INDIA:
URBAN WATER AND SANITATION SERVICES

GUIDELINES FOR SECTOR REFORM
AND
SUCCESSFUL PUBLIC-PRIVATE PARTNERSHIPS

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JANUARY 2004

INDIA:
URBAN WATER AND SANITATION SERVICES

GUIDELINES FOR SECTOR REFORM
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SUCCESSFUL PUBLIC-PRIVATE PARTNERSHIPS

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JANUARY 2004

FOREWORD

India's cities and towns represent the world's second largest urban system, house 285 million people (or 28% of our population), 70 million of which are estimated to be poor. Already contributing over 50% of the country's GDP, urban India needs to boost its productivity if it is to contribute to the rates of economic growth needed to pull India out of poverty. A radical reform of urban infrastructure services is required to achieve this productivity boost, departing from traditional dependence on government as policy-maker, regulator, financier and service provider, to one in which the government creates the policy and regulatory framework, and service providers mobilize financing and expertise to improve infrastructure services, including through a greater reliance on the private sector.

Within the context of overall urban reforms, reforms to improve the quality and sustainability of water supply and sanitation services are particularly urgent. Urban populations, especially poor people, spend significant portions of their time and income coping with the costs of sub-standard service, and are deprived of achieving their full economic and civic potential. Furthermore, even though significant fiscal resources are allocated to this sector, they are grossly inadequate to meet growing demand, and are often utilized in an ineffective manner.

The Ministry of Urban Development and Poverty Alleviation (MoUD&PA) identified need for these Guidelines in late 2001, recognizing:

- the enormous potential benefits of a bigger role for the private sector in improving urban water supply and sanitation services; and
- the inherent risks of executing poorly designed private transactions in this sector.

These Guidelines are designed to sensitize State Governments and Urban Local Bodies to the policy and procedural issues that need to be addressed as they reform urban water supply and sewerage services. They also seek to:

- embed an evolving role for the private sector into this broader sector reform;
- facilitate a systematic assessment of the issues and options for successful private sector participation (PSP); and
- prevent improperly designed and executed PSP transactions.

They will need to be adapted to suit local conditions. A series of events and consultations[1] have shaped these Guidelines. They have involved State government representatives, State and city-level service providers, non-governmental organizations, regulators and policy-makers from other sectors and countries, public and private sector operators, and financial institutions.

While recognizing that the urban sector is a State subject (administered by State governments), and water and sanitation are local issues with predominantly local solutions, the Government of India (GoI) believes it has an important and useful role to play in facilitating reforms in urban water supply and sanitation services. This is because:

- Access to clean, safe and healthy water is essential for economic growth and poverty reduction;

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[1] Significant consultation events included: National Workshop at on PSP in Urban Water and Sanitation Services – "Managing the Process and Regulating the Sector" (Manesar, December 5-6, 2001); Concept Review of Guidelines (MoUD&PA, New Delhi, February 21, 2002); Discussion of Issues and Options for PSP in UWSS (MoUD&PA, New Delhi, June 12, 2002); Discussion of Draft Guidelines (MoUD&PA, New Delhi, September 26, 2002); Discussion of feedback from States (MoUD&PA, New Delhi, April 23, 2003).

- Failure to improve services can have sub-regional and national implications, such as direct or contingent impact on the fiscal situation, and outbreaks of diseases which impact reputation, investment and tourism;
- The private sector can play a positive and long-lasting role; and
- The GoI can disseminate lessons from other sectors, countries and parts of India, and mobilize technical assistance and reform-linked financial support.

In addition to these guidelines, the MoUD&PA has also provided important guidance for the municipal accounting framework and a model municipal act. The GoI has also approved a reform-linked incentive fund, namely. the **Urban Reform Incentive Fund** to support state level reforms which are a necessary for meaningful reforms at the town and city levels. This Fund will provide incentives to states to create efficient land markets, and create the legal and tariff framework to advance urban governance and utility reforms.

The GoI is also considering the following reform-linked schemes:

- The **City Challenge Fund** to fund part of the transition costs for a city government or public service provider to advance systematically towards creditworthiness and a sustained improvement in public services. Funds would be dispersed in tranches upon completion of pre-agreed actions, under a comprehensive reform program that is appraised and monitored by qualified and independent experts.
- **The Pooled-Finance Mechanism** to enhance the ability of small towns to access capital markets in a cost-effective manner and on better terms than if each tried to access the market individually.

The MoUD&PA anticipates that considerable **capacity support** will be needed to help state and urban authorities to design and implement UWSS sector reforms. The Ministry has, therefore, endorsed the Water and Sanitation Program's effort to secure grant funds from the Swedish International Development Agency (SIDA) and other donors to support reform-minded states and ULBs to adapt these guidelines to their specific situations and prepare reform programs, implementation of which could be financed in part from the City Challenge Fund.

The Ministry wishes to thank the Water and Sanitation Program – South Asia (WSP-SA), SIDA, the Public-Private Investment Assistance Facility (PPIAF), the various state and city authorities for their assistance in the preparation of these guidelines. We intend to post this document on the Ministry's website and update it periodically with the evolving experience with sector reform and PSP in urban water and sanitation services from India and abroad.

N.N. Khanna
Secretary (UD)
Ministry of Urban Development & Poverty Alleviation
Department of Urban Development

EXECUTIVE SUMMARY

The Need for Reform

i) Radical reform of urban infrastructure is necessary if India's towns and cities are to contribute maximally to the country's economic growth. Traditional dependence on unreliable flows of public funds to finance piecemeal projects consistently fails to bridge the urban infrastructure gap.

ii) Reform of the water supply and sanitation sectors is particularly urgent. Urban populations, especially the poor, spend significant portions of their time and income coping with the health and financial costs of poor service, depriving themselves of their full economic, social and civic potential.

iii) Water and sanitation are local issues with predominantly local solutions, but failure to tackle them successfully can have regional and national implications. Reforms must be properly sequenced and managed, applying key lessons from reforms in other sectors. The private sector has a positive role to play in this process.

Role of Government of India

iv) While recognizing that urban reforms are state subjects, the Government of India, is facilitating the reform process through the Ministry of Urban Development and Poverty Alleviation (MoUD&PA), which will also provide the overall framework for GoI support.

v) The Ministry has established the ***City Challenge Fund*** and the ***Pooled-Finance Mechanism*** to catalyze urban change through active partnership with states and their towns or cities using a combination of strategic engagements, capacity and regulatory support, and fiscal incentives. The ***Urban Reform Incentive Fund*** will complement these new initiatives.

Institutional and Policy Framework

vi) A clearly articulated State urban water supply and sanitation (UWSS) institutional and policy framework, underpinned by enabling laws and a realistic implementation plan, would permit systematic reform and help insulate reforms from the vagaries of the political process.

vii) Drafted in consultation with key stakeholders, State sector policy and implementation plan should also advance implementation of the 74th Constitutional Amendment to devolve responsibility for urban WSS services to ULBs. Implementation should be supported by necessary incentives, instruments and assistance to fulfill both social and economic dimensions of water and sanitation services. A publicly endorsed policy framework that embraces private sector participation would provide a broad mandate for systematic reform.

viii) The policy framework should address the predominant problems of urban water and sanitation services—opaque decision-making and accountability, intermittent and irregular supply, inefficient and inequitable allocation and utilization of resources, low tariffs and high levels of fiscal dependence, poor responsiveness to consumer needs, and high coping costs borne by consumers, particularly the poor.

ix) State sector policy should be founded on the key principles of:

- Public service obligations and institutional accountability, beginning with an institutional separation of operational aspects of service provision from policy-making and regulation[2];

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[2] Service obligations should be set at realistic, affordable and progressively improving levels, with flexibility to provide higher service quality on a market basis.

- Financial sustainability, with tariffs progressively moving towards covering prudently-incurred costs, while ensuring that low income and vulnerable consumers also benefit from service improvements and targeted subsidies enable them to afford at least a basic level of service;
- Autonomous and competent regulation;
- Appropriate forms of private sector participation;
- Incentives to improve services for the poor; and
- A competitive market for high cost/high value inputs – civil works, equipment, labor, electricity, financing, etc.

x) Improving the management and accountability of water distribution will be the first priority for most towns and cities. Separating operational and management (O&M) responsibility from policy-making and regulation is important for better accountability and essential if responsibility for O&M is to be transferred to the private sector. Indeed, PSP will in itself help consolidate this separation by reducing the influence of government in day-to-day operations. However, governance and public sector management must be improved in parallel to facilitate healthy public-private partnerships.

xi) The water distribution network operator—whether public or private—is closest to the end-use customer and has the greatest and most urgent need to transition to demand-responsiveness. It should be given the responsibility for system and investment planning (under an appropriate regulatory framework), and the incentives to meet demand at the least cost. Such incentives should be designed to reverse the dominant preference for new construction as opposed to proper maintenance and operation of existing assets.

xii) In most states, existing legal, regulatory and governance frameworks and industry structures would need to be amended to implement the new policies and create an enabling environment to encourage private sector participation. Human and physical capacity would need to be developed in parallel.

xiii) The policy framework may need to take a more gradual and flexible approach to improving sanitation services, which are often in a worse condition than the water sector and attracts less investment. Sanitation with full treatment is expensive and may require high levels of subsidy for some time (as is the case in most developed countries). Greater flexibility in sanitation service standards may also be needed to attract private sector operators.

Key Elements of The Legal and Regulatory Framework

xiv) A crucial element of success in sector reform involving the private sector is an appropriate legal framework. Ideally encapsulated within a single Urban Water Supply and Sanitation Law and supported by the State Municipal Act, the legal framework would underpin State sector policy and the envisaged institutional framework.

xv) The regulatory framework should clearly delineate state and local-level regulatory roles, and remain sensitive to authorities vested in the ULB under the 74th Constitutional Amendment. Because independent regulators are costly to set up and have limited success in reforming or regulating public sector operators, a **Reform Facilitation Team** at the state-level, empowered to influence fiscal and other support flows to ULBs, could initially drive the reform agenda and create the platform for effective regulation. A State-level regulatory body would be better placed (than ULBs) to benchmark performance of different service providers, provide methodological support, and develop the competence and reputation to resolve disputes between service providers and consumers. ULBs could also opt to delegate tariff-setting authority to the State regulator (if permissible under state law). Drawing from experience in the power sector, if a State regulator is envisaged, State policy should clearly define the reasons for setting it up and the instruments available for effective regulation. One option might be to place WSS regulatory responsibilities

within an existing reputable regulatory body such as the electricity or telecommunications regulator[3].

xvi) As a ULB proceeds to private provision of WSS services, it will be in a position to allow contracts between itself and its private partner to regulate economic and other relationships between "owner" (the ULB), operator (private partner) and customers. Of course, these contracts would need to be consistent with prevailing policy and regulatory frameworks.

Implementation Responsibilities

xvii) Implementation and sequencing of the state's sector policy would need to take into account the administrative capacity, political will and financial constraints of individual states and ULBs. A common feature of successful reform programs has been top-level political leadership, with execution of the reform process entrusted to an empowered reform team.

xviii) State governments would create the enabling legal, regulatory and sector/industry structure**.** They would need to:

- Create a **Reform Facilitation Team**[4] to draft legislation to support sector policy, and help ULBs to implement reforms;
- Build regulatory capacity on which ULBs can draw to commercialize WSS services, benchmark utility performance, design and execute PSP transactions, and manage public-private partnerships;
- Create a competitive market for sector inputs such as engineering and construction services, labor, electricity, etc. and allow utilities to phase in competitive procurement from the private sector;
- Guide the creation of regional water and sanitation utilities and provide incentives to help small towns attract the resources needed to improve services in a cost-effective manner; and
- Develop financing mechanisms to cover transition costs; link budget transfers and other incentives to achievement of reform targets; and promote public-private partnerships by making them an intrinsic part of ULB reform plans and guaranteeing contractual obligations of ULBs in a PPP arrangement.

xix) ULBs, with support from the State Reform Facilitation Team, would restructure existing service providers and prepare for meaningful public-private partnerships. ULBs (and groups of ULBs which intend to create regional water utilities) would, inter alia:

- Undertake an independent assessment of the existing service provider, its infrastructure, and the quality of services, and identify gaps in its ability to meet public service obligations and market demand in an efficient manner;
- Estimate least-cost investment and system modification options to meet service targets, taking into account O&M costs, and the ability and willingness of consumers to pay for improved services;

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[3] An existing regulator which already enjoys a good reputation may be well placed to augment its sector-specific technical and industry knowledge and skills to regulate the economic dimensions of urban WSS services. The option to combine water resource regulation with network regulation could also be investigated.

[4] The Reform Facilitation Team would ideally be created within the Chief Minister's office to draft and implement State sector policy. It would include members from relevant ministries (finance, urban, environment) and from municipal authorities, and be supported by independent consultants.

- Develop a tariff and subsidy plan to allow for cost recovery and provide a reasonable return on investment;
- Determine an optimal structure for the creation of regional water utilities and restructured state water boards;
- Strengthen utility governance, establishing sound and transparent management, accounting, reporting and accountability systems;
- Identify public-private partnerships which could operate in the prevailing legal, regulatory and political environment;
- Engage a qualified transaction adviser, pre-qualify eligible private partners, prepare bid documents, manage the bidding process, and complete the handover to the selected private partner; and
- Ensure adequate and affordable services to low income customers.

Forms of Private Sector Participation

xx) All forms of PSP (Table 1), ranging from simple service and management contracts to increasingly complex performance-based management contracts, asset leases, *affermages* (articles of association), concessions and asset divestitures, involve a partnership between the government and the private sector. However, they differ in their allocation of risks and responsibilities, in their duration, and in where they assign asset ownership.

xxi) Service and fee-based management contracts may be implemented without adequate baseline information, cost-reflective tariffs, or performance monitoring systems in place. Predictable regulatory frameworks and reliable databases are essential for leases, concessions and divestitures. Benefits accruing from PSP grow as increasing responsibility and risk is placed on the private partner. Thus, while service and management contracts involve less institutional change they also garner lower benefits in terms of increasing coverage, efficiency and consumer-orientation. In practice, hybrids are becoming more the norm than the exception, with the private sector taking some commercial risk under management contracts and being responsible for some investments under leases.

xxii) Concessions are best suited to solve comprehensively the supply problems in most Indian urban areas. But they may be unfeasible in the short term, given the prevailing market conditions. Private sector involvement will probably be introduced in phases under well-designed management or lease contracts, and evolve to concessions at a later date.

xxiii) Management contracts can be cost-effective if used to leverage deeper forms of PSP. Until qualified and reputable private operators emerge in India, such contracts are likely to be costly[5]. Management contractors should have the right and responsibility to use resources optimally, improve service quality, and prepare the ground for more effective forms of PSP. They should be considered as an interim stage in the reform process as the sector moves towards concession arrangements.

xxiv) Any form of PSP should be designed with a clear obligation to improve services to the urban poor. Specific policies may include:

- Retargeting of public subsidies to encourage an increase in coverage and reduction in price for low-income groups;

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[5] Typically, a reputable firm providing a management team of 4-5 qualified experts would charge between Rs. 2.5 and 5.0 crores (US$0.5-1.0 million) per year for a 3-5 year management contract (with costs declining as local capacity is built up). While these costs may be justified for large cities involving high ***economic costs*** of services and scope for significant efficiency gains, small towns may need to form regional utilities to make such contracts cost-effective.

- Direct income support (for example in the form of vouchers) to ensure vulnerable households can afford a basic level of service;
- Capital subsidies to offset the cost of extending the network to poor areas;
- Flexible technical standards to encourage innovation and reduce costs while maintaining acceptable levels of service to all consumers;
- Coverage and performance targets which encourage service providers to collaborate with off-network suppliers such as vendors and tanker services to reach difficult communities in the short- and / or the medium-term;
- Encouraging community contracts through lower tariffs, based on bulk purchase of water from the utility, with communities managing or sub-contracting distribution and collections;
- User-friendly commercial services (mobile complaints offices, multiple outlets for bill payment, flexible payment schemes), public outreach and information;
- Regular consumer satisfaction surveys tailored to informal and low-income communities; and
- Lower cost solutions for wastewater collection and treatment.

xxv) PSP transactions must be executed in a transparent and professional manner. Competition through a well-designed tendering process, which enjoys broad public support, will ensure the best outcome for consumers. Prospects for success will be greatly influenced by:

- Creating a Project Steering Committee at the city or regional utility level, with authority to implement key decisions, and with appropriate support from the State reform team where necessary;
- Employing an experienced and reputable 'Transactions Adviser';
- Developing and executing a public consultation program and incorporating feedback into the transaction design;
- Putting in place appropriate safeguards for current government employees and contractors who may be affected by the PSP transaction;
- Pre-qualifying prospective private partners who have relevant operating experience and financial strength to meet sector objectives[6];
- Finalizing core terms and conditions of the contract through structured sharing of technical, financial, legal and institutional information with pre-qualified firms[7] and keeping the public and other stakeholders abreast of developments;
- Securing state or even sovereign guarantees to mitigate risks which a private partner cannot be reasonably expected to manage, for example, risk of public authorities failing to adhere to legal, regulatory or contractual arrangements;
- Defining conditions which would trigger the bankruptcy of a service provider, and the caretaker arrangements which would be invoked;
- Finalizing tender documents, attempting to make selection of the winning bidder based on a single criterion; and
- Opening bids in public with clearly established procedures for technical and financial evaluation, restricting post-bid negotiations to non-core issues, and closing the transaction after prompt completion of any 'conditions precedent' which may have been included in the tender.

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[6] Marketing efforts will be boosted if a reputable transactions adviser is involved and the quality of preparation can assure prospective bidders that: (i) Due diligence costs will not be high; (ii) Simple and objective criteria are used for selection; (iii) There is minimal scope for post-bid negotiations; and (iv) There is no 'favored' bidder.

[7] Leases, concessions and divestiture arrangement will typically require establishing a data room with relevant sector and utility information, possibly posting information on the web to facilitate access, procedures for fair access to data and the data room, structured pre-bid conferences, etc.

xxvi) Capacity must continue to be strengthened at the **local level** to manage the PSP contract and monitor utility performance, and at the **State level** to improve the quality of regulatory support. Transfer of distribution system operation and management typically involves substantial conflicts of interest, adding to transaction risk and complexity. Depending on the type of PSP, local authorities would typically need to be prepared to:

- Approve adjustments in tariff rates and structures;
- Mobilize investment capital, and possibly provide working capital to make up any short-falls resulting from below-cost tariffs and non-payment by customers who cannot be disconnected for non-payment;
- Monitor utility performance and its public service obligations;
- Implement labor agreements such as staff reduction, redeployment, retraining, severance, etc.;
- Implement programs to build local contracting capacity;
- Ensure adequate supply of raw water while preventing unregulated extraction;
- Enforce law and order, and other agreements under the PSP contract; and
- Foster sound utility governance.

xxvi) At the State level, the State's Reform Facilitation Team and / or the economic regulator (when it is established) would complement local capacity to manage the public-private relationship while also continuing to implement sector reforms at the state-level. For example, they could set up early warning systems to pick up signs of contract stress and mediate disputes before formal arbitration procedures are invoked. Recognizing that there will be conflicts between private operators and disaffected stakeholders, the state government can play an important role as a neutral broker, if necessary by constituting a panel of independent experts, to nurture the partnership through the early stages.

xxvii) If the private partner is unable to meet performance obligations and bankruptcy or failed contract procedures are invoked, the independent state regulator could make its own assessment and decision on necessary action. This may be to bring in a private or public operator from another city as a caretaker until another PSP transaction can be designed and executed.

Conclusion

xxviii) These guidelines advocate that a State's sector institutional arrangements and policy framework are used to drive and sustain comprehensive reform of urban water and sanitation services. States and ULBs may, however, adopt different strategies to improve the quality of these services and involve the private sector. For example, reform could be initiated through improving the accountability of the existing service provider by 'ring-fencing' its finances and installing appropriate metering, auditing and reporting arrangements. Or by creating an independent economic regulator to de-politicize the setting of tariffs. Or through awarding a negotiated PSP contract for a section of a city on a pilot basis. The proposed comprehensive approach to sector reform does not necessarily rule out these initiatives; it does, however, allow them to be thought through in a manner that would mitigate the risk of diluting, discrediting or easily abandoning the reform effort and compromising the achievement of sector objectives.

