



Private Sector Provision of Water and Sanitation Services in Rural Areas and Small Towns: The Role of the Public Sector

Country Report: Bangladesh

March 2016

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Abbreviations and acronyms

ADPs	Annual Development Plans
BOT	Build Operate Transfer
BWSPP	Bangladesh Water Supply Programme Project
CCEA	Cabinet Committee on Economic Affairs
DPHE	Department of Public Health Engineering
DPSP	Domestic Private Sector Participation
ECA	Economic Consulting Associates
GDP	Gross Domestic Product
HDI	Human Development Index
IDA	International Development Association
IDCOL	Infrastructure Development Company Limited
IIFC	Infrastructure Investment Facilitation Company
LGD	Local Government Division
LGED	Local Government Engineering Department
LGI	Local Government Institution
LIC	Low Income Communities
MFIs	Micro-finance Institutions
MLGRD&C	Ministry of Local Government, Rural Development and Cooperatives
MSP	Municipal Support Project
NAMIP	National Policy for Arsenic Mitigation and Implementation Plan
NCSS	National Cost Sharing Strategy for Water Supply and Sanitation in Bangladesh
NGOs	Non-Governmental Organisations
NHPS	National Hygiene Promotion Strategy for Water Supply and Sanitation in Bangladesh
NPWSS	National Policy for Safe Water Supply and Sanitation
NSS	National Sanitation Strategy
NWMP	National Water Management Plan
NWP	National Water Policy
PICOM	Private Infrastructure Committee
PPP	Public Private Partnership
PPPAC	Public-Private Partnership Advisory Council
PPSWSS	Pro-Poor Strategy for Water and Sanitation Sector
PSI	Private Sector Infrastructure Development Project
PSIG	Private Sector Infrastructure Guideline
PSU	Policy Support Unit

Abbreviations and acronyms

SDP	Sector Development Plan
SOP	Standard Operating Procedures
SPI	Strengthening Public Institutions
SWAp	Sector Wide Approach
TOR	Terms of Reference
UGIIP	Urban Governance through Infrastructure Improvement Project
WASA	Water Supply and Sewerage Authorities
WSP	Water and Sanitation Program
WSS	Water supply and sanitation

Executive summary

This document is the ***Bangladesh Country Report***, one of the four countries selected for the *Study on Domestic Private Sector Provision of Water and Sanitation Services in Rural Growth Areas and Small Towns: The Role of Public Sector*. The Bangladesh Country Report aims to identify good practices in Bangladesh in strengthening public institutions to effectively engage domestic private sector in providing water supply and sanitation services in small towns and rural areas. The case study was prepared by Economic Consulting Associates Ltd under the guidance of Mouhamed Fadel Ndaw, Sr. Water & Sanitation Specialist at the World Bank.

Water supply and sanitation service provision

Bangladesh is one of the world's most densely populated countries. Approximately 150 million people live in an area of 147,570 km² giving a population density of 964 inhabitants per km². Considering the very high population density, continuous population growth and the still omnipresent poverty, the provision of adequate water supply and sanitation (WSS) services presents one of the largest challenges Bangladesh is currently facing.

WSS service provision is the responsibility of local government institutions. In most small urban towns, the Pourashavas (municipalities) operates and maintain the water supply system. These systems are financed and constructed by the central government through the Department of Public Health and Engineering (DPHE) and the Local Government Engineering Department (LGED), the two main central government agencies involved in water supply and sanitation.

Similarly, in rural areas, the Union Parishad (the lowest level of rural local government institution) usually operates and maintains the water supply system. In some rural areas, the operation and maintenance of the piped water supply system is carried out by community user association or NGOs. These systems are usually built as part of a development project, financed either by donor funds or central government budget allocation.

Central government engineers and officers from the DPHE and LGED are often stationed in the local offices, which can be in a small urban town governed by Pourashava, or in Upazila (sub-district) headquarter towns. The engineers and officers in these local offices are often involved in and provided assistance to Pourashavas and Upazila and/or Union Parishads in terms of operating and maintaining WSS systems.

The Pourashavas, and other forms of local government institutions such as City Corporations (for large cities) and Upazila and Union Parishads, are technically allowed to contract private companies to operate and maintain the WSS system, but currently this practice is not yet being done.

Experience with DPSP in water supply

A World Bank project, the Bangladesh Water Supply Programme Project (BWSPP), in 2005 introduced the concept of having private operators/investors in the water supply and

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sanitation sector. Initially, the project was aimed at small urban towns; however, due to some difficulties in involving the Pourashavas, the project was implemented in rural areas instead, involving several Union Parishads.

The concept of the BWSPP was to award contracts to private firms or NGO to design, build and operate the piped water supply scheme. Initially, 50% of the funding for each project was to be provided by IDA and 50% by the private or nongovernmental investor. The average cost of a piped water supply scheme US\$140,000. Due to poor accessibility to financing for the private investors, and the lack of interest from the private investors, it was mostly NGOs and wealthy individuals with charitable or social motives who participated in the project.

In Bangladesh, water supply provision is seen to be services that should be provided by the government. Communities generally have the perception that private service providers are not suitable for water supply services, as they are profit making entities. Community based organisation or user associations are preferred to operate water supply systems, but the capital investments are still expected to be provided by the national government.

In general, the market for DPSP in water supply sector in Bangladesh is not yet established. The enabling environment, such as the legal, regulatory and institutional frameworks are improving, but not yet conducive to encourage DPSP in small town water supply. Moreover, water supply systems are capital intensive investments, and not many private entities are willing to take on the financing risk, especially if the government counterparts are reluctant to allow cost recovery tariffs. The financial risks make it difficult for private companies to obtain loans for the capital investment.

Good practices in encouraging DPSPs in sanitation

The success stories in terms of encouraging DPSPs happen in the sanitation sector rather than from the water supply sector. Therefore, the summaries of key achievements below are mostly derived from the sanitation sector.

The sanitation sector in Bangladesh has made great improvements over the last decade, in part due to the community led initiatives to change the perspective on good sanitation practices, which was supported by government and donor agency assistance, and led to the development of the DPSP market to supply sanitary equipment and provide sanitation services.

Some of the success factor for the sanitation sector, which can be applied to other countries in terms of both sanitation and water supply services include:

- o ***Raising community awareness*** of the importance of sanitary behaviour and the benefits of having safe water supply
- o ***Raising the awareness and understanding of the political leaders*** of the benefits of having private sector involvements in providing necessary investments in public infrastructures as well as public service provisions
- o ***Building capacity of local financial institutions*** so that they can develop and provide financing products that are suitable for the water sector

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- o *Building capacity of local entrepreneurs* so that they can market their products and services and can adjust to the consumers' needs and provide tailored payment methods.

Lessons learnt from Bangladesh experience

The definition of private sector in Bangladesh, especially in the water supply and sanitation sector, is different from the definition and understanding of private sector in general that is used in most international studies. During discussions with various government and non-government institutions in Bangladesh, many will readily state that there is plenty of private sector participation in the water and sanitation sector.

Most sanitary equipment and sanitation service providers are private entities, whether they are a listed company or an individual vendor, or a community based service provider. In the water supply service provision, most government institutions consider community user associations and NGOs to be forms of private sector, meaning they are not a government entity. Therefore, many of the water supply systems operated by community user associations or NGOs are considered to be operated by the private sector in Bangladesh.

The lesson learnt is that not every country has the same understanding or definition of private sector. It is then important not to lose sight of the main reason for developing and encouraging "private sector" participation in the water supply and sanitation sector, which is in the end to increase access to safe water supply and sanitation services and improve the performance of the sector in general. Therefore, *efforts to strengthen public institutions to encourage more private sector participation should consider local understanding, conditions and capacity.*

Areas to be improved

Building capacity seems to be the theme for Bangladesh. As the country has delegated most public service provision to local government institutions, and is new to the concept of private sector participation in public service provisions, a lot of ground work needs to be done before PPP projects can be implemented and DPSP can be encouraged to take the lead role in WSS for small towns and rural growth centres.

Local government institutions will benefit from capacity building in terms of how to provide public services, including having private partners. In addition, it is also important to raise community awareness and understanding of the economic characteristics, as well as social characteristics, of water, so that there will be more willingness to pay for safe water services from the community.

Once the local government institutions gain better knowledge and understanding of the options for providing public services, including the benefits of involving the private sector, only then the other enabling factor will be able to play a part in encouraging more private participation in public service provision, such as developing legal and regulatory framework that are conducive to private sector involvement and developing the financial framework through improving availability of financial sources.

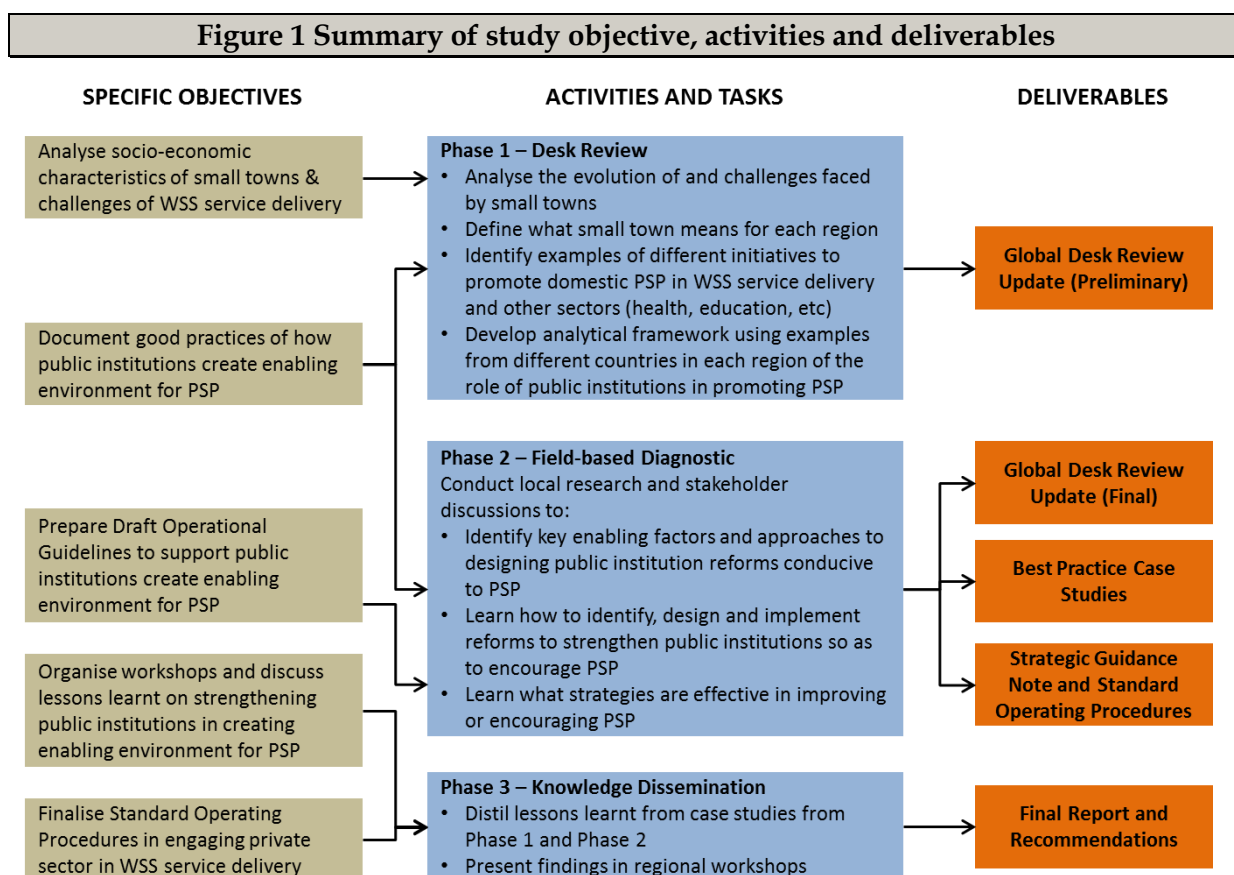
1 Introduction

Economic Consulting Associates Limited (ECA) has been engaged by the Water and Sanitation Program (WSP) of the World Bank to conduct the *Study to Strengthening Public Institutions in Engaging and Regulating Domestic Private Sector for the Provision of Water and Sanitation Services in Rural Growth Areas and Small Towns*.

