## Government of Bangladesh Local Government Division, Policy Support Unit

## Sector Development Plan (FY 2011-25)

Water Supply and Sanitation Sector in Bangladesh

## **WORKING DOCUMENT NUMBER 16**

Prospects of PPP in Water Supply and Sanitation Sector in Bangladesh

Prepared by

Devcon

November 2009

The working documents were used as background materials for preparing the Sector Development Plan (SDP). The factual information and views expressed in the working documents are of the authors and does not necessarily of the Policy Support Unit or of the agencies that the authors belong to.

# SECTOR DEVELOPMENT PROGRAMME (SDP) WATER AND SANITATION SECTOR IN BANGLADESH

Report on
PROSPECTS OF PPP
IN WATER SUPPLY AND SANITATION (WSS) SECTOR
IN BANGLADESH
Report by:
A. K. M. RABIUL ISLAM
WSS and PPP sector specialist

Report for

**DEVCON-BETS CONSORTIUM** 

December 2009

## TABLE OF CONTENTS

	TA	BLE OF CONTENTS	. iii
	AC	RONYMS	v
1.	. BA	CKGROUND	1
	1.1	Objective	1
	1.2	Methodology	1
2.	. BA	SICS OF PPP	2
Types of Private Public Partnership      Characteristics of different Types of PPP		Types of Private Public Partnership	2
	2.2	Characteristics of different Types of PPP	4
	2.3	Types of Private Public Partnership	5
	2.4	Rationale for Private Public Partnership	5
	2.5	Risks of Private Public Partnership	5
	2.6	PSI Guidelines facilitating PPP Investments	6
	2.7	Activities needed for promotion of PPP	7
	2.8	Options and benefits of PPP	7
	2.9	Changing Skills needed in PPP project handling	8
	2.10	Options and benefits of PPP	9
3.	. RE	GULATORY FRAMEWORK FOR PPP PROJECTS	9
	3.1	Legal Ordinance and Permits for Water sector	9
	3.2	Laws, Ordinances and Regulations for large companies	11
	3.3	Bangladesh Private Sector Investment Guidelines (BPSIG) 2004	12
	3.4	Different Stages of a PPP Project Implementation	14
4.	. RE	VIEW OF PPP WSS PROJECTS IN RURAL AREAS	15
	4.1	PPP for rural piped water supply in BAMWSP project	15
	4.2	PPP for rural piped water supply in SDF project	16
	4.3	Rural Piped Water Supply experience in RDA and BMDA	16
	4.4	PPP for rural WSS in HYSAWA project	17

	4.5	Small Scale WSS Service Providers	. 19
5.	REV	/IEW OF PPP WSS PROJECTS IN UBRAN AREAS	. 19
	5.1	PPP for urban water supply in Faridpur Municipality	. 19
	5.2	PPPs in some District Towns	. 20
6.	REV	/IEW OF PPP WSS PROJECTS IN LARGE CITIES	. 20
	6.1	PPP in Water Billing and Collection in Dhaka WASA	. 20
	6.2	PPP in Water Supply in large cities	. 21
	6.3	International experience in large cities	. 21
7.	REC	COMMENDED APPROACH FOR PPP WSS PROJECTS	. 21
	7.1	PPP Implementation Models for Rural WSS	. 22
	7.2	PPP Implementation Models for Urban/ Municipal WSS	. 22
	7.3	PPP Implementation Models for Large City WSS	. 24
8.	PPP	RELATED DEVELOPMENTS IN BANGLADESH	. 26
	8.1	Government's Guidelines for PPP Sector	. 26
	8.2	PPP Budget of the Government for FY 2009-10	. 27
	8.3	How to mobilize the PPP Budget for WSS projects	. 28
	8.4	Possible IIFC assistance for PPP projects	. 29
9	FIN	DINGS AND RECOMMENDATIONS	. 29
	9.1	General Findings	. 30
	9.2	Specific Recommendations PPP projects in WSS sector	. 31

#### **ACRONYMS**

ADB Asian Development Bank

BAMWSP Bangladesh Arsenic Mitigation Water Supply Project

BIIF Bangladesh Infrastructure Investment Fund

BMDA Barind Multi-purpose Development Authority

BOI Board of Investment

BOO Build Own and Operate
BOT Build Own and Transfer

BPSIG Bangladesh Private Sector Infrastructure Guidelines

BWSPP Bangladesh Water Supply Programme Project

CBO Community Based Organization

CCEA Cabinet Committee on Economic Affairs

CDF Community Development Forum

Cr./ Crore 100,000

DPHE Department of Public Health Engineering

EA Executing Agency

FDI Foreign Direct Investment

FY Fiscal Year

GOB Government of Bangladesh

HYSAWA Hygiene, Sanitation and Water Supply

IIFC Infrastructure Investment Facilitation Center

JICA Japan International Cooperation Agency

LGED Local Govt. Engineering Department

LM Line Ministries

LOI Letter of Intent

MIS Management Information System

MSA Management Services Agreement

MoLGRDC Ministry of Local Govt. Government and Co-operatives

MTCC Major Terms and Conditions Committee

NGO Non-Government Organization
O&M Operation and Maintenance

PICOM Private Infrastructure Committee

PPA Public Procurement Act
PPP Public Private Partnership

PPPTAF Public Private Partnership TA Fund

PQ Pre-qualification

PSI Private Sector Investments
PSO Private Sector Operator
PSP Private Sector Promotion

PSU Policy Support Unit

PTEC Pre-qualification and Tender Evaluation Committee

PWSS Pourashava Water Supply Section

PWSSO Pourashava Water Supply and Sanitation Operations

RDA Rural Development Authority

RFP Request for Proposal

SDF Social Development Fund

SDP Sector Development Programme
Tk. Taka (Bangladeshi Currency unit)

TOR Terms of Reference
TPP Tri-Partite Partnership

UK United Kingdom

UPI Unit for Policy Implementation

UP Union Parishad

USD United States Dollars

VAT Value Added Tax

VGF Viability Gap Funding

WASA Water Supply and Sewerage Authority

WB World Bank

WSS Water Supply and Sanitation

#### 1. BACKGROUND

This report on "Prospects of PPP in Water Supply and Sanitation (WSS) sector in Bangladesh" is prepared as a part of 'Sector Development Programme (SDP) in Water and Sanitation sector in Bangladesh'. In this report an assessment has been attempted for identifying possible prospects of Public Private Partnership (PPP) in Water and Sanitation Sector in Bangladesh.

In the current fiscal year the Government of Bangladesh has, for the first time, declared a PPP budget along with the national development and revenue budget, keeping specific allocation for government spending in PPP projects. This aspect has also been looked into regarding bringing a boost in PPP projects in Bangladesh.

#### 1.1 Objective

The objective of this report is three-fold.

- The principles of PPP are presented in a structured, concise and understandable manner to help officials involved in PPP policy formulation and implementation understand the key-principles and mechanisms of Public-Private Partnerships in the water sector;
- The report aims at bringing together experiences with PPP in Bangladesh, primarily in the water sector, but also of the power sector, from which important lessons can be learned.
- 3. Last but not least suggestions are given for a transition path from the current situation in which the water sector is almost entirely publicly managed to a situation in which private sector involvement is steadily increasing to a desirable level.

Overall objective of this report is to prepare a strategic approach to introduction of financially viable and socially acceptable PPP programmes in the WSS sector

The report has been prepared based on study and analysis of, among others, the following:

- recent initiatives to implement PPP programmes by WASA, DPHE, LGED, RDA, BMDA, SDF and other agencies and,
- o Government's recent (June 2009) initiative to provide PPP budget support to a number of sectors, including the WSS sector.

#### 1.2 Methodology

Some PPP initiatives in Water Sector have been undertaken by the Government of Bangladesh, with assistance from different donor agencies and implementing agencies. Some studies are also undertaken for such endeavor. Reports on those PPP projects have been studied and examined to analyze the present situation.

Different PPP projects in Water and Sanitation Sector in Bangladesh, those have been undertaken or in operation or under planning, have been reviewed in the following 3 (three) categories:

- Rural areas in rural areas of Bangladesh including in villages and in growth centers, where there is no formal water supply organization. Some NGO, CBO or small private organization takes initiative for the purpose.
- Urban areas in municipalities in different district towns and secondary towns, where the water supply is usually managed by the local Municipality office.
- Large cities in city corporations in large divisional cities like Dhaka and Chittagong, where the water supply is managed by government controlled autonomous organizations, like Dhaka WASA and Chittagong WASA.

#### 2. BASICS OF PPP

For understanding of the subject, the types of PPP, Rationale for the Partnership, advantages of PPP, risks of PPP and the activities needed for promotion of PPP are stated in brief in the following paragraphs. In brief,

PPP is a contractual agreement formed between public agency and private sector entity to meet public demand for goods and services, where public sector maintains an oversight and quality assessment role and private sector is involved in delivery of service or project. In PPP Risks, Rewards and Responsibilities (the 3Rs) are shared judiciously, according to their competence, by both public and private sectors.