TABLE 1: Allocation of Key Responsibilities Under the Main Private Sector Participation Options

Option	Asset Ownership	Operations & Maintenance	Capital Investment	Commercial Risk	Duration	Additional Remarks
Service Contract	Public	Public and Private	Public	Public	1-2 years	Typically for specific activities—meter installation or reading, monitoring losses, repairing pipes or collecting accounts
Management Contract	Public	Private	Public	Public	3-5 Years	Fixed fee based or combination fee plus performance bonus; Private party may assume commercial risks associated with tariff collection from all or specific customer groups, and for reducing specific costs (if provided with adequate means and authority); Government must ensure timely access to capital.
Lease	Public	Private	Public (with limited private)	Shared	8-15 Years	Private party assumes risks or rewards of efficiency and revenue improvements (if given authority over key decisions); Private party finances working capital and limited rehabilitation; Administratively as complex as concessions; Typically suited where operating expertise and small capital investments can generate substantial efficiency gains.
Concession	Public	Private	Private	Private	25-30 Years	Usually awarded to qualified bidder proposing the lowest tariff to operate the utility and meet performance targets; Require secure access to adequate water resources; High quality of technical, financial and market information needed to prepare a credible bid; Administratively complex requiring competent & independent regulation.
*BOT or BOO**	Private and Public	Private	Private	Private	20-30 Years	Typically used for greenfield projects—bulk water supply, water or wastewater treatment plants, etc. Capital risk usually borne by government or state utility.
Divestiture	Private or Private and Public	Private	Private	Private	Indefinite (license may set term)	Regulation-intensive; however, reduced role of government in asset ownership may justify higher costs of competent and fair regulation.

Source: Adapted from "*Toolkits for Private Participation in Water and Sanitation*", The World Bank

* Build-Operate-Transfer and Build-Own-Operate

Note:

In practice, hybrids are possible, for example management contracts where the private sector takes on some commercial risks, and leases in which the private sector is responsible for some investments. Also prevalent, though not always advisable, are majority privately-owned joint venture companies set up to operate (and sometimes invest in) the water utility under a lease or concession arrangement

ABBREVIATIONS

GOI	Government of India
MoUD&PA	(Union) Ministry of Urban Development and Poverty Alleviation
PPIAF	Public-Private Investment Assistance Facility
PSP	Private Sector Participation
PPP	Public-Private Partnership
QCBS	Quality and Cost-Based Selection
Sida	Swedish International Development Cooperation Agency
TORS	Terms of Reference
ULBS	Urban Local Bodies
UWSS	Urban Water Supply and Sanitation
WSP-SA	Water and Sanitation Program–South Asia
WSS	Water Supply and Sanitation

ABSTRACT AND ACKNOWLEDGEMENTS

The Ministry of Urban Development and Poverty Alleviation has developed these Guidelines to sensitize State Governments, Urban Local Bodies and other stakeholders to the policy and implementation issues that need to be addressed as they embark upon reforming urban water supply and sewerage services (UWSS). They will need to be adapted to local conditions and supplemented by detailed analysis and recommendations.

The Guidelines embed a role for the private sector into this reform process, suggesting appropriate forms of private sector participation (PSP) for different stages of sector reform. Reform of UWSS, with an evolving role for the private sector, will be an important element of urban reforms eligible for support from the Government of India's City Challenge Fund.

The Ministry intends to post this document on its website and update it periodically with evolving national and global experience with reforms and PSP in urban water and sanitation services.

The Ministry is grateful to the support extended by the Water and Sanitation Program – South Asia (WSP-SA) in helping in the drafting of these Guidelines and to the various state and city authorities who actively contributed to their finalization. The Ministry would also like to thank the Swedish International Development Cooperation Agency (Sida) and the Public-Private Investment Assistance Facility (PPIAF) for their financial support.

GUIDELINES AT A GLANCE

- Radical reform of the urban water supply and sanitation (WSS) sector is urgently needed to:
  - Boost economic growth and the well-being of the urban population, especially the 70 million urban poor;
  - Create the institutional and policy framework which can attract the level of public and private investments needed to fill the rising gap between the demand and supply for modern infrastructure services in a sustainable manner.
- A clearly articulated state **sector institutional and policy framework**, underpinned by enabling laws, would pave the way for systematic reform. Such a framework should:
  - Define a path towards greater transparency, accountability and efficiency, initially by separating service provision from policy-making and regulation, and subsequently consolidating this separation through an optimal mix of public-private partnerships in service provision;
  - Require Urban Local Bodies (ULBs) to set progressively improving public service obligations and key performance indicators for service providers, requiring them to achieve acceptable standards within a finite period (5 years) and providing them with the necessary authority, incentives and transition support;
  - Define a financing strategy for the sector, detailing a transition plan which complements budget funding with user charges (moving towards cost-recovery tariffs) and seeks to leverage private investment through an effective use of robust cash-flow projections and public guarantees;
  - Introduce specific pro-poor incentives and mechanisms, ensuring that low-income consumers also benefit from service improvements and are able to afford at least a basic level of service;
  - Mitigate adverse impacts of reform on employees, contractors and other legitimate stakeholders;
  - Provide guidance on managing scarce water resources in an equitable manner;
  - Establish principles of economic regulation, creating the regulatory authority when there is a clear demand for its services and the political will for its empowerment;
  - Seek to upgrade the local engineering, construction and consulting industry.
- **Implementation of the Policy Framework**:
  - State governments would create the enabling state-level legal, regulatory and industry structures, stipulate regulatory roles, and establish a *Reform Facilitation Team* to guide the reform process.
  - Urban Local Bodies (ULBs), with support from the Facilitation Team, would restructure service providers; assess supply costs, tariffs and subsidy requirements; decide on and execute the appropriate form of PSP; and manage the resulting PSP contract.
- PSP transactions should be supported, provided these are consistent with the sector policy framework, have been designed to ensure sustainable improvement in services, particularly to the urban poor, and are being transparently executed.
- Successful PSP would require building the capacity of the ULB to manage the PSP contract and govern the service provider, and the capacity of the state to provide regulatory support.
- In **selecting and executing PSP transactions**, stakeholders would keep in mind that:
  - Benefits from PSP grow as increasing responsibility and risk is transferred to the private partner. While service and management contracts are simpler to execute, they generate fewer benefits than deeper forms of PSP such as leases, concessions and divestitures.
  - Concessions can mobilize much needed capital and high quality human resources, but may be unfeasible until market conditions are better developed.
  - Management contracts can be costly but might be an expedient and cost-effective stepping stone to a deeper form of PSP.
  - All PSP contracts should specify clear obligations to improve services to the poor.
- PSP transactions must be transparent and designed to maximize competition, using reputable advisers to structure, market and execute the transaction.

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URBAN WATER AND SANITATION SERVICES

GUIDELINES FOR SECTOR REFORM
AND
SUCCESSFUL PUBLIC-PRIVATE PARTNERSHIPS

VOLUME 1

POLICY FRAMEWORK
AND
IMPLEMENTATION ARRANGEMENTS

JANUARY 2004

VOLUME 1 SUMMARY

A clearly articulated State urban water supply and sanitation (UWSS) policy framework and medium-term implementation plan covering the first 3-5 years, underpinned by enabling laws, would permit systematic reform of the sector and help insulate reforms from the vagaries of the political process. Drafted in consultation with key stakeholders, a State's sector policy would seek to accelerate implementation of the 74th Constitutional Amendment. Devolving responsibility for UWSS services to local governments, this would include the necessary incentives, instruments and assistance to meet both livelihood (or social) needs for WSS services and economic demand in a sustained and sustainable manner.

Drawing on the adopted policy framework, the State government would draft necessary laws to underpin the reform agenda, restructure elements of industry within state control, guide restructuring at the ULB level, and build regulatory capacity. ULBs would strengthen governance, restructure service providers, develop social and environmental safeguards, and design and execute transactions involving the private sector. Implementation and sequencing of the reform program will take into account administrative capacity, political will and financial constraints of individual states and ULBs. A common feature of successful reform programs has been top-level political leadership, with the reforms executed by an empowered reform team.

INITIATING REFORMS – POLICY FRAMEWORK/ROAD MAP

A. Objectives of Sector Reform and Private Sector Participation

The 74th Constitutional Amendment, mandating state governments to transfer responsibility for water supply and sanitation (WSS) services to urban local bodies (ULBs), provides an opportunity to drive far-reaching reforms. State governments are in a position to articulate public service obligations that will accompany this devolution of responsibility, define policies, provide fiscal and financial incentives, and offer technical support for ULBs to meet their service and financial obligations, particularly during the critical transition leading to complete empowerment of the ULB. They are also in a position to define the regulatory framework to ensure accountability and to balance relations between service providers and customers.

Implementation of the State's policy framework would be the responsibility of ULBs and would need to take into account local conditions. This chapter offers guidance on key elements which State governments should incorporate into their urban water supply and sanitation (UWSS) sector policy and institutional framework. A publicly endorsed framework, with a defined role for the private sector, would provide authorities with a clearer mandate for far-reaching reform.

Reform Objectives.

With the overall goal of contributing to a safe, healthy and productive environment for urban populations, the policy framework should seek to rectify the predominant problems of urban water and sanitation services, symptoms of which include intermittent and poor quality supply, inefficient and inequitable utilization and allocation of resources (water, capital and manpower), high level of dependence on government budgets, command and norm-based organizational and technical design of urban water systems, low responsiveness to consumer needs and preferences, and high coping costs borne by consumers, particularly the poor. Primary objectives, ideally to be achieved within the next five-ten years for water supply and probably somewhat longer for sanitation would be to:

- Ensure that all segments of the urban population have convenient, equitable and affordable access to a sustainable level of water supply and sanitation services which are t least sufficient for basic health and hygiene[1];
- Create an efficient, demand-responsive, transparent and sustainable water supply and sanitation industry;
- Balance relations between suppliers and consumers of water and sanitation services, encouraging consumers to become more organized and responsible, while also protecting them from the monopoly power of service providers.

Other reform objectives would include replacing public funding of water and sanitation services with private capital and user charges; reducing public sector employment; injecting modern utility operational and management skills; de-politicizing operational, investment and pricing decisions; and creating creditworthy WSS utilities. Private Sector Participation (PSP) would be an important element of the strategy to achieve these objectives. Possible forms of PSP are discussed in Chapter 2.

B. The Policy Framework

To achieve sector objectives, State authorities would start with developing a policy and institutional framework[2], the key principles of which would be founded on:

- Public service obligations (to fulfill social objectives of the sector) and policy for meeting economic demand in a demand-responsive manner (with tariffs reflecting the cost of providing different levels of service);
- A separation of service provision from policymaking and regulation, with a robust responsibility-accountability framework for major aspects – planning, design, construction, financing, operations and regulation – including the role of the private sector in this framework;
- Competition, starting with high cost and value inputs of the water supply and sanitation business, and including benchmarking the performance of different service providers in the state and country;
- Efficiency, reliability and sustainability of water resources and water supply, and wastewater management, including through PSP for improving UWSS services;
- Balanced rights and obligations of service providers and consumers; and
- Incentives to improve services for the poor.

State policy and fiscal transfer rules would require ULBs (and other implementing agencies) to adhere to these key principles. State authorities may also provide guidelines, additional fiscal incentives (including support for accessing GoI incentive funds), performance and financial guarantees, and technical support for ULBs to implement the policy framework and achieve sector objectives.

Centered on improving the performance of the WSS service provider in order to improve consumer welfare and satisfaction, the policy framework would facilitate reforms at:

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1 Defined as 'Public Service Obligations' separating the operator's social and economic obligations.

2 Policy formulation would benefit from consultation with ULBs, consumer groups and other stakeholders. It would take into account the monopoly nature of network-based water and sanitation services, and their economic and social dimensions. A more gradual and flexible approach might be necessary to improving sanitation services, which are often in a worse condition than water supply. Sanitation with full treatment is considerably more expensive and may require high levels of subsidy for some time (as is the case in most developed countries).

- The ***service provider*** level—governance, management, staffing, operations, financial sustainability and accountability, both in the public sector and through private sector participation;
- The ***WSS industry*** level—competition for high cost and value inputs (engineering, construction, maintenance and water treatment services, and possibly electricity supply) and sustainable supply of raw water; and
- The ***consumer*** level—measures to enhance market power and sustain the improvement in services.

The policy framework would also articulate the regulatory arrangements envisaged for governing economic relations between market players, protecting consumers from abuse of monopoly power of service providers, ensuring safe water supply, and ensuring environmental compliance.. Guidelines covering key elements of the policy framework are discussed below.

B.1 Reforms at the Service Provider Level

Social and Economic Demand and Service Obligations

(a) To give meaning to the responsibilities inherent in the devolution of responsibilities under the 74th Constitutional Amendment, State governments should consider:

- Setting service and water quality targets linked to basic health and hygiene needs—**public service obligations**—which all service providers must meet within a reasonable period, say 3-5 years (the 'public goods' dimension of UWSS services)[3]. Meaningful state-wide targets will be necessary if social obligations are to be priced and funded differently from types and levels of service which will be funded from user charges;
- Allowing economic demand for services other than those related to public service obligations to be met on commercial terms and in a demand-responsive manner, but within a robust regulatory regime. A level playing field could be created to allow suppliers other than those operating piped water and sanitation networks, to compete for this market[4]. Rules and enforcement mechanisms for raw water extraction (from surface or ground sources) will need to be in place to ensure that water and wastewater charges reflect economic costs and are able to keep demand within environmentally sustainable limits. This policy would need to be supported through effective regulatory mechanisms, such as reliable metering, accounting and auditing, as well as water quality monitoring;
- Providing fiscal support to mitigate the ULB's or service provider's costs of meeting public service obligations, if revenues from commercial services are not sufficient to cross-subsidize these obligations; and
- Requiring prudent financial requirements and accounting, audit and public disclosure practices for all UWSS service providers.

(b) Public service obligations and estimated economic demand would translate into a reform action plan covering investments, prices, subsidies, and restructuring of the WSS industry structure to make it more competitive, transparent and easier to regulate. State policy would encourage private sector participation in network operations and expand its role in other services as a means of meeting demand in an efficient manner and phasing out reliance on public funds.

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3 Annual targets would include service coverage, service quality (hours and predictability of supply), and water and wastewater quality.

4 As is already being done, these services could include: bottled water supply; water vending/tanker supply; supply of untreated water for uses other than drinking, cooking or personal hygiene; etc.

Structure of Service Providers

(a) Improving management and accountability of water distribution and associated sewerage services would be of the highest priority for most towns and cities. A key ingredient of this will be a separation of service provision responsibilities from policymaking and regulation (see below). Furthermore, to meet public service obligations and market demand, service providers, whether private or public, would need to have:

- Skilled management and operational staff;
- Control over salary structures and personnel decisions;
- Access to adequate water resources (within environmental safeguards and on equal terms as 'competitors' such as non-network service providers);
- Access to capital on affordable terms;
- Responsibility and accountability for the planning, design, expansion, and operation of the integrated water supply and sanitation system;
- Streamlined procurement procedures (within the regulatory framework and with appropriate fiduciary supervision over public funds);
- Access to a competitive market for engineering and construction services;
- Predictable revenue streams from tariff and non-tariff sources within which to plan operations and investments, and meet service obligations;
- Easy access to their customer bases (including easement and other rights-of-way), control over supply assets, and ability to remedy breaches of contract by customers (with appropriate safeguards for customers); and
- Confidence that law and order will be enforced in an effective and fair manner.

(b) Reputable private firms are well-positioned to inject the modern operating and management know-how needed to revitalize India's urban water supply and sanitation sector. However, the government will need to take key steps to structure the existing service provider for effective private sector participation, begin creating an appropriate accountability and regulatory framework, and strengthen the government's capacity to manage the evolving public-private partnership.

(c) 'Ring-fencing' of the distribution entity's accounts, budgets, management and staff is essential for transparency and accountability. Full 'corporatization' (that is, registration under the Indian Companies Act) would be advisable for cities and larger towns and for regional utilities serving several towns as it would help insulate the service provider's operational activities from the government's ownership, policy-making and regulatory functions. By de-linking the service provider from the government, it would also help attract staff and funding from the market rather than only from the public sector.

(d) The regulatory framework (see below) should provide the distribution system operator with incentives to meet public service obligations and market demand at the least cost and in a demand-responsive manner. These incentives would also ensure that lower cost rehabilitation, efficiency-enhancement and demand-management measures precede capital intensive source development, reservoirs, treatment plants or pumping stations. Discrete aspects of network services may be contracted to outside organizations.

(e) Any entity responsible for managing and operating the integrated water supply system would be required to put in place (within a reasonable transition period):

- **Transparent Governance**. International experience suggests transparency, demand-responsiveness and accountability are enhanced by:

i. having reputable, non-government members on the Board of Directors of the service provider;

ii. clearly allocating responsibilities between owners, Board members, and management;

iii. independent monitoring and evaluation of service provider performance;

iv. setting up accounting systems which are consistent with International Accounting Standards; and

v. external financial audits in accordance with International Standards of Audits; and public disclosure and dissemination of performance reports.

- **Professional management, including through PSP**. Within the transition period, the service provider must assume full responsibility for meeting quality standards for integrated network services and for complying with government financial and safeguards policies. Hiring of professional management, with a track record of operating high quality WSS utilities (including through PSP arrangements), will be necessary to prepare and execute operating, capital investment and staffing plans to meet service targets.

- **Commercialization of services**. Service providers should be required to charge for their services, whether this charge is recovered from the customer or from taxpayers (via the government budget). The local government will need to subsidize the service provider for reasonable supply costs that are not covered by tariffs. It would also need to compensate the service provider for bad debts that are not within the service provider's control, for example, those arising from public service obligations, including not being allowed to disconnect customers for social or other reasons. Ideally, the policy framework would require:

  i. tariffs to be adjusted over a transition period to fully cover the cost of efficient supply; and

  ii. phasing out subsidies to suppliers and replacing this with targeted income (in cash or kind) support to low-income and vulnerable customers as administrative mechanisms to achieve this are put in place.

- **Creditworthiness.** State policy should require each service provider to develop a financial action plan that would allow the entity to become creditworthy within a prescribed period. At a minimum, state policy should require service providers to operate within a balanced budget, with planned and actual operating expenditures matched by revenues from tariff and non-tariff sources. The transition to creditworthiness is likely to rely on a phasing out of public financial support, with an early elimination of support for operations and maintenance. Direct subsidies for capital investments would be replaced with explicit budget guarantees to mobilize private capital on affordable terms. The nature of these guarantees would also change with time as the regulatory environment becomes more predictable, moving from fully guaranteed servicing of private capital to servicing this capital only in the event of policy, regulatory or environmental failures. For example, the Government would undertake to make up any revenue shortfalls resulting a failure adjust tariffs in accordance with pre-agreed targets, non-payment by customers who cannot be effectively sanctioned (disconnected or supply reduced), or if bulk water supply is curtailed. Implementation of financial recovery plans would be periodically assessed by independent credit-rating or other competent agencies.

Special case of service providers in small towns

(a) State policy may encourage small towns (with populations of, say, less than 500,000 each) to consolidate their assets and customer bases to attract the kind of human, financial and material resources needed to create well-governed services. This may, for example, take the form of regional water and sanitation utilities, which would be better positioned to attract PSP in a competitive manner as well as to command better terms for engineering, construction and other high cost services. Technical support (to assess costs and benefits of regional versus town utilities), financial incentives, and dispute-resolution mechanisms offered by the State government may help local authorities to find the common ground for such consolidation of services.

(b) Several developed countries (Scotland, France and the Netherlands) are actively encouraging municipalities to consolidate one or more public services as a means to improve service quality in a cost-effective manner. Water and sanitation, solid waste management, and urban transport are, typically, the services which benefit from economies of scale, but economies could also extend to schools, hospitals, transport fleet management, accounting services, etc. In countries with privatized water and sanitation services (England and Wales, the USA), economies of scale for water and sanitation services are being generated through mergers and acquisitions.

(c) State policy may also suggest guidelines on the criteria for consolidation—critical size, geographical contiguity, water resource sharing, balancing of costs and tariffs, distance between extreme parts of the territory, etc.—and may allow regional utilities to extend coverage to the rural areas between towns. In France, historical relations between towns, incentive grants offered by the federal government, and the catalytic role played by local political leaders have often been important instigators of consolidation.

Service providers will need a suitable tariff and subsidy policy

(a) A clearly articulated tariff policy, and a transition path to its full implementation, are essential both for sound management and for maximizing the benefits of private sector participation. Without a clear tariff policy, consumers would not be able to plan their budgets and service providers would be unable to predict revenues and plan operations, undermining management performance even when competent managers are in place.

(b) A credible tariff policy would:

- **Ensure revenue adequacy**, and define those (if not all) supply costs that are to be covered by tariffs and those costs that are to be covered by the budget (possibly with a timeframe for phasing out subsidies) and a mechanism for automatic tariff adjustment to compensate for changes in cost of items not within the service provider's control (for example, changes in electricity tariffs);
- **Establish a predictable transition path**, with a timetable for adjusting tariffs to cost-recovery levels;
- **Create incentives for efficiency-enhancement** to bring costs down and revenues up to benchmark efficiency levels. Targets should be established for major cost items (such as production, treatment, pumping, unaccounted-for-water, labor, capital works or equipment, and financing);
- **Define credible and predictable mechanisms** to fund (i) envisaged subsidies; (ii) approved investments; and (iii) working capital to cover transitional deficits;
- **Define a schedule to eliminate price distortions**, including those caused by cross-subsidies and non-payment. This would include policy for separating water and wastewater charges, and allowing specific consumer groups (for example,

industrial parks, housing associations, etc.) the option to develop their own water resources and distribution facilities;

- **Assess ability-to-pay of different consumer groups and define actions**, including administrative mechanisms, to provide vulnerable and low-income groups with targeted income subsidies, possibly earmarked towards payment for UWSS services; and
- **Define key elements of a utility performance monitoring and reporting system**—such as system and consumer level metering of water flows, accounting of revenue flows, service quality indicators, and independent audit and public dissemination of key performance information.