1.1 Overview of the Study

As stated in the Terms of Reference (TOR), the objective of this study is “to consolidate knowledge so far gained by the World Bank Group and its partners at global level and provide operating procedures and guidance to developing countries and WBG task teams on how to support public institutions in effectively engaging the local private sector to deliver better water and sanitation services specially to the poor in rural growth centres and small towns”.

This study is being conducted in three phases: a desk review phase, field-diagnostic phase and knowledge dissemination phase. The specific objectives, activities and tasks for each phase and the resulting deliverables are summarised in Figure 1.



The study focuses on piped water schemes in rural and small towns where local private actors increasingly represent a significant group of stakeholders, using lessons learnt and

experiences from the selected countries: *Bangladesh, Colombia, the Philippines* and *Uganda*.

1.2 Objective of this Country Report

This document is the *Bangladesh Country Report*, one of the four country reports from the four countries selected for the study. The Bangladesh Country Report aims to *identify good practices in Bangladesh in strengthening public institutions to effectively engage domestic private sector in providing water and sanitation services*.

The identified good practices from this Country Report and from the other three country reports will be used to define a set of key factors and approaches to designing pro-private sector participation reform, which will be described and elaborated in the next set of deliverables: the Strategic Guidelines and Standard Operating Procedures.

The Bangladesh Country Report was based on a desk study research, followed by field visits to Dhaka and surrounding areas from Monday 1st of September 2014 to Friday 5th of September 2014. A list of the institutions visited and interviewed are included in Annex 1.

1.3 Structure of this Country Report

The rest of this Country Report is structured as follows:

- o Section 2 provides a background to the water sector and public-private partnership development or profile in Bangladesh
- o Section 3 discusses the dynamics of urban hierarchy in Bangladesh, and how this affects public service provision, especially water supply and sanitation services
- o Section 4 focuses on Bangladesh's experience with domestic private sector participation in the water supply and sanitation sector
- o Section 5 highlights key success factors and good practice used in Bangladesh in encouraging domestic private sector participation, and summarises areas to be improved in Bangladesh.

In addition, Annex 1 provides a list of the institutions visited during the field visit, including summaries of the discussions with each institution.

2 Country Background

This section provides a background summary of Bangladesh, including its economic, social and administration profiles, the current situation in the water supply and sanitation sector and current development of Public Private Partnership framework in the country.

2.1 Population, economic and administration profile

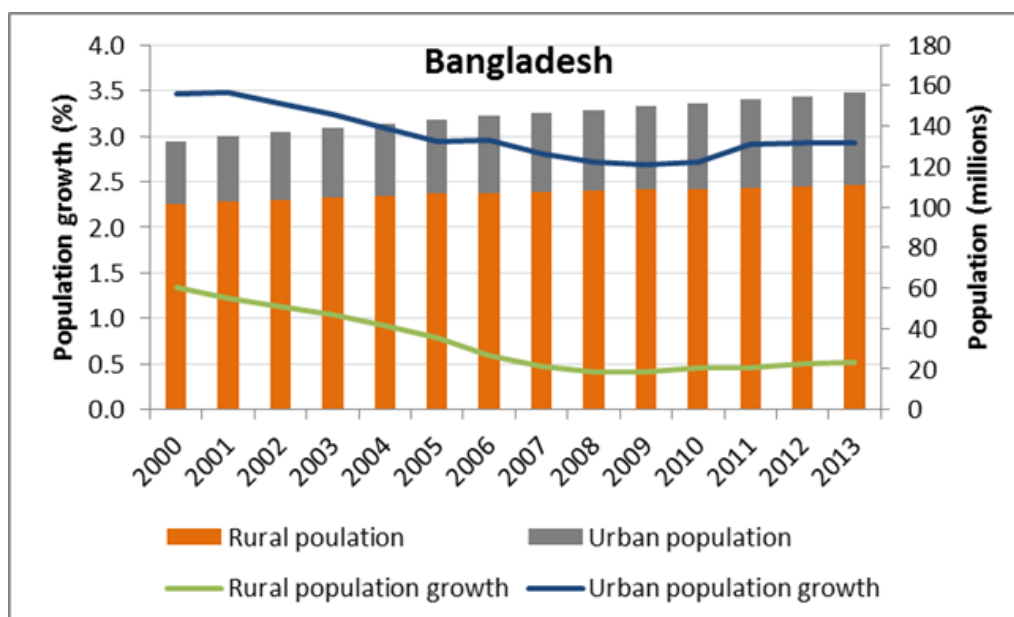
Bangladesh is one of the world’s most densely populated countries. Approximately 150 million people live in an area of 147,570 square km leading to a population density of 964 inhabitants per square km. With this figure, Bangladesh is the country with the highest population density that is not an island state or a city state.

Population and population growth

Bangladesh’s population growth rate has declined from 2.9 percent per annum in 1974 to 1.37 percent in 2011. The under-five mortality rate in Bangladesh declined from 151 deaths/1,000 live births in 1991 to 41 deaths/1,000 live births in 2012. During the same period, infant mortality rate decreased from 94 deaths per 1,000 live births to 33¹.

In the last few years, the urban population growth has increased while the rural population growth continues steadily at around 0.5%. This is consistent with the increasing urbanisation, as more and more people move to urban centres. Figure 2 summarises Bangladesh’s urban and rural population figures in the last 12 years.

Figure 2 Bangladesh urban and rural population



¹ World Bank data

Economy and economic activities

Bangladesh has experienced sustained economic growth over the past decade. Gross Domestic Product (GDP) grew at an average of 6.2%. In 2013, GDP per capita reached US\$829. The country's recent economic performance has mainly benefitted from two drivers of growth:

- o Garments manufacturing for export, and
- o Remittances that average close to \$1.5bn per month and originate from Bangladeshis living in Saudi Arabia and the United Kingdom – among other countries.

High economic growth rates have been accompanied by poverty reduction and increasing living standards. Bangladesh's Human Development Index (HDI) has improved from 0.361 in 1990 to 0.433 in 2000 and 0.558 in 2013. However, ranked as 142 out of 187 countries in terms of HDI Bangladesh remains one of the world's least developed countries.² Inequality in income and across regions and genders can in many instances be vast.

Administration and levels of government

Bangladesh is a democratic republic with two spheres of government: national and local. The head of state is the president, who is indirectly elected by members of the unicameral parliament for a maximum of two five-year terms. The parliament has 350 elected members, with 50 seats reserve for women. The president appoints the leader of the majority party as prime minister and head of government. On the advice of the prime minister the president appoints the 49 members of cabinet.

Local government structures and administration are enshrined in the constitution and the main legislative texts include several 2008 local government Ordinances, the Zila Parishad Act 2000 and the Hill District Local Government Parishad Act 1989.

There are 64 administrative districts (Zilas), and below this is a tiered system of local government:

- o Single tiered urban authorities, led by an elected Mayor and an urban council:
 - o 10 City Corporations for the metropolitan cities
 - o 308 Pourashavas (municipalities) for large to medium urban towns
- o Three tiered rural local government councils:
 - o 64 Zila Parishad (district councils)
 - o 488 Upazila Parishad (sub-district councils)

² UNDP data

- o 4550 Union Parishad

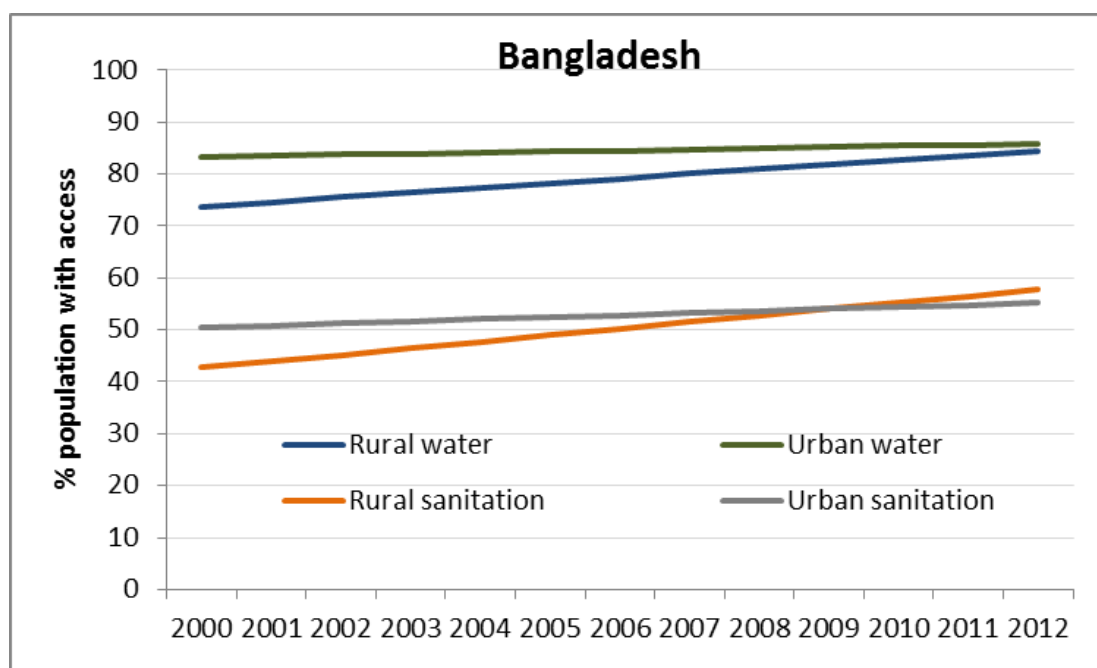
The constitution of Bangladesh stated that all levels of local governments (both urban and rural) are composed of persons elected as per the legislation, and that every level of local governments have the power to impose taxes for local purposes, to prepare their budgets and to maintain funds.

2.2 Water supply and sanitation profile

Considering a very high population density, continuous population growth and the still omnipresent poverty, the provision of adequate water supply and sanitation (WSS) services in sufficient quantities presents one of the largest challenges Bangladesh is currently facing. Figure 3 illustrates access to improved WSS services in the last 12 years.

Arsenic contamination of water sources is a widespread problem and the frequent absence of appropriate sewerage systems further endangers water quality.