#### 2.1 Types of Private Public Partnership

PPP recognizes the role of private sector along with the government to respond to the variety of social needs and obligation. The different types of PPP, with increasing order of private involvement, are the following:

- 1. Service Contracts
- 2. Management Contracts
- 3. Lease Contracts
- 4. BOT Type Contracts with Concession Agreements
- 5. Concession Contracts for BOO Type projects (full utility or a section of it)
- 6. Divestiture / Full privatization (entire utility or a section of it)

The above types are explained in brief in the following paragraphs.

#### 2.1.1. Service Contracts

Service contracts include supply and civil work contracts, technical assistance contracts, plus sub-contracting or contracting out aspects of the water supply service. These sub-contracts can address a wide range of activities, ranging from meter reading, billing and invoicing and

customer service management, to design activities, O&M support and construction activities. In cases of political and/or social opposition against PSP in the water sector, service contracts can be a good means to introduce the efficiency of the private sector to the public sector. At the same time it can be a first careful step towards further private sector involvement.

#### 2.1.2. Management Contracts

A management contract resembles a service contract, to the extent that only services are provided and usually no capital investments are made and very limited commercial risks are transferred from the utility or public authority to a private party. The main difference is that rather than contracting out various 'bits and pieces' the authority or utility contracts out its operations in full, or at least a significant part of it. Investment responsibilities remain with the public sector. Consequently management contracts particularly address the improvement of service standards to existing customers. Since there are no private sector investments, service area expansion or increasing treatment and production capacities are not facilitated by a management contract.

#### 2.1.3. Lease Contracts

Lease contracts include the transfer of the entire operation of a utility in a certain area to a private party. The utility leases its infrastructure to an operator against a lease fee, while the operator, in exchange, gets the right to collect water charges from consumers for its own account. Typical tasks of an operator under a lease contract include the optimization of billing and collection rates, bringing down operational costs, increasing customer focus, and improving the overall quality of the infrastructure by seeing to professional maintenance. Lease contracts, when written correctly; create strong incentives to improve the operational efficiency of utilities. They are; therefore, particularly useful if investment funds are readily available but managerial expertise is in short supply. The lease-approach does not bring about large-scale private sector investment, and it is therefore not a suitable solution if long-term investments are sought.

#### 2.1.4. BOT Type Contracts

BOT, build-own-operate-transfer (BOOT), and Rehabilitate-own-Transfer (ROT) schemes come in a wide variety, and are similar to lease contracts. However, BOT contracts are particularly aimed at bulk supply, rather than at retail services. BOT and alike contracts are typically used for new infrastructure to be built (or: 'green field' projects). In the water sector this type of contract is used particularly for water and wastewater treatment infrastructure. BOT contracts are usually concluded for duration between 10 and 30 years. In a BOT scheme the contractor typically invests in the infrastructure that is developed. The ownership of the infrastructure is transferred to the host government when the contract expires, typically at no cost, since the infrastructure has been depreciated in full.

#### 2.1.5. Concession Contracts (full utility /retail)

A concession contract leaves the entire commercial and capital investment risks to a private operator, which is typically allowed to use already existing infrastructure to supply customers with water and wastewater services. A concession contract thus combines the BOT characteristic of large-scale investments and the lease characteristics of taking on the

responsibility for an entire system and its operation. The typical duration for a Concession contract is around 25 years, during which the concession holder is owner of the infrastructure.

#### 2.1.6. Divestiture / Full privatization (retail)

Under a divestiture arrangement the assets of a utility are transferred to a private (or public-private) party or joint venture. In a full divestiture, the private sector has full responsibility for operations, maintenance, and investment in a utility. The private party thus becomes the owner of the infrastructure in perpetuity. Although this system has been applied in e.g. UK and Wales it is not a much advocated model, since full control over water supply and wastewater infrastructure is given to a private company. In most countries this is considered to be an undesirable situation. This can be controlled to a certain extent by limiting water abstraction licenses to maximum 25 years, but if such license would not be renewed, it would result in a dead-lock situation in which 1 party holds abstraction rights (the government) and another party holds all infrastructure needed to use the water (the private party).

#### 2.2 Characteristics of different Types of PPP

The characteristics of the models described above are summarized in the Table below:

	Service Contract	Manageme nt Contract		BOT etc	Concession	Divestiture
Time Horizon	Usually short		10-15 yrs, up to 25	10-30 yrs, to 95 yrs.	20-30 years	In perpetuity
Customer	Govt./Utility	1	Retail customer	Govt./Utility	Retail customer	Retail customer
Ownership	Public	Public	Public	Public	Public	Private
Investment	Public	Public	Public	Private	Private	Private
O&M resp.	Public (private)	Private	Private	Private	Private	Private
Operation Risk	Public	Public (private)	Private	Private	Private	Private
Tariff collection Risk		Public / Private	Private	Public	Private	Private
o .	Fixed fee for service		Subject to market risk	Relatively stable, subject to payment of single client	Subject to market risk	Subject to market risk
Construction risk	None	None	None / low	High	Low	Very low
Regulatory risk	None	Low	Medium	Low	High if politics volatile	Very high

#### 2.3 Types of Private Public Partnership

The possibility of Public-Private partnership is wide. A wide range of projects may be undertaken under PPP. Some of the infrastructure business projects and social projects that can work well in PPP are:

- Telecommunication
- Power
- port development
- highways and expressways
- oil and gas
- airports, terminals
- tourism
- water supply, sewerage and drainage
- industrial estates and parks, city and property development
- land reclamation, dredging, etc
- service sectors e.g. health and educational facilities
- environmental, industrial and solid waste management
- railways
- other urban, municipal and rural infrastructure; and any other infrastructure Project of similar nature.

#### 2.4 Rationale for Private Public Partnership

The rationales for undertaking development project on PPP mode and the advantages of undertaking social and development project on PPP mode are the following:

- Increased access to (private) capital investments, and effective use of capital;
- Access to increased technical and managerial capabilities in the sector;
- Increasing operating efficiency;
- Increasing customer focus;
- Reducing the need for subsidies.

#### 2.5 Risks of Private Public Partnership

General restraints on PPP in the water sector, from a private sector point of view, are the following and these are to be addressed by the government for its success:

- Country risk, particularly credit risk and political risks;
- Lack of appropriate legal framework;
- Commercial risk (Inability to pay by the customers, people or the government)
- Social opposition and resistance to private sector involvement
- Lack of track record of PSP of the country

## 2.6 PSI Guidelines facilitating PPP Investments

The following table provides Risk identification and its mitigation during pre-award phase of a PPP project, using the Bangladesh Private Sector Investment Guidelines (BPSIG), 2004.

	RISK IDENTIFICATION	MITIGATION				
	PRE-AWARD PHASE RISK IDENTIFICATION AND MITIGATION					
1	Public sector capital will crowd out private sector projects	Concept of the private capital being used in infrastructure widely accepted in government Government approval in Stage Zero and listing of projects by PICOM in the Private Infrastructure Projects List Creating awareness in line ministries, ERD & Planning Commission etc.				
2	Building capacity within the government	Comprehensive capacity building plan taken up by PICOM under the Private Sector Infrastructure Guidelines (PSIG)				
3	Unavailability of contract documents	Preparation of standard model contract documents Encouraging local legal experts for contracts drafting work				
4	Funds for the Pre-Award Phase	Needs to be established. One model is to use success fees based system.				
5	Ensuring projects move forward quickly	Hiring consultants experienced in transactions Preparing standard model contracts Appropriate training on BOT/BOO projects PICOM to oversee progress Indicative timeframes set in the Guidelines				
6	Ensuring sufficient funds are quickly available for the Pre award development costs	Infrastructure fund set up for developing projects, capacity building, standardization of contracts etc. Success fee based consulting				
7	Rapid taking up of projects after appearing in the List	PICOM to overview				
8	Inter ministerial co ordination	PICOM to overview and resolve inter ministerial issues				
9	Lack of Investor Interest	Structuring projects such that risks are manageable Investment Promotion Meetings during pre- qualification process.  Seminars and workshops Approved projects to appear in a List				

#### 2.7 Activities needed for promotion of PPP

For running a PPP project successfully, the following points are to be kept in mind of the policy makers and officials involved in the process:

- Consider PPP not only as a project but also as a 'business' for the private sector and ensure the same.
- Ensure that PPP is used when it is appropriate and a firm govt. decision be taken for it, so that no question arises later during its implementation;
- Define PPP as seen by the host country, and identify potential partners;
- Ensure that PPP is explored as an option for service delivery and attracting investments;
- Communicate the approach to PPP to all stakeholders and potential stakeholders;
- Define codes of conduct;
- Indicate the various possibilities of tendering, ranging from unsolicited bids to international competitive bidding;
- Identify risk, concerns, and response with mitigation measures for these risks and concerns.