(c) The adopted industry structure (discussed below), and competitive procurement of high-cost or high-value services will contribute to driving down costs included in tariffs. Several countries follow the principle that 'water must pay for water', meaning that all supply costs must be recovered from users of water and sanitation services. The state then limits itself to ensuring the efficiency of service providers, 'softening' the cost of capital, and providing direct subsidies to the poor and vulnerable. Actual application of the state's tariff policy will need to be town or city specific, taking into account supply costs for varying service levels, ability and willingness to pay, and access to financing (on affordable terms) to cover transition costs.

Addressing the impact on labor and contractor groups

(a) In addition to upgrading management capacity, systematic reform of water supply and sanitation systems will require investing in upgrading the skills of utility staff. It may also require boosting the competitiveness of suppliers of major inputs – engineering, construction, power supply services, State Water Boards, etc. While the restructuring will generate new employment opportunities in other areas within the sector and in the economy in general, any disruption in the lives of staff employed by the service provider and contractors will need to be well-managed.

(b) State policy would need to anticipate and plan for this disruption, including setting aside secure financing for covering severance costs, retraining and support for reemployment in other areas. A credible program is necessary to mitigate resistance to reforms.

(c) Affected groups, through their representatives, should be consulted in the design of the reform program in general and in designing the safety net needed to mitigate the impact of disruption.

(d) Competition for the services currently being provided by entrenched contractors and Water Boards may be phased in gradually. Furthermore, capacity-building of these entities could be encouraged through restructuring and positioning them as attractive partners for private national and international firms.

Process of securing private sector participation

(a) State policy (and the supporting legal and regulatory framework) should provide ULBs with maximum flexibility to select the forms of private sector participation best suited to meet local objectives. .

(b) Local authorities would need to define the objectives to be met by the initial and subsequent forms of PSP, and create appropriate partnerships with reputable and qualified private firms in a competent and transparent manner.

(c) State policy may provide guidance to local authorities on the process of initiating formal contact with the private sector, allocating responsibilities between public and private partners, and ensuring transparency.

(d) State governments should also consider providing performance and financial guarantees to mitigate risks that private partners cannot be expected to manage. This may be required particularly during the early stages of sector reform when local government's may lack adequate credibility or competence (for example, timely execution of the local government's contractual obligations, safeguarding the private partner's property and other rights, etc.).

B.2 Reforms in the Structure of the Water and Sanitation Industry

(a) **Network operation — a natural monopoly**. Municipal (or local) governments will have the ultimate responsibility for water supply and wastewater processing within their jurisdictions. Within this jurisdiction, as discussed above, state policy would encourage ULBs to delegate to the distribution entity, the full responsibility, authority and accountability for integrated system planning and operations. As discussed above, the reform agenda would place a high priority on transforming this entity into a corporation, and strengthening its governance, management, and technical and financial condition.

(b) **Competitive market for 'inputs' for network operation**. The business of network operation may be 'unbundled' into separate functions and outsourced, provided overall responsibility for system operation remains with the distribution entity. Some functions will be monopoly in nature — bulk water supply, water and wastewater treatment, large water reservoirs, etc., because there would be either a single supplier or single buyer (monopsony). Other high cost functions may be competitively supplied — engineering, design, construction, equipment supply, etc. Wherever possible, all inputs should be contracted through the competitive process, through national and international tenders. In addition to enhancing transparency, opening up these inputs to competitive procurement will nurture innovation among suppliers and higher quality inputs[5].

(c) **Resource development and extraction**. State policy would identify the entities authorized to develop water resources, define the nature of their commercial relations with UWSS service providers, and outline the parameters within which service providers can develop or augment raw water supply.

B.3 Reforms at the Consumer Level

(a) **Consumer Organizations**. State policy should seek to create an industry structure that balances rights and responsibilities of service providers and consumers. It needs to be recognized that so long as tariffs remain below the cost of service, consumers of the service will remain financial liabilities rather than assets of the service provider. Furthermore, because a high proportion of urban customers live in dense conditions which pose additional commercial risks for network utilities, consumers should be encouraged to organize themselves in ways which will reduce commercial and technical risks to serve them. Through proper organization, they can in fact amplify their say in service provision as well as their creditworthiness. Examples of such organizations include Resident Welfare Associations, Housing Cooperatives, and other community-based organizations. Service providers can substantially reduce their commercial risks, and offer better service terms (see below), if they could enter into contracts with such organizations instead of being obliged to serve each resident individually.

(b) **Bulk services**. Industrial parks, residential colonies, etc. could also be encouraged to contract bulk services, leaving the option for network or other service providers to

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[5] This may require restructuring of existing Water Boards that have traditionally supplied these services. Joint ventures with qualified (national and international) private firms will help accelerate the development of indigenous capacity (for example, as experienced in India's highways sector).

operate and maintain the infrastructure within these industrial parks and colonies under a separate contract, which may include individual billing and collection.

(c) **Services to the poor**. Effective consumer arrangements for households are particularly important in the Indian urban context where densely populated squatter settlements and apartment buildings account for an increasing proportion of the customer base. Tariff incentives and service quality regulations could provide incentives for consumers to form residents' associations which contract water and sanitation (and other community) services on their behalf. Poverty-targeted subsidies could be channeled through these community groups to allow low-income residents to pay for basic services. With a lower risk profile, these groups could become attractive customers for service providers.

(d) While the urban poor may not be benefiting from a reasonable quality of water and sanitation services under prevailing conditions, pro-poor policies will be necessary to ensure they benefit from sector reforms and from PSP arrangements. In addition to community contracts, specific policies may include:

- Reviewing how public subsidies could be better targeted to encourage an increase in coverage and reduction in price for low-income groups;
- Direct income support (for example, in the form of vouchers) to ensure vulnerable households can afford a basic level of service;
- Capital subsidies to offset the unmet cost of extending the network to poor areas;
- Flexible technical standards that will encourage innovation to reduce costs while maintaining acceptable levels of service to all consumers;
- Setting coverage and performance targets, which encourage network service providers to collaborate, in the short- and medium-term, with off-network suppliers such as vendors, tanker services and independent network systems to reach difficult communities;
- User-friendly commercial services (such as mobile complaint units, multiple bill-payment outlets, flexible payment schemes), public outreach and information;
- Regular consumer satisfaction surveys tailored for low-income communities; and
- Lower cost solutions for wastewater collection and treatment.

C. The Regulatory Framework

(a) Designing a regulatory system to support sector reform and accommodate private sector participation comprises five basic steps:

- Specifying essential regulatory tasks—these vary with the option for private sector participation and with the industry structure.
- Ensuring that the legal framework properly assigns these tasks, as also assigning these to the appropriate level of government.
- Considering and specifying how much regulatory discretion should be allowed.
- Designating what regulatory tools and mechanisms will be used.
- Incorporating regulatory details into laws and private sector contracts.

(b) The regulatory framework would cover:

- **Economic regulation** (setting and enforcing tariffs and service quality standards for the monopoly network services);

- **Health regulation** (setting and enforcing water and sanitation quality standards, and level of supply necessary for basic health and hygiene);
- **Environmental regulation** (monitoring sustainability of water resources, water abstraction rates, and wastewater discharge quality, and guiding necessary changes in environmental policy, taxation and penalties); and
- **Regulation of technical and safety standards** (for equipment and civil works, including ensuring compliance with rights of way and easement).

(c) Health and environmental regulation will likely be undertaken by existing government departments. Technical regulation may be merged with the functions of the economic regulator when it is created or handled separately. The sector policy would require coordination between regulatory bodies to ensure that basic WSS safeguards are met and standards remain affordable.

Economic regulation

(a) **Regulatory Design**. Because decisions about the form of private sector participation, structure of the supply industry and regulatory frameworks are closely linked, state policy should guide how economic performance of service providers would be regulated to ensure the immediate and long-term interest of consumers. In addition to the tariff principles discussed above, economic regulation would cover quality of service (hours of supply, pressure, planned and unplanned disruptions, response to complaints, etc.). Recognizing that effective competition can drive down costs and improve quality, economic regulation would also seek to maximize competition where possible.

Specifically with regard to PSP, the policy framework should permit flexibility to employ various regulatory tools, ranging from tightly specified contracts to regulation by an independent regulator with varying levels of discretion. Consistent with transitional arrangements for financial recovery of the service provider, the policy framework should allow contracts to include multi-year tariff rates and structures, or tariff methodologies. Discretion helps regulators respond flexibly to changing conditions, but it also creates regulatory risks for private sector partners and may therefore discourage their participation or raise the price of their involvement. A delicate balance needs to be struck between allowing regulatory discretion and developing very tightly specified contracts that would have to be renegotiated when unexpected changes occur.

(b) **Allocation of functions between State and local administrative levels**. The policy framework would need to guide the delineation of regulatory functions between state level and local authorities, remaining cognizant of requirements under the 74th Constitutional Amendment. Recognizing that water and sanitation are largely local issues, responsibility for sector regulation (setting affordable service standards, setting tariffs, and monitoring utility performance) will likely remain with local authorities. However, if a ULB has limited capacity to regulate or is vulnerable to short-term political interests, it could delegate tariff-setting authority to a higher level, leaving local authorities and service providers to determine service levels that would be affordable under the established tariff policy. This may be essential for regional utilities covering several ULBs. Service quality would be monitored through credible mechanisms, most probably at the local level. In any case, local authorities would be obliged to bring the local regulations into harmony with the state's sector policy and legal framework within a pre-defined transition period.

(c) **Transition to a state-level economic regulator**. The policy and legal framework should envisage creation of an independent economic regulator at the State level, specifying its tasks and the instruments available for effective regulation. As experienced in the power sector, such institutions are costly to set up and typically have had limited impact on

public sector operators. It should, therefore, be established in a State only when there is a clear demand for its services (for example when the first PSP contract is being tendered) and/or the political will for its empowerment. One option might be to place WSS regulatory responsibilities within an existing reputable regulatory body such as the electricity or telecommunications regulator[6].

Regulation of water resources

(a) Predictable access to, or supply of, adequate quantities of raw water to meet both public service obligations and commercial demand is necessary for any water and sanitation utility. The regulation of water extraction and abstraction is more important in water-scarce areas, particularly when supply is for profit and suppliers seek to maximize sales. In such areas, state policy would need to take into account demand between sectors and across states, and seasonal variations in supply. It would also need to introduce appropriate charges for resources extracted for commercial supply (see below).

(b) Resource charges for raw water extraction (from surface or ground sources) will need to be in place to ensure water and wastewater charges reflect economic costs and are able to keep demand within environmentally sustainable limits. This policy would need to be supported by effective regulatory mechanisms, such as reliable bulk water measurement, accounting and independent verification. State policy should also ensure that the network service provider's are subject to the same regulatory regime as other competitors for the market, including households with their own bore-wells.

(c) Specific rules would need to be developed for areas with seasonal or perennial water shortage to ensure scarce resources are used first to meet public service obligations (for all) before being released for market-based consumption.

(d) Policy should require that affordability constraints are taken into account when setting water and wastewater quality standards.

The policy issues identified above are not meant to be exhaustive, nor do they all need to be addressed up-front. However, having a sector reform strategy and policy framework which recognizes them as being important for maximizing the contribution of the private sector, will help manage the expectations and obligations of the public, private and government partners and help attract a wider array of qualified private partners.

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[6] An existing regulator may be well placed to augment its sector-specific technical and industry knowledge and skills to regulate the economic dimensions of urban WSS services. The option to combine water resource regulation with network regulation requires further discussion.

IMPLEMENTATION ARRANGEMENTS

A. ROLE OF STATE GOVERNMENT

State governments would adopt, after wide consultation, the policy framework governing the sector and create the enabling legal, regulatory and industry structure, consistent with this policy framework. They would need to:

- Create a **Reform Facilitation Unit or Team** to design the policy framework, draft necessary legislation, and help ULBs with implementation;
- Build regulatory capacity on which ULBs can draw to commercialize WSS services, benchmark utility performance, design and execute PSP transactions, and manage public-private partnerships;
- Enable ULBs to phase in competitive procurement of inputs such as engineering, construction, and maintenance services, restructuring monopoly service providers to compete effectively;
- Guide the creation of regional water and sanitation utilities, and provide incentives to help small towns attract the resources to improve UWSS services in a cost-effective manner;
- Develop financing mechanisms to cover transition costs, linking budget transfers and other incentives to achieve sector reform targets; and
- Provide performance and financial guarantees to mitigate risks which private partners cannot be expected to manage, particularly during the early stages of sector reform.

Managing the Reform Process. For reform to proceed smoothly, the State's Reform Facilitation Unit would need to be adequately funded to attract critical skills which are often not readily available in the public sector. While the unit may consult with interested stakeholders, it must be able to view the process from a broader, social and economic perspective, focusing above all on the interests of water and sanitation consumers.

In designing the management unit, the government needs to address the following questions[7]:

(a) **What will be the legal and organizational status of the unit?**

- Will it be a ministerial working group or committee?
- What will be its legal powers?

(b) **Where will the unit be located?**

- Will it be attached to—

  a. A government department?
  b. A ministerial office?
  c. A mayor's office?

(c) **How will the unit be staffed?**

- What sort of skills and experience would be needed?
- What are the reputations of the key staff members?
- Will they be seen as independent?
- Who will head the unit?

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[7] Extracted from World Bank's Toolkit titled "*Selecting an Option for Private Sector Participation"*

(d) **How will the unit obtain the resources it needs?**

- What will be its funding base?
- What procedures must be followed to secure funds and procure goods/services?

(e) **To whom will the unit answer?**

- Will it be—

  a. A single politician charged with oversight of the process?
  b. A parliamentary committee?
  c. A bureaucratic steering committee?

(f) **What mechanisms will be used for holding the unit accountable?**

- Will it be—

  a. Reporting on progress against the critical path?
  b. Financial reporting?
  c. Incentives for performance?

(g) **How will the unit obtain key information and cooperation from elsewhere in the public sector?**

(h) **What kind of access will the unit have to key political decision-makers?**

- Will it be direct or mediated?

There is no single set of right answers to these questions. Political and institutional structures, prior experience with private sector projects, and the extent to which necessary skills are available domestically will all shape the structure a government chooses.

In deciding how to set up the unit, the government's objectives should be to:

- Ensure that the unit has sufficient autonomy, both managerial and financial, to carry out its task cost-effectively.
- Shield the unit's staff from political interference in its day-to-day tasks.
- Give politicians and relevant government agencies confidence that the task is proceeding as intended and that any major policy issues are dealt with as they arise—by putting in place reporting and accountability mechanisms.

B. ROLE OF URBAN LOCAL BODIES (ULBs)

ULBs, with support from the State's Reform Facilitation Team, would restructure existing service providers and prepare for meaningful public-private partnerships. Specific tasks include:

- Preparing least-cost investment and system modification plans to meet service targets, taking into account financial and economic costs as well as demand based on ability and willingness of consumers to pay;
- Developing a tariff and subsidy plan to allow for cost recovery and provide a reasonable return on investment;
- Determining an optimal structure for the service provider, including creation of regional water utilities;
- Establishing sound and transparent management, accounting, reporting and accountability systems;
- Identifying the optimal forms of public-private partnerships which can operate in the prevailing legal, regulatory and political environment;

- Engaging a reputable and qualified transaction adviser to assist the Government to pre-qualify eligible private partners, prepare bid documents, manage the bidding process, and complete the hand-over to the selected private partner; and
- Ensuring adequate and affordable services to low income customers.

Municipal authorities would continue to build their governance capacity, including maintaining balanced budgets, enhancing transparency and accountability, and encouraging the formation of effective consumer organizations.

C. ROLE OF REFORM ADVISERS

Lack of the full range of expertise within the civil service to carry out necessary sector assessments and reforms, and execute appropriate PSP transactions, will make it necessary to recruit qualified economic, financial, technical, and legal expertise. While considerable expertise can be drawn from India's private sector, key aspects will likely be sought internationally from firms which have experience in designing and implementing WSS sector reforms and PSP transactions. A key task of the State's Reform Facilitation Team or Unit will then be to ensure proper management and coordination of this expertise.

With sector reforms likely to precede PSP transactions in most Indian states, the first priority would be for state governments to hire sector reform and institutional advisors to help design and initiate sector restructuring at the state level, and to develop utility restructuring and investment plans at the ULB level. This would take into account consumer and other stakeholder attitudes. These advisors would also help ULBs to identify feasible PSP options and to engage qualified transactions advisers to refine and execute PSP transactions. This will likely be an iterative process with ULB-level reforms influencing state-level reforms and vice-versa.

Institutional advisors would continue to build regulatory capacity at the state and local level to manage public-private partnership, support sector reforms, and help other ULBs complete their needs assessments, identify appropriate PSP options, and contract transactions advisers. This arrangement would also mitigate the risk that PSP transactions undermine reform objectives.

ULBs (or asset 'owners') would typically be responsible for hiring transaction advisers once feasible forms of PSP have been identified. Sector reform and institutional advisers would help prepare terms of reference (TORs) and help with selection, which is likely to comprise:

(a) Inviting Expressions of Interest (EOI) through national and international advertisement.

(b) Preparing a short-list of qualified firms (3-6) based on specified criteria.

(c) Requesting proposals from short-listed firms (technical and financial) based on the ToRs and evaluation criteria provided to them.

(d) Basing the selection on quality and cost (QCBS).

- The technical proposals are evaluated on specified criteria.
- The financial proposals are opened for those firms that meet the minimum technical score.
- The final selection is based on a composite score that weights the technical and the financial bids with a significantly higher emphasis on quality.

Attracting reputable transaction advisers will in itself be a test of market perception. Typically high quality advisers are attracted by a combination of a success fee and a flat fee, and will bid only for transactions that have a high probability of closure within 18-24 months.

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URBAN WATER AND SANITATION SERVICES

GUIDELINES FOR SECTOR REFORM
AND
SUCCESSFUL PUBLIC-PRIVATE PARTNERSHIPS

VOLUME 2

CREATING ENABLING CONDITIONS FOR SUSTAINED REFORM AND PRIVATE SECTOR PARTICIPATION

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VOLUME 2 SUMMARY

Identified weaknesses in existing legal and institutional frameworks in most states are not conducive to mobilizing the significant resources needed to improve urban water supply and sanitation services (UWSS) to world class levels. In addition to multiplicity of overlapping laws, authorities and jurisdictions, and ambiguities and gaps in State laws, some of the principal weaknesses are that:

a) ***Service providers*** *are unable to generate sufficient and predictable cash flow from tariff and non-tariff sources to cover operating costs and make major system improvements.*

b) ***Legal and regulatory frameworks*** *do not adequately separate operations from regulation and policy-making, do not adequately balance service provider and consumer rights and responsibilities, and do not clearly facilitate private participation in the various aspects of water and wastewater services.*

c) ***UWSS utility governance structures*** *seldom demarcate the rights and responsibilities of owners, Board members, and management in a manner that enforces accountability at the appropriate level, or enhances transparency.*

d) ***State-level sector and industry structures*** *limit the emergence of competitive markets for high-cost and high-value inputs (engineering, construction, equipment, other services) and provide virtually no say to the local system operator in the design and construction of the WSS system. In addition, these also limit consolidation of services across small towns to exploit economies of scale and scope.*

e) *There is limited encouragement of* ***consumer groupings/organizations*** *to augment consumer market power to demand better services (for example, by reducing metering, billing and collection risks posed by consumers, particularly in low-income communities).*

Recommendations to create enabling legal and institutional frameworks are discussed in later chapters. While private management and service contracts can be concluded at early stages of the reform process, the full benefits of such partnerships and their extension into deeper PSP arrangements, such as leases and concessions, will require substantial reform of legal, regulatory, governance and industry structures.

WEAKNESSES IN THE PREVAILING LEGAL AND INSTITUTIONAL FRAMEWORK

A. Legal and Institutional Framework—Current Situation

India's Constitution gives States legislative and executive powers over provision of water and sanitation services. However, existing laws in most States do not specify what this responsibility entails, nor do they envisage any clear role for PSP in the operation, management or investment in the sector. Laws that have been recently adopted or that are being considering by some states to facilitate private investment in basic infrastructure services, such as 'build-operate-transfer' laws, are typically project specific. These do not address comprehensive sector reforms that have been outlined in the Sector Policy Framework (Volume 1), nor do they facilitate the range of PSP options discussed in Volume 3[1].

[1] As experienced in the power sector, stand-alone private projects in an inadequately reformed sector can increase the risk of failure and set back the reform process as well as private initiative.

A.1 Constitutional issues

(a) **Domain of the state**. Administration of water supply and sewerage services is within the domain of State legislatures and governments, in terms of Articles 246 & 167 read with Entries 6 and 17 of the List II of Schedule VII to the Constitution of India.