Figure 3 Access to safe water supply and sanitation



Source: World Development Index

2.2.1 Legal framework

The legal framework for the water sector in Bangladesh is a bit disjointed, as there is no central legislation that governs the water supply and sanitation sector in particular. Service provision for water supply and sanitation is the responsibility of the local governments, and therefore are governed by the various local government acts. Below are summaries for legislations relevant to the water supply and sanitation sector in Bangladesh:

Country Background

- o The *Bangladesh Water Act, 2013* deals with the broader spectrum of water resources management. The purpose of the Act is “to give effect to the coordinated development, management, extraction, distribution, use, protection and preservation of Water Resource”. In respect of water supply this Act mentions potable water, use of water for hygiene and sanitation to be considered as a universal right. The Act also identifies potable water and water for domestic use as the two top priorities for use of water resources in scarcity stricken areas.
- o The *Environmental Conservation Act of 1995* and the *Environmental Conservation Rules of 1997* set the quality of drinking water that is supplied and establish the requirements for sanitation services, especially the disposal of effluents into water bodies.
- o The *Water Supply and Sewerage Authority (WASA) Act of 1996* defines the roles and responsibilities of the WASAs, WASAs are presently established in four metropolitan cities (Dhaka, Chittagong, Khulna and Rajshahi).

Various Local Government Acts for urban and rural local government institutions have been reframed in 2009. These comprehensively cover the functions and obligations of different local government institutions in Bangladesh including matters related to water supply and sanitation. In particular, the Local Government (Municipalities) Act 2009 and Local Government (City Corporation) Act 2009 state that the “provision and regulation of water supply” is part of the function of city corporation and Pourashavas local governments (for urban areas). However the Local Government Acts for the rural areas does not specifically mention the responsibilities of the Union Parishad, Upazila Parishad or Zila Parishad to provide rural water supply.

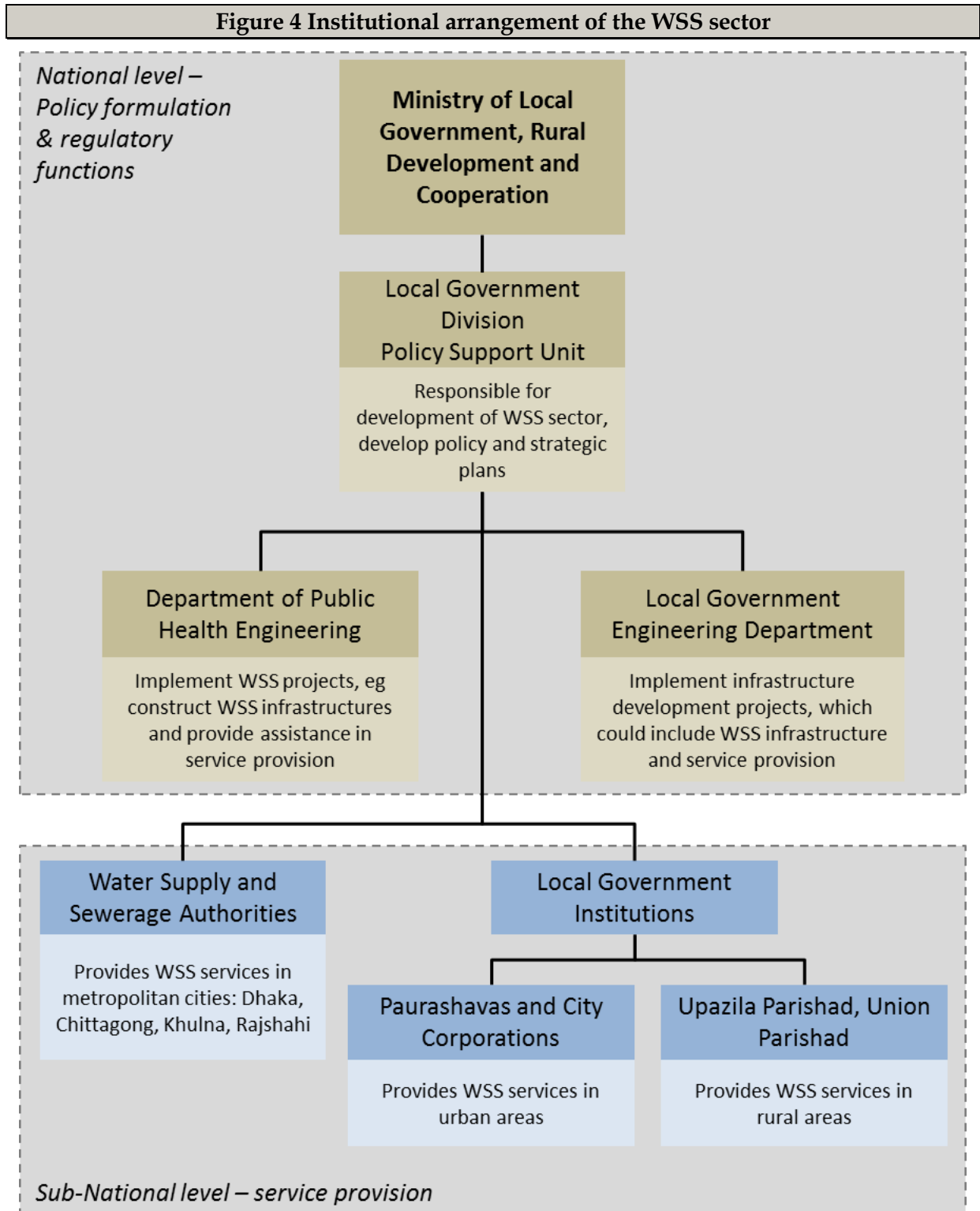
The legal framework for the Bangladeshi WSS sector is further substantiated through numerous policies and strategies that govern the functioning of the WSS sector, as listed below:

- o National Policy for Safe Water Supply and Sanitation (NPSWSS), 1998;
- o National Water Policy (NWP), 1999;
- o National Water Management Plan (NWMP), 2004;
- o National Policy for Arsenic Mitigation and Implementation Plan (NAMIP), 2004;
- o National Sanitation Strategy (NSS), 2005;
- o Pro-Poor Strategy for Water and Sanitation Sector (PPSWSS), 2005; and
- o National Cost Sharing Strategy for Water Supply and Sanitation in Bangladesh (NCSS), 2011
- o National Hygiene Promotion Strategy for Water Supply and Sanitation in Bangladesh (NHPS), 2012

In order to make the above policies more effective and to streamline the various strategies the government is preparing a single strategy titled, *The National Water Supply and Sanitation Strategy in Bangladesh*. This strategy is expected to be approved by 2014.

2.2.2 Institutional arrangement

Similar to the legal framework, there is a lack of focus in terms of institutional arrangement for the water sector in Bangladesh, as there is no central government institution responsible for the water sector. Figure 4 illustrates the institutional arrangement of the water sector.



Country Background

Given that water supply and sanitation services are the responsibility of local governments, the ministry responsible for local governments, the *Ministry of Local Government, Rural Development and Cooperatives (MLGRD&C)*, is loosely responsible for water supply and sanitation. Under the MLGRD&C, the *Local Government Division (LGD)* is responsible for assisting local governments in performing its duties and functions, including water supply and sanitation service provision.

Within the LGD, a special unit called the *Policy Support Unit (PSU)* is responsible for developing water supply policy and strategies. Currently the PSU is not an integrated unit within LGD, as it is supported and financed by DANIDA. However, it is planned to be fully integrated into the LGD structure within a year.

Two other departments under the MLGRD&C are involved in the water supply and sanitation sector:

- o The *Department of Public Health and Engineering (DPHE)* – responsible for implementation of the WSS projects of the public sector in the rural areas and the urban areas that are outside the jurisdiction of the WASAs. DPHE is mostly responsible for the construction of water supply systems, and the operation of the system is the responsibility of the local government institutions. However, because DPHE has local offices, DPHE engineers are likely to be involved in assisting local governments in operating the water supply systems.
- o The *Local Government Engineering Department (LGED)* – responsible for implementation of infrastructure projects, mostly in rural growth centres, but in some cases also in small urban areas. Infrastructure projects include for example markets or industrial areas, which in some cases include water supply systems.

Water supply and sanitation service provisions have mostly been decentralized, and are now the responsibility of the Local Government Institution (LGIs). In the metropolitan cities, a *Water Supply and Sewerage Authorities (WASAs)* are formed as semi-autonomous institutions to provide water supply and sewerage services. There are currently four WASAs in Dhaka, Chittagong, Khulna and Rajshahi. For urban cities without a WASA, water supply and sanitation service provision is the responsibility of the City Corporation or Pourashavas. In rural areas, water supply and sanitation services are the responsibility of the Upazila Parishad or Union Parishad.

2.2.3 Regulatory framework

In terms of regulation, Bangladesh does not have a single regulator for the WSS sector. The Local Government Acts (for Municipalities and City Corporations) stated that the City Corporation and Pourashavas are responsible for provision and *regulation* of water supply services. However, it is unclear who actually perform the economic regulatory functions, such as tariff approvals and performance monitoring. The technical regulation is loosely performed by DPHE and LGED.

Based on our discussions with the Policy Support Unit (PSU) under the LGD, the PSU is currently preparing a comprehensive regulatory framework for the WSS sector that will eventually be binding for all stakeholders active in Bangladesh's WSS sector. The

Country Background

government has taken a **gradual process of establishing the regulatory framework**, which consists of the following three steps:

- o as an interim arrangement, the PSU (under LGD) performs the function of the Water and Sanitation Cell,
- o establishment of a separate Water and Sanitation Cell within LGD, and
- o establishment of a full-fledged Regulatory Commission. The Regulatory Commission will be independent but may have functional relationship with LGD.

The Regulatory Commission will supervise both private and public companies involved in delivering WSS services. Among the most relevant objectives of the Regulatory Commission, once it is established, are:

- o Tariffs that allow for sufficient revenues for service providers to accommodate acceptable service standards
- o Monitor performance of service providers in regard to compliance with service standards, take measures if compliance with standards is unsatisfactory
- o Certainty for private sector participation.

The Asian Development Bank (ADB) is supporting the PSU in their efforts to design a regulatory framework. A draft National Water Regulatory Act, which include the establishment of the Water Supply and Sanitation Regulatory Commission is being prepared and will be submitted to the parliament within six months from the field visit in September 2014.

2.2.4 Policy, strategies and targets

Bangladesh's current national plan for WSS is the *Sector Development Plan (SDP) for the Water and Sanitation Sector* designed under the leadership of the Ministry of Local Government, Rural Development and Cooperatives (MLGRD&C). The national plan was introduced in 2011 and remains valid until 2025. The overall objective of the SDP for the Water and Sanitation Sector is the provision of a framework to plan, implement, coordinate and monitor all activities in the Bangladeshi WSS sector. Given this objective, the SDP addresses existing problems of the WSS sector as well as future challenges Bangladesh is expecting to face. Based on the current and future obstacles to the development of the WSS sector, the SDP also produces a sector investment plan.

The SDP for the Water and Sanitation Sector is set out for a time period of 15 years. Within the plan, a further division is made between short-term planning (involving the first 5 years), medium-term planning (involving the years 6 to 10 of the plan) and long-term planning (involving the final 5 years). The MLGRD&C assigns different targets to the three stages of the plan:

- o **Short term:** in 5 years starting from 2011, the declared goal is to establish universal water and sanitation services of a basic nature, and to strengthen the

various frameworks in which the WSS sector is embedded. This applies to redefining institutional responsibilities and further extends to legal and regulatory framework. This has been initiated with the preparation of the National Water Supply and Sanitation Strategy to be approved in 2014, along with an ADB supported program in developing regulatory framework and establishment of thematic groups.