During promotion of PPP, it should be clear that which institution is the "owner" of the PPP entity in the WSS sector. This institution (the ministry, its agency or the local government body such as Union Parishad, Zilla Parishad or the Municipality) should ideally also be the one dealing with project development and implementation on the Government's behalf.

This further strengthens the call for a separate body dealing with the development of the water and sanitation sector through PPP.

#### 2.8 Options and benefits of PPP

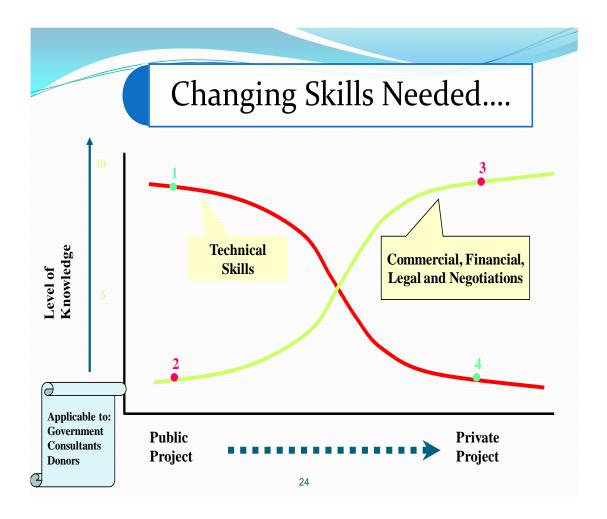
The Options and its benefits are summarized in the Table below:

Objective	Technical	Management	Operating	Investments	Investments
Option	Expertise	Expertise	Efficiency	In bulk	In distribution
Service contract	Yes	No	No	No	No
Management Contract	_		Some	No	No
Lease	Yes	Yes	Yes	No	No
ВОТ	Yes	Some	Some	Yes	No
Concession	Yes	Yes	Yes	Yes	Yes

## 2.9 Changing Skills needed in PPP project handling

The skill of implementing agency needed in a public sector is more of technical nature than of commercial nature. Because the commercial part of the project is looked after by the selected contractor. But since PP is a partnership project, in this case the implantation agency needs more commercial and negotiation skill. The technical aspect of the project is looked after by the private sector. This fact is equally applicable for the government implementing agency as well as for the consultants and the donors.

This is vividly explained in the diagram give below.



#### 2.10 Options and benefits of PPP

It is important to determine what types of PPP can be 'absorbed' by a government, and whether it can meet common conditions for successful implementation of the various options for private sector involvement. A concise overview of these conditions is provided below.

Option Condition	Service contract	Management contract	Lease	BOT (Bulk)	Concession (retail)	Divestiture
Stakeholder support and political commitment	Unimportant		Moderate to high levels needed	Moderate to high levels needed	High levels needed	High levels needed
Cost recovering tariffs	Not necessary in the short term	Preferred but not necessary in the short term	Necessary	Preferred	Necessary	Necessary
Autonomy of Utility	Unimportant	Important	Very Important	Unimportant	Very Important	Very Important
Good system information	Possible to proceed with only limited information	information	Good information required	Good information required	Good information required	Good information required
Developed regulatory framework	Minimal monitoring capacity needed	Moderate monitoring capacity needed	Strong capacity for regulation and coordination needed	Strong capacity for regulation and coordination needed	Strong regulatory capacity needed	Strong regulatory capacity needed
Good country credit rating	Not necessary	Not necessary	Not necessary (limited relevance)	Higher rating will reduce costs	Higher rating will reduce costs	Higher rating will reduce costs

## 3. REGULATORY FRAMEWORK FOR PPP PROJECTS

## 3.1 Legal Ordinance and Permits for Water sector

The following list of compliance and other Ordinances and Licenses and Permits that the Sponsor will need to obtain independently, which is based on a legal review of applicable legislation.

#### 3.1.1 Compliance of Local Government Ordinance 1983

The local Government UP ordinance 1983, section 38(i) calls for the Sponsor to obtain from the Union Parishad through it's Standing Committee for clearance to implement piped water supply schemes.

#### 3.1.2 Compliance of Ground Water Management Act 1985

If ground water is going to be used as water Source, the Ground Water Management Act, 1985 assigns to the Upazila Parishad the responsibility for issuing clearance to Sponsors in rural areas under jurisdiction. With promulgation of new Upazila Parishad, this Act is under review.

#### 3.1.3 Compliance of Environmental Conservation Act 1997

For systems where a water treatment plant is built, the Department of Environment will monitor water quality and provide clearance to the Sponsor for safe water use to the consumers in accordance with water supply standard for drinking water.

A wide range of rules and regulations should ideally be in place to minimize regulatory risks and to make legal mechanisms transparent.

#### 3.1.4 National Water Policy, 1999

Water has been a free gift of nature. Now it is a commodity. Access to water is recognized as a basic right. But procedural and fiscal measures are enforced to harness and regulate its mobilization and use. The Government of Bangladesh has formulated a National Water Policy, which is in operation since 1999.

The water policy aims to provide direction to all agencies working with the water sector, and institutions that relate to the water sector in one form or another, for achievement of specified objectives.

The National Water Policy (1999) does not adequately address the issue of domestic water. The issue of domestic water has been dealt with in the National Policy for Safe Water Supply and Sanitation 1998.

#### 3.1.5 National Policy for Safe Water Supply and Sanitation 1998

In the National Policy for Safe Water Supply and Sanitation 1998, the Government acknowledges that many functions of the water supply and sanitation sector can be undertaken by private organizations. As per the policy it would "promote increased service coverage and thereby lessen the burden on the Government". The Government policy is to develop an enabling environment for the private sector to participate and contribute to sector development.

In National water policy of Bangladesh there is no direct or indirect indication for water selling business, but the policy encourage the maximum use of water in commercial purpose with economic out come from which government also gets revenue. However, the Government will prepare a guideline on private sector participation in the sector.

#### **3.1.6** Water Tax

There is no special procedure for conducting water business. It will be treated like other general business and normal tax will be applicable only when the project will be running in profit.

#### 3.2 Laws, Ordinances and Regulations for large companies

For undertaking PPP initiative in Water and Sanitation sectors in urban areas and in large cities, the private sector must have an identity and it should form a company registered under Registrar of Joint Stock Companies. The following is an indicative list of such laws, ordinances and regulations.

- Foreign investment law and tax legislation;
- Civil code dealing with contracts, ownership and property rights, secured transaction, guarantee systems, etc;
- Company law;
- Bankruptcy laws and regulations;
- Public procurement law;
- Court system, and laws governing legal proceedings, including enforcement mechanisms
- Arbitration law;
- Private international law or conflict of law procedures;
- Possible concession, BOT laws;
- Environmental legislation;
- Land registration and ownership laws, including laws addressing the use of natural resources;
- Construction laws;

For signing of BOT agreements with public sector, the sponsor needs to form a specific company for transacting business only under that particular concession agreement. Such Companies are called 'Special Purpose Vehicle (SPV)' or 'Special Purpose Company (SPC)'.

#### 3.3 Bangladesh Private Sector Investment Guidelines (BPSIG) 2004

The **Bangladesh Private Sector Infrastructure Guidelines** (BPSIG) 2004 has been gazetted through the Purchase and Economic section of Cabinet Division, vide Bangladesh gazette dated 5 October 2004 (No. Cabinet Division/--/Finance-07/2004/323).

According to BPSIG 2004, a PPP project undergoes 7 stages, from Stage 0 to Stage 6, from project identification to construction of the same and also for operation phase. During Stage 0 to Stage 4, the activities are to be controlled by public sector. In stage 4, the PPP agreement is signed and the activities are undertaken by the private sector. Here the public sector takes the role of monitoring.

In case of PPP projects, the listing, processing and monitoring are done by a high powered unit, named 'Private Infrastructure Committee (PICOM)' and the approval are accorded by the 'Cabinet Committee on Economic Affairs (CCEA)'. The composition, roles and responsibilities of these and other related committees and organizations are detailed in the BPSIG 2004. [It may be mentioned here that presently, the BPSIG is under revision for its updating and it may be renamed as 'PPP Guidelines'.]

According to BPSIG 2004, a PPP project undergoes 7 stages, from Stage 0 to Stage 6, from project identification to construction of the same. During Stage 0 to Stage 4, the activities are to be controlled by public sector. In stage 4, the PPP agreement is signed and the activities are undertaken by the private sector. Here the public sector takes the role of monitoring.