(b) **Decentralization**. The 74th Amendment to the Constitution of India introduced the 3rd tier of urban government (in Part IX-A), obliging state governments to constitute urban local bodies (ULBs) in the form of nagar panchayats, municipal councils or municipal corporations, depending on the size and population of the urban area. States were also obliged to constitute and empower planning agencies at the municipality, metropolitan area, and district levels to take over functions devolved to local governments and were obliged to constitute state finance commissions to support fiscal decentralization. Once every 5 years and subject to state laws, ULBs would hold local elections.

(c) **Institutional structure.** Though constituting the ULBs is obligatory under the Constitution, the scope and extent of the powers to be devolved upon the ULBs is left to the discretion of the state governments. The provisions of Part IX-A have to be supplemented by appropriate state law(s) to provide for a suitable sector structure and institutional framework for WSS, governance structures and for avoiding duplication of jurisdictions and authorities.

(d) **Implementation of constitutional amendments.** As of mid-2003, few states have fully implemented the structure of the 74th Amendment though all have ratified these and passed laws to that effect. As a result, in many states, significant elements of the legal structure for municipal administration are either inconsistent or only partially compliant with the letter and spirit of the 74th Amendment.

A.2 Legal Foundation for Reform and PSP in Urban Water & Sanitation Services

(a) **Constitutional mandate**. The Constitution of India (IX-A) allows states to endow ULBs with powers to collect revenues, levy taxes and cess, to enable them to function as institutions of local self-government and implement schemes as envisaged in Schedule 12 of the Constitution (text in *Annex 1*);

(b) **Legal Framework**. Presently, there is a multiplicity of overlapping laws, authorities and jurisdictions, and ambiguities and gaps in state laws. Virtually no state has a specialized comprehensive legal framework specifically for the WSS sector. The lacunae in the current legal structure are listed in *Annex 2*.

(c) **Governance Framework**. At the local government level there is need for a clear demarcation between the roles of government and the service provider. At the service provider level, there is a need to strengthen professionalism and accountability.

(d) **State Ownership**. The present legal structure is built around state ownership of water assets. In many States, the legal framework lacks provisions for:

  (i) ULBs or service providers to enter into public-private partnerships or delegate responsibility for operations, management, investment, etc. to private entities;

  (ii) Clear assignation of powers for fixing, levying and collecting tariffs based on economic principles such as cost-to-serve, return on investment, etc.;

  (iii) Dealing effectively with sub-standard service, default in payment, theft, willful damage, or other actions which can adversely affect service providers or customers.

(e) **Multiple Institutions**. In many states, different aspects of the WSS sector are handled by different departments or ministries—groundwater management, watershed management, water harvesting, water treatment and supply, urban development, public health,

irrigation, pollution control, etc. While some separation of functions is prudent, as for example separating regulatory functions from operational functions, the high degree of fragmentation results in unclear decision making responsibilities and the lack of a common objective. These inter-department relationships must be addressed within a common policy framework, underpinned by a common legal and regulatory system.

CREATING ENABLING CONDITIONS FOR REFORM AND PSP: LEGAL FRAMEWORK

The legal framework would establish mechanisms for implementing the state's water supply and sanitation sector policy vision and establish fair and predictable rules. This framework would regulate the relationships between the various state bodies responsible for the sector, economic entities within the sector, and consumers. Ideally, there would be a single UWSS law covering at least all economic aspects of the sector, supported by a suitable Municipal Act. This law would:

- Identify the governing bodies responsible for the sector (for policy-formulation, regulation, asset ownership, contract enforcement, arbitration and dispute resolution) and the scope of the jurisdiction of each;
- Seek to separate (institutionally) operational functions from policy-making and regulation;
- Delineate regulatory roles of state and local authorities;
- Define the structure of the state regulatory body (to ensure competence and independence) and the transition path to its establishment;
- Define the envisaged industry structure under which various aspects of water supply and wastewater disposal would operate - bulk water supply, water/wastewater treatment, distribution, engineering and capital construction, etc., and mechanisms to enhance competition;
- Require 'ring-fencing' or 'corporatization' of network service providers within governance structures which enhance transparency, accountability and professionalism;
- Require policy-makers to set public service obligations which must be met by service providers, covering water, wastewater and service quality, and financial targets;
- Enable several ULBs to consolidate assets, resources and customer bases to exploit economies of scale and scope, for example by forming regional utilities or other special purpose entities;
- Define the accounting and reporting requirements for regulatory purposes for economic entities governed by this law;
- Define the principles, procedures and authority for setting tariffs;
- Establish the legal basis under which the State or local regulatory authorities will be able to periodically set and update public service and other performance obligations and tariffs, and exercise regulatory control over performance;
- Establish rules and procedures for abstraction or use of ground and surface water resources by the water utility and other users (possibly under a separate law);
- Make the theft of network water a criminal offence;
- Establish appeal mechanisms for customers and regulated economic entities;
- Identify activities eligible for private participation and possibly the forms of public-private partnership envisaged, allowing flexibility for the forms of PSP to evolve to suit the particular needs of the ULBs; and
- Define procedures to be followed for high-cost or high-value contracting, including PSP contracting, and designate governing bodies authorized to design, execute and approve PSP transactions.

A. Key Elements of the Legal Framework

A.1 Institutional Framework and Sector Structure:

The law would:

(i) Require state governments to:
- Frame policy principles and guidelines, and maintain a facilitative legal and regulatory framework to implement the policy framework;
- Develop public service obligations which must be met by all service providers;
- Provide technical and financial support to ULBs to bring WSS into compliance with the state's legal and regulatory framework;
- Provide incentives to encourage PSP, including limited duration tax exemptions, stamp duty waivers, etc.;
- Ensure that fiscal transfers from state to local government are made in a timely manner and are adequate for WSS service providers to meet public service obligations that are not covered by tariff revenues; and
- Restructure State Water Boards to create a competitive market for key inputs to the provision of water and sanitation services.

(ii) Require WSS network operators to competitively procure, after a suitable transition period, high-cost and high-value services needed to meet demand in a least-cost and efficient manner (with rules and thresholds for competitive procurement to be established by the state regulatory authorities).

(iii) Allow private sector participation in the ownership, investment, operations and management of network-based water supply and sanitation systems, possibly within a defined range of PSP arrangements).

(iv) Allow market-based mechanisms of supply to emerge, setting time-bound actions for establishing environmental and other safeguards.

(v) Require ULBs to:
- Prepare, within a specified period, restructure plans, including tariff reforms and PSP arrangements, which would bring the water and sanitation service provider into conformity with state policy and the legal framework;
- Create the governance and financial structure to ensure transparent decision-making and accountability, limiting ULB interventions in the day-to-day operations of the service provider; and
- Require ULBs to ensure that all consumers, including low-income and vulnerable consumers, have access to an affordable level of WSS services as defined by the public service obligations.

(vi) Lay out the design and organizational arrangements for **economic regulation**, consistent with the policy framework; identify the entities responsible for health, environmental, and safety regulation; and outline processes to ensure consistency between regulatory requirements.

(vii) With regard to economic regulation, require the creation of an independent state-level economic regulator, with the authority to:
- Set and amend public service obligations;
- Require all WSS service providers to submit operating and financial information according to standards prescribed by the regulator;

- Require the regulator to analyze and publicly disseminate performance results of WSS service providers in the state;
- Foster a competitive environment for potentially competitive aspects of the industry, such as engineering, construction, and other services;
- Offer its services to ULBs for tariff setting and performance monitoring, and for facilitating the formation and functioning of regional utilities; and
- Offer its services for resolution of disputes arising between ULBs and service providers, and in PSP contracts.

(viii) Provide flexibility for the WSS Economic Regulator to be created within an existing public service regulatory authority (if appropriate).

(ix) Define the processes for ensuring regulatory independence.

(x) Define transition periods for establishment of the regulator and the issuance of key regulatory ordinances.

(xi) Encourage community contracts by allowing lower tariffs for bulk supply contracts and requiring government subsidies to move away from service providers towards low-income and vulnerable consumers.

A.2 Service Provider Governance and Structure

To enhance the quality of governance, management and operation of the WSS service provider, the Law would need to:

(i) Establish requirements for 'ring fencing' the service provider's assets, accounts, staff, etc., possibly also prescribing that it be registered as a corporation under the Indian Companies Act;

(ii) Establish minimum governance requirements to be incorporated into Articles of Association—including representation on the Board of a majority of persons who are independent of the owner, and are reputable and qualified to govern the service provider,; process for contracting professional management (insulated from government processes); creation of a robust internal control, accounting, reporting and audit system; and public disclosure of key performance information on a regular basis;

(iii) Permit ULBs to club their WSS service areas, assets and operating entities, prescribing exact modalities or leaving them flexible. Prescriptive requirements could include imposing same tariffs for specified services within a 'clubbed' service area (even though the cost may vary between ULBs in that area). Or this could involve the creation of a single Asset Holding Company incorporated jointly by ULBs as a special purpose vehicle for contracting services, including through PSP arrangements. A less prescriptive approach would be to ensure that 'clubbing' is 'efficient and equitable', leaving it to ULBs, the State Reform Team and / or the state regulator to shape the outcomes;

(iv) Require service providers to move towards financial autonomy through cost-reflective tariffs (even if part of these tariffs are recovered from budget resources) and efficiency improvements.

A.3 Safeguards

(i) Affordability of Services to the Poor. UWSS legislation should oblige service providers to meet public service obligations, including access to a basic level of services for all, as set and adjusted by a designated authority (state-level policy-maker, economic regulator,

or health regulator). It may also require the government to compensate low-income and vulnerable consumers directly so that they can afford these services or compensate the service provider for the supply costs associated with these obligations.

(ii) Protecting Customers from Supplier Inefficiencies. Tariff-setting principles in the legislation should protect consumers from supplier inefficiencies. If inefficiencies result from faulty public policy, the government would invoke corrective action by covering these inefficiencies through transparent budget transfers (on a declining basis as efficiency is improved) or through an explicit 'tax' on water and sanitation services.

(iii) Preventing overuse of water resources in water scarce areas. 'Royalties' or other taxes or quantitative restrictions may be needed to prevent unsustainable extraction and abstraction of water. This becomes particularly important when supply is for profit and suppliers seek to maximize sales. Royalties or taxes based on volumetric extraction are effective in managing demand when reliable bulk metering is in place and the regulatory mechanisms are robust.

(iv) Preventing pollution of water bodies. Proper collection, treatment and discharge of wastewater have become increasingly important given the rising pollution of water bodies, particularly in and around metropolitan areas. State laws and policies would need to set realistic, and progressively improving, standards for wastewater discharge, and put in place effective mechanisms to regulate this.

(v) Employee Concerns. Concerns of employees must be addressed to secure their support for the restructuring and PSP in urban water and sanitation services. In India, 'workmen[2]' are treated differently from 'employees other than workmen', and employment under state is treated as distinct from private employment. Key human resource issues which may be addressed through legislation include, among others:

- Continuity of service and of the terms and conditions of service;
- Redundancy and suitable compensation package, including voluntary retirement schemes (VRS));
- Training and re-deployment;
- Other differential statutory rights and protection depending on the nature of their employment under the labor laws; and
- Issues of terminal benefits, including funding of non-funded portions, payment mechanism, etc. (See *Annex 3*.)

[2] Details of the definition of workmen and employment under state are given in Annex 3.

CREATING ENABLING CONDITIONS FOR REFORM AND PSP: REGULATORY FRAMEWORK

Unbundling the network into competitive and monopoly components would significantly reduce the role and complexity of regulation. Intrinsically competitive components – such as engineering, design and construction - can be transferred to the private sector quickly in a way that promotes competition and allows deregulation. Natural monopoly aspects—such as ownership and/or operation of water treatment plants, reservoirs, pipelines, etc.—should be transferred to the private sector only under effective regulatory or contractual frameworks. If regulation is effective, it will create a situation where the businesses derive their profits from increased efficiency and through attracting additional demand.

A. Role of Regulation

(a) Limits of Economic Regulation over Public Utilities. While the legal framework would necessarily articulate the principles and institutional arrangements for economic regulation of service providers, the state and local level regulatory authorities would need to take into account the pace at which PSP arrangements are put in place and the political attitude towards independent regulation. International experience, including India's own experience in the power sector, suggests that regulatory bodies are costly to establish and may not be cost-effective in the absence of meaningful private sector participation and/or the political will to set cost-reflective tariffs and commercialize supplier-consumer relations.

(b) Effective Competition. While network-based WSS services are largely monopoly in nature, there is still a role for competition. Competition may be for the market—as in selling services to a pre-defined geographical area—or within the market—for purchasing high-cost or high value services such as engineering, capital construction and repair, equipment supply, maintenance, etc. Establishing competitive and transparent procedures for procurement of high-cost or value inputs would improve the quality of regulation as would competitive tendering of opportunities for the private sector to operate, manage and invest in network services under appropriate PSP arrangements. It would also be important to build the regulatory database and capacity to benchmark the performance of multiple water utilities.

(c) Regulation and governance. Competent regulation—to contain abuse of market power by natural monopolies and correct other market failures—is an important facet of good governance. However, as mentioned above, independent regulation is typically more effective when supply is in private hands. Regulatory authorities must ensure that:

(i) The water and sanitation sector becomes sustainable;
(ii) Goods and services are offered efficiently, at their lowest economic cost;
(iii) Increased PSP frees government funds for other development purposes;
(iv) The consumer gets better quality of service;
(v) Long-term sustainability is not compromised by short-term benefits; and
(vi) Conflicting interests of diverse stakeholders are balanced.

Efficacy and relevance of regulation will be measured by improvements in service, lowering of economic costs, and greater transparency in decision-making and operations. Regulatory tasks under different PSP options are summarized in Table 1.

Table 1: Regulatory tasks required under different PSP options [a/]

Regulatory task	Mgmt. Contract	Lease	Concess-ion	BOT	Divest-iture
Regulate prices		✓	✓	✓	✓
Promote operating efficiency		✓	✓	✓	✓
Specify and monitor service standards	✓	✓	✓	✓	✓
Control externalities	✓	✓	✓	✓	✓
Maintain public good functions	✓	✓	✓	✓	✓
Ensure asset serviceability		✓	✓	✓	✓
Ensure development of essential infrastructure			✓		✓
Prevent manipulation of land values			✓		✓
Prevent unfair trading practices	✓	✓	✓	✓	✓
Promote efficient water use	✓	✓	✓	Possibly	✓
Ensure responsiveness to final customer needs	✓	✓	✓		✓

[a/] Adapted from World Bank's Toolkit titled '*Selecting an Option for Private Sector Participation*'.

B. Economic Regulation

(a) Water costs. The central rule of economic regulation is that the costs associated with providing an efficient service should be recovered. Payment may come from a combination of:

(i) The rate-payer or consumer of WSS (through cost-reflective tariffs with intra-sectoral adjustments and cross subsidy); and / or

(ii) The tax-payer (through taxes, cess or other levy for the WSS sector, as well as government grants, subsidies and subventions to the WSS sector).

(b) Tariff design should be based on the economic cost to provide a prescribed level of service to each consumer category and the willingness to pay for this service. It should take into account the scarcity value of resources—water, capital, human, etc. Unlike some other utilities like telephone and electricity services, supply of water cannot be completely terminated for default in payment owing to the potentially high human cost of this action. Some of the key principles of tariff design are:

(i) Revenue adequacy for service provider. Ultimately, water has to pay for itself and become self-sustaining[3]. This can be done by:

- Clearly identifying the level of service to be provided at an affordable rate to all ('public service obligation'), the level of subsidy to be provided for certain service segments, and its funding mechanism (budget or cross-subsidy from higher levels of service or customers);
- Defining a schedule of tariff adjustments, efficiency improvements, and budget support to allow the service provider to achieve an adequate and predictable flow of income to cover reasonable costs and provide a fair return on usefully-employed capital;

(ii) Non-distorting tariff structure. Tariffs should reflect economic costs. Cross-subsidies have the potential to send the wrong price signal to consumers and can distort demand. Cross-subsidies within the same customer category (such as households), whereby higher levels of service are charged rates sufficient to compensate the costs of a basic level of service, are less distorting. Estimating the

[3] As mentioned in Chapter I, sanitation services would take longer to become self-sustaining.

cost-of-service, particularly the marginal cost to serve different consumer categories, is complex and would require capacity-building at the service-provider and regulatory levels.

(iii) Introducing Capacity and Volume Charges. A two-part tariff, with an additional one-time connection charge, is best suited to capture the scarcity values of water and capital resources. A fixed 'Capacity Charge' would be based on fixed costs of the supply system, while a 'Consumption Charge' would be linked to system variable costs, including the cost of raw water[4]. Connection charges would reflect the incremental cost of capital, but could be subsidized for low-income and vulnerable consumers.

C. Performance Regulation

(a) An important objective of regulation is to map the baseline of performance parameters for the WSS service provider, and establish the output parameters to be attained over time. The attaining of these targets must be linked to the tariff that the WSS utility is entitled to charge for its services. There should also be built-in incentives to surpass performance targets.

(b) Performance parameters could be set for:

(i) Quality of water to be supplied.

(ii) Quality and reliability of supply—pressure, timing, duration, etc.

(iii) Access and coverage, including specific targets for low-income areas.

(iv) Wastewater coverage and quality of discharge.

(v) Customer service quality, including quality of response to complaints, convenience of payment systems, access to supervisors, etc.

(c) Generally the law should not prescribe rigid performance parameters. After incorporating general principles, like efficient provision of WSS, cost-reflective tariffs, etc.—it should leave it to policy-makers and regulatory authorities to drive progressive improvements in water and service quality and utility performance.

(d) The discretion to set the parameters, particularly for differential quality and tariffs, must be either specified in the operating and management contract, or left to the regulator. Joint planning of performance parameters, in partnership with consumer groups, is recommended. This would ensure that performance parameters are realistic, and that they meet the actual requirements of the consumers. The ultimate objective behind this exercise is to design services for which consumers are able and willing to pay. Joint planning exercises are time consuming and they are more difficult to accomplish for large urban programs. Ideally, joint planning exercises should be managed by ULBs or consumer groups, with support from local agencies and stakeholders, and under the supervision of the regulatory body empowered to set tariffs.

(d) Effective performance monitoring requires the establishment of a reliable baseline and a robust management information system. This monitoring is best done at the local level, ideally through an independent firm or non-governmental entity.

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[4] Introduction of volumetric charges would require a significantly better quality of service and management to permit reliable metering of consumption.

D. Conduct Regulation

(a) The regulatory framework (with appropriate delegation of authority between state and local authorities and across economic, environmental and health regulators) should provide regulators with the authority to respond to unforeseen circumstances which may create economic, social, environmental or health risks. It should also build regulatory capacity to respond constructively and creatively to these problems, and encourage innovative solutions.

(b) Appropriate agencies should be designated for—

- **Economic regulation** (setting and enforcing tariffs and service quality standards for the monopoly network services);
- **Health regulation** (setting and enforcing water and sanitation quality standards, and supply of a level of supply necessary for basic health and hygiene),
- **Environmental regulation** (monitoring sustainability of water resources, water abstraction rates, and wastewater discharge quality, and guiding necessary changes in environmental policy, taxation and penalties); and
- **Regulation of technical and safety standards** for equipment and civil works, including ensuring compliance with rights of way and easement.

The functioning of these agencies would need to be harmonized and their regulatory capacity upgraded.

E. Principles of Good Regulation

(a) **Independence and autonomy** are important aspects of a regulatory model.

(i) Regulatory bodies need to be insulated and protected from arbitrary and unnecessary extraneous pressures, particularly when setting tariffs, assigning or revoking licenses, or imposing penalties.

(ii) Legislation itself should provide for effective independence and autonomy in the regulatory decision-making process. Ultimately, legislation will have to be backed by political will to empower the regulator.

(iii) Autonomy of selection and appointment and security of tenure have to be ensured if the regulator is to function as an independent decision-making body. Faith in the office of the regulator is imperative to minimize 'regulatory risk' as a consideration for private investors.

(iv) Financial independence of the regulator has to be ensured through a system of WSS specific levy / surcharge / tax / cess / budget allocation as well as user charges. However, there may be a transition period, before user charges can pay for the regulator, during which dependence on funding from the budget cannot be avoided.

(b) **Transparency, predictability and fairness**: To ensure that the interests of various stakeholders, which may at times be conflicting, are balanced and considered, it is imperative that the regulatory process and procedures are transparent and consultative. This has to be ensured through procedural safeguards, a clear and precise policy vision and reasoned decision-making. This would mean that:

(i) Policy objectives, including the need for regulation, should be clearly defined and effectively communicated to all those concerned.

(ii) Regulations should be simple, clear and prospective in effect.

(iii) Those subject to the regulation should be able to understand their obligations and know what to expect from the enforcing authorities.

(iv) Sufficient information should be provided to stakeholders for them to be able to put forward their views.

(v) For consistency and predictability, discretionary powers should be kept to a minimum. Similar events and facts should lead to similar regulatory decisions and outcomes. In addition, decisions taken by the regulator should minimize judicial review and it should be mandatory for decisions to be backed by reasons, analysis and data.