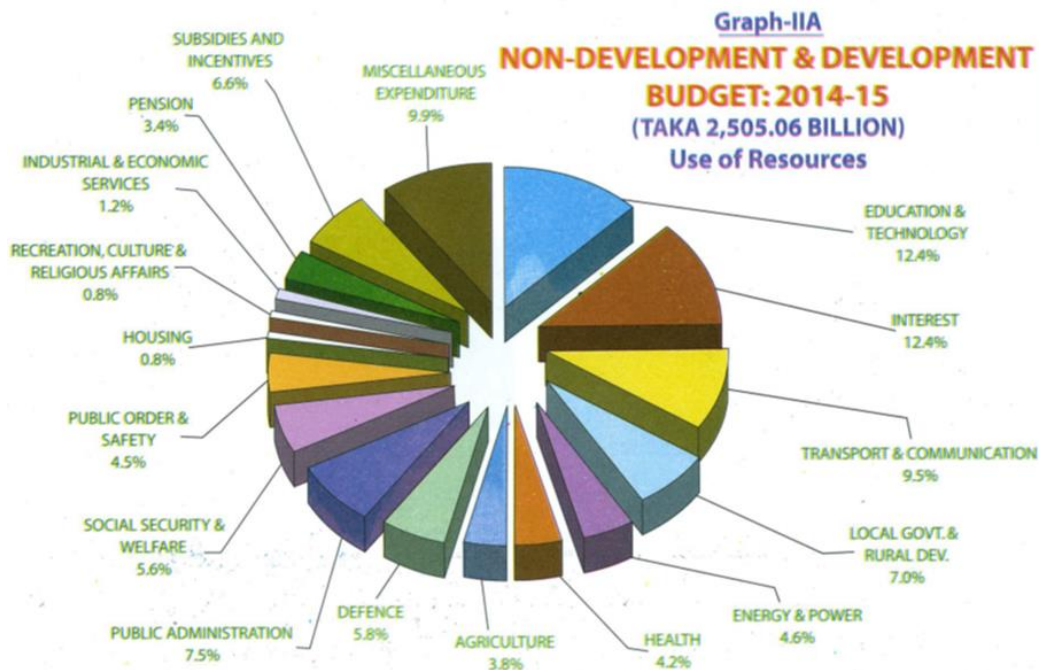
In addition, emphasis is placed on creating platforms for cooperation and coordination among the stakeholders in the WSS sector to improve communications and decrease inefficiencies associated to the lack thereof. Finally, a Sector Wide Approach (SWAp) will be introduced progressively.

- o **Medium term:** the second stage of the SDP for the WSS is dedicated to raise the quality of water and sanitation services beyond a basic level. Institutional enhancement will continue and SWAp is introduced to subsectors (for example, urban and rural). Crucial to the second stage is that the first phase has been executed successfully.
- o **Long term:** For the third stage of the national plan, water and sanitation services will be further substantiated. The sector will have built considerable capacity for sustained development efforts. Supplementary, SWAp will be fully established and coordination between stakeholders is to be shaped by high levels of efficiency.

2.2.5 Financing framework

The water supply and sanitation sector is not a recognised, distinctive sector in terms of the government's sector-wise budget. Government spending on WSS services mainly falls within the sectors local government and rural development, or housing. A breakdown of the government budget allocated to the different sectors in 2014-15 is provided in Figure 5.

Figure 5 Government budget allocation for 2014-2015



Sector-wise Resource Distribution (Subsidies & Incentives and Pension, Interest are shown separately)

Source: website of Finance Division, Ministry of Finance, Government of Bangladesh

For the improvement and expansion of WSS services in the urban areas of Bangladesh, the Department of Public Health Engineering (DPHE), the LGED and paurashavas are the largest institutional spenders of government allocated funds. However, a paurashava that receives government funds is not excluded from the DPHE or LGED investing into WSS services within the same Paurashava.

In the SDP for WSS, it has been estimated that in the period from 2005 to 2015, US\$5 billion needs to be spent on WSS to notably improve existing infrastructure and expand WSS services to new areas. Half of the required total investment of US\$5 billion is to be spent on urban sanitation and one quarter on urban water supply.

The SDP predicted that the \$5 billion can be acquired from multiple stakeholders. The largest contributors are the government, WSS utilities and private investors, together contributing 78% of the total investment needed. Another 15% is added by households that purchase services such as tube wells or latrines for their own private use. Lastly, the SDP assumes that NGOs will contribute 7% to Bangladesh's investments in WSS services. This indicates a strong donor base willing to commit to the development of the WSS sector in Bangladesh.

2.3 Public Private Partnership profile

The lack of and the slow development of the infrastructure sectors (such as power and transport) is the main motivation for the Government of Bangladesh to turn to public-private partnership (PPP) arrangements to improve the country's infrastructure. Early developments of a PPP framework in Bangladesh is summarised in Box 1.

Country Background

Bangladesh currently has a national PPP framework. The Ministry of Finance published a position paper in June 2009 in which it made a commitment to PPP for the further development of the country. This was followed up by a comprehensive *Policy and Strategy for Public-Private Partnership* in 2010 that defines the framework Bangladesh utilizes to execute public-private partnerships (PPPs).

Although 'water supply and distribution, sewerage and drainage, effluent treatment plants' is included in the sectors covered by the national PPP framework, there has been no experience with water supply PPP at the national level. Discussions with key stakeholders in the water sector clearly show that either there is not much interest in large/national PPP projects in the water sector, or there is a major lack of understanding about PPP projects, especially applied to the water sector. In small towns and rural areas, the World Bank has introduced DPSP in water supply services through the Bangladesh Water Supply Programme Project (BWSPP) in 2005, which is discussed in more detail in Section 4.1.

The Infrastructure Investment Facilitation Company (IIFC) Director stated that the water sector is a difficult sector to enter for the private partner, mainly because for water sector, the private partners will have to deal with the Pourashavas rather than with the national government. The Pourashavas in general do not see the need for private involvement in the water sector, and therefore are not open to PPPs in the water sector.

Nevertheless, an institutional framework has been set by the *Policy and Strategy for Public-Private Partnership* paper to streamline the approval process for PPP projects. In particular, the institutional framework serves for accelerating, identification, formulation, appraisal, approval, monitoring and financing of PPP projects. The framework consists of the following institutions:

- o ***Public-Private Partnership Advisory Council (PPPAC)*** – provides supervision and guidance to the overall process of awarding PPP projects, and is chaired by the Prime Minister
- o ***Cabinet Committee on Economic Affairs (CCEA)*** – approves guidelines and procedures related to approval of PPP projects and the government's financial participation in them. Reviews and modifies threshold investment values of PPP projects and evaluates macroeconomic impact. Gives approval for pro-poor incentives to PPP projects.
- o ***Office for Public-Private Partnership*** - initiates, develops and formulates PPP projects and promotes them to potential investors, and then conducts the pre-feasibility studies
- o ***Line Ministry/implementing agencies*** – identify, tender and award contract for PPP projects. Oversee the implementation of the PPP projects.
- o ***Finance Division of the MOF*** – a PPP Unit has been set up that is in charge of managing the financial participation of the government in PPP projects as instructed by the CCEA
- o ***Planning Commission*** – integrates PPP projects into the annual development plans (ADPs). Seeks to avoid duplication of efforts.

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Incentives of a fiscal and non-fiscal nature are provided by the government to encourage the launch of PPP projects in priority sectors. All incentives mentioned in the *Policy and Strategy for Public-Private Partnership* – such as reduced import tax on capital items required for a PPP project or tax exemptions on operating profits – pursue the goal of reducing costs to private companies and protecting returns.³ Special incentives are available for PPP projects targeted at rural and/or underprivileged parts of the population and to attract non-resident Bangladeshis to invest in PPP projects.

In addition to the above framework, the Public Private Partnership Act of 2013 is under revision and is due to receive final approval in late 2014. In its current version the act covers various legal and economic aspects. This includes, for example, the provision of compensation to private companies in a PPP arrangement when they incur losses as a result of changes in law or government policies. Only when the PPP Act obtains final approval and is subsequently integrated into Bangladesh's legislation will the government have a legal basis on which it can follow its PPP efforts.

Box 1: Early development of the PPP framework in Bangladesh

The initial development of an enabling environment for PPP was started in 1997, with the World Bank's "Private Sector Infrastructure Development Project" or PSIDP. As part of this project, the Infrastructure Development Company Limited (IDCOL), a financing facility to provide long term debt financing for PPP projects were established in 1998. Following that, in 1999, the Infrastructure Investment Facilitation Centre (IIFC), a government owned entity with the mandate to provide technical support for PPP projects were established.

In 2004, the Private Sector Infrastructure Guideline (PSIG) was issued with the intention to harmonise the proceedings for PPP project development. Also in 2004, the Private Infrastructure Committee (PICOM), a high power inter-ministerial committee was established, with the objective to facilitate and promote PPP.

These early developments of PPP projects were faced with many challenges, and not many PPP projects were successfully implemented. Some of the main challenges of the early PPP framework include:

- o Unclear and inconsistent procedures and processes of initiating PPP projects, including identifying, formulating, appraising and approving PPP projects
- o Procurement procedures were not well structured
- o Lack of clarity on the roles and responsibility of the various institutions involved in the PPP arrangement.

³ Promoting Public-Private Partnership in Bangladesh (2010):
<http://asiafoundation.org/resources/pdfs/PromotingPublicPrivatePartnershipinBangladesh.pdf>

Country Background

Source: Md. Faruque Hossain, Deputy Secretary, PPP Unit, Finance Division, Ministry of Finance,
Policy and Strategy for PPP in Bangladesh

3 Urban Development and WSS Provisions

This section looks at the dynamics of the urban hierarchy and how this affects public service provisions, in particular water supply and sanitation service provision in small towns and rural growth centres.

3.1 Dynamics of the urban hierarchy

Definition of small towns and rural areas

The Population Census in 2001 and 2011 provides definitions of urban areas in Bangladesh. According to the Population Census 2011, urban areas corresponds with “*areas developed around a central place having such amenities as metalled road, improved communication, electricity, gas, water supply, sewerage, sanitation and also having comparatively higher density of population with majority of population in non-agriculture occupation*”.

There are 570 urban centres in Bangladesh; however, not all urban centres are governed by urban local government institutions (City Corporations or Pourashavas):

- o City corporations – areas declared to be city corporation area by the MLGRD&C, usually metropolitan cities with population of more than 6 million. Currently there are ten City Corporations, including Dhaka mega city.
- o Pourashavas (municipalities) – a location is recognized as a municipality when it is officially declared by government as:
 - o 75% of the population are not related to agricultural profession
 - o 33% land are not related to agricultural activities
 - o population density per square kilometers are 1,500 or more
 - o total population between 50,000 or more.

There are 307 Pourashavas, classified further as:

- o Class I Pourashavas – has more than 600,000 population and has an annual municipal income of more than 100 million Bangladesh taka.
- o Class II Pourashavas – has more than 200,000 population and an annual municipal income of 6 million Bangladesh taka
- o Class III Pourashavas – has more than 25,000 population and an annual municipal income of 3 million Bangladesh taka.
- o Other urban areas – includes Upazila headquarters that are not Pourashavas, and several Unions adjacent to Dhaka City Corporations under Dhaka Metropolitan Area. These urban areas are governed by rural local government

institutions, such as Upazila Parishad and Union Parishad. There are about 200 other urban areas with population around 5,000 – 8,000. These are typically rural markets, river ports or areas with other economic activities.