In case of PPP projects, the listing, processing and monitoring are done by a high powered unit, named 'Private Infrastructure Committee (PICOM)' and the approval are accorded by the 'Cabinet Committee on Economic Affairs (CCEA)'. The composition, roles and responsibilities of these and other related committees and organizations are detailed in the BPSIG 2004. [It may be mentioned here that presently, the BPSIG is under revision for its updating and it may be renamed as 'PPP Guidelines'.]

It may be mentioned here that the BPSIG or the proposed PPP Guideline is a general document for PPP infrastructure business in general. Specific business modalities for PPP in WSS sector is not dealt separately.

The diagram on the next page explains different stages of a PPP project, since its inception to operation. This diagram is provided in the PSIG as referred above.

## **Table showing Different Stages of a PPP Project Implementation**

	Stage 0	Stage I	Stage II	Stage III	Stage IV	Stage V	Stage VI	Stage VII
Name of Stage	Project Identificati on	Feasibility	Commercial Framework	Evaluatio n	Negotiat ion	Financi ng	Constructi	Operation
Stage Comple tion Milesto ne	CCEA Approval	Feasibility Study Complete d	Issue RFP	Issue Letter of Intent (LOI)	Sign Agreeme nt	Financi al Closure	Start of Commerci al Operation	Operation Phase
es and Actions	Agency or private sector identifies Project and prepares Project papers  Brainstorm ing session held on ADP  Project approved by CCEA	Agency engages consultants  • Identify regulatory and policy issues  • Identify and agree major technical,	Prepare commercial framework and Information Memorandum Issue PQ notice Conduct invest-ment promotions meeting PBAC evaluates PQ submission and shortlist Allocate risk between Govt. & private sector Prepare model Contract Documents Issue RFP	Shortlisted bidders prepare bids     Answer bidders queries and hold bidders conference     PBAC prepares evaluation report     Issue LOI t Sponsor	Prepare for negotiations     Form Government negotiating team     Carry out negotiations between Sponsor and Government entities     Signing of Contract Documents between Executing Agency and Sponsor	Sponsor makes loan applications to lenders  Lenders perform due diligence Government and Sponsor renegotiations for lenders requirements  Loan documents prepared Financial closure	Executing Agency to carry out Contract Administra -tion functions     Oversee construction by Lenders' Engineer     Conduct satisfactory completion tests     Commercial Operations Date	Monitoring of facility operations by Executing Agency     Regulation through Contract     Adequacy of revenues
4	Ex	ecuting Agency	proactive role		<b>•</b>	■■■ Moni	toring & support	role ••••
				Inves biddir		Invest	or Controlling Pro	ject

## 3.4 Different Stages of a PPP Project Implementation

The activities of different stages of PPP infrastructure project development are described in brief, in the following paragraphs.

#### STAGE 0 - Project Identification Stage

- PPP Projects identified either by Line Ministries (LMs)/ executing agencies or by a Private Sector entity
- Prepare Project concept paper taking input from LMs/ executing agencies/ PPP unit/ Private investor
- PICOM examines the private infrastructure projects and carry forward for CCEA approval
- Projects approved by CCEA/Line ministry for private sector development.
- Finally PICOM lists the approved PPP Projects

In this stage:

Overall Stage activity Monitoring: Private Infrastructure Committee (PICOM)

Stage Major activity execution: Line Ministries/ Planning Commission/ Executing agency

Subsequent stage Milestone: PPP project approval by CCEA

#### STAGE 1 - Feasibility Study of the Project

- Executing agency arrange funds and engage consultants
- Project concept helps to get clear project ideas and to identify regulatory and policy issues
- Feasibility study completed agreeing on major commercial and contractual parameters.

Subsequent stage Milestone: Feasibility Study

#### **STAGE 2 - Commercial Framework**

- Prepare Commercial and Tender documents and initiate PQ of the bidders, on the basis of Major Terms and Conditions (MTC) for the project prepared by MTCC
- PTEC is there for PQ submission evaluation
- Selection of the pre-qualified bidders
- Bring any necessary changes in the draft RFP documents after Procuring agency/ Stake holders consultation
- Issuance of Final RFP.

Overall Stage activity Monitoring: PICOM

Stage Major activity execution: Line Ministries/ Executing agency

Subsequent stage Milestone: Issuance of Final RFP

#### **STAGE 3 - Evaluation of the Tender**

- Pre-qualification and Tender Evaluation Committee (PTEC) evaluates the submitted Bid and pass necessary instructions to LMs/EA for approval of award
- LMs/EA finally issue LOI to the selected bidder

Subsequent stage Milestone: Issuance of LOI to the most preferred Private sector Investor

#### STAGE 4 - Negotiation with the Successful Bidder

• Carryout negotiation between investor and Govt. Entities.

Subsequent stage: Signing of Agreements with the selected investor

#### **STAGE 5 - Financing of the Projects**

• Lenders Perform due diligence on the loan application submitted by the investor

Subsequent stage: Financial Closure of the project by Investor, with assistance from lenders.

#### **STAGE 6 - Construction of the Projects**

Subsequent stage: Start of Commercial operation of the project

#### **STAGE 7 - Operation of the Projects**

Subsequent stage: completion of construction phase, the operation of the project starts.

#### 4. REVIEW OF PPP WSS PROJECTS IN RURAL AREAS

#### 4.1 PPP for rural piped water supply in BAMWSP project

Under the Bangladesh Arsenic Mitigations Water Supply Programme (BAMWSP), the government agency DPHE has initiated a programme for rural piped water supply (PWS). 16 villages have been selected by the private sector (mainly NGOs) for potential management by the respective parties. The envisaged approach is one of a BOT for a water supply system. The process is rather uncomplicated, and potentially very effective.

Based on an invitation for Expressions of Interest, DPHE has invited parties to submit ideas for the development of rural piped water supply schemes in villages of the submitting parties' choice. The parties that submitted ideas are enabled to further develop their ideas, if they fit the criteria of DPHE, making use of a grant by DPHE to fund part of the feasibility study. The results of the feasibility study should be approved by DPHE and if the findings of the study

are satisfactory, the party who submitted the study will receive funding to develop the project further:

- 20% of the total investment at the start of the activities;
- 20% of the total investment when construction is finished; and
- 10% bonus (over the total investment sum) after 6 months of successful operation.

The other 50% of the investment sum should be invested by the project sponsor, and ideally the community co-funds the activity. The sponsor is to earn back his investment through collection of water tariffs over a period of 10 years.

An evaluation of BAMWSP rural piped water supply schemes has shown that about 50% of the schemes are running successfully. The investors were mostly NGOs and some were consulting companies.

A very ambitious target has been set for replication of the above described activity; if the current activities prove to be successful, DPHE aims at developing 300-400 similar projects in the near future for private sector participation in the water sector, with World Bank financing under 'Bangladesh Water Supply Project Program (BWSPP)', which is a follow-up project of BAMWSP.

Rural piped water supply schemes 'Bangladesh Water Supply Project Program (BWSPP) is yet to be evaluated for determining its performance.

## 4.2 PPP for rural piped water supply in SDF project

The 'Social Development Fund' is a World Bank sponsored project. Among many social sector activities, SDF has undertaken a project on rural pipe water supply, for serving arsenic affected areas, where water from normal shallow tube-wells are not safe for drinking. It undertook PWS scheme in 6 villages.

The modality was as follows:

SDF provides project grant
 The private sector invests
 The user community pays
 50% of project cost
 40% of project cost
 10% of project cost

Operating cost is maintained by the water user committee.

The 6 villages were scattered all over the country, two in Dhaka district and other 4 in distant districts. An evaluation in 1977 has revealed that all the 6 schemes are running well. The private sector entities in all the schemes were national NGOs.

#### 4.3 Rural Piped Water Supply experience in RDA and BMDA

The Rural Development Academy (RDA) in Bogra district and the Barind Development Authority (BMDA) in Rajshahi district are two government agencies engaged in various area development activities, including agricultural development. They run deep tube-wells in remote rural areas for irrigation purpose. During the problem of Arsenic in shallow tube-

wells, both the organization have started serving drinking water from irrigation deep tubewells, to nearby growth centers and villages, through piped water supply. BMDA and RDA have constructed over-head water tanks in a suitable place and fill them directly from the irrigation pumps. Then water is supplied to the villagers through pipe lines.

The capital cost is borne by the project, with small users' contribution. A water user committee is formed for each water scheme and they maintain the O&M cost. An evaluation report shows that 80% of the schemes are functioning well.