(vi) The regulator's decisions should be consistent with the laws of the land, including consistency with competition policy, foreign investment policy, local municipal and state laws, etc.

(vii) Decisions taken by a regulator should be in line with those taken by other regulators with similar roles to ensure predictability. However, actions and decisions of the regulator should be flexible to accommodate innovation and changing economic conditions.

(c) **Accountability**:

(i) Regulators should be accountable to the government, state legislature and citizens.

(ii) Proposals should be published and affected groups should be consulted before decisions are taken.

(iii) Regulators should explain and justify their decisions by reference to defined criteria so that they can be effectively challenged.

(iv) There should be well-publicized, accessible, fair and efficient appeals procedures, commensurate with the significance of the dispute that should encompass the conduct of regulation as well as its outcomes.

(d) **Expertise**:

(i) Regulators should employ appropriate resources to fulfill their role. Legislation should outline the selection criteria, qualifications, tenure and terms of employment of persons appointed to the office of the regulator.

(ii) Regulators should have sufficient knowledge of the industry they are regulating to make informed decisions.

(iii) Regulators should employ staff with the necessary skills (e.g. economic, finance, legal, administrative, in project management and engineering) and experience of the regulated industry.

(e) **Efficiency**:

(i) Regulators should be efficient in their operations.

(ii) A regulator's costs should be subject to oversight and challenge to ensure that the regulator moves towards financial and functional autonomy in a phased manner. Oversight of regulatory charges should ensure that direct user charges do not make the regulator inaccessible.

(iii) The regulator's actions should provide strong incentives for enhancing the efficiency of regulated suppliers and of consumers.

(iv) Changes to regulatory methodologies and rules should be limited wherever possible to those which can be reasonably foreseen or anticipated as a logical and necessary development of existing methodologies and rules or those taken in other regulated areas.

(v) Regulatory rulings should strive to be commensurate with the scale of the event or problem to be addressed and should be designed to achieve the desired outcome. Penalties should be neither too high nor too low, should be enforceable,

and linked to ability to pay. A key issue is likely to be the right of a service provider to disconnect customers who do not pay their bills after due warning.

(vi) Timeliness is important. Decisions should be communicated sufficiently in advance to enable stakeholders to adjust their behavior to avoid surprises and shocks.

(f) **Legitimacy**:

(i) Regulatory legitimacy will depend on whether the regime is supported by legislative authority. Further, transparent and equitable functioning, with accountability to democratic institutions and judicial review would establish credibility. At the end of the day, legitimacy must be earned from cost-effective and efficient functioning, and long-term benefits to the consumer.

(g) **Other**:

(i) The regulator should work towards improving bulk water supply, distribution and utilization through advancing new concepts such as tradable water rights and tariff reforms to provide incentives for water conservation and efficient use.

F. Regulatory Design

(a) **Allocation of functions between state and local levels**. The policy framework would need to guide the delineation of regulatory functions between state and local authorities. Recognizing that water and sanitation are largely local issues, the responsibility for sector regulation (setting affordable service standards, setting tariffs, and monitoring utility performance) will probably remain with local authorities. However, if local government has limited capacity to regulate or is vulnerable to short-term political interests, state policy could consider locating tariff-setting authority at a higher level, leaving local authorities and service providers to agree on affordable service levels and requiring independent performance monitoring. In any case, local authorities would be obliged to bring the local regulations into harmony with the state's sector policy and legal framework within a pre-defined transition period. State policy could also give local authorities the option to delegate regulation to a state-level or independent agency. This may be particularly useful for regional utilities covering several ULBs.

(b) **State-level Economic Regulation**. The legal framework should envisage the creation of an independent economic regulator at the state level. Because such an institution is costly to set up and typically has limited success in regulating public sector operators, it should be established when there is a clear demand for its services (for example, when the first PSP contract is being tendered) and the political will for its empowerment.

(a) Alternatives to regulation should be fully considered before the regulatory design is established. The basic principle is that intervention of the state-level regulator should be limited to situations where other local mechanisms and the market cannot resolve the issue. Where management by user groups is possible, the government should concentrate less on direct service provision and more on facilitating service provision by public and private entities.

(b) **Contract vs. Regulator**. Most PSP arrangements in the WSS sector are likely to be between local government (with primary responsibility for these services and possibly owner of associated assets) and the private partner. This partnership will likely be governed by contract. Initial PSP contracts in a particular state would require state-level oversight to ensure they comply with the policy and legal framework. If the state-level regulator is not in place, the proposed state sector reform team or another part of the administration could perform this function . As regulatory competence and independence is developed at the state level, local government and private partners in a PSP arrangement may call upon the state regulator to enforce or arbitrate contractual

obligations. In addition, it is also the job of the regulator to ensure that the contract itself is consistent with government policy laid down by the law. Creating regulatory capacity at the early stages of the reform process, either within the reform team or an established regulator, will influence positively the quality and fairness of PSP contracts.

(c) **Multi-sector regulator vs. WSS Regulator**. A cost-effective option might be to place urban water and sanitation regulatory responsibilities within an existing regulatory body such as the electricity or telecommunications regulator. An existing regulator may be well placed to augment its sector-specific technical and industry knowledge and skills to regulate the economic dimensions of urban WSS services. It may also be pragmatic to combine the economic dimensions of water resource regulation with network regulation[5]. This decision would need to take into account the scarcity of good expertise in economic regulation, the difficulty to create effective, new institutions in developing countries and protecting them from 'capture' by vested interests, and other costs and benefits.

(d) **Creating a level playing field**. Non-network providers, who have created independent capacities like bore wells, village tanks, tankers, water harvesting schemes, etc., should be required to function according to the same rules as the network service providers. Particularly so with respect to groundwater and surface water abstraction rules, water quality (with respect to basic health standards), and responsibility for wastewater collection, treatment and discharge.

(e) **Mandate of the Regulator**. This should be clearly set out in the law, and the regulator should exercise jurisdiction only where mandated.

(f) **Governance, Regulation and Independent Monitoring**. With the state's sector policy framework and consumer demand for better services driving reforms at the local level, the legal and regulatory frameworks should require independent monitoring of utility performance. This would enhance the quality of governance and of regulation. Policy-makers, regulatory authorities and consumer groups should contribute to the design of the monitoring system.

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[5] As with network regulation, economic aspects should be regulated separately, but in coordination with, health and environmental regulation.

CREATING ENABLING CONDITIONS FOR REFORM AND PSP: UTILITY GOVERNANCE STRUCTURE

A. Utility/Corporate Governance

Recognizing the social and economic dimensions of water supply and sanitation, the governance structure of the service provider—whether private or public—should ensure transparency and accountability to all stakeholders, while insulating operational issues and decisions from political influence. In fact, improving management and accountability of service providers would be the first priority issue for most towns and cities. In designing the governance structure, authorities should draw on on-going work on public and private corporations being done by the Controller and Accountant General of India.

The first step would likely be to 'ring-fence' the service provider's accounts, budgets, management and staff, ideally through 'corporatization' (registration under the Indian Companies Act), establish a Board of Directors, and insulate the service provider from civil service or government rules for recruitment and procurement. International experience suggests transparency, demand-responsiveness and accountability are enhanced through:

- A majority representation on the board of directors who are independent of the owner, and are reputable and qualified to govern the service provider;
- Contracting professional management, insulated from government processes, and clearly allocating responsibilities between owners, board members, and management;
- Independent monitoring and evaluation of performance and customer satisfaction;
- Accounting systems consistent with international accounting standards;
- External financial audits in accordance with international standards of audits;
- Public disclosure and dissemination of performance reports.

The Articles of Association would specify:

- The criteria for selection of board members and management (including giving the board the authority to lease out assets and contract out management in a manner consistent with the regulatory framework);
- Procedures under which the board would retain fiduciary and policy oversight while delegating operational decisions and accountability to management; and
- Procedures to be followed in public dissemination of relevant information.

Well-functioning management and governance of the service provider would ease regulatory oversight—service providers would request tariff adjustments endorsed by reputable board members and there would be independent monitoring of service quality.

B. The special case of service providers in small towns[6]

Small towns (with a population of less than 500,000) could be encouraged to consolidate their assets and customer bases to attract the kind of human, financial and material resources needed to

[6] Currently the state funds capital work through a State Water Board and the distribution system is then financed and managed by municipalities. This separation of capital works and management of the distribution assets—the 'split personality model of WSS'—has not been satisfactory. Accountability is too dispersed, Water Boards responding to edicts of the State rather than the needs of the towns, uncertain 'ownership' of assets, and weak incentives for efficient management.

create well-governed service providers, for example in the form of a regional water and sanitation Asset Holding Company. These regional utilities would be better positioned to attract PSP in a competitive manner as well as command better terms in competitively bid engineering, construction and other contracts. Governance structures of such consolidated entities would be more complex, requiring equitable representation and voting rights, clear board mandate (allocation of investment funds, tariffs, staff matters, borrowing authority, etc.), procedures for PSP, rules for tariff-setting and cross-subsidization, etc.

State governments (and the proposed state-level regulator) could offer technical support, financial incentives, and dispute-resolution mechanisms to help local authorities to find the common ground for such consolidation of services.

CREATING ENABLING CONDITIONS FOR REFORM AND PSP: INDUSTRY STRUCTURE AND CONSUMER ORGANIZATIONS

A. Water Industry Structure

Network operation—a natural monopoly. Municipal governments will have the ultimate responsibility for water supply and wastewater processing within their jurisdictions. Within this jurisdiction, state policy and the legal framework would delegate to the distribution entity the full responsibility, authority and accountability for integrated system planning and operations. The key aspects of network operation—source development, storage, treatment, distribution, billing and collection - may be 'unbundled' into separate functions and outsourced, provided overall responsibility for system operation remains with the distribution entity.

Competitive market for 'inputs' for network operation. The industry structure should encourage competitive procurement, from an expanding range of indigenous and international suppliers, of high cost and high value services such as engineering and design, construction, equipment supply and installation, services to non-network areas, etc. In many cases this would require restructuring of existing Water Boards which have traditionally had a monopoly on engineering and capital construction. Joint ventures with qualified private firms, national and international, and a phased opening of these services to competition would help accelerate the development of indigenous capacity (as experienced in India's highways sector).

Resource development and extraction. Responsibility for water source development should be clearly defined. State policy and the regulatory framework would govern commercial relations between the entity responsible for source development and WSS service providers, and outline the parameters within which service providers can develop or augment raw water supply.

B. Consumer Level Structures

Consumer organizations. Recognizing the social dimension of WSS services, and the limits to commercialization of these services, state policy and the legal frameworks should seek to balance rights and responsibilities of service providers and consumers. While public service obligations should be designed to meet basic social needs of all consumer groups, particularly the poor and vulnerable, well-organized consumers can augment their market power for market-based services by offering themselves as attractive, creditworthy customers.

Industrial parks, residential colonies, etc. could also be encouraged to contract bulk services, leaving the option for network or other service providers to operate and maintain the infrastructure within these industrial parks and colonies under a separate contract which may include individual billing and collection.

Services to the poor. Effective consumer arrangements for households are particularly important in the Indian urban context where squatter settlements (with high population density) and multi-apartment dwellings account for an increasing proportion of the customer base. Tariff incentives and service quality regulations could provide incentives for consumers to form residents' associations which contract water and sanitation (and other community) services on their behalf. Poverty-targeted subsidies could be channeled through these community groups to allow low-income residents to pay for basic services. With a lower risk profile, these groups could become attractive customers for service providers.

In addition to community contracts, coverage and performance targets could encourage network service providers to collaborate with off-network suppliers such as vendors, tanker services and independent network systems to reach difficult communities in the short to medium term.

ANNEX 1
Amendment to the Constitution of India - Part IX-A

THE MUNICIPALITIES

Definitions

In this Part, unless the context otherwise requires:

(a) 'Committee' means a Committee constituted under Article 243-S;
(b) 'District' means a district in the State;
(c) 'Metropolitan area' means an area having a population of one million or more, comprised in one or more districts and consisting of two or more Municipalities or Panchayats or to other contiguous area, specified by the Governor by public notification as a Metropolitan area for the purposes of this Part;
(d) 'Municipal area' means the territorial area of a Municipality as is notified by the Governor;
(e) 'Municipality' means an institution of self government constituted under Article 243Q;
(f) 'Panchayat' means a Panchayat, a non-urban local self-governance body, as constituted under Article 243B;
(g) 'Population' means the population as ascertained at the last preceding census of which the relevant figures have been published.

Constitution of Municipalities

(1) There shall be constituted in every State:

(a) A Nagar Panchayat (by whatever name called) for a transitional area, that is to say, an area in transition from a rural area to an urban area:
(b) A Municipal Council for a smaller urban area;
(c) A Municipal Corporation for a larger urban area,

In accordance with the provisions of this Part:

Provided that a Municipality under this clause may not be constituted in such urban area or part thereof as the Governor may, having regard to the size of the area and the municipal services being provided or proposed to be provided by an industrial establishment in that area and such other factors as he may deem fit, by public notification, specify to be an industrial township.

(2) In this Article, 'a transitional area', 'a smaller urban area' or 'a larger urban area' means such area as the Governor may, having regard to the population of the area, the density of the population therein, the revenue generated for local administration, the percentage of employment in non-agricultural activities, the economic importance or such other factors as he may deem fit, specify by public notification for the purposes of this Part.

Composition of Municipalities

(1) Save as provided in clause (2), all the seats in a Municipality shall be filled by persons chosen by direct election from the territorial constituencies in the Municipal area and for this purpose each Municipal area shall be divided into territorial constituencies to be known as wards.

(2) The Legislature of a State may, by law, provide:

(a) for the representation in a Municipality of:
    (i) persons having special knowledge or experience in Municipal administration;

(ii) the members of the House of the People and the members of the Legislative Assembly of the State representing constituencies which comprise wholly or partly the Municipal area;
(iii) the members of the Council of States and the members of the Legislative Council of the State registered as electors within the Municipal area;
(iv) the Chairpersons of the Committee constituted under clause (5) of Article 243S:

Provided that the persons referred to in paragraph (i) shall not have the right to vote in the meetings of the Municipality;

(b) the manner of election of the Chairperson of a Municipality.

Constitution and composition of Wards Committees etc.

(1) There shall be constituted Wards Committees, consisting of one or more wards, within the territorial area of a Municipality having a population of three lakhs (300,000) or more.

(2) The Legislature of a State, may, by law, make provisions with respect to:

(a) the composition and the territorial area of a Wards Committee;
(b) the manner in which the seats in a Wards Committee shall be filled.

(3) A member of a Municipality representing a ward within the territorial area of the Wards Committee shall be a member of that Committee.

(4) Where a Wards Committee consists of:

(a) one ward, the member representing that ward in the Municipality; or
(b) two or more wards, one of the members representing such wards in the Municipality elected by the members of Wards Committee,

shall be the Chairperson of that Committee.

(5) Nothing in this Article shall be deemed to prevent the Legislature of a State from making any provision for the constitution of Committees in addition to the Wards Committees.

Reservation of seats

(1) Seats shall be reserved for the Scheduled Castes and Scheduled Tribes in every Municipality and the number of seats so reserved shall bear, as nearly as may be, the same proportion to the total number of seats to be filled by direct election in that Municipality as the population of the Scheduled Castes in the Municipal area or of the Scheduled Tribes in the Municipal area bears to the total population of that area and such seats may be allotted by rotation to different constituencies in a Municipality.

(2) Not less than one-third of the total number of seats reserved under clause (1) shall be reserved for women belong to the Scheduled Castes or, as the case may be, the Scheduled Tribes

(3) Not less than one-third (including the number of seats reserved for women belonging to the Scheduled Castes and the Scheduled Tribes) of the total number of seats to be filled by direct election in every Municipality shall be reserved for women and such seats may be allotted by rotation to different constituencies in a Municipality.

(4) The offices of Chairpersons in the Municipalities shall be reserved for the Scheduled Castes, the Scheduled Tribes and women in such manner as the Legislature of a State, may, by law, provide.

(5) The reservation of seats under clauses (1) and (2) and the reservation of offices of Chairpersons (other than the reservation for women) under clause (4) shall cease to have effect on the expiration of the period specified in Article 334.

(6) Nothing in this Part shall prevent the Legislature of a State from making any provision for reservation of seats in any Municipality or offices of Chairpersons in the Municipalities in favor of backward classes of citizens.

Duration of Municipalities etc.

(1) Every Municipality, unless sooner dissolved under any law for the time being in force, shall continue for five years from the date appointed for its first meeting and no longer:

Provided that a Municipality shall be given a reasonable opportunity of being heard before its dissolution.

(2) No amendment of any law for the time being in force shall have the effect of causing dissolution of a Municipality at any level, which is functioning immediately before such amendment, till the expiration of its duration specified in clause (1).;

(3) An election to constitute a Municipality shall be completed:
- (a) before the expiry of its duration specified in clause (1);
- (b) before the expiration of a period of six months from the date of its dissolution.

Provided that where the remainder of the period for which the dissolved Municipality would have continued is less than six months, it shall not be necessary to hold any election under this clause for constituting the Municipality for such period.

(4) A Municipality constituted upon the dissolution of a Municipality before the expiration of its duration shall continue only for the remainder of the period for which the dissolved Municipality would have continued under clause (1) had it not been so dissolved.

Disqualifications for memberships

(1) A person shall be disqualified for being chosen as, and for being, a member of a Municipality:

- (a) if he is so disqualified by or under any law for the time being in force for the purposes of elections to the Legislature of the State concerned:

Provided that no person shall be disqualified on the ground that he is less than twenty-five years of age, if he has attained the age of twenty-one years;

- (b) if he is so disqualified by or under any law made by the Legislature of the State.

(2) If any question arises as to whether a member of a Municipality has become subject to any of the disqualification mentioned in clause (1), the question shall be referred for the decision of such authority and in such manner as the Legislature of a State may, by law, provide.

Powers, authority and responsibilities of Municipalities etc.

Subject to the provisions of this Constitution, the Legislature of a State, may, by law, endow:

- (a) the Municipalities with such powers and authority as may be necessary to enable them to function as institutions of self government and such law may contain provisions for the devolution of powers and responsibilities upon Municipalities subject to such conditions as may be specified therein, with respect to:
  - (i) the preparation of plans for economic development and social justice;
  - (ii) the performance of functions and the implementation of schemes as may be entrusted to them including those in relation to the matters listed in the Twelfth Schedule;

(b) the Committees with such powers and authority as may be necessary to enable them to carry out the responsibilities conferred upon them including those in relation to the matters listed in the Twelfth Schedule.

Power to impose taxes by, and Funds of, the Municipalities

The Legislature of a State may, by law:

(a) authorise a Municipality to levy, collect and appropriate such taxes, duties, tolls and fees in accordance with such procedure and subject to such limits;
(b) assign to a Municipality such taxes, duties, tolls and fees levied and collected by the State Government for such purposes and subject to such conditions and limits;
(c) provide for making such grants-in-aid to the Municipalities from the Consolidated Fund of the State; and
(d) provide for constitution of such Funds for crediting all moneys received, respectively by or on behalf of the Municipalities and also for the withdrawal of such moneys therefrom,

as may be specified in the Law.

Finance Commission

(1) The Finance Commission constituted under Article 243-I shall also review the financial position of the Municipalities and make recommendations to the Governor as to:

(a) the principles which should govern:
  (i) the distribution between the State and the Municipalities of the net proceeds of the taxes, duties, tolls and fees leviable by the State, which may be divided between them under this Part and the allocation between the Municipalities at all levels of their respective shares of such proceeds;
  (iv) the determination of the taxes, duties, tolls and fees which may be assigned to, or appropriated by the Municipalities;
  (v) the grant–in-aid to the Municipalities from the Consolidated Fund of the State.
(b) the measures needed to improve the financial position of the Municipalities;
(c) any other matter referred to the Finance Commission by the Governor in the interests of sound finance of the Municipalities.

(4) The Governor shall cause every recommendation made by the Commission under this Article together with an explanatory memorandum as to the action taken thereon to be laid before the Legislature of the State.

Audit of accounts of Municipalities

The Legislature of a State may, by law, make provisions with respect to the maintenance of accounts by the Municipalities and the auditing of such accounts.

Elections to the Municipalities

(1) The Superintendence, direction and control of the preparation of electoral rolls for, and the conduct of, all elections to the Municipalities shall be vested in a State Election Commission referred to in Article 243K.

(2) Subject to the provisions of this Constitution, the Legislature of a State may, by law, make provisions with respect to all matters relating to, or in connection with, elections to the Municipalities.

Application to Union territories

The provisions of this Part shall apply to the Union territories and shall, in their application to a Union territory, have effect as if the references to the governor of a State were reference to the Administrator of the Union territory appointed under Article 239 and references to the Legislature or the Legislative Assembly of a State were references in relation to a Union territory having a Legislative Assembly to that Legislative Assembly;

Provided that the President may, by public notification, direct that the provisions of this Part shall apply to any Union territory or part thereof subject to such exceptions and modifications as he may specify in the notification.