There is no formal definition of rural areas in Bangladesh. However, it can be deduced from the above definition of urban areas that rural areas are areas with agriculture and fishing as the dominant economic activities, with population density are less than that of the urban areas. Some rural areas has growth centres, which are rural market places that serve as the commercial hubs for buying and selling agriculture and are the lifeline of the rural economy. There are more than 1,400 rural growth centres, and they are managed by a management committee, who pay lease fee to the Union Parishad for the markets.

Dynamics of the urban hierarchy

Bangladesh has one of the highest urbanisation rates, with many of its rural population moving into urban areas. The dynamics of urban hierarchy is mostly driven by urban migration rather than rural areas developing into urban areas. The rural to urban migration has contributed to more than 40% of the change in urban population⁴.

Annual urban population growth in Bangladesh is currently at 2.92%. Over the last 15 years urban population growth has gradually declined from 3.5% in 2000. Yet, urban population growth remains significantly higher than overall population growth (currently at 1.37%)⁵.

The main drivers for urban migration in Bangladesh are:

- o **Job opportunities** – the agriculture sector is no longer able to absorb the surplus labour force entering the economy every year. Inability of the agriculture sector to provide sufficient employment or sufficiently high household incomes to cope with a growing number of dependents can encourage people to seek employment outside agriculture
- o **Higher wages** – the industry, business and service sectors that can absorb the surplus labour is mostly located in urban centres or in growth centres near urban areas. These sectors, in general, offer better wages compared to the agriculture sector
- o **Better services** – in general, public services are better in the urban centers, such as health services, electricity, water supply and education.

A study done by M. S. Islam and Md. Nasir Uddin Khan⁶ looks at the urbanization rates and population density of districts in Bangladesh, and using that pattern, identified the top five urbanized district in Bangladesh, which are Dhaka, Chittagong, Narayanganj, Rajshahi and Gazipur. The study then identified upcoming urban centers, other urban centers and least

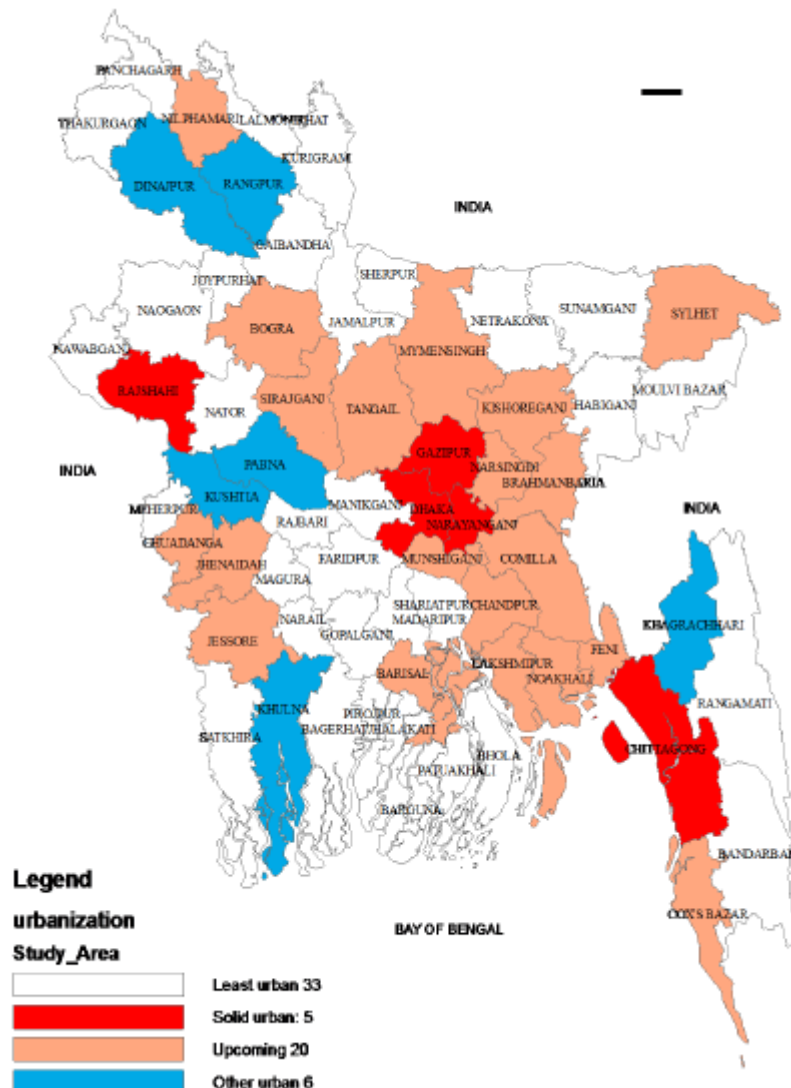
⁴ A.K.M Helal uz Zaman, et al, *Urbanization in Bangladesh: Present Status and Policy Implications*, ASA University Review, Vol. 4 No. 2, July-December 2010

⁵ World Development Index

⁶ M. Shahidul Islam and Md. Nasir Uddin khan, *Urban Spatial Growth: The Case of Bangladesh*, available at: <http://www.mshahidulislam.com>

urban areas based on the same perimeters. Figure 6 illustrates the levels of urbanization in Bangladesh based on this study.

Figure 6 Level of urbanisation in Bangladesh



The map shows that the upcoming urban centers are developing around existing urban centers, especially around Dhaka and Chittagong. The anomaly is Rajshahi, where the areas surrounding the center are least urbanized.

The study recognized a couple of main determinants of urbanization levels in Bangladesh that may explain the trend illustrated in the map:

- o *Geography and connectivity* – the study found that seven out of 10 top urban centers are located in the east side of two major rivers, and the urban centers are well connected to major cities or other urban centers in the neighboring areas.
- o *Location of industrial and service establishments* – the study found strong correlation between ranking of urban districts and location of industrial and other urban service establishment.

In respect of water and sanitation, Bangladesh's urban centers have been struggling with the continuous influx of migrants from the rural areas. Huge slums attached to major cities – housing millions – are a key indicator that the provision of public services did not keep up with the growth rates of cities. While rudimentary sanitation is in place and open defecation is not as widespread in Bangladesh's cities when compared to Indian cities, the large number of people sharing latrines and insufficient sewerage systems make hygienic conditions impossible. Water quality is not only affected by poor sewerage, in the case of Dhaka, or poor sanitation systems for other areas, but also because the pollution of water sources through city based industrial enterprises releasing toxic effluents into water bodies and rivers in the proximity of cities.

3.2 Public service provisions

Functions of local government institutions

The functions of local government institutions, urban and rural, are described in the various Local Government Acts 2009. The “provision and regulation of water supply” and “regulation of sanitary buildings and prevention of infectious diseases and epidemics” is stated as mandatory functions of urban local government institutions, i.e. City Corporations and Pourashavas. However, rural local government institutions, such as Zila, Upazila and Union Parishads, the responsibility to provide water supply and sanitation services are not specifically mentioned. Box 2 lists the functions of local government institutions according to the Act.

Box 2: Functions of local government institutions

For the **urban local government institutions** (City Corporations and Pourashavas), their mandatory functions are

- o Preparation of urban master plan and Control over the construction and reconstruction of buildings
- o Assessment of holding tax and collection
- o Infrastructure development like construction and maintenance of roads, bridges and culverts
- o Removal, collection and disposal of waste
- o Provision and maintenance of street lighting
- o Provision and regulation of water supply
- o Establishment and maintenance of public markets
- o Plantation of trees on road sides
- o Regulation of sanitary buildings and prevention of infectious diseases and epidemics
- o Registration of birth and death, issuing citizen certificates and succession certificates
- o Provision and maintenance of slaughter houses
- o Provision and maintenance of drainage

- o Provision and maintenance of graveyards and cremation places
- o Issuing license for non-motorized vehicles
- o Issuing trade license
- o Disaster management and relief distribution.

In addition, there are optional functions for City Corporations and Pourashavas:

- o Checking adulteration of food products
- o Provision and maintenance of parks and gardens
- o Establishment of welfare homes, orphanages, prevention of begging and organization of voluntary social welfare services
- o Establishment of public dispensaries, provision of public urinals and latrines
- o Establishment of public libraries and reading rooms
- o Promotion of community development schemes
- o Preservation of water bodies
- o Slum improvement
- o Lease out of bus terminal, truck terminal, kitchen market, ferry-ghats and water bodies.

Main functions of **rural local government institutions** (Zila, Upazila, and Union Parishad):

- o Maintain vital statistics like registration of birth-death, marriage etc
- o Make plans for natural resource management and development
- o Supervise management of primary educational institutes; motivate parents to send their children to school and create better awareness for adult and female literacy
- o Create awareness for better primary health care
- o Maintain law and order and control terrorism and violence against women etc.
- o Ensure participation in local and central government development planning
- o Encourage co-operatives and NGOs
- o Initiate participatory development of local roads, bridges, culverts etc.
- o Support various development activities related to agriculture
- o Encourage and initiate tree plantation programs
- o Assist various organizations in their development efforts
- o Operation of Union Information Service Centre
- o Disaster Management and relief distributions
- o Implementation of poverty alleviation programs
- o Infrastructure development activities
- o Implementing economic, social and cultural development programs.

Source: Dr. Salina Hayat Ivy, Mayor, Narayanganj City Corporation, Narayanganj, Bangladesh, *Inclusive City Government: Reform Issues of Urban Local Government System in Bangladesh*

In practice, some City Corporations has established WASAs to provide water supply and sanitation services. City Corporations and Pourashavas who do not have WASAs are responsible for providing water supply and sanitation services. Most have engineering departments or at the least have engineers allocated to operate and maintain the water supply systems. However, due to the lack of separate institutions responsible for water supply and sanitation, the engineering departments have difficulties in retaining let alone developing the institutional capacity needed to provide sophisticated water supply and sanitation services. Most water supply systems are financed and constructed by the central government through the DPHE or LGD. Some Pourashavas also rely on DPHE engineers who are stationed in the district (Zila).

For rural areas, theoretically the Zila, Upazila and Union Parishads are responsible for the development of the area, which in most cases include water supply and sanitation development. However in practice, the low capability of the Zila, Upazila and Union Parishads in providing these services has led to low level of water supply and sanitation coverage. LGED provides infrastructure development funds and programs, which could include water supply and sanitation. The Zila, Upazila and Union Parishad are responsible to implement LGED's projects.

In general, although the decentralisation process has delegated most public service provision to local government institutions, in reality the local government institutions are still relying heavily on central government assistance, both in terms of financial and technical assistance.

Local government institutions (both urban and rural) can have their own revenue, mostly from holding taxes, rates, fees and charges levied by the local body as well as rents and profits accruing from properties of the local body and fees received through its different services. However, the central government budget allocation is still one of the main sources of income for most local government institutions.

As mentioned in Section 2.2.5, there is no specific line item in the central government's budget for water supply and sanitation. Most WSS development are funded through the budget allocated to DPHE and LGED. It has been reported that urban areas in many cases receive more allocation of budget for housing and settlements, which include WSS services. In rural areas, budget allocations for WSS services are usually included in the development project budget.