#### 4.4 PPP for rural WSS in HYSAWA project

In GOB-Danida supported 'Hygiene Sanitation and Water Supply (HYSAWA) Project, the Sponsor, i.e. the HYSAWA fund, allowed to undertake a PPP project in rural WSS sector and operate the rural pipe water system directly by an private sector or become partner with a community-based group, such as Community Development Forum (CDF) or a User's Association. The relationship with the 'Community Group' must be clear, in terms of asset ownership, responsibility for operation and maintenance, mutual accountability, performance, right over revenues and financial obligations. After the completion of operation for a minimum of 15 years period the Sponsor may continue O&M or may wish to hand over the system either to the Community (CDF) or Union Parishad (UP), which ever is suitable.

The Union Parishad will play the role of monitoring and facilitating Public-Private initiative of HYSAWA. The Capital grant to be funded by the HYSAWA Fund will be administered by the UP. The Chairman of UP will be one of the signatory of the Grant Agreement, along with the project sponsors, i.e. DPHE and the HYSAWA fund officials.

The Community will bear partial capital cost as house connection fee. The relationship with the households must be clear, in terms of responsibility for O&M, payment of water tariff and

With initiative of HYSAWA Project, a 'HYSAWA Guideline for 'Public - Private Partnership' has been developed with a view to promote and support private investment in water supply and sanitation services in rural areas. The HYSAWA Project involves Union Parishad (UP) in the driving seat with participation of the community to involve in planning and deciding on choice of service level.

During preparation of the HYSAWA Guidelines, the ongoing initiatives of mini piped water supply schemes implemented under Danida assisted in Coastal belt project were reviewed. Few case studies of piped water supply schemes of Social Development Foundation (SDF) and Bangladesh Water Supply Programme Project (BWSPP) of DPHE under World Bank assistance and implemented with collaboration of NGOs, were also undertaken.

The report on Evaluation of the performance of village piped water supply system-120 schemes, prepared by Groundwater Circle, DPHE with JICA assistance was also studied for preparation of this report.

The **HYSAWA Guideline for public- private partnership** has three components, which include:

- (i) Piped Water Supply
- (ii) Public Toilets and
- (iii) Promotion of Household Sanitation.

It describes about the policy support, understanding of public-private partnership, its prospect and HYSAWA frame work and a detail guideline for mobilizing the three components for construction and operational service delivery in a sustained manner.

It may be mentioned that this HYSAWA PPP Guidelines have been prepared recently and any project under PPP in this project is yet to be undertaken.

#### 4.4.1 HYSAWA Guidelines for rural Piped Water Supply

The Guideline for **Water Supply Component** explains the responsibility of the Sponsors, Planning approach, Operational sustainability, responsibility and role of User Community (consumers). The role of union Parishad, the need for executing Consumer Agreement and a Grant Agreement for implementation and service delivery has also been described.

It further includes Grant conditions, Legal ordinance and permits and requirement of Tax and VAT for the Sponsors. It also outlines Criteria for selection of piped water supply schemes based on techno-economic feasibility and financial analysis for operational sustainability. The feasibility includes social, technical, operational, financial, environmental and institutional assessment to be undertaken by the Sponsors.

The guideline proposes for a government/project subsidy for such PPP projects. As such, a Grant Agreement has laid down for institutional arrangement between the Sponsors (service providers), and the Union Parishad. It provides information as to how the Grant reimbursement will take place on completion of each sequential activity by the grant administrators. The Grant Agreement outlines the obligation of the Sponsors and the Grant Administrators (the govt. project authority and the UP).

#### 4.4.2 HYSAWA Guidelines for rural Sanitation (Community Toilets)

The Guideline for implementation of **Public Toilet** includes its purpose, characteristics of the public toilets, source of fund for implementation and cost sharing arrangement for implementation. The form of Grant Agreement outlines the responsibility of the Sponsors and the role of UP and Grant conditions for reimbursement. The Guideline also provides criteria for selection of public Toilets projects.

#### 4.4.3 HYSAWA Guidelines for rural Environmental Sanitation

The Guidelines for promotion of **Household and Environmental Sanitation** outlines its purpose, scope of services and source of funds. The Form of Agreement provides the obligation of the Private Producers to qualify for grant assistance from government agency and need for consumer agreement and reimbursement conditions of the Grant. The Project Cycle includes tasks to be accomplished in a sequential manner in the project intervention areas. The criteria for selection of 'Private Producers' for such projects are also included in the guideline.

The environmental sanitation projects, in the beginning, will not be a business and there will be public sector subsidy for this. But in the long run, if the garbage collection is done on large scale and some commercial output is possible from it, then it will definitely turn into business.

The examples are activities of Waste Concern, a national NGO in Dhaka and that of Practical Action, another international NGO, in Faridpur Municipality.

#### 4.5 Small Scale WSS Service Providers

In areas where public water supply is absent, small scale service providers may fill the void. This is often takes place in areas where hard-core poor cannot afford access to piped water supply, in unregulated areas, or in growth areas where government has not yet had the chance to develop water supply and sanitation infrastructure.

Small scale service providers are not necessarily part of PPP service provision, but they constitute an important extension of coverage that is feasible by government or by larger commercial service providers. A disadvantage of the small scale provider approach is that sanitary issues are typically not addressed.

There are many approaches to small scale service provision. But three main models are:

- mobile distributors,
- · retail outlets and
- piped sub-networks.

Selling of drinking water in plastic bottles or jars and in Jerri cans, in different individual houses and restaurants, is a classic example of mobile distribution. The WASA water points connected in different Dhaka city slums by an NGO, named Dusthya Shasthya Kendra (DSK) by their initiative and guarantee is the case of retail outlet, which is managed by slum dweller water user committee. Supply of drinking water to different far off houses in villages by hose pipes by a private entrepreneur in rural areas of Shatkhira district is an example of piped subnetwork. There are many more examples of such isolated small scale Water service providers in the country. However, most of these are individual or group initiatives and are not necessarily PPP activity.

#### 5. REVIEW OF PPP WSS PROJECTS IN UBRAN AREAS

## 5.1 PPP for urban water supply in Faridpur Municipality

The Faridpur Pourashava, one of the oldest municipalities of the country established in 1869, agreed to the proposal of the ministry for introduction of 'Public Private Partnership' programme in 'Pourashava Water Supply Section (PWSS). After approval from the Ministry of Local Govt. Government and Co-operatives (MoLGRDC), and a competitive tender for 'Water billing, Bill collection and Minor and Minor repairs for Pourashava Water Supply Section (PWSS) of Faridpur Pourashava', the Management Services Agreement (MSA) was signed for three years between Faridpur Pourashava and M/S Yusuf Harun International Ltd, the Private Sector Operator (PSO) in August 2005.

The pilot project titled "Water billing, Bill collection and Minor and Minor repairs for Pourashava Water Supply Section (PWSS) of Faridpur Pourashava" was designed with the following objectives:

- To improve efficiency in billing and revenue collection,
- To reduce physical water loss by prompt repair,
- To improve customer services and customer satisfaction,
- To improve overall operational efficiency of the water supply system and
- To reduce cost of maintenance of the water system.

The scope of services of the selected private sector operator, under the MSA agreement included:

- Preparation and distribution of monthly Water Bills
- Persuasion of Revenue collection (to be paid by users in the Bank)
- Arrangement of minor maintenance of water pipe works

The selected private operator was paid a percentage of the total amount collected, as per terms of the MSA. By doing so an incentive is created to motivate the operator to perform well. At the same time this implies a risk, of no other performance targets are set. With only a percentage of the monies collected as a driver, the private operator had collected only the amount representing the operator's economic optimum. The amounts that are more difficult to collect, albeit important for the Pourashava, were not interested for the operator. After completion of the term of PPP contract, the Faridpur Pourashava was not interested for extension of the contract, although there was a provision for such extension in the MSA.

#### 5.2 PPPs in some District Towns

One of the options to bring the private sector into the water and sanitation sector relatively fast is through management contracts for the larger cities and district towns. This seems to be the approach that is proposed under the World Bank supported Bangladesh Water Supply Project Program (BWSPP) with regard to the piped water schemes that are to develop in 3 to 5 district towns. General approach is to recruit (international) operators who are made responsible for water supply and sanitation systems in their entirety.

The project is commonly referred to as a BOT. However, according to the plans, it is not the operators who develop and implement the projects using their own capital, but the PWSSOs that have to repay 50% of the total investments. Effectively this means that the approach is one of a management contract, for which donor funded capital investments are developed in parallel, and which are co-funded by local government funds.

#### 6. REVIEW OF PPP WSS PROJECTS IN LARGE CITIES

#### 6.1 PPP in Water Billing and Collection in Dhaka WASA

In DWASA, several billing and collection contracts were awarded to private enterprises who took over the responsibility for billing and collection in some areas of Dhaka. While experiences vary from contractor to contractor, the overall impression of the parties involved is positive.