Part not to apply to certain areas

(1) Nothing in this Part shall apply to the Scheduled Areas referred to in clause (1), and the tribal areas referred to in clause (2), of Article 244.

(2) Nothing in the Part shall be construed to affect the functions and powers of the Darjeeling Gorkha Hill Council constituted under any law of the time being in force for the Hill areas of the district of Darjeeling in the State of West Bengal.

(3) Notwithstanding anything in this Constitution, Parliament may, by law, extend the provisions of this Part to the Scheduled Areas and the tribal areas referred to in clause (1) subject to such exceptions and modifications as may be specified in such law, and no such law shall be deemed to be an amendment of this Constitution for the purposes of Article 368.

Committee for district planning

(1) There shall be constituted in every State at the district level a District Planning Committee to consolidate the plans prepared by the Panchayats and the Municipalities in the district and to prepare a draft development plan for the district as a whole.

(2) The Legislature of a State may, by law, make provision with respect to:
- (a) the composition of the District Planning Committees;
- (b) the manner in which the seats in such Committees shall be filled;

  Provided that not less than four-fifths of the total number of members of such Committee shall be elected by, and from amongst, the elected members of the Panchayat at the district level and of the Municipalities in the district in proportion to the ratio between the population of the rural areas and of the urban areas in the district;
- (c) the functions relating to district planning which may be assigned to such Committees;
- (d) the manner in which the Chairpersons of such Committees shall be chosen;

(3) Every District Planning Committee shall, in preparing the draft development plan:

- (a) have regard to :
  - (i) matters of common interest between the Panchayats and the Municipalities including spatial planning, sharing of water and other physical and natural

resources, the integrated development of infrastructure and environmental conservation:

(ii) the extent and type of available resources whether financial or otherwise;

(b) consult such institutions and organisations as the Governor may, by order, specify:

(4) The Chairperson of every District Planning Committee shall forward the development plan, as recommended by such Committee, to the Government of the State.

Committee for metropolitan planning

(1) There shall be constituted in every Metropolitan area a Metropolitan Planning Committee to prepare a draft development plan for the Metropolitan area as a whole.

(2) The Legislature of a State, may, by law, make provision with respect to:

(a) the composition of the Metropolitan Planning Committees;

(b) the manner in which the seats in such Committees shall be filled:

Provided that not less than two thirds of the members of such Committee shall be elected by, and from amongst, the elected members of the Municipalities and Chairpersons of the Panchayats in the Metropolitan area in proportion to the ratio between the population of the Municipalities and of the Panchayats in that area;

(c) the representation in such Committee of the Government of India and the Government of the State and of such organisations and institutions as may be deemed necessary for carrying out the functions assigned to such Committees;

(d) the functions relating to planning and coordination of the Metropolitan area which may be assigned to such Committees;

(e) the manner in which the Chairpersons of such Committees shall be chosen.

(3) Every Metropolitan Committee shall, in preparing the draft development plan:

(a) have regard to :

(i) the plans prepared by the Municipalities and the Panchayats in the Metropolitan areas;

(ii) matters of common interest between the Municipalities and the Panchayats, including coordinated spatial planning of the area, sharing of water and other physical and natural resources, the integrated development of infrastructure and environmental conservation;

(iii) the overall objectives and priorities set by the Government of India and the Government of the State;

(iv) the extent and nature of investments likely to be made in the Metropolitan area by agencies of the Government of India and of the Government of the State and other available resources whether financial or otherwise;

(b) consult such institutions and organisations as the Governor, may, by order, specify.

(4) The Chairperson of every Metropolitan Planning Commission shall forward the development plan, as recommended by such Committee, to the Government of the State.

Continuance of existing laws and Municipalities

Notwithstanding anything in this Part, the provisions of any law relating to Municipalities in force in a State immediately before the commencement of the Constitution (Seventy-fourth Amendment) Act, 1992, which is inconsistent with the provisions of this Part, shall continue to be

in force until amended or repealed by a competent Legislature or other competent authority or until the expiration of one year from such commencement, whichever is earlier.

Provided that all the Municipalities existing immediately before such commencement shall continue till the expiration of their duration, unless sooner dissolved by a resolution passed to that effect by the Legislative Assembly of that State, or in the case of a State having a Legislative Council, by each House of the Legislature of that State.

Bar to interference by Courts in electoral matters

Notwithstanding anything in this Constitution:

(a) the validity of any law relating to the delimitation of constituencies or the allotment of seats to such constituencies, made or purporting to be made under Article 243ZA shall not be called in question in any Court;

(b) no election to any Municipality shall be called in question except by an election petition presented to such authority and in such manner as is provided for, by or under any law made by the Legislature of a State.

Twelfth Schedule
[Article 243-W]

1. Urban planning including town planning.
2. Regulation of land-use and construction of buildings.
3. Planning for economic and social development.
4. Roads and bridges.
5. Water supply for domestic, industrial and commercial purposes.
6. Public health, sanitation, conservancy and solid waste management.
7. Fire services.
8. Urban forestry, protection of the environment and promotion of ecological aspects.
9. Safeguarding the interests of weaker sections of society, including the handicapped and mentally retarded.
10. Slum improvement and upgradation.
11. Urban poverty alleviation.
12. Provision of urban amenities and facilities such as parks, gardens, play-grounds.
13. Promotion of cultural, educational and aesthetic aspects.
14. Burials and burial grounds; cremations, cremation grounds, and electric crematoriums.
15. Cattle pounds, prevention of cruelty to animals
16. Vital statistics including registration of births and deaths.
17. Public amenities including street lightning, parking lots, bus stops and public conveniences.
18. Regulation of slaughter-houses and tanneries.

ANNEX 2

Gaps and Contradictions in State Legislation on Water Supply & Sanitation Services

(i) The current laws often deal with diverse municipal services and activities (with WSS as one of the many services), and have created multiple bodies and jurisdictions—quite apart from that of the State government—which have jurisdiction over various aspects of WSS, such as ownership; planning and implementation of water works schemes, supply of water, contracting, levy and recovery of taxes, fees and levies, etc..

(ii) In Karnataka, ULBs have power to use any resources or means within a municipal area to maintain drainage works and to obtain water supply. However, the government has extensive control, including prior sanction requirements for expenditure beyond very low stipulated limits. A ULB cannot incur expenditure beyond the prescribed limits on the construction, maintenance, repair or purchase of works without prior sanction of the state government. A variety of bodies have the power to charge and collect various tolls, fees, charges, rates etc and a recent judgment of the Supreme Court has confirmed that a fee can be charged by a state government without providing any service.

(iii) The existing state laws do not envisage the use of water related assets as security for any private financing.

(iv) The present legal framework does not provide significant elements necessary for successfully undertaking diverse formats of PSP. A ULB may contract repair and maintenance activities to private operators but can only do so with the prior sanction of the state government.

(v) It would be imperative to ensure against the overlapping amendments or repeals of various state laws in relation to WSS. It would be desirable to enact one uniform law that provides, inter alia, for the following:

- Re-organization of WSS sector, setting out the separation of powers and the respective roles, functions and powers of key stake-holders.
- Institutional restructuring to develop and implement PSP in different formats which may extend to more than one ULB, covering aspects of ring-fencing, ownership, right-of-use, corporatization, commercialization, and related issues.
- The regulatory framework and principles (governing economic and performance regulation), inter alia, to balance conflicting interests of the various stakeholders; transition the sector to viability with effective PPP??GIVE EXPANSION??; and establish cost-reflective tariffs while securing access to the poor.
- A PSP implementation mechanism with a realistic transition path to ensure effective PSP, while safeguarding the legitimate interests of various stakeholders.

ANNEX 3

Labor Retrenchment Issues

'Workmen' enjoy particular protection. The 'workmen' category comprises all blue-collar employees engaged in any manual, unskilled, technical, operational or clerical work. They are entitled to several benefits and protections under various labor laws, including the Industrial Disputes Act, 1947. The decisive factor in determining whether an employee is a workman or not is the actual nature of duties (designation or remuneration is not the material factor).

Other employees whose functions are predominantly managerial, administrative and supervisory enjoy limited in-service protection by law, their employment-related issues are governed mainly by the Indian Contract Act, 1872, and various employment contract laws.

Employees of a state-owned establishment are also entitled to certain Constitutional safeguards regarding their employment. These include protection in terms of security of service, equal pay for equal work, no discrimination of any kind, and reservations for various backward sections of society, among others. Article 16 Clause (1) of the Indian Constitution provides that there shall be equality of opportunity for all citizens in matters related to employment or appointment to any office under the state. The matters referred to above in Article 16(1) cover: (i) Initial appointment; (ii) Promotions; (iii) Termination of employment; (iv) Matters relating to salary, periodical increments, leave, gratuity, pension, age of superannuation, etc. Therefore, an employee of the utility may continue to be entitled to the same even after any functional unbundling.

Categories of Employees: Basically, 'employees' include:

(a) workmen employed by (i) the state; or (ii) a private employer; and
(b) non-workmen employed by (i) the state; or (ii) a private employer;

In addition, there are some sub-categories of contract labor, temporary employees, apprentices, etc.

The main issue is that the restructuring should not adversely affect terms and conditions of service. The expression 'terms and conditions of employment' is very comprehensive and includes all the rules and regulations applicable to the employment of personnel, including their salaries, conditions of service, leave, termination of service, etc. In fact, this expression would cover all the terms and conditions which regulate the service of a personnel, commencing from initial appointment, to a post held, till the persons termination or retirement and thereafter, matters connected with the persons pension and other terminal benefits. Moreover, there are various judicial pronouncements that confirm that practices and/or usage may also become terms and conditions of employment.

In certain PSP options, employees of the state or utilities may need to be deputed to the private entity. Such deputation must be carried out as per the applicable service rules. While deputing employees, it must also be kept in mind that the employee will retain the lien with its parent department.

The terminal benefits of the employees of state owned enterprises are governed by statutes and rules thereunder. In the event that employee related liabilities remain non-funded, it would pose an additional liability for the private party and serve as an impediment to attracting effective PSP. Governments, therefore, need to reduce such additional liabilities and reduce the risk perception in the mind of the private investor.

INDIA:
URBAN WATER AND SANITATION SERVICES

GUIDELINES FOR SECTOR REFORM
AND
SUCCESSFUL PUBLIC-PRIVATE PARTNERSHIPS

VOLUME 3

SELECTING AND EXECUTING TRANSACTIONS WITH PRIVATE SECTOR PARTICIPATION
AND
MANAGING THE PUBLIC-PRIVATE PARTNERSHIP

JANUARY 2004

VOLUME 3 SUMMARY

As suggested in Volume 1, the State's policy, legal and regulatory frameworks would outline the spectrum of roles the private sector could and should play in achieving the urban water and sanitation sector's objectives of providing, in the medium- and long-term, high quality services to all segments of society, including affordable services to the poor, in a sustainable manner. Within this framework, Urban Local Bodies (ULBs), with State government support, would:

(i) Identify PSP options that could feasibly be implemented within prevailing financial and political conditions.

(ii) Prepare the utility for the envisaged form of private sector participation. This would require certain activities, including:

- *A detailed assessment of existing conditions;*
- *Developing a physical and financial rehabilitation program to meet progressively improving service targets (within ability-to-pay, ability-to-collect, and budget constraints);*
- *Influencing on-going legal and regulatory reforms; and*
- *Designing the tender conditions, clearly allocating the rights and responsibilities of the private and public authorities.*

This effort would, in all probability, require assistance from a team of reputable and qualified advisers to design the financial, legal, economic, and pro-poor aspects of the envisaged transaction, and its marketing and communication strategy.

In India, private sector participation would provide the high quality operating and management expertise to mobilize public and private capital to reverse the years of chronic under-investment in urban water and sanitation systems. A credible sector policy and systematic structural reforms—at the legal, regulatory, industry and utility levels—would serve to build up a constructive and long-term role for the private sector. Engagement of the private sector in most towns and cities would, in all likelihood, evolve from well-designed management or lease contracts with progressively more demanding performance requirements, to concessions, as and when the private sector is better able to assess and assume operating, commercial and regulatory risks. In addition to bringing risk-adjusted costs of private capital down to affordable levels, this progressive approach would also allow public authorities to test public-private partnerships and build public confidence for a deeper private sector role in the sector.

Following the signing of a PSP contract, ULBs, with State government support and support from its advisers, would continue to build capacity to manage the public-private partnership and monitor utility performance. Improved governance and regulatory capacity would build public confidence to progressively deepen the role of the private sector.

OPTIONS FOR PRIVATE SECTOR PARTICIPATION

A. Introduction

All forms of PSP (Table 1), ranging from simple service and management contracts to increasingly complex performance-based management contracts, asset leases, *affermages*, concessions and asset divestitures, involve a partnership between the government and the private sector. However, they differ in their allocation of risks and responsibilities, in duration of contract, and in assignation of asset ownership. Service and fee-based management contracts may be implemented without adequate baseline information, cost-reflective tariffs, or performance monitoring systems in place. Predictable regulatory frameworks and reliable databases are essential for leases, concessions and divestitures. Benefits accruing from PSP grow as responsibility and risk are increasingly placed on the private partner. Thus, while service and management contracts involve less institutional change, they also garner lower benefits in terms

of increasing coverage, efficiency and consumer-orientation. In practice, hybrids are becoming the norm, with the private sector taking some commercial risk previously not assumed under management contracts, and being responsible for some investments under leases where previously all investments were the responsibility of the public sector.

B. Typical Forms of PSP

Service Contracts

(a) Service contracts are at best a cost-effective means to meet special technical needs for a utility that is already well managed and commercially viable. These could cover specific tasks like installing or reading meters, monitoring losses, repairing pipes, or collecting accounts, and are typically for short periods ranging between six months to two years.

(b) The responsibility for monitoring and coordinating the performance by the contractor rests with the public utility. Although relatively simple, the performance of service contracts must be carefully monitored.

(c) As the obligation to finance investments rests with the government, this form is not suitable for accessing private finance.

(d) Service contracts are not a substitute for sector reform and restructuring.

Management Contracts

(a) Management contracts go beyond service contracts by transferring responsibility for operations and maintenance (O&M) to the private contractor, and are generally for a period between 3 to 5 years. .

(b) The simplest contract form involves hiring a team of experts from a qualified firm to supplement the management of the existing utility, and paying the private firm a fixed fee for carrying out specific operational tasks. More sophisticated management contracts may introduce greater incentives for operational efficiency and improved cash flow, and could require setting up a privately owned operating company, which then assumes a mutually decided level of efficiency and working capital risk.

(c) Any form of contract in which the contractor gets reimbursed based on outputs or outcomes, requires the public utility to specify clear and indisputable performance targets, and for the contractor to accept the responsibility to meet these targets. It also requires setting up a competent monitoring system. In practice, private contractors would need to be comfortable with the quality of information used to establish performance targets, and also with the public authority's commitment to meeting its responsibilities. The latter would include timely provision of working and investment capital from the public authority, political will to enforce payment discipline and allow efficient utilization of resources, particularly human and capital.. For example, reduction in unaccounted-for-water (UFW) could be a performance criterion against which to link payment. However, UFW is hard to estimate, especially if metering is inadequate, and its reduction over time could well depend on the public authority making timely investments to reduce leaks and improve metering, and also aggressively prosecuting persons indulging in the theft of water.

(c) Traditionally, management contracts have shown limited benefits since they leave investment decisions and responsibility to the government, seldom transfer significant commercial risks to the management contractor, and do not provide adequate incentives for the private operator to challenge vested interests in its efforts to reduce costs and improve service quality. Newer forms of management contracts are seeking to rectify these traditional failings by linking, in a progressive manner, contractor remuneration to performance against an expanding set of O&M-related targets. Reforms to utility

governance structures are also being tested, giving the private partner a substantial say in investment planning and implementation, human resource management, decision-making on tariffs, and enforcement of payments. Independent monitoring and public dissemination of utility performance can also be effective in managing public expectations and enhancing management and owner accountability.

(d) Management contracts can be a politically expedient and cost-effective means to leverage deeper forms of PSP. However, until a qualified and reputable private sector develops in India, such contracts are likely to be costly[1]. To be cost-effective, management contractors should have the right and responsibility to optimally use resources and prepare the utility-level and informational conditions to transition to a lease, concession or divestiture arrangement. Provided it is not a contender for the follow-on PSP contract, the management firm could also define the outcomes to be sought by its successor; develop investment, cost-reduction and financial recovery programs and identify policy and regulatory changes needed to achieve the target outcomes.

Leases

(a) Under the PSP arrangement, all or specific assets of a publicly-owned utility are leased to a private firm to operate and maintain for a pre-defined term long enough for the private firm to recover its O&M-related investments and get a return on the resources it employs. A lease is typically for 7 to 15 years. It secures for the lessor the revenue stream from the utility's operations (net of the lease payment), together with much of the commercial risk of the operations.

(b) Under a well-structured contract, the lessor's profitability will depend on the extent to which it can reduce costs (while still meeting stipulated quality standards), and possibly improve revenues.

(c) Responsibility for financing and planning investments rests with the government. If major new investments are needed, the government must raise the funds and coordinate the investment program with the operator's operational and commercial program. ***Leases are most appropriate in cases where there is scope for big gains in operating efficiency but only limited need or scope for new investments***. Their levels of administrative complexity and involvement in monitoring performance as well as government commitment is greater than in a management contract.

(d) Leases are often advocated as stepping stones towards more full-fledged PSP through concessions. 'Pure' leases are rare, with most placing some investment responsibility as a minimum for rehabilitation on the private partner. These contracts operate as a hybrid between a lease and a concession.

[1] Typically, a reputable firm providing a management team of 4-5 qualified experts would charge between Rs. 2.5 and 5.0 crores ($0.5-1.0 million) per year for a 3-5 year management contract. These costs would need to be compared with the economic costs of water and wastewater services. Furthermore, to be cost effective, the management contractor should be given adequate means and sufficient authority to meet mandated responsibilities.

TABLE 1: Allocation of Key Responsibilities under the Main Private Sector Participation Options

Option	Asset Ownership	Operations & Maintenance	Capital Investment	Commercial Risk	Duration	Additional Remarks
Service Contract	Public	Public and Private	Public	Public	1-2 years	Typically for specific activities—meter installation or reading, monitoring losses, repairing pipes or collecting accounts.
Management Contract	Public	Private	Public	Public	3-5 Years	Fixed fee-based or combination fee plus performance bonus; Private party may assume commercial risks associated with tariff collection from all or specific customer groups, and for reducing specific costs (if provided with adequate means and authority); Government must ensure timely access to capital.
Lease	Public	Private	Public (with limited private)	Shared	8-15 Years	Private party assumes risks / rewards of efficiency and revenue improvements (if given authority over key decisions); Private party finances working capital and limited rehabilitation; Administratively as complex as concessions; Typically suited where operating expertise and small capital investments can generate substantial efficiency gains.
Concession	Public	Private	Private	Private	25-30 Years	Usually awarded to qualified bidder proposing the lowest tariff to operate the utility and meet performance targets; Require secure access to adequate water resources; High quality of technical, financial and market information needed to prepare a credible bid; Administratively complex, requiring competent and independent regulation.
BOT/BOO [a]	Private and Public	Private	Private	Private	20-30 Years	Typically used for greenfield projects—bulk water supply, water or wastewater treatment plants, etc. Capital risk usually borne by government or state utility.
Divestiture	Private or Private & Public	Private	Private	Private	Indefinite (license may set term)	Regulation-intensive; however, reduced role of government in asset ownership may justify higher costs of competent and fair regulation.

Source: Adapted from "*Toolkits for Private Participation in Water and Sanitation*", The World Bank

[a] Build-Operate-Transfer and Build-Own-Operate

Note: In practice, hybrids are possible, for example management contracts where the private sector takes on some commercial risks, and leases in which the private sector is responsible for some investments. Also prevalent, though not always advisable, are majority privately-owned joint venture companies set up to operate (and sometimes invest in) the water utility under a lease or concession arrangement.

Concessions

(a) A concession gives the private partner responsibility for investment, in addition to O&M, for a defined term that is usually between 25 to 30 years. Asset ownership remains with the government and full use rights over these assets, including those created by the concessionaire, revert to the public when the contract ends.

(b) Concessions are often bid by price. The pre-qualified bidder that proposes to operate the utility and meet the performance (or investment targets) for the lowest tariff is awarded the concession. The concession contract sets out conditions for the main performance targets (coverage and quality), performance standards, capital investment plans, tariff formulae and principles, and mechanisms for adjusting tariffs and arbitrating disputes.

(c) The main advantage of a concession is that it passes full responsibility for operations and investment to the private sector and brings to bear incentives for efficiency in all of the utility's activities. The concession is, therefore, an attractive option where large investments are needed to expand the coverage or improve the quality of services;

(d) On the government's side, administering a concession is a complex business, because it confers a long-term monopoly to the concessionaire for a vital public service. The quality of regulation is, therefore, important in determining the success of the concession, particularly the distribution of its benefits between the concessionaire (in profits) and consumers (in lower prices and better service).