3.3 Water supply and sanitation service provision

As mentioned earlier, the WSS service provision is the responsibility of local government institutions. In most small urban towns, the Pourashavas operates and maintain the water supply system. These systems are financed and constructed by the central government through the DPHE or LGED. The Pourashavas are technically allowed to contract private companies to operate and maintain the WSS system, but currently this practice is not yet been done.

Similarly, in rural areas, the Union Parishad is usually the local government institutions that operate and maintain the water supply system. In some rural areas, the operation and maintenance of the piped water supply system is done by community user association or NGOs. These systems are usually built as part of a development project, financed either by donor funds or central government budget allocation.

Central government engineers and officers from DPHE and LGED are often stationed in the local offices, which can be in a small urban town governed by Pourashava, or in Upazila HQ. The engineers and officers in these local offices are often involved in and provided assistance to Pourashavas and Upazila and/or Union Parishads in terms of operating and maintaining water supply systems.

One of the major issues brought about by high rate of urbanisation is that in most cases as districts grow and become more urban, the water supply system cannot cope with the increase in population, both in terms of availability of water supply and also in terms of the sophistication of the system.

Without proper urban planning to prepare infrastructures to cope with increasing population and population density, existing infrastructure is not adequate to provide the services required by the population. In addition, different skills from local government engineers are needed to operate and maintain piped water system compared to simpler systems, such as community wells.

4 Experience with Domestic Private Sector Participation

Bangladesh has very little experience with Domestic Private Sector Participation (DPSP) in water supply sector. However, the sanitation sector has seen some significant improvements, with some local private sector participation in the sector. This study focuses on piped water supply in small urban towns or rural areas. However, seeing the success of the sanitation sector in involving domestic private sector, this section will include a short summary of the Bangladesh's experience with private sector in providing sanitation services.

4.1 Overview of DPSP experience

Bangladesh Water Supply Programme Project (BWSPP)

The World Bank introduced the concept of DPSP in the water sector through the Bangladesh Water Supply Programme Project (BWSPP) in 2005. The BWSPP was the country's largest effort so far to engage the private sector in the provision of water services for the small urban town and rural population. This project was executed by the DPHE. Subsequently, the International Development Association (IDA) dedicated a US\$40 million grant to create piped water supply schemes in Bangladesh providing the rural population with safe water.⁷

The concept of the BWSPP was to award contracts to private firms or NGO to design, build and operate the piped water supply scheme. Initially, 50% of the funding for each project was to be provided by IDA and 50% by the private or nongovernmental investor. The average cost of a piped water supply scheme US\$140,000. To enable the private sector to raise the required funds, a credit market was to be established through a national bank as part of the BWSPP. In addition, it was envisioned that the private sector could raise 10% of the capital it needed to provide in advance from customers in the form of connection fees.

Despite IDA's financial commitment to the project, the BWSPP has in overall terms been a disappointment. Due to poor accessibility to financing for private investors, it was mostly NGOs and wealthy individuals with charitable or social motives who participated in the project. Making matters worse for the interest of the private sector in the project, only a few of the piped water supply schemes that were implemented proved financially viable. IDA eventually reduced its budget for the BWSPP to US\$18.5 million and lowered the original target for implemented schemes from 300 to 21.

During the field diagnostic phase, discussions were held with the World Bank staff and DPHE staff involved in the project, as well as with a couple of the operators under the BWSPP project. It seems that after the implementation of the project, i.e. after the operator was selected, and the piped water system was built, there is no monitoring framework to

⁷ Private Operators and Rural Water Supplies: A Desk Review of Experience (2010): <https://openknowledge.worldbank.org/bitstream/handle/10986/17248/578310revised01ous0record10rpostudy.pdf?sequence=1>

monitor the performance of the operators selected under the project. The performance of a couple of the operators from the BWSPP is described in the next section.

Improved sanitation and sanitation marketing

Bangladesh has a good track record of successful sanitation programs. Between 2003 and 2006, the Government of Bangladesh scaled up efforts to address unsanitary practices through a national sanitation campaign that engaged multiple levels of government. This effort has raised the awareness of communities in all levels of the importance of having hygienic sanitation practices, and many communities achieved open defecation free status.

The Government's effort has paved the way to improved sanitation practices. In 2008, the Water and Sanitation Program of the World Bank implemented a sanitation marketing program. The program provides capacity development support to local entrepreneurs already involved in sanitary equipment manufacturing and supply, and also provides advocacy to micro-finance institutions (MFIs) and encourage them to provide loans to local entrepreneurs.

The local entrepreneurs were oriented on the benefits of hygienic sanitary practices and how to raise community awareness of these practices. They are also trained on different types of products and services they can offer, and the different types of payment options they can offer to the customers.

The program was well received, as there is already a market for providing sanitary equipment. These domestic private entrepreneurs are already making some profit from their business, and therefore provide a good starting point for a more vibrant private sector providing sanitation services.

4.2 Performance of DPSP

Bangladesh Water Supply Programme Project (BWSPP) Operators

The field visits include discussions with a DPHE Engineer from Manikganj District, the Accountant and Manager of the Gorapara user committee, and the Manager of the Hilful Fuzul Samaj Kallyan Sangstha. The information below was gathered through those discussions.

Gorapara, Manikganj District - Community operated system

The piped water system in Gorapara, Manikganj District was built as part of the BWSPP, and the operation of the system was awarded to an NGO for 18 years concession. However, there were some problems with the operation of the system. The NGO did not comply with the concession contract, and signed up more customers than the system was designed for, and after construction was completed and connection fees were charged, the NGO abandoned the project. Since then, a user committee took on the responsibility of operating

and maintaining the system, with some technical assistance from the Manikganj DPHE engineers.

Currently there are 486 household connections, each paying a monthly fee of 200 Bangladesh taka. This monthly fee was used to cover operational costs, including minor repairs. When major repairs are needed, user committee asks users to contribute to the costs of the repairs. Based on the field visits and some conversations with the household users, the community is happy with the services provided by the user committee.

Karaniganj Upazila, Dhaka District - NGO operated system

This system was also constructed as part of the BWSPP, and the operation of the system was awarded to Hilful Fuzul Samaj Kallyan Sangstha, and a non-governmental organisation that also has other commercial activities.

It was reported that the monthly charges of 250 Bangladesh taka from single users (household connections) and 300 Bangladesh taka from multiple users are enough to cover operational costs, and provide small profit margin to the organisation. The organisation is interested in expanding the system if the Government or donors provide the funding to cover the capital cost, and not willing to re-invest the profit into system expansion.

Sanitation service providers

By 2013, the sanitary marketing program by WSP had trained 105 entrepreneurs, and 51 entrepreneurs are receiving tailored loans from MFIs⁸. Moreover, some of the entrepreneurs have become one-stop-shop for sanitary products and services. They provide sanitary equipment at a reasonable price, and also offer payments in instalments. Along with the sanitary equipment, these entrepreneurs also offer building materials and provide installation services, and some also offer maintenance of the system.

4.3 Key achievements and success with DPSP

As discussed above, Bangladesh has not yet has much experience with DPSP in water supply and sanitation services. Much of the success stories in terms of encouraging domestic private sectors happen in the sanitation sector, and not many from the water supply sector. Therefore, the summaries of key achievements below are mostly derived from the sanitation sector.

4.3.1 Public institutions' perspective

Domestic private sector is now providing sanitary equipment, building material and after sale services to the community without any financial support from the government. This has

⁸ WSP, *Making Sanitation Marketing Work: the Bangladesh Story*, December 2013

reduced government's budget allocation to the sanitation sector, and therefore it can be allocated to other sectors that are not self-sustainable.

The local entrepreneurs are also marketing their product and services, and therefore assisting the government in achieving the sanitation goal of open defecation free Bangladesh.

In terms of water supply service provision, the user committee and NGOs are providing services that the community needed. However, no investments are made from these operators, and most are still relying on government budget allocation.

4.3.2 Private operators' perspective

One of the key factors that have encouraged the local entrepreneurs in providing sanitation services is the availability of financial products that suit their businesses. Having MFIs providing loans to the local entrepreneurs has enabled them to expand their businesses.

Water supply services on the other hand, have not attracted private entrepreneurs as much as the sanitation sector. This is partially due to the fact that many households in urban and rural areas have their own well. There is not much opportunity for the private sector to compete with free water. It is important to first of all improve the community's awareness of the importance of having safe water source and of the benefits of having piped water supply, before the market will be ready for private water supply service providers.

4.4 Key constraints and challenges

The experience from the BWSPP, as well as discussions with various institutions involved in the water sector, have highlighted the key constraints and challenges in introducing and encouraging DPSP in the water supply and sanitation sector in Bangladesh.

4.4.1 Public institutions' perspective

In general, most of the central government institutions, such as DPHE, LGED, and LGD are in favour of having DPSP. However, since the concept of PPP or the idea of having private companies providing public services is relatively new in Bangladesh, most efforts are made to attract private investors and/or operators in large infrastructure projects at the national level.

Water supply and sanitation services are the responsibility of local government institutions, and therefore somewhat below the radar of the national PPP initiatives. The challenge in encouraging private sector to get involved in the provision of water supply and sanitation lies with the fact that they have to deal with local government institutions, which in most cases either do not have the knowledge and capacity to, or are not interesting to engage private partners for public service provisions.

Most private entities or NGOs interested in getting involved in the water supply sector are not willing to provide capital investment, and preferred to rely on donor or government

subsidy. This is likely due to the lack of available financing product that suits the long term nature of water supply business, but also due to the perceived high demand risk. The availability of water sources that allows households to have access to free water from pump wells is a big problem for piped water providers.

4.4.2 Private operators' perspective

During a discussion with the Infrastructure Investment Facilitation Company (IIFC), a government institution established to facilitate private investment in infrastructure, some of the challenges that private investors has mentioned in relation to dealing with local government institutions, especially Pourashavas, were listed:

- o Pourashavas are relied too much on central government support, both technically and financially
- o Pourashavas are in general have non-commercial outlook and lack commercial knowledge, which leads to less willingness to deal with or partner with private companies
- o Pourashavas decision making process is too political.

In addition the water supply sector characteristic in Bangladesh also presents some problems for private sector involvement:

- o Availability of good quality water – most households have wells and therefore have “free” water
- o This leads to low willingness to pay from communities
- o Along with low political will to allow cost recovery tariffs
- o Leads to weak cash flow and low profitability for the private company.

5 Conclusions and Lessons Learnt

This section summarises and concludes the experience from Bangladesh, and draws out lessons learnt so that other countries can learn from the successes, and also from failures, of Bangladesh.

5.1 Summary conclusion

The definition of private sector in Bangladesh, especially in the water supply and sanitation sector, is different from the definition and understanding of private sector in general that is used in most international studies. During discussions with various government and non-government institutions in Bangladesh, many will readily state that there is plenty of private sector participation in the water and sanitation sector.

Most sanitary equipment suppliers also provide after sale services, and hence considered to be service providers. These are private entities, whether they are a listed company or an individual vendor and service provider. In the water supply service provision, most government institutions consider community user associations and NGOs to be forms of private sector, meaning they are not a government entity. Therefore, many of the water supply systems operated by community user associations and NGOs are considered to be operated by the private sector in Bangladesh.

The lesson learnt is that not every country has the same understanding or definition of private sector. It is then important not to lose sight of the main reason for developing and encouraging “private sector” participation in the water supply and sanitation sector, which is in the end to increase access to safe water supply and sanitation services and improve the performance of the sector in general. Therefore, efforts to strengthen public institutions to encourage more private sector participation should consider local understanding, conditions and capacity.