PPP in the water sector may alert many people who focus on water as a human right, hence water as a public resource. They fear that involvement of the private sector will result in increase of water tariffs beyond affordability of the poor, in lower service levels, and collusion. Therefore, in urban water service several strict institutional conditions need to be fulfilled, the role of local NGOs in governance and management defined, and that of the international NGOs, donors and partners enhanced for resources support and learning.

Due to the fact that in many instances PPP initiatives have not been successful in their development or implementation, there is an increasing attention to including civil society in the development of PPP initiatives. NGOs and CBOS are active partners in some of the newly developed initiatives. They represent the people, especially the poor, in the process of project development and implementation. By doing so, the poor get a voice in the discussion with government officials, managers of utilities and private operators. This approach leads to more participatory planning and decision making as regards technologies used, service levels, tariff setting and other matters.

#### 6.2 PPP in Water Supply in large cities

The current status of water supply and sanitation in the cities and towns of Bangladesh is not very conducive to "advanced" types of PPP. With current uncertainties about regulation, limited independence of the water supply and sanitation operations, tariffs, limited coverage, commercial parties are not likely to participate with much risk capital in the water sector in the country at this moment.

To attract private sector investments in the water supply and sanitation sector, it is crucial that a number of steps be taken. For GoB it is important to bear in mind that the primary aim of the private sector is to earn a return on their investments by earning a fair profit margin and by limiting risks of losing that profit margin and the investments made to arrive at the profit.

Therefore, it is necessary to develop a clear path towards increased private sector investments through PPP arrangements. In this process there will be an increasing role for the private sector, but to arrive at that a lot of work remains to be done at public sector level.

#### 6.3 International experience in large cities

The potential benefit for commercial parties is that if the population is included in decision making and planning, the services delivered will be in accordance, where realistically possible, with the needs of the users. If such is the case, it is likely that the entire operation became more sustainable and thus more interesting for a private operator. The active inclusion of civil society representatives in PPP project results in a Tripartite Partnership, or TPP.

TPPs are effective as experienced in England, Wales (UK), Buenos Aires (Argentina), Manila (The Philippines) and Jakarta (Indonesia) – all are international PPPs. In all these larger cities, the poor in the slums and squatter settlements were supported by NGOs as social intermediaries and participatory developers.

#### 7. RECOMMENDED APPROACH FOR PPP WSS PROJECTS

The experience with PPPs in Bangladesh is limited, especially in the water sector. However, a number of first steps are being taken at the moment, as a reflection of the fact that PPPs are really being considered as an option to improve the efficiency of water supply and sanitation operations in the country.

In general, the case of the WSS sector in Bangladesh, ideally the segmental PPP arrangement for different areas may be of the following types:

- 1. The rural areas that can be served by Union Parishads, with small scale private service providers (PSO or NGO).
- 2. The developed urban (municipal) areas may be served by PWSSOs, with private sector operator or management contract;
- 3. The big city may be served by WASAs, with large FDI entrepreneurs support

#### 7.1 PPP Implementation Models for Rural WSS

For implementing PPP for rural piped water supply and sanitation projects, the model of 'Hygiene Sanitation and Water Supply (HYSAWA)' Project may be replicated or adopted. A investor (Sponsor) shall operate a PPP project in rural WSS sector and operate the system directly or become partner with a community-based organizations. After the completion of operation for a minimum of 15 years period the Sponsor may continue O&M or may wish to hand over the system either to the Community or Union Parishad, which ever is suitable.

The Union Parishad will play the role of monitoring and facilitating Public Private Partnership (PPP) initiative. The Capital grants to be funded by a project Fund and will be administered by the UP. The Chairman of UP will be one of the signatory of the PPP Agreement.

The **HYSAWA Guidelines for Public- Private Partnership**, prepared for i) Piped Water Supply, ii) Public Toilets and iii) Promotion of Household Sanitation, may be taken as base document and may be modified and improved as per requirement.

The experience of World Bank supported rural piped water supply of BAMWS and BWSP projects and that of World Bank supported SDF project shall be taken into active consideration for formulating any such projects in future.

To work towards more advanced forms of PPP, that eventually bring along private sector investments as well, a number of important steps need to be taken, within the water sector and outside it too.

## 7.2 PPP Implementation Models for Urban/Municipal WSS

In the World Bank documentation there is also reference to "Pourashava Water Supply Entities" that have to be created to act as counterparts in the project, which is in line with the call for more autonomy for **Pourashava Water Supply and Sanitation Operations** (PWSSO) in this report.

In urban WSS sector much of the work has been done at sectoral level. But at utility level significant steps have to be taken. Irrespective of whether there is a GoB push for more independence of the PWSSs, much work needs to be done at PWSSO level. This includes:

- Implementing a sound administrative system and accounts, separated from Pourashava accounts;
- Improving billing and collection systems;
- See to the development of an improved register of assets, possible implementation of MIS.
- Rationalizing staff composition, both from a quantitative and a qualitative perspective, away from Pourashava influence
- Other issues

These activities can be outsourced in part to private sector parties. For example a service contractor can assist not only in the improvement of billing and collection but also in the implementation of improved administrative systems. This is particularly important in a process of administrative consolidation.

## 7.2.1 Autonomy of PWSSO's

Currently, water supply operations in Bangladesh are part and parcel of Pourashava operations. Dhaka Water Supply and Sewerage Authority (WASA) in large cities is the exception to the rule. The direct influence of line ministry on the PWSSO's means that the decisions that have to be taken regarding water supply and sanitation are not always in the best interest of the PWSSO's. A much heard complaint is that due to political influence it is not possible to increase tariffs to a level that are needed to sustain water supply and sanitation operations. Also, employees may be appointed to work in the PWSSO based on political arguments rather than on professional arguments.

In order to be able to attract private operators for anything beyond a service contract, let alone investors, it is necessary to cater for more independence of the PWSSO's. This can be done, by creating independent 'water supply and sanitation companies' that are fully owned by the Pourashava, but which have administrative and operational independence, including separated accounts, and staff that is on the payroll of the PWSSO, away from direct pourashava interference

#### 7.2.2 Experience of Faridpur PWSS on PPP

The following recommendations, for PPP in rural WSS sector, are compiled from synthesis of interviews of different stakeholders and practical observations.

PPP projects, especially in social sector (water, health, education, etc.) which may not be commercially viable, is very delicate and should be carefully designed. A proper feasibility study of the project is to be made before PPP project is taken in hand. In design of such PPP projects, the responsibilities and risks of the project are to be clearly demarcated between the parties concerned.

PPP projects should be contracted out to companies with relevant experience. Community awareness building capability of a company is required for success of projects of social nature. Collaboration with NGOs may be good solution.

As seen from Faridpur experience and also in other projects, PPP only in billing and bill collection in PWSS may not be acceptable option for many Pourashava and is also not lucrative business for private sector.

PPP in 'Solid Waste Management in Pourashava' seems to be more successful project than water projects and these may be tried in more Pourashava.

PPP in 'Water Supply sector in Pourashava' is to be looked at from holistic angle. Complete Water Supply scheme, for one or more neighboring Pourashava together, may be prepared and offered for Private sector investment, including all components, starting from Production TW, water treatment, storage, distribution network, house connection and bill collection. Govt. will provide only land and the project outline. Government will also regulate the water tariff, in this case. Private sector will bid for providing the desired services with own investment on agreed concession agreement. If the project is commercially not viable, the govt. may provide Viability Gap Funding (VGF), as provided in the latest govt. provisions of PPP budget.

#### 7.2.3 Creating critical mass: Consolidation

A management contractor can play an important role in a process of consolidating the PWSSO's of various Pourashavas into one larger business. While physical operations of the systems will typically remain separated, administrative functions can be centralized, e.g. billing and collection, engineering, administrative functions and planning.

Such consolidation is however a politically and socially sensitive process. PWSSO's that have a certain degree of independence are made even more independent, and control over revenues is centralized, even if payments from the respective towns are administered separately. Any such movement will require a high level of commitment of the parties involved.

Consolidation increases the scope for PPP in many of the smaller towns.

#### 7.3 PPP Implementation Models for Large City WSS

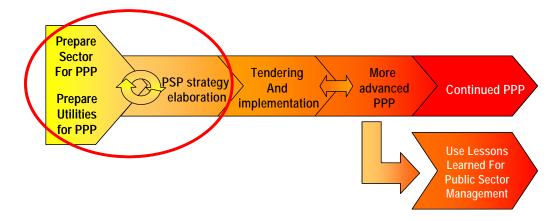
Reviewing the private sector billing and collection contracts of DWASA, one of the major findings is that while there is potential for private sector investments in the operation of water supply and sanitation facilities, a number of conditions need to be met before capital investments from the private sector can be attracted.

It is therefore suggested that Bangladesh embarks on introducing the private sector in first instance using models that require limited private sector investments. In doing so, the water sector can learn how to deal with the private sector, while working steadily on preparing to meet the conditions for attracting private sector investments.