Build-operate-transfer (BOT) contracts

(a) Build-operate-transfer (BOT) arrangements resemble concessions, particularly regarding tenure, investment and O&M obligations, and vesting of assets in the government or publicly owned utility at the end of the tenure period. However, BOT is normally used for capital works in greenfield projects, such as a water or wastewater treatment plant. The government or the distribution utility would pay the BOT contractor for water from the project, at a price calculated over the life of the contract to cover its construction and operating costs, and a reasonable return on investment.

(b) The contract between the BOT concessionaire and the distribution utility is either on:

- A "take-or-pay" basis, thereby transferring all demand risk to the utility, or
- A two-part tariff, where the utility pays a fixed capacity charge (typically sufficient to cover the private party's fixed costs) and a consumption charge for services actually used. In this manner, the demand risk is shared between the utility and the BOT concessionaire.

(c) There are many possible variations on the BOT model, including build-operate-own (BOO) arrangements, in which the assets remain indefinitely with the private partner, and design-build-operate (DBO) arrangements, in which the public and private sectors share responsibility for capital investments. BOTs may also be used for plants that need extensive overhauls—in arrangements sometimes referred to as ROTs (rehabilitate-operate-transfer).

(d) BOT contracts tend to work well to build discrete new assets such as bulk water supply, water or wastewater treatment plants, or to extend services to new neighborhoods. However, as has been experienced with independent power plants built to supply electricity to otherwise unreformed state electricity boards, without sector reforms to create an efficient and financially sustainable WSS sector, BOT projects will add new payment liabilities and public risk to the publicly-owned water utility.

Divestiture: Full or Partial

(a) This may take place through a sale of assets or shares or a management buyout. The divestiture of ownership to private player may be partial or complete.

(b) A complete divestiture, like a concession, gives the private sector full responsibility for operations, maintenance and investment, together with the bulk of sector risk. A concession requires the government to monitor the condition of assets that will be returned at the end of the concession period. However, this is not required for a divestiture, since, in theory, the private owner should be concerned about maintaining its asset base.

(c) Competent and independent economic regulation of service quality, costs and efficiency become essential to protect consumers from monopoly power bestowed on a private firm through a divestiture (or concession). In addition to penalties for poor performance, governments would typically retain safeguards in the form of step-in rights, power to appoint another operator, and license revocation.

C. Thematic Differences between the Main forms of PSP

2.3 In addition to the generic features discussed above, it is important to note thematic differences when choosing between management contracts, leases and concessions.

(a) **Economic Regulation.** In a management contract, the private operator does not keep revenues from tariff collection. It would therefore be less critical to provide for tight rules on economic regulation, particularly on tariff adjustment. On the other hand, these would be very important for leases and concessions.

(b) **Labor issues.** In a management contract, the employees would typically continue to be employees of the state-owned water utility and be protected by civil service rules. In the case of leases and concessions, however, the private partner would be expected to create a new company, which would absorb some or all employees currently on the rolls. In these cases, the labor negotiations would be intense and may include rules on the hiring and firing of employees, separation benefits, salary levels, possible 'voluntary retirement schemes', recognition of labor unions, etc. Nonetheless, for management contracts to effectively improve efficiency of labor, capital and other resources, rules would have to be developed governing the authority of the management contractor over employees.

(c) **Step-in rights of banks.** In a concession, the private sector would be expected to mobilize investment capital from both equity and debt. The contractor would need to consider the concerns of lending banks, particularly in relation to 'step-in' rights. This would not be a major concern for a lease or management contract because the private sector would not be expected to bring in significant investment capital.

(d) **Service targets.** In a concession, service targets may be fewer and focused on key outcomes, particularly an increase in service coverage at a specified quality and pressure level. It is assumed that concessionaires would, by themselves, strive for efficiency as this would reduce costs and increase company profits. Targets would likely also be set for reducing non-revenue (or unaccounted-for-) water, leaving it up to the concessionaire to find the optimal way to achieve these targets, including through capital investments

(e) By contrast, service targets to be imposed on a lessee will not include those that require capital investments—for example, increase in service coverage that requires network extension and construction of new water treatment capacity. Since the lessee will be responsible mainly for operations and maintenance, service targets will focus on these functions and may include, for example, response time to customer complaints, the establishment of a proper preventive and routine maintenance program, a minimum time

to provide connections to new customers (once government funding has been secured), etc. Similar to the concession, the lease contract may not necessarily mandate service targets that are meant to improve efficiency because the lessee organization would pursue these independently, because these would improve its profitability.

(f) As with a lease, a management contract would also not include service targets that require capital investments (unless the government secures adequate funding and control over its use is provided to the management contractor). Unlike a lease, since management contractors typically do not have a natural incentive to improve operating efficiency since they do not retain tariff revenues, service targets will have to be included into the contract, and means and incentives (bonuses) provided to achieve these targets.

(g) **Financial incentives, bonuses.** The financial incentive for a concession and lease contract will simply be its potential profit from tariff revenues. The more efficient a concessionaire is, the higher will be its profit. In the case of a management contract, financial compensation will typically be in the form of a base fee and a performance bonus, with the bonus dependent on the efficiency improvements in operations that are within the control of the private operator.

(h) **Raw water availability.** The concession and lease contracts would require some form of guarantee from the government on raw water availability as this will directly impact the profitability of the private sector operator. This would be of much less concern to the management contractor. In all cases, the concession and lease contracts would clearly define the priority of the utility over its water source, in relation to other water utilities, irrigation and power. In some cases, these contracts may likewise address the issue of droughts and whether or not the private operator would be compensated in some manner during these events, as for example, through a tariff increase.

PREPARING THE SERVICE PROVIDER FOR PSP

A. Identifying Feasible PSP Options – The Indian Context

Factors affecting the choice of a PSP option. Options for involving the private sector can be implemented on different scales, with different combinations of functional responsibilities and with different forms of regulation. To have some assurance that the option a government chooses has a good chance of meeting its objectives and that it will be feasible in local circumstances, the government needs to undertake careful analysis of a range of technical, regulatory, political, and financial factors. This pre-contract analysis has two distinct stages:

- **Stage 1**: Local authorities would clarify objectives for the sector in keeping with state policy and determine forms of PSP that are appropriate and affordable. Local authorities would carry out a rough financial feasibility analysis to obtain an order-of-magnitude estimate of tariff changes or subsidies required for the PSP. They would subsequently use this analysis to inform the process of assessing political support for and opposition to PSP. Authorities should use informal market soundings to assess which forms of PSP would be likely to attract bidders.

- **Stage 2**: Once a government has determined that private sector participation appears financially and politically feasible, it would need to move on to the second, more in-depth stage of analysis, focusing on the following questions:
  - What is the state of the existing utility?
  - How compatible is the regulatory regime with private sector participation?
  - How committed—or opposed—to PSP are key stakeholders?
  - What are the main risks that need to be allocated or mitigated to ensure that private sector participation can succeed?

While the first stage is best done by economic and technical specialists with the communication skills to build political support, the second stage is best entrusted to reputable and qualified transaction advisers who will also help market and execute the transaction. Core functions of Stage 2 are discussed in Section B.

Stage 1—setting reasonable expectations for PSP. Pre-contract analysis is vital not only in deciding on the form and timing of private sector involvement, but also in designing the contract and accompanying regulatory regime. Without such analysis, the risk would be too high to attract qualified private partners, and considerable effort and resources would have been expended for little or no gain. A contract may be secured, but only by offering big concessions to the private partner and leaving much risk with the public sector. Time spent on testing and refining the preferred PSP option, working through alternative risk management mechanisms and developing a supportive regulatory framework, before entering into a contract, is a good investment. It would reduce the time spent in post-bid negotiations and lessen the risk of the resulting PSP arrangement diverging widely from what was originally intended.

The situation in most Indian towns and cities is likely to consist of:

- A public provider of water and sanitation services—either a department of local government or a corporate water utility, which provides services to customers through an inadequate and outdated distribution network;
- High level of opacity and politicization—in tariff setting, budget support, service provision, contracting, staffing, etc.;
- Inadequate management and technical capacity and systems—not commensurate with world class systems;

- Substantial capital investment needs—to make up for years of under-investment, symptoms of which include limited hours of often erratic service, with only a small percentage of people having sewerage connections, high level of unaccounted water losses, and inability to meet rapidly increasing demand. Distribution reservoirs, pumping stations, water treatment plants, and distribution network all need upgrading;
- Unjustifiably low prevailing tariffs (or water taxes)—only partially covering operations and maintenance costs (10-70 percent), and inadequate metering, billing and payment systems that are ineffective for full collection of tariffs;
- Lack of motivation to charge a cost-reflective user fee—as this obligates the utility to provide a certain quality of service;
- High level of cross-subsidy in tariffs and almost complete dependence on local or state budget for capital investments;
- High coping costs by all customer categories—much of which are already "sunk", but low declared willingness-to-pay for better network services;
- Poor (and outdated) system technical information, drawings, etc.
- Limited choice over engineering and construction services.

The state's policy and legal framework, and consumer demand for better WSS services, would set the stage for municipal-level reforms to address the above-mentioned causes and effects of prevailing poor quality of services.

Stage 1 analysis would include a baseline assessment of:

(a) Service coverage and quality: By major groups of consumers: domestic, commercial, public, industrial;

(b) Water consumption and demand: By major groups of consumers—domestic, commercial, public, industrial;

(c) A basic inventory of assets, their condition and serviceability, and rehabilitation requirements;

(d) Current performance standards and the record of achievement (relating to quality, pressure, supply security, interruptions, sewer flooding, sewer collapse, etc.);

(e) Rules pertaining to and status of metering, indicating water production, system control and consumption;

(f) Network losses; in-house losses, pilferage and leakage management procedures;

(g) Practices, efficiency of network operations, including energy requirements;

(h) Maintenance practices and capacity;

(i) Human resources (numbers, skills, wage rates, conditions of service and pension arrangements);

(j) Tariffs (level and structure, subsidy arrangements, collection and disconnection arrangements); and

(k) Financial performance.

Based on these assessments, the ULB and consultant would:

(a) Prepare scenarios for demand based on public service obligations and market demand derived from consumers' ability and willingness to pay for different levels of service;

(b) Prepare an assessment of the costs and operational, staffing and tariff changes to improve services to meet projected demand;

(c) Form a basis for negotiations and consensus building with key stakeholders, who may require safeguards before accepting reforms and PSP;

(d) Inform discussions about realistic performance standards, asset rehabilitation plans and service enhancement programs—all of which need to be specified in any PSP contract;

(e) Inform discussions with ULB and state finance departments about possible needs for continued government subsidies under different reform or PSP paths; and

(f) Identify areas where data is lacking or inaccurate, and establish whether data inadequacies rule out some private sector options from immediate consideration.

These costs and tariff changes, and reliability of information, together with informal private sector market soundings, will inform the discussions on PSP options that may be politically and financially feasible. Data collected during this phase, supplemented by data collected while preparing the PSP transaction, will be made available in an information room set up to make sure that all potential bidders have basic information about what they are bidding for. Still later, the data can provide the regulator of the contract with baseline information for assessing the contractor's performance.

Narrowing down PSP options. Properly designed concessions (or divestitures) are the best suited options to mobilize the level of human and capital resources needed by most Indian towns and cities. However, these may not be feasible in the prevailing market conditions.

Private sector involvement could, however, begin under well-designed management or lease contracts, and evolve to concessions when private partners are better able to assess and assume market, legal, regulatory and political risks. This progressive approach would allow time to bring risk-adjusted costs of private capital down to affordable levels. It would also allow authorities to build public confidence and governance capacity.

As mentioned in the previous chapter, management contracts can be cost-effective if used to leverage deeper forms of PSP, but are likely to be costly in the short term. Importantly, depicting a vision of the progressive deepening of the public-private partnership, together with a progressively improving legal and regulatory framework, would serve to attract better quality and more reputable private partners.

Such a step-wise approach to securing private sector involvement in WSS services must address the issue of re-bidding. Even if real competition is achieved when awarding the initial management contract, maintaining competitive pressures during the transition to a lease or concession is difficult. The natural advantage the management contractor will have when bidding for subsequent contracts could keep other potential bidders away, while barring the contractor from bidding for the next stage may reduce interest in bidding for the original contract. In either case competition is likely to be limited or absent during the shift to a more complex contract.

There are no proven solutions to this problem. The best approach would be to have independent consultants perform detailed financial auditing and technical monitoring of the management contract, ensuring that much of the information obtained by the incumbent is shared with the government and other bidders.

Tables given below encapsulate the issues raised by the above questions and are designed to help guide those choices. Although they necessarily simplify and compress many complex issues, thoughtful consideration of those issues is essential early on. However rigorous the initial analysis of the suitability of the private sector arrangement to meet local needs, the arrangement is likely to be modified during the detailed preparation during the transaction stage.

BOX 1. Checklist for Governments to Choose Feasible PSP Options

What problem are we trying to solve?

- Is it primarily a problem of operational efficiency, or are substantial increases in service coverage and improvements in quality needed?
- If the second, is investment efficiency a problem?

What are the implications of the increases in coverage and quality for the tariffs that consumers will be expected to pay?

- Do current tariffs cover costs?
- Can the private sector reasonably be expected to boost efficiency enough to meet the proposed service objectives without increasing tariffs?
- If not, will consumers be willing to pay higher tariffs?
- If not, can grant finance (or targeted subsidies) support service improvements?

Does the existing regulatory framework provide sufficient support for the private sector so that it will willingly take on commercial risk?

- If not, can the necessary changes be made fairly easily?
- If not, can parts of the regulatory function be simplified or contracted out in the short term?

Do key stakeholders (such as employees, consumers, and environmentalists) support or at least not oppose private sector involvement?

- Can processes and policies be put in place to meet stakeholder concerns?
- Can the risk of political interference be minimized?

Is information about the utility's assets good enough as a base for long-term contracts?

- If not, can better information be produced rapidly?

The answers to these questions will point governments to different choices on arrangements for private sector participation.

Each stage of the deepening PSP process would build the capacity, informational database, and political commitment to leverage the next stage of the public-private partnership, and allocate risks and responsibilities to the party best able to mitigate the identified risk and manage the specified responsibility. *Annex 1* sets out an illustrative risk matrix for a WSS sector project.

BOX 2. Pre-contract risk analysis for different private sector options

Management contract

The most significant risk under a management contract is that operating performance will fall short of expectations. To address this risk, the government should analyze its capacity to monitor the contractor's performance, and ensure that water quality and other standards that it wants to identify in the contract can in fact be enforced. If adequate staff are not available to monitor performance, the government might consider contracting with a third party for this task.

Lease, Concession, and BOT

Under these options the contractor retains the tariff revenue it collects from customers in exchange for operating and, under a concession or BOT, investing in the water and sanitation system. This provides an incentive for the contractor to improve operations and investments efficiency. But in the presence of monopoly power, it also creates a risk that the contractor will reap windfall profits by charging excessive tariffs or reducing service quality. These risks are best managed through the careful design of a monitoring and regulatory system.

Table 2: Extent of Government Commitment & PSP Options [a]

Option	Stakeholder support & political commitment	Cost-recovering tariffs	Good information about the system	Developed regulatory framework	Good country investment rating
Service contract	Not important	Not necessary in short term	Possible to proceed with limited information	Minimal monitoring capacity needed	Not necessary
Management contract, fixed fee	Low to moderate level needed [b]	Preferred but not necessary in short term	Possible to proceed with only limited information	Minimal monitoring capacity needed	Not necessary
Management contract w/performance incentives	Low to moderate level needed [b]	Preferred but not necessary in short term	Sufficient information required to get incentives	Moderate monitoring capacity needed	Not necessary
Lease	Moderate to high levels needed	Necessary	Good system information required	Strong capacity for regulation and coordination	Not necessary
BOT	Moderate to high levels needed	Necessary for project; preferred for end user	Good system information required	Strong capacity for regulation and coordination	Higher rating will reduce capital costs
Concession	High levels needed	Necessary	Good system information required	Strong regulatory capacity needed	As with BOT
Divestiture	High levels needed	Necessary	Good system information required	Strong regulatory capacity needed	As with BOT

[b] Asset owner must provide authority, means and supportive governance structure commensurate with responsibilities assigned to management contractor.

Table 3: Possible stakeholder issues and policy responses [a]

Stakeholder	Possible issues	Policy decision required	Ways to get inputs
Employees	Is retrenchment likely?	• Retrenchment packages. • Employment requirements for the private operator. • Retraining / re-deployment	• Representation in the reform process. • Regular consultation.
Consumers	• Which consumers will receive new works first? • What are customers willing to pay?	• System for planning extensions. • Tariff methodology. • Design of a subsidy scheme.	Public relations campaigns and opportunities for consultation.
Environ-mentalists	• Will new works have major environmental consequences? • Is there enough water? • Wastewater management?	• Environmental standards. • Identify who will bear cleanup costs from past pollution. • Development of resources	• Consultation on key issues. • Coordination between regulatory mechanism and environmental authority.
Existing government agencies.	Will restructuring or shifts in responsibilities be required?	Identify which agency will have regulatory authority, and how it will coordinate with other agencies.	Consultation on regulatory design and governance.
Other citizens	Will new works require resettlement?	Resettlement policy.	Direct consultation with affected groups.
Investor	• Risk mechanism • Security of payment	• Mitigation of risk by providing quick contract enforcement • Tariff incentives, guarantees, and access to low cost finance	Consultation while framing the law

[a] Tables 1 & 2 adapted from World Bank's Toolkit titled "*Selecting an Option for Private Sector Participation*".

B. Stage 2 - Utility Needs Assessment and PSP Transaction Design

Once a ULB has determined that private sector participation appears financially and politically feasible, it needs to move on to the second, more in-depth stage of analysis, focusing on the following questions:

- What is the state of the existing service provider or utility?
- How compatible is the regulatory regime with private sector participation?
- How committed, or opposed, to PSP are key stakeholders?
- What are the main risks that need to be allocated or mitigated to ensure that private sector participation can succeed?

With the exception of simple service contracts or management contracts with limited long-term involvement of the private sector, this stage of analysis is best entrusted to reputable and qualified transaction advisers who will also help market and execute the PSP transaction[2].

The process requires detailed work—first refining the option to be implemented and the legal and regulatory measures needed to support it, then preparing many complex documents, such as possible amendments to the legal framework, the bidding documents, and the draft contracts. Preparing the documents often involves several iterations, as preliminary versions are distributed to prospective private partners for comment and then modified in accordance with these comments and with the government's policy concerns.

Typical transaction-related consulting tasks for a successful PSP transaction include:

- Detailed technical analysis (to prepare the technical specifications to be included in the contract);
- Detailed financial analysis and proposed financial restructuring (to ensure bankability of the transaction);
- Preparation of information memoranda and prospectus (for marketing the transaction);
- Detailed assessment of the legal and regulatory framework and drafting of necessary amendments and enabling laws;
- Design of the bidding process, bid-evaluation criteria, and the selection and closing process;
- Setting pre-qualification criteria for short-listing qualified bidders and completing their pre-qualification through a well-advertised process;
- Drafting of bidding documents and contracts;
- Marketing the transaction;
- Managing access to data and pre-bid conferences; and
- Assisting the government with the bid award and closing the transaction.

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[2] As a general rule, reputable transaction advisers work on a fixed fee plus success fee basis and are willing to commit high quality resources for transactions which enjoy political support (demonstrated by an enabling policy framework and credible steps towards its implementation) and can be completed within a reasonable amount of time (12-24 months). With the exception of large, high visibility transactions, it may be counterproductive to engage transaction advisers in the absence of at least clear political commitment to the transaction.

Contracting Transactions Advisers. Entrusting all of the above tasks to a single consortium of firms or to several individually contracted firms will depend on the management capacity of the government's Reform Management Unit, possibly supplemented by a sector reform adviser.

The lead in preparing the transaction, particularly for transactions involving private investment, is often taken by an investment bank. For management contracts, the transaction could also be prepared by consultants as there would be less of an incentive-based fee to attract an investment bank. In either case, it would be vital for the proposed Reform Unit to have the capability and mandate to supervise and facilitate the advisers, and ensure that long-term public interests are not jeopardized by the structure of the transaction.

One advantage of opting for a consortium is that it allows the government to delegate to the lead firm much of the complex task of managing and coordinating the advisory work. That can help ensure that the work proceeds more smoothly and to minimize inconsistency in content and approach. Another advantage is that the lead firm of the consortium can be made fully accountable for advisory services, avoiding situations in which, for example, a financial firm fails to perform its task and blames delay on another task group.

However the consortium option has some drawbacks—a consortium of several firms may have weak areas if it was selected on its overall qualifications and price rather than on its expertise in each area. For these reasons, these Guidelines recommend that governments separate the hiring of sector and institutional reform consultants from consultants responsible for the transaction[3].

A reputable transaction adviser is important for a successful PSP transaction. Contracting a reputable adviser to manage the transaction will in itself be a signal of the government's commitment to private sector participation. The form of PSP and the level of institutional change required, the visibility (national and international attention) and potential financial value to the consulting and investment banking industry would also be important determinants of the type of advisers likely to be interested in the assignment.

