal policy for conducting its operation? [If so, is it possible to get a copy of these policies?]
• In your opinion, what influenced the formation of the Employees' Co-operative?
• Do you think the Employees Co-operative (EC) has out performed Dhaka WASA?
• If so, in what areas in particular do you think that the Employees Co-operative out-performed Dhaka WASA?
• Do you think the Employees Co-operative (EC) has out performed the private contractors?
• In what areas in particular do you think Employees Co-operative (EC) out performed the private contractors?
• How do you think the Employees Co-operative has managed to reduce system loss in the water infrastructure?
• Why do you think the same employees could not reduce the system loss when they were working for Dhaka WASA?
• What were the reasons behind Dhaka WASA’s failure to collect revenue and reduce system losses?
• What were the reasons behind the private company’s failure to collect revenue and reduce system loss like the EC?
• How did the Employees Co-operative manage to increase revenue collection?
• What are the future plans of this Co-operative?
• What is the main objective of the organization?
• How do you think EC differs from a private company?
• Would you define EC as public-private partnership? If so why?
• What is it about the Cooperative in your opinion that makes it better/worse than a private company?
• What is it about the Cooperative in your opinion that makes it better/worse than a government-run organization?
• Do you think the EC enhanced the quality of services provided by Dhaka WASA?
• Do you think the EC model is one that can be reproduced in other parts Dhaka WASA successfully?
• Do you think it can be reproduced in other parts of Bangladesh?
• Do you think it can be reproduced in other parts of the world?