#### 7.3.1 Prepare Urban WS Sector for PPP

For attracting advanced private sector participation in urban WS sector, a number of steps are to be taken in hand by the government agencies. A transition process is a graphically presented below.

Particular attention is to be paid to the steps that initiate the process, and which are circled in the figure below.



The service contracts can be classified as PPP projects, since the principle of sharing risks (the private operator retains a certain percentage of the revenue) and working towards a common goal.

To work towards more advanced forms of PPP, that eventually bring along private sector investments as well, a number of important steps need to be taken, within the water and sanitation sector, but also outside the sector.

#### Water and Sanitation sector issues

- Rationalize tariff structure and create awareness;
- Make Pourashava Water Supply and Sanitation Operations (PWSSO) more autonomous.
- Create independent regulatory body.

## **Cross-sector issues:**

- Introduce FDI promotion measures
- Take away perceived country risks, e.g. regarding political instability;
- Clearly state intentions to implement PPP and show measures confirming this intention.

#### 7.3.2 Rationalize Tariff Structure and create awareness

In many areas in Bangladesh water is billed against a fixed tariff, for example related to the diameter of the connection. Such an approach leaves much space for abuse. Water can be used in a wasteful manner, or several users can share one connection, to avoid that more families have to pay the fixed rate. Moreover, the fixed rate is in most areas rather low. According to a recent publication of the WHO most connections are 1/2" connections that are billed Tk. 40 - 100 a month. In the city of Sylhet water is even provided for free.

The improvement of the financial basis of PWSSOs can only be improved if tariff structures are revised. While actual necessary increases can be implemented over a longer period of

time, the intention of improvement must be visible. This can be done by promoting metering water supply and developing an appropriate tariff structure, that takes into account the protection of the poor, and caters for a mechanism to avoid abuse. The tariff that is currently proposed as part of the pro-poor strategy may not be sufficient.

A progressive tariff rate can be implemented, that provides the first few m3 at a life-line rate, after which a progressive block tariff is applied, so that the price per m3 increases if consumption goes up, similar to electricity consumption.

A progressive tariff structure can only be successfully applied to metered connections. Where metering is not feasible, fixed tariffs should be brought to an acceptable level. This process should be started immediately to cater for tariffs that support the sustainable development of water supply systems in the future.

#### 7.3.3 The Tariff Vacuum

Tariff issues are very delicate both from a social and from a political point of view. The introduction of the private sector is often associated with increasing water tariffs. While on the one hand it seems rational to make the private sector responsible for tariff increases, it has resulted in failure of a number of PPP contracts, the most well-known example being the Cochabamba disaster in Bolivia, where a violent public uprising following extreme tariff increases resulted in the loss of lives. A particular issue to be taken into consideration in Bangladesh is the easy access to tube-well water – if the tariff for drinking water becomes too high, people will turn to tube-well water. The price-elasticity of piped water supply should be carefully investigated before making any significant tariff increases.

The vacuum can be solved if GoB is willing to provide transitional subsidies when advanced forms of PPP are introduced. This means that during the first period of private operations, tariffs will only be gradually improved. However, for significant performance improvements investments will be necessary that can not be catered from low-tariff revenues. Bridge funding could be provided by re-directing subsidies to meet operating shortages of publicly managed PWSSOs to supporting private sector performance improvement activities.

#### 8. PPP RELATED DEVELOPMENTS IN BANGLADESH

The Public Private Partnership (PPP) project is relatively new concept in Bangladesh. The PPP project is lightly mentioned in the Public Procurement Act (PPA) of Bangladesh govt. However, the PPP projects are guided by the 'Bangladesh Private Sector Infrastructure Guidelines (BPSIG) 2004.

Another important development regarding PPP in Bangladesh is the declaration of separate PPP budget in 2009-10.

#### 8.1 Government's Guidelines for PPP Sector

A new 'PPP Guidelines' and supporting Rules and Regulations, for facilitation of PPP projects in Bangladesh, are under preparation by PICOM and Board of Investment (BOI) under Prime Minister's office. It is clear that PPP policy should complement existing policies with regard to planning, procurement and other areas, and ensure that the PPP contracting and execution process is fair, transparent and in the public interest. In Bangladesh, the PPP policy

is being prepared in line with the Private Sector Infrastructure Guidelines that were issued in October 2004.

Foreign investors in water supply and sanitation projects will usually require strong protection against regulatory changes that may adversely affect their project. Governments will be required to have a sufficiently developed legal framework to protect investments against too much governmental discretion. First and foremost private parties will need to know if the envisaged form of private sector involvement is constitutional and whether the public party that are dealing with is a competent body from a legal perspective.

If there is an insufficiently developed legal framework it will be necessary to ratify any contract that is signed, particularly if it involves private sector investments at the highest legal level possible. This is of particular importance in the water sector, which is often subject of extensive social and political debate.

#### 8.2 PPP Budget of the Government for FY 2009-10

In the budget speech of 2009-2010 of 11 June 2009, the Finance Minister has declared a separate third budget for PPP projects, in addition to present Revenue and Development budgets. In his elaborations, the Finance Minister has said that the BPSIG, 2004 will be revised and updated to suit present PPP needs. He has also advocated for best management practice for PPP Unit, for efficient handling of PPP projects in the country.

In addition to large infrastructure projects like Roads and bridges, Power pants, telecommunications, Ports and harbor, etc. in PPP, the Finance Minister has emphasized on initiating PPP projects in social sector, viz. Water supply, Sanitation, Health, Education, and similar other sectors.

A PPP Budget has been declared for the first time in Bangladesh in 2009-2010, for Tk. 2,500 Crore. Government allotted a PPP budget consists of the following 3 components:

1. PPPTAF for technical assistance support Tk. 100 Cr.

2. VGF as subsidy to project sponsor Tk. 300 Cr.

3. BIIF to provide loan to project sponsor - Tk. 2,100 Cr.

The PPP budget is available with Finance division of Ministry of Finance and intending line ministries may approach for financial support and allocation of PPP budget for appropriate PPP projects in different eligible sectors. All these are mentioned in the Position Paper of Finance Division of Ministry of Finance, GoB titled 'Invigorating Investment Initiative through Public Private Partnership, June 2009.

There is recent initiative in the government for more active involvement of the Planning Commission, its General Economic Division and Finance Division of Ministry of Finance in promotion and implementation of more PPP projects in Bangladesh.

#### 8.2.1 PPPTAF – the Centralized TA Fund for PPP projects

In the PPP budget, there is provision of 100 Crore taka in the PPPTAF component. This fund is kept for preparation, initiation and Feasibility study of PPP projects. Any implementation

agency may seek this fund from the Finance Division of the Ministry of Finance for any suitable PPP project. The detail modality for accessing this fund is under preparation by the ministry.

#### 8.2.2 VGF – the Viability Gap Funding for PPP projects

The main investment expenditure in a PPP project is expected to be incurred from the private investor. But if some social projects are financially not viable, there is a provision for subsidy from the PPP budget, through:

- Viability Gap Funding as per assessment [or]
- Annuity payment (on long term basis)

For this purpose an amount of 300 Crore taka has been kept in the PPP budget for the year 2009-10. The implementing agency is to identify the VGF component during preparation of the PPP project and included in the tender document. The payment is to be made to the private investor, for the amount finalized as per open competitive tender and included in the PPP concession agreement signed between the public sector agency and the winning private sector entity.

#### 8.2.3 BIIF – Bangladesh Infrastructure Investment Fund

The main investment expenditure in a PPP project is done by the private sector investor from their equity and debt. The debt portion is met from different financial institutions. In the current PPP budget a financing window has been kept in the govt. sector, under a project financing fund titled 'Bangladesh Infrastructure Financing Fund'. For this purpose an amount of 2,100 Crore taka has been kept in the PPP budget for the year 2009-10. The detail modality for accessing this fund is under preparation by the ministry.

#### 8.3 How to mobilize the PPP Budget for WSS projects

Presently, there is great opportunity to put forward large water supply and sanitation sector projects in PPP and the sector should take benefit of the opportunity. The size of the project is not limited by any factor. The WSS project may be for rural, urban or for large cities.

A PPP project is to be identified by a project sponsor. It should preferably be initiated by a government line ministry or its implementing agency, who is owner of the project. If a PPP project is identified by a private sector entity, it is put to open transparent biding process, as per provisions of BPSIG.

For availing fund for a WSS project from different components of PPP budget, first thing is to prepare a proper PPP project, engaging a consultant, if necessary. Even the project development cost may be taped from the PPPTAF component.

The PPP project shall have a Pre-feasibility study, which will have commercial analysis, to establish if the project is financially viable. The Pre-feasibility study should preferably be accompanied by a simple financial model, showing the cash flow of the project expenditure and income.