As discussed in the previous section, Bangladesh has not had much experience with DPSP in the water supply and sanitation sector. The country still relies heavily on the national government in terms of providing the infrastructure for water supply systems, while the local government still requires technical assistance from national governments in the operation of the system.

In addition to the reliance on national government assistance, in terms of financial and technical support, water supply is seen to be services that should be provided by the government. Communities generally have the perception that private service providers are not suitable for water supply services, as they are profit making entities. NGOs or community user associations are preferred to operate water supply systems, but the capital investments are still expected to be provided by the national government.

From the private companies and firms point of view, based on discussions with the Director of Infrastructure Investment Facilitation Company (IIFC), who has in the past gauge private companies’ interest in the water supply sector, water supply is not a very attractive sector to invest in because of several factors:

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- o Availability of alternative water supplies – most households have private wells and it is difficult for private companies to compete with free or very low cost alternative water supply sources
- o Difficulties in dealing with Pourashavas – the unwillingness of Pourashavas and other government institutions to allow cost recovery tariffs is a major issue, as the private companies are not sure that they will be able to recover their investments
- o Not many success stories – there are a few successful private operators in Bangladesh, but these are more of the anomaly rather than the norm. Related to the points above, private companies want to see examples of successful private water supply service providers, as the risks of investing in the water sector is perceived to be too high.

In general, the market for DPSP in the water supply sector in Bangladesh is not yet established. The enabling environment, such as the legal, regulatory and institutional frameworks are improving, but not yet conducive to encourage DPSP in small town water supply. Moreover, water supply systems are capital intensive investments, and not many private entities are willing to take on the financing risk, especially if the government counterparts are reluctant to allow cost recovery tariffs. The financial risks make it difficult for private companies to obtain loans for the capital investment.

5.2 Good practices in encouraging DPSP

The success stories in terms of encouraging DPSPs happen in the sanitation sector rather than from the water supply sector. Therefore, the summaries of key achievements below are mostly derived from the sanitation sector.

The sanitation sector in Bangladesh has made great improvements over the last decade, in part due to the community led initiatives to change the perspective on good sanitation practices, which was supported by government and donor agency assistance in developing the DPSP market for sanitary equipment suppliers and service providers.

Some of the success factor for the sanitation sector, which can be applied to other countries in terms of both sanitation and water supply services, include:

- o ***Raising community awareness*** of the importance of sanitary behaviour and the benefits of having safe water supply. Awareness campaigns involving community leaders, with support from Mayors and other political leaders will make a difference in the community's reception
- o ***Raising the awareness and understanding of the political leaders*** including central government institutions and local governments of the benefits of having private sector involvements in the providing necessary investments in public infrastructures as well as public service provisions

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- ***Building capacity of local financial institutions***, so that they can develop and provide financing products that are suitable for the water sector, such as long term loans with grace periods and revenue based loans
- ***Building capacity of local entrepreneurs***, so that they can market their products and services and can adjust to the consumers' needs and provide tailored payment methods.

5.3 Areas to be improved

Building capacity seems to be the theme for Bangladesh. As they country has delegated most public service provision to local government institutions, and is new to the concept of private sector participation in public service provisions, a lot of ground work needs to be done before PPP projects can be implemented and DPSP can be encouraged to take a lead role in WSS for small towns and rural growth centres:

- ***Building local government capacity after decentralisation*** – many local government institutions, from Pourashavas to Upazila and Union Parishads, even some City Corporations, are still heavily reliant on central government, both technically and financially. Building the capacity of local government institutions on different ways to provide public services, including through engaging the private sector, will give the local government the technical independence it needs to fulfil its responsibility. Capacity building in terms of public finance will also benefit local governments, as it will improve their financial management and independence from the central government.
- ***Improving and building capacity in terms of PPPs*** – Bangladesh already has an administrative PPP framework and the legal framework for PPPs is currently being developed. However, from discussions with stakeholders, it seems that the PPP concept is not yet well understood by many central government institutions that can benefit from it. More importantly, the concept and benefits of PPP are even less understood by local government institutions. For example, PPP does not necessarily mean only large national infrastructure projects; it can also include management contracts between small private operator and the local government. Local governments need to know and understand the types of PPP available to them, the benefits of PPPs, and how to implement a PPP project. Awareness campaigns followed by capacity building on PPP concepts are needed to start building the understanding and capabilities of local governments in order to encourage more PPPs and DPSPs in Bangladesh.
- ***Raising community awareness and understanding*** of the economic characteristics, as well as social characteristics, of water, so that there will be more willingness to pay for safe water services from the community. This will greatly improve the climate for DPSP in WSS sector. It will allow public institutions to charge cost recovery tariffs and will provide better opportunities to the private sector. In addition, it is also important to improve community understanding of the benefits of having private institutions provide public services. For example, the perception that private company are there only to make profit with no regard to public interests needs to be addressed.

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Understanding of cost recovery charges and how this can benefit customers (if operators can cover costs, they can provide better services) needs to be improved.

Once the local government institutions gain better knowledge and understanding of options of providing public services, including the benefits of involving the private sector, only then will other factors be able to play a part in encouraging more private participation in public service provision, such as:

- o **Policy and legal framework** – currently, the water supply and sanitation policy and legal framework is fragmented, in that there is no specific legislation that focuses on water supply and sanitation. The Sector Development Plan provides a good policy direction and target for the sector, however, it does not have a clear implementation plan and is not supported by any legal document in terms of which institutions are given responsibilities for specific actions, and how the actions are to be monitored and by whom. In terms of PPP, there is already some form of legal framework; however, it is important that the PPP legal framework is consistent with other relevant legislation. For example, for the water sector, the PPP legal framework should be consistent with the various local government acts.
- o **Institutional arrangement** – currently, there is no one institution responsible for the water supply and sanitation sector. The LGD, DPHE and LGED under the MLGRD&C have some involvement in the water supply and sanitation. However, it is clear that the sector leadership is weak. It would be beneficial to clarify the roles and responsibilities of the central government institutions, so that they can effectively support the local government institutions in providing water supply and sanitation services. In terms of PPP, the PPP institutional framework already exists in Bangladesh. However, these PPP institutions need to be strengthened and more marketing is needed to inform local government institutions of the existence of the PPP framework.
- o **Regulatory framework** – there are already plans to establish a regulator for the water supply and sanitation sector. Having a regulator will reduce uncertainty and risk for the private operators by ensuring tariff levels and structures are able to cover costs as well as to being affordable to customers, and improve performance monitoring of the sector in general.
- o **Financing framework** – most water supply and sanitation projects are currently funded by the central government or by donors and development partners. However, the central government budget does not have a specific allocation for water supply and sanitation. This may be due to the fact that there is no central institution responsible for water supply and sanitation. This has resulted in project-based water supply and sanitation development, rather than long term development that follow the Sector Development Plan. In order for the water supply and sanitation sector to develop sustainably, it is important to have a clear budget allocation for the sector. In terms of attracting private investment into the sector, it is important to have the support of public finance as well as commercial financing institutions. As mentioned previously, having commercial banks providing loans tailored to water supply and sanitation business is a crucial element in encouraging private sector to invest in the WSS sector. In the

Conclusions and Lessons Learnt

absence of commercial financing, public finance is crucial to develop and build the infrastructure that can be operated by private operators.

ANNEXES

A1 Summary of Field Diagnostic Discussions

Table 1 below provides summary of discussions held with stakeholders during the field visit to Bangladesh.

Table 1 Summary of discussions with stakeholders in Bangladesh		
Date of visit and Institutions Contacted	Some of the Persons met	Key points/ topics of discussions
A National level institutions		
1 Tuesday, 2 September Infrastructure Investment Facilitation Company (IIFC), under Ministry of Finance, GoB.	Nazrul Islam – Managing Director mdiifcinfra-bd.com	<ul style="list-style-type: none"> • IIFC mainly focuses on large PPP transactions, and are not normally interested in small town WSS • Main difficulties with dealing with Pourashavas: <ul style="list-style-type: none"> ○ Too much reliance on central government (financially and technically) ○ Non- commercial outlook, or lack of commercial knowledge ○ WSS service provision are not very profitable, weak in cash flow ○ Perceived high risk of not being able to recover investments from tariffs ○ Many areas have alternative cheaper water supply source; therefore piped WSS system cannot compete • For private sector to enter the WSS market, these are required: <ul style="list-style-type: none"> ○ Capital subsidy from government or donors ○ Less political interference ○ Central government to provide model contract that can be used by all Pourashavas ○ Model contract has to be endorsed and approved by the central government ○ Capacity building for the Pourashavas so that they understand the PPP model and the benefits of it • Suggest the central government or donors introduce the PPP model along with the model contracts in stages: <ul style="list-style-type: none"> ○ 1st stage – short term management contract type, around 5 years term ○ 2nd stage – medium term contract with some investment, around 10 years term ○ 3rd stage – long term concession or BOT type contracts, around 15 years or more

Date of visit and Institutions Contacted	Some of the Persons met	Key points/ topics of discussions
		<ul style="list-style-type: none"> • Having a regulator will help improve stability for a private operator, however, regulator should not review tariff applications and check operator's cost structure etc, as this will give them too much power. Suggest that tariff adjustments are included in the contract terms, and regulator can monitor the application of this. • Have looked at potential PPP in WSS in small towns, but decided not to participate. Feels that, presently in small towns need for piped water supply is not ripe, as alternative supply is readily and cheaply (or even freely) available. • There is potential in sewerage or drainage services to be provided by private operators. Households have water supply (hand pumps etc), but will be willing to pay for someone to remove grey water out of property. Currently this service is the Pourashavas' responsibility, but they can contract a private service provider. This is an opportunity area.
2 Tuesday, 2 September World Bank Country Office, Dhaka	Arif Ahamed, Water and Sanitation Specialist, Sustainable Dev. Unit, South Asia Region (TTL of the BRWSSP) aahamed@worldbank.org.bd	<ul style="list-style-type: none"> • WB has implemented 21 Rural PWS projects through DPHE, under their previous project Bangladesh Water Supply Programme Project (BWSPP), with shared capital cost. The O&M is by local sponsor, through tariff collection from users. • Out of 21 completed PWS projects, 15 sponsors are NGOs and 3 are contractors. The projects under contractors are running better. • Some of the NGO sponsors have left the project after project construction (mostly non-local NGOs) after collecting the connection fees from the users. Presently these are being maintained by Local user committees. • After project completion, DPHE is not monitoring properly. WB is not happy with DPHE for not monitoring completed projects. • Under new WB-DPHE project, Bangladesh Rural Water Supply and Sanitation Project (BRWSSP), design for 125 rural PWS project has been prepared by consultants. In this project 75% capital cost will be paid byt WB project. Model Concession agreement for 600 to 1200 household connections , is prepared. Consession period is 12 years. One package has been tendered. Another about 25 packages are under process and the total number of schemes under the scheme may be reducted to 50. • Capacity building of sponsors (for O&M) is necessary. • Capacity building of local Union Parishad officials also necessary.