The project will be examined at PPP Cell (or PICOM at BOI) and if required Viability Gap Funding (VGF) will be recommended during approval of the project. The PPP project will be put to open tender and it will be awarded to the most preferred bidder. If the project is entitled for VGF, it will be disbursed, to the project sponsor or the investor, by the Ministry of Finance through the Implementing Agency. The project will remain the property of the government implementing agency. But the Private sector entity will operate and maintain I for the period, as stipulated in the PPP agreement, and enjoy and share the project revenue as per tender conditions and PPP agreement. At the expiry of the agreement Term, the private investor will hand over the project property to the public sector.

#### 8.4 Possible IIFC assistance for PPP projects

For identifying a PPP project and preparation of the project, special expertise is necessary. Preparation of bidding document for PPP projects are different from traditional public sector projects and needs special transaction expertise. Such services are essential for PPP projects and needs to be procured.

Infrastructure Investment Facilitation Center (IIFC), under Ministry of Finance is a 100% government owned and non-profit making company working exclusively on PPP projects, since its formation in 1999. It has provided technical support to different line ministries and some private sector entrepreneurs, for many PPP projects for their preparation, feasibility studies, transaction activities and implementation. IIFC has in-house capability for handling consultancy for PPP projects and it has a wide network of national and international pool of consultants, which are taped as and when necessary.

IIFC works on commercial terms and may be engaged for any technical assistance support for PPP projects, through signing of Consulting Services Agreement. Being a specialized consultancy company, IIFC has been given the status of Specialized National Consultant (SNC) by the World Bank and may be hired on single source and with all expatriate consultants for any PPP project. IMED of Planning Commission of GoB has also allowed similar status for IIFC.

## 9 FINDINGS AND RECOMMENDATIONS

Reviewing the overall development of PPP in recent years and governments commitment on the subject, it may be concluded that:

- Government is keen for strengthening the PPP environment in the country.
- Private Sector Investments in Infrastructure, i.e. the PPP, are important for the Development of Bangladesh.
- PPP will greatly influence Private Infrastructure by removing obstacles.
- PPP options should be carefully measured for individual project.
- Understanding the technical and commercial issues for PPP project are extremely important.
- More PPP Projects should be undertaken for faster development of the economy.

#### 9.1 General Findings

#### 9.1.1 Considerable scope for performance improvement through PPP...

The water and sanitation sector in Bangladesh, if it is able to meet a number of conditions, can benefit considerably for introducing the private sector through PPP approaches. A good start is being made with the introduction of various service contracts, and there may very well be scope for management contracts at the medium term.

Particularly where access to sufficient safe water is problematic, and where willingness to pay for safe water is relatively high, there may be possibilities for PPP, since there may be scope for charging realistic tariffs, without people turning to tube-wells on their own premises.

#### 9.1.2 Limited private sector investments at short and medium term

Given the current weaknesses in the water and sanitation sector with regard to low tariffs, a weak regulatory framework, and PWSSOs having limited independence, it will be difficult to attract large-scale private sector investments. Once a commercially more interesting environment is created, e.g. by applying cost-recovering tariffs, eventually increasing investments can be attracted.

NGOs and the private sector are investing limited amounts for the development of rural piped water schemes. These are made financially viable by significant grant amounts. At the same time the amounts invested is very limited.

#### 9.1.3 Institutional adjustments required

The private sector's primary interest is to earn a fair profit on its operations. To enable them to do so, an "enabling" environment has to be developed. The enabling environment consists of among others:

- A competent counterpart, be it local or central government.
- A regulator protecting the interests of customers and private operators alike.
- A revenue stream that is able to sustain public operations, supported by the private sector, and guarantee payment to the private sector (for service contracts), or a revenue stream that is sufficient to sustain commercial operations (more advanced PPP models). This can be in the form of actual tariff charges, or smart subsidy arrangements
- A clear policy on PPP and a clear action plan for implementation;
- A sufficiently developed legal framework, including Foreign Direct Investment arrangements
- Possibility for sufficiently independent water supply and sanitation operations
- Water supply and sanitation operations that are a sufficient performance level that a sustainable operation can be further developed. This includes not only professional standards but also critical mass.

The private sector, often local in case of smaller operations, can be attracted particularly if the management of several small towns is clustered, in order to arrive at economies of scale, and sufficient critical mass to be able to generate sufficient revenue to sustain a professional organization.

#### 9.2 Specific Recommendations PPP projects in WSS sector

#### 9.2.1 Create PWSSO autonomy

It is of great importance to see to the Pourashava Water Supply and Sanitation Operations (PWSSO) having sufficient independence of direct Pourashava influence. Any private operators going beyond a service contract will demand a significant degree of operating freedom, avoiding political or bureaucratic interference in is day-to-day operations. This means that he can decide on his own personnel policy, decide on a operational budget, and the way the budget is used, is guaranteed that revenues collected with water and sanitation services delivery stays in the PWSSO, etc. If such arm's length from the public sector cannot be guaranteed, private operators may consider the political risks to high to take over responsibility for an operation

#### 9.2.2 Adjust tariffs, introduce metering where possible

While an enabling environment is crucial from an institutional point of view, the driver of first and foremost importance is the tariff and / or subsidy level to guarantee an income stream for the private operator. This means that tariffs need to be rationalized to cover at least operational expenditures. While this may be difficult in the short run, a clear programme towards sustainable tariffs should be developed, taking into account:

- Price elasticities, bearing in mind easy access to groundwater resources;
- Ability and willingness to pay;
- The need to provide subsidies, in cases where tariff increases would be too steep given current low rates, or water even being for free. Subsidies could form a cushion to provide bridge funding to an operator, and gradual tariff increases to the consumers:
- A drive towards more metering and diversified services levels and appropriate tariffs for the different services.

#### 9.2.3 Develop clear PPP policy, aimed at the water sector

In parallel to institutional, organizational and operational strengthening of the water and sanitation sector, a clear PPP policy for the water sector should be developed. Such strategy should develop into a clear plan of actions and measures that support the policy.

In the case of Bangladesh it should be considered that the PPP policy addresses 4 separate groups:

- The big city WASA's;
- The more developed PWSSO's with some critical mass;
- The less developed PWSSO's that may be subject to administrative consolidation and centralized regional management;
- Possibly rural areas that can be served by small scale service providers.

The policy should outline clearly the conditions that apply to the inclusion of the private sector.

#### 9.2.4 Set up a regulatory body

An important requirement to successful inclusion of the private sector in public services provision is that the sector is regulated by a competent authority. A regulator can set and enforce rules and regulations by which the water supply and sanitation sector is governed.

For the private sector is important that a stable regulatory system is in place as a means to control risks. For example, a regulatory body can see to enforcement of contract obligations by all parties, develop tariff adjustment mechanisms, monitor private sector performance, etc. Also, from a risk management point of view, a regulatory body can assist in resolving conflicts between public and private sector parties, which should imply that the decision is taken at arm's lengths of any governmental discretion or unsound private sector influence.

#### 9.2.5 Don't cross out all subsidies

The introduction of the private sector is often associated with increasing water tariffs. Essentially this perception is often wrong. Tariffs do indeed often increase, but this is often the private sector exposing inherent weaknesses of the public system (charging politically interesting low tariffs), rather than the private sector's need for higher income.

Given the fact that tariffs are low in most of Bangladesh, subsidies will be necessary initially to involve the private sector in water supply and sanitation. This may be necessary e.g. to cater for payment of management fees to a management contractor, or to compensate for a lack of revenue that can be generated under e.g. a lease structure.

On top of the direct subsidies that may be required, preparing the sector for more PPP is a costly matter too, bearing in mind the issues that have to be addressed as described in the previous paragraphs. Finally tendering, contracting and monitoring procedures, especially for more advanced forms of PPP may be very costly too.

#### 9.2.6 Get started in a realistic way

It is felt that on the short and medium term there is considerable scope for relatively "light" forms of PPP. Currently careful first steps are taken with billing and collection contracts.

While it is a good initiative that new approaches are tested and piloted, it is equally important to address the development of these new approaches in a coordinated way. Best practices that should guide up-scaling of successful initiatives can only be developed if lessons are learned in a central place. By doing so, standardized contracts and approaches can be developed, using practical experience. Also, a centralized unit can identify potential projects for PPP and work jointly with local governments on the development of projects, where necessary assisted by advisers.

The unit that develops the process and the projects can eventually be transformed into a regulatory body, since it will be very inefficient to have contract-regulators when multiple contracts are implemented.

Getting started, in a realistic way, by outsourcing parts of PWSSOs activities is a very valuable first step towards more advance PPP. Embedding these first steps in a well-planned process that fits in a clear overall strategy is even more important to make a sustainable change in the water and sanitation sector towards increased private sector participation.