Date of visit and Institutions Contacted	Some of the Persons met	Key points/ topics of discussions
3 Tuesday, 2 September World Bank Country Office, Dhaka	Ms. Rokeya Ahmed, WSP, Water and Sanitation Specialist rahmed3@worldbank.org	<ul style="list-style-type: none"> Sanitation or individual sanitary latrines are considered to be responsibility of individuals. However, the public sector provides some public latrines in public places and some community latrines in some low income communities (LIC). WB has is engaged in promotion of small scale private sectors in production of sanitary latrine components. It has improved the design of low-cost plastic pans and its marketing. WB has designed one-stop service center for providing purchase of different components and its installation. And also designsz for alternate options for sanitary domestic latrines, to suit different budget. WB has implemented a project with large micro-finance service providers of Bangladesh, ASA for this purpose. Presently ASA has started similar project with their own fund and ther programme has been expanded in wider gographical area of Bangladesh
4 Tuesday, 2 September Policy Support Unit (PSU), Local Government Division (LGD), under Ministry of LGRD&C.	Kazi Abdul Noor – Project Director, PSU and Joint Secretary kanoor1@gmail.com or pd@psu-wss.org Dr. Engr. Khondaker Azharul Haq – Water Resource Expert, ADB consultant assigned to PSU modhumoti_project@yahoo.co m	<ul style="list-style-type: none"> PSU under Local Govt. Division (LGD) of MoLGRDC is mandated to support formulation of regulatory and policy matters related to Water and sanitation sector. Most of the PSU functions are is beining financed by DANIDA. However, the government will integrate PSU into the Local Government Division's organizational structure. Several Strategies and Plans have been and are being undertaken by PSU. Notable among these is contribution in the 'National Water Regulatory Act.' A draft bill for Water Supply and Sanitation Regulatory Commission is prepared. It will now go through government's approval process and expected to be placed to the parliament within six months. Some other achievements are: <ul style="list-style-type: none"> Development of WATSAN Sector Development Plan (SDP). National Strategy for Water Supply and Sanitation <p>The Unit is also working for rationailastion water Tariff for WASA.</p>
5 Tuesday, 2 September Department of Public Health and Engineering (DPHE), under Ministry of LGRD&C.	Engr. Monwar Ali – Project Director for the BRWSSP amonwar@yahoo.com Engr. M. A Kaium – Deputy Project Director for the BRWSSP	DPHE is the national organisation mandated for Water Supply and Sanitation in Bangladesh. It one of the oldest government. organisations established in 1936. The organisation is old and not so efficient, with huge shortage of sanctioned staff strength. The organisation is not highly valued (??) by WB due to its slow delivery.

Date of visit and Institutions Contacted	Some of the Persons met	Key points/ topics of discussions
	<p>dpdbrwssp@dphe.gov.bd Abul Khair Md Ibrahim – Superintending Engineer, Ground Water Circle, DPHE HO akm.ibrahim@dphe.gov.bd</p>	<ul style="list-style-type: none"> The opinion of the DPHE senior officials is that implementation of rural piped water supply (PWS) schemes should not only be by the private sector. But it should be open to both government sector and private sector. BRWSSP, funded by WB has an ambitious plan for implementing 125 PWS schemes in different parts of Bangladesh. The design works are almost complete by design consultants. 1 package for Bid is complete. Other 15 packages are under preparation. Model concession agreement, for 12 years duration has been drafted. It is a tri-partite agreement with the Project Sponsor (private sector), Union Parishad (local government institution) and DPHE. Selection Criteria for Project Sponsor (private sector), is also finalised. DPHE has earlier developed and implemented rural PWS schemes under Government fund, involving local Union Parishad Chairmrn and Members. But no proper evaluation of the projects have been carried out.
<p>6 Thursday, 4 September Local Government Engineering Department (LGED), under Ministry of LGRD&C.</p>	<p>Md Nurullah – Superintending Engineer, Urban, LGED nurullah_selged@yahoo.com Sheik Md Nurul Islam – Deputy Director, Regional Urban Municipal Support Unit, Faridpur dd.faridpur@lged.gov.bd</p>	<p>LGED is mandated for engineering support to all Local Government Institutiona (LGIs), like Pourashavas (Municipalities) and Union, Parishads (UPs). This means it is involved in of all types of constructions (rural roads, bridges, schools, clinics, UP and Pourashava office buildings, small water resources FCDI projects, in rural and peri-urban areas all over the country [except those are undertaken by Central Govt. agencies, like Public Works Department, Roads and Highways Department, Education ministry, Health Ministry, etc.]. It has large technical staff base in all the districts and Upazilas (sub-districts) and very well equipped head office at Dhaka. Previously it was mainly involved in rural areas. Now they have opened up Urban section as well, especially for Pourashava activities.</p> <ul style="list-style-type: none"> In the past, LGED have implemented 'Municipal Support Project (MSP) under WB and Urban Governance through Infrastructure Improvement Project (UGIIP) under ADB, in various phases. LGED has also developed detailed infrastructure Masterplan for different Pourshavas and have implemented many of those through funding from different donor agencies. Presently, LGED is giving priority to the participation of Private sector in Urban development projects and they have termed it as 'Inclusive approach for Urban development'

	Date of visit and Institutions Contacted	Some of the Persons met	Key points/ topics of discussions
B	Sub-national level institutions		
7	Wednesday, 3 September Manikganj DPHE Division office, Manikganj	Md Kabul Khan – Sub-Assistnt Engineer DPHE, Manikganj DPHE Office TW Mechanic of DPHE	The Executive Engineer, Md Bazlul Huq was not available in the office. We met the Assistant Engineer Md. Abdul Mannan and had discussion with the Sub-Astt. Engineer, Md Kabul Khan who is in charge of the rural PWS schemes in the area.
8	Wednesday, 3 September Manikganj Pourashava office, Manikganj District town.	Md. Gholam Zakir – Assistant Engineer (Water Works), Manikganj Pourashava, incharge of the water supply system	Inspected the traditional Water Works Plant of the Municipality, with the Pourashava. It is a large 1000 m ³ Capacity Water treatment Plant for Iron and Arsenic removal, Another WTP is under construction by DPHE under a different project. There is an Over Head Tank (OHT) of 450 cu.M capacity. Total households in the Municipality is about 12,000. Only 5,000 have a municipal water connection. Plan to make 80% coverage in next 5 years. House connection tariff per hose is Tk. 250 pm. There are few metered connections. Residential – Tk. 8 per cu.M and Commercial - Tk. 16 per Cu.M About 80% bill collection makes O&M cost at break-even point.
9	Wednesday, 3 September Chandair Shakrail Rural PWS scheme under BRWSSP project, Gorapara, Manikganj	Accompanied by Md Kabul Khan, SAE DPHE Manikganj. Khalequzzaman, Accountant and Manager of the Water Users' Committee	<ul style="list-style-type: none"> • The project is a pressure filter system, with an overhead water tank and estimated cost of Tk. 160,00,000. • BWSSPP (earlier World Bank supported project) awarded 18 years concession contracts to a non-local NGO, who has then left after construction and collecting the connection fees from the users. • Now operation and maintenance are done by user committee. • It is running at no-profit-no-loss basis by the user committee. • There are about 486 house connections and maintenance charges are Tk. 200 per house per month. • Connections in some Schools and Mosques and to very poor people are free. • The UP Chairman is not included in the Committee.
10	Wednesday, 3 September Baravikra Rural PWS scheme under GoB funded DPHE project, Betila Mitla, Manikganj.	Accompanied by Md Kabul Khan, SAE, DPHE Manikganj Md. Amjad Hossin Khan, Manager-cum-Bill collector of the Water Users' Committee, and Pump Operator	<ul style="list-style-type: none"> • This is UP supported GoB funded PWS pilot scheme, constructed in June 2011, with Slow sand filter treatment plant., 50,000 lit capacity overhead water tank. • Operation and maintenance are done by user committee, headed by UP Chairman. • The system is built on donated land. • WHO, in association with national NGO Muslim Aid, has trained the people on Water Safely Plan.

Date of visit and Institutions Contacted	Some of the Persons met	Key points/ topics of discussions
11 Wednesday, 3 September Fatanagar Rural PWS Scheme, under BRWSSP project, Karaniganj Upazila, District Dhaka.	Omar Faruque – Manager, RWS Scheme, Hilful Fuzul Samaj Kallyan Sangstha, Keraniganj hfsks@ymail.com Md. Ali, Assistant Engineer, DPHE, Keraniganj UZ TW Mechanic of DPHE	<ul style="list-style-type: none"> • Monthly charges are Tk. 150 per hose for on connection. • The system is going well and the users are satisfied. • BWSPP awarded 18 years concession contract to NGO: Hilful Fuzul Samaj Kallyan Sangstha. • This NGO also has other commercial activity outside of the rural piped water system. • The NGO is interested in expanding the system with additional fund or additional project from DPHE, but not interested in investing profits to expand the system. • Waiting for central government or donors to provide capital investments for system expansion. • It is understood, as per contract agreement, after its expiry after 18 years, the system will be property of the User Committee (and not the UP or DPHE).
12 Thursday, 4 September Dhaka WASA, under Ministry of LGRD&C.	Md Abdul Mannan Miah – Superintending Engineer MODS Circle 1 engmannanmiah@yahoo.com	<ul style="list-style-type: none"> • No important information could be collected from this senior officer. • It is said that the system is running well. • Non-revenue water has reduced drastically, after a performance monitoring indicator was started in 2008, as result of agreement with WB and GoB.
C NGOs		
13 Thursday, 4 September NGO Forum for Public Health, Dhaka	S. M. A Rashid – Executive Director ngof@bangla.net Md Saiduzzaman Khan – Senior Resource Mobilisation Officer saiduzzaman@ngof.org Rizwan Ahmed – Head of National Resource Centre rizwan@ngof.org	<p>Role of NGOs is to complement the gap of government service providing. With development partners' funding, it is meeting future challenges, and vulnerability issues.</p> <p>The role of NGOs is service and not business. But when it is social business, NGOs may take part.</p> <p>NGO Forum has done water supply schemes through its partner organisations, and they are providing service to the community as well as earning surplus for the running NGOs.</p> <p>Regarding PPP, the NGO Forum is of the opinion that there is lack of understanding of PPP with different stakeholders</p> <p>Also there is lack of political will. Level of sensitization for PPP should be high on GoB. PPP is likely to be successful in specific geo-physical with water quality problems and difficult to reach areas.</p> <p>Regarding Sanitation (Sanitary latrine) production centers, the private sector has achieved a great success. With a little seed money for moulds and training and a</p>

Date of visit and Institutions Contacted	Some of the Persons met	Key points/ topics of discussions
		initial small refundable capital, NGO Forum has been successful in developing more than 1200 entrepreneurs (Rural Sanitation Production Centers) in remote places of the country, through small NGOs. They have been able to provide hygienic sanitary latrines to more than 6.5 million households in rural and remote areas, where GoB services never reached.
D PrivateSector 14 Friday, 5 September Pedrollo NK Ltd. PNL Water Management Ltd. Chittagong [Over telephone and e-mail]	Imran Khan, Director Pedrollo NK Ltd. PNL Water Management Ltd. Chittagong imrankhan@pedrollo.com.bd	This company is basically a water pump dealer. They have prepared and implemented water network systems (e.g. irrigation projects, drinking water projects, etc.) for other organisations, as contractors. However, they are also interested in investing in water scheme projects, as sponsors/ investors, if the terms are satisfactory. We discussed and asked them to contact the project director of BRWSSP (Visits and discussions with other potential private sector entities will be carried out)