The first PSP arrangement, particularly one covering operation and management of the distribution network, would set the stage for future private participation in the WSS sector in any town or city. Recognizing this, it would be prudent for authorities to only engage advisers with a track record of having successfully completed similar assignments elsewhere in the region or internationally. Attracting the participation of qualified firms (or consortia) can be enhanced by:

- Advertising the assignment internationally, seeking information on firms' qualifications and experience, which it can then use to establish a shortlist;
- Preparing focused and reasonable terms of reference and selection criteria for the assignment; and
- Assuring short-listed firms a transparent and fair selection process (in the letter of invitation for proposals). Invitations would clearly describe the process for submitting and opening bids, the criteria against which bids will be evaluated, and the process to ensure that the evaluation is fair[4].

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[3] Typically legal and regulatory experts command the highest fees and their inputs have to be well timed and managed by the lead transactions adviser. Failure to manage these resources efficiently can result in excessive costs and lengthy renegotiation of contracts.

[4] Limiting the number of firms allowed to bid makes evaluating the proposals more manageable. It also tends to encourage firms to devote time and resources to developing good proposals—because they feel that they have a serious chance of winning.

In the interest of maintaining clear competition at a later stage, the government may wish to short-list only consultants that are not affiliated with companies interested in bidding for the private sector contract.

Short-listed transactions advisers would typically be selected on the basis of their technical and financial proposals, with financial proposals consisting of fee and success based remuneration. In some cases (generally in hiring investment banks), potential advisers may be requested to make presentations to the government outlining their qualifications, experience, team, and intended approach (technical proposal). This type of presentation, often referred to as a 'beauty contest', is designed to give the client better knowledge of the proposed personnel and approach. Properly structuring such presentations—for example by specifying in advance the questions that will be asked during interviews and the criteria for evaluating responses—and timing it between the submission and opening of bids, would help enhance the transparency of this process.

Technical proposals are opened first and scored according to such factors as the firm's experience, its proposed work program, and the qualifications and experience of its proposed team. Firms scoring below a predetermined number may be dropped at this stage. The financial proposals would then be opened and again scored against predetermined criteria. The contract would be awarded on the basis of the combined technical and financial scores. If price is not a factor (for example, if a maximum budget is determined beforehand), proposals may be evaluated solely on a technical basis.

ENSURING IMPROVED SERVICES FOR POOR PEOPLE

Any form of PSP in operation, management or investment in water and sanitation networks should be designed with a clear obligation to improve services to the urban poor.

Consistent with the policy framework, the contract for service provision in a specified geographical area would define public service obligations for all consumers[5], including low-income and vulnerable consumers. These obligations would include:

- Coverage and performance targets—hours and quantity of supply, water quality, standards for wastewater removal, distance to the water outlet, transitional arrangements for supply until necessary infrastructure is installed, etc.;
- Payment convenience—informative billing, flexible payment options (for example full payment versus partial payment with interest on unpaid balance), and easy-to-access payment centers (post offices, mobile units, etc.);
- Other user-friendly commercial services, such as mobile complaints offices, public outreach and information, regular consumer satisfaction surveys tailored to low-income communities; and
- Supply and service accountability—metering (bulk or individual if feasible), maintenance of complaint records, independent monitoring of consumer satisfaction and rectification of grievances, etc..

Until networks are appropriately extended, transitional supply arrangements could include requiring the service provider to collaborate with off-network suppliers such as vendors and tanker services to reach difficult communities in the short- and medium-term.

The contract would also specify the obligations of consumers and government (or regulator), and remedies available to the service provider against default. The government may well have to act as the ultimate guarantor of payments to the service provider to cover costs associated with meeting public service obligations (set with regard to ensuring basic public health).

The contract could also provide incentives for service providers to help organize low-income communities into legal community groups that would be less risky to serve and would provide a foundation on which to expand services within such communities. Incentives to service providers could include:

- Financial bonus for group contracts with consumers living in slums or other communities classified as low-income;
- Capital subsidies to offset the cost of extending the network to poor areas;
- Flexible technical standards that would encourage innovation to reduce costs while maintaining acceptable levels of service to all consumers, particularly lower cost solutions for wastewater collection and treatment.

Incentives could also be offered to low-income communities for group contracting, such as:

- Lower tariffs for a specified level of service;

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[5] The license or other service provision obligations would need to specify obligations (if any) for serving illegal settlements (such as squatter communities, etc.).

- Capital subsidies for community infrastructure;
- Technical support for self-regulation of intra-community relations with regard to WSS services;
- Direct income support (for example in the form of vouchers) channeled through registered community groups to ensure that destitute households within low-income communities can afford at least a basic level of service.

EXECUTING THE PSP TRANSACTION

A. Key Bidding Principles

These PSP guidelines are intended to sensitize government officials and other stakeholders to some of the policy and design issues that could result in a successful PSP transaction. However, it is not pretended that these would be sufficient, per se, to respond to all possible problems, many of which cannot be anticipated. It will be the job of state and local governments, keeping to the basic principles incorporated into these guidelines, and assistance from advisers and stakeholders, to resolve many of problems specific to their circumstances.

The objective of the transaction process is to choose a suitable partner, on the best possible terms—a partner with the skills, experience, and resources necessary to secure the desired improvements in services to consumers in the most efficient way possible.

Experience suggests that the best way of finding a suitable partner at reasonable cost is to hold some kind of competition among prospective partners. Competition is all the more important when private companies are bidding for a monopoly right to provide services over a period of time (3 to 5 years for a management contract and 25 to 30 years for a concession). This section addresses the question of how to design a bidding process so as to bring this kind of competitive pressure to bear and to get the best possible outcome.

The bidding process is not an isolated event. Rather, it is the beginning of a partnership between the government and a private sector organization. The institutional and regulatory framework established to guide that relationship may, over the long-term, have an even more important impact on the quality of outcomes for consumers than the bidding process—and bidders can be expected to take this fact into account.

The basic bidding principles that need to be always kept in mind are the need for:

(a) Transparency;
(b) Discretion and subjectivity;
(c) Public information dissemination;
(d) Competition; and
(e) Simplicity.

(a) Transparency

There are obvious reasons to maintain complete transparency in any transactions involving public funds or monopoly type of services (since any additional costs associated with graft and corruption are typically recovered from taxpayers or captive customers). However, the need for transparency becomes even more important when the potential provider of these monopoly services is a private party. Transparency in engaging the private sector partner needs to be documented and disseminated widely particularly because public-private partnerships are long-term in nature and have to withstand many tests which cannot be anticipated at the start. This also ensures that there is a perception of transparency, a detail that is often missed under the pressures of completing the PSP transaction. Furthermore, perception of any impropriety could well result in public protests, investigations (particularly if there is a change in government), and legal suits.

(b) Discretion and subjectivity

A natural consequence of increased transparency is reduced discretion, particularly in the pre-qualification and bid evaluation processes. Recognizing that some level of discretion is necessary for expediting the contracting process, and that the introduction of discretion creates an

opportunity for abuse of discretionary powers, is becomes important to define in advance the areas where minimum discretion should be exercised.

Minimal discretion should be permitted in the evaluation of bids and possibly in the pre-qualification criteria, with the latter set at a level commensurate with the nature of the planned PSP arrangement.

The bidding for any type of private sector participation in the water and sanitation sector typically requires the submission of separate technical and financial bids. This is often preceded by a pre-qualification of bidders based on prior experience in improving technical and financial performance in similar situations, and a demonstration of financial strength if the private partner is also expected to make significant financial investments. Very often, government officials are tempted to mandate an evaluation based on the content of both bids, i.e., the technical bid is given a certain score and this score is combined with the financial bid to produce a final score. In other words, a company that did not submit the best financial bid may still win if its technical bid received a high score

While this method is effective for management contracts and situations where the private partner is being contracted for its expertise (for example, management contract), it is not suitable for situations where the partner is not expected to assume any significant commercial risk. It introduces a level of subjectivity that is not conducive to transparency and opens up the process to criticism.

For lease or concession contracts, it is better to mandate a 'pass-fail' evaluation for the technical bid, graduating all 'passing' technical bids to the financial evaluation stage. At that point, the quality of the technical bids no longer has any value and the basis for award rests solely on the financial bid.

(c) Public information dissemination

Especially in the months prior to the conduct of the bid, it is essential to keep the public informed about the key aspects of the transaction. The purpose is not only to solicit feedback from those affected, but also to use it as an opportunity to publicize the good features of the transaction and the steps being taken to ensure transparency. This would help build public support and therefore protect the transaction from possible future disputes.

Public information dissemination may be most efficiently done through the media and / or through public hearings. Often, particularly in the case of large transactions, it is best for the government to hire a media professional. This professional would know how to write articles that are balanced and interesting. Equally important, s/he would have a network of media contacts upon whom to rely to ensure coverage and fair depiction.

(d) Competition

Aside from the fact that competition results in greater efficiencies, the presence of competition also strengthens the transparency of a project. Obviously, public perception of a transaction is better if there are several companies fiercely trying to outbid each other rather than there being only a few companies bidding, increasing the perception and risk of collusion.

A competitive bidding process generally comprises the following steps:

- Public notification of the government's intention to seek a private partner for the provision of water and sanitation services, including a request for expressions of interest from private companies.

- Distribution of bid documents and draft contracts to potential bidders.
- A formal process for screening potential bidders and finalizing a list of those who qualify.
- A formal, public process for presenting proposals, evaluating them, and selecting the successful bidder.

Designing a competitive bidding process—and getting the best possible result—is easiest when the product or service required is fairly standard and the technical outputs can be defined with reasonably certainty in the bidding documents. These conditions often do not hold in the water and sanitation sector, especially for network concessions. For example, the information available on the technical parameters for service improvements may be limited, and there may be scope for innovative engineering and commercial solutions in meeting needs for expanded service. These issues do not mean that competitive bidding should be avoided, however, but that particular attention should be paid to providing good-quality information to potential bidders and to the detailed design of the bidding process.

Competitive negotiations, a variant on competitive bidding, generally involves:

- The government specifying service objectives, and seeking proposals from private operators for meeting these objectives, through a request for proposals.
- The government reviewing the proposals and selecting those that are technically responsive to the request for proposals.
- The government then negotiating contract terms and conditions with the selected bidders.

Competitive negotiations may involve simultaneous negotiations with two or more bidders with the objective of awarding one contract, or they may result in the award of several contracts.

Competitive negotiations are well suited to projects in which many technical variations are possible, there is much scope for innovation, and where it would be difficult to secure project financing on the basis of standardized contract documents.

Less transparent than competitive bidding, this approach has risks that can be considerable if undertaken in an environment that does not already have a reputation for transparency and fairness. Evaluating proposals on a variety of technical and price grounds increases the opportunities for corruption or favoritism. The government can try to reduce this risk by specifying the evaluation criteria publicly and as clearly as possible, by standardizing the negotiation processes across bidders, and by keeping a detailed record of the process.

Direct negotiations are the least desirable and typically occur where a project idea originates with a private sector sponsor rather than with the government. A developer or operator seeks to negotiate the terms and conditions for a management contract, BOT or concession directly with a government or a public utility. Allowing direct negotiations can be a good way of attracting innovative projects and securing private sector involvement in smaller cities and towns (where the costs of entering competitive bidding contests may be high relative to the expected returns). But direct negotiations make it difficult to ensure transparency in the selection process and an efficient outcome. Without competition, it is much harder to assess the reasonableness and cost-effectiveness of a proposal. And direct negotiations can increase the risk of reversal for a contract, especially where there is some public resistance to privatization.

If direct negotiations are allowed, governments must take extra steps to ensure transparency and efficiency. For example, a government might establish an independent advisory panel to advise on whether direct negotiations are appropriate for a particular project. Requiring all contracts to

be approved by the representative body of the government (national or local) and audited by the government auditor could enhance transparency. And assessing proposed projects using benchmark comparisons of construction costs or service tariffs from comparable projects and operations could increase the chances of an efficient outcome. (But comparable projects might not be easily identified).

Although most governments state a preference for competitive bidding over direct negotiations to select private partners, some allow direct negotiations under certain circumstances and have adopted rules for handling them, aimed at reducing their risks.

Pre-qualifying bidders to enhance competition and PSP outcomes

A government entering into a contract for PSP in water and sanitation is establishing a long-term relationship with its contractual partner. To be confident that the relationship will work, it needs to be able to assess not only the quality of the partner's bid (what it promises to do and on what terms), but also whether the partner is truly qualified to do what is needed. Pre-qualification is a way to ensure that potential bidders have the technical and financial capacity that the task demands and a track record in performing similar tasks.

Pre-qualification can also reduce the costs of bidding processes. Those involving large numbers of bidders can be complex and costly—without necessarily increasing the quality of the winning bid. For this reason, governments often choose to limit bidding to a few pre-qualified firms. Limiting the number of bidders can also increase firms' motivation to participate in bidding, because it increases each bidder's chance of success.

Pre-qualification can also impose discipline on governments, by requiring them to define early on the type of project they want.

Pre-qualification criteria generally include some combination of the following:

- Minimum capital base of the bidding company.
- Length of experience in the business.
- Size of the customer base currently served by the bidding company.
- Number of countries in which the bidder has similar experience.
- Efficiency and performance of recent projects or franchises.

The criteria may be either qualitative or quantitative, or a combination of both. Qualitative criteria allow greater flexibility and discretion, but they are also less transparent and more likely to result in complaints by bidders that fail to pre-qualify.

In defining pre-qualification criteria for water and sanitation contracts, governments need to keep in mind that the number of private companies with substantial experience in providing water and sanitation services to sizable populations is small. That does not mean that few companies could provide these services, but it does mean that few are capable of meeting conventional pre-qualification criteria. –To expand competition for privately-provided services, some governments are seeking to broaden the range of potential bidders, while minimizing the risk that bidders will not be capable of performing the required services. This requires careful and innovative thinking both about the typical functions of a well-managed water and sanitation utility, and about which of these functions may be performed adequately by firms other than the private water companies. For example, well-managed telecommunications or electricity distribution companies might be able to handle the commercial side of a water business when paired with a company with engineering expertise in the water sector.

(e) Simplicity

A PSP transaction in the water sector will be of interest to everyone because of the sector's close association with lives and livelihoods. People will need to accept that the water tariffs that they will pay have been arrived at in a fair manner. In this regard, it will be very difficult to explain a complicated selection method to the public. Therefore, the bidding process, and particularly bid evaluation must be simple enough for the man on the street to understand. One way to achieve this is to pre-set the targets for all but one of the major criteria—coverage, water and service quality (hours and pressure of supply), non-revenue water (unaccounted-for-water), etc.—and assess the winning bidder on the single remaining criterion, the lowest average water tariff or the lowest amount of subsidy required.

B. Completing the Bidding Process and Evaluating the Bids

In a bidding process, prospective private partners make proposals that set out the terms under which they are willing to provide the services required by the government. Detailed planning and decision-making by the government is required to ensure that the proposals are of high quality. The first step is to design the bidding process, which calls for decisions about:

- The information to be provided to bidders and the form in which it is to be provided.
- The extent to which there will be discussions with bidders before the formal bidding begins and the form these discussions will take.
- The instructions to bidders on what their proposals should contain.
- The rules and scoring mechanisms that will be used to evaluate bids.
- How complaints and appeals will be handled.
- The timetable for bidding.

Information for bidders. The better and more detailed the information available to bidders about the state of the water and sanitation business and about what the government wants a private partner to do, the better the chance that:

- Bidders will be able to prepare bids that are more responsive to the government's requirements.
- Bidders will have a common understanding of what is needed and can submit bids that are competitive.
- The risk of complaints about fairness and transparency—both from bidders and from political critics—will be kept to a minimum.

Preparing and assembling this information will be one of the primary tasks of the advisers assisting the government with the transaction. There are two main formal mechanisms for making the information available to (pre-qualified) bidders:

- The set of bidding documents provided to bidders. These documents focus on the form of PSP that the government seeks and the form that proposals should take. These include draft contractual documents.
- The information room. The purpose of the information room is to make available to bidders information about the state of the water and sanitation business, including the results of technical audits and evaluations, financial information, and information on staffing.

Pre-bid contacts with bidders. In deciding what form a private sector arrangement should take, governments need to think not only about what they would like realized, but also about how the private sector is likely to react to their proposals. For example, a government might want the

private sector to make large investments in new capacity and undertake all the associated commercial risks—only to find that the private sector judges the city, state or country to be too high a risk to do so. Or a government might assume that local circumstances are so unattractive that the best it can hope for is a fixed fee management contract—and unknowingly preclude initiatives by private companies that would be prepared to take more commercial risk.

To have the best possible private sector partnership arrangement—and avoid nasty surprises at the bidding stage—it is generally a good idea to have informal discussions with bidders before finalizing the bidding documents. Bidder feedback on early drafts of the bidding documents or regulatory design can help identify changes that would make the transaction more attractive to private firms with no loss to the government or other stakeholders—and result in better, more affordable bids.

Prospective bidders can be consulted through road shows, where the government and its advisers present their proposals, and pre-bid conferences, where pre-qualified bidders are invited to hear and respond to the government's ideas. The government should try to ensure that all prospective bidders hear the same things—so there are no complaints later that some were favored over others. For this reason a pre-bid conference might be preferable to a road show.

Pre-bid discussions can provide valuable information about what must be done to attract favorable bids. But these should not be seen as solving the problem of what kind of transaction should be offered or guaranteeing participation in bidding, for several reasons:

- Bidders with good ideas about how the transaction might be made to work better may be unwilling to share these ideas with their competitors at pre-bid conferences.
- Bidders will often respond favorably at the pre-bid stage to ideas that they would be cautious about putting their money behind at the bidding stage.
- Bidders may try to steer the process toward lower-risk forms of private sector participation when higher-risk, higher-gain forms are possible.

Bid contents and evaluation. Central to the bidding process are decisions about what bidders should be asked to include in their bids and how these bids should be evaluated.

Bid requirements and evaluations will differ according to such factors as:

- The kind of private sector arrangement sought (bids for management contracts will differ from bids for concessions).
- The completeness of the available information.
- How fully the services being sought can be technically specified.

Most projects use a two-stage bidding system in which bidders submit a technical envelope and a financial envelope.

The **technical envelope** may have purposes ranging from simply obtaining an indication of the firms' fitness and willingness to participate in bidding, to eliciting detailed proposals from bidders on how they would satisfy the government's requirements. There are four main approaches, varying in complexity and transparency (see box).

Box 3. The Technical Envelope – four possible approaches

Approach 1. The technical envelope simply contains legal certification of the bidding consortium and a bid bond. Once these items have been confirmed, the financial envelope is opened, and the contract is awarded to the best offer.

Approach 2. The technical envelope serves some of the purposes of pre-qualification (if pre-qualification has not taken place earlier), providing technical and financial information on the bidder. Some bidders may

be disqualified once this information is assessed. The financial envelopes of the surviving bidders are then opened, and the contract is awarded to the best offer.

Approach 3. Bidders are required to include a technical proposal in the technical envelope setting out their proposed business plan (including investment and financing plans) for meeting the service objectives. The plans are reviewed for consistency with the project specifications and requirements, and proposals either pass or fail. Again, the contract is awarded to the surviving bidder with the best financial bid. This approach was used for the Buenos Aires water concession.

Approach 4. Technical proposals are required as in approach 3, but rather than passing or failing, the proposals are scored. The financial proposals are also scored, and the contract is awarded on the basis of the weighted technical and financial scores. This approach was used to allocate freight rail concessions in Argentina.

Approaches 1 and 2 are relatively simple and transparent. They tend to work well when technical requirements can be pre-specified clearly and precisely and when only limited scope for variation is possible in ways to meet these requirements. Approaches 3 and 4 are more complex and less transparent. They may be preferred when the technical criteria cannot be clearly specified in advance and when the government is looking to bidders for bright ideas on how to achieve service objectives. The third might be chosen if the government has firm and clear ideas on the minimum technical requirements; the fourth if there is less clarity about requirements, and if different technical proposals may have different financial implications at different stages of the project's life. For these more complex approaches, the government should specify as clearly as possible and in advance the processes and rules that it will use for evaluating bids.

Financial envelopes also vary in form and complexity, depending in part on the form of the PSP sought. Management contracts clearly require different kinds of financial bids than concession contracts. There are four possible approaches (see box).

Box 4. The Financial Envelope – four possible approaches

Approach 1: Bids are based on the price of the shares or assets being sold. This is the method most often used for privatization involving the sale of shares or the divestiture of assets.

Approach 2: Bids are based on an up-front payment in combination with future concession fee payments. This approach is appropriate for concessions and leases. The bid is evaluated on the basis of a weighting of the up-front payment and future fees.

Approach 3: Bids are based on the future tariff rather than on an asset or share price in this approach, which is particularly suited for concessions and BOTs. Bidders specify the average service tariff for which they would be prepared to run the business (for a concession) or the take-or-pay fee (for bulk supply). This approach was used, for example, for the Buenos Aires water concession, for which bidders competed on the basis of who could offer the largest discount on the current water tariff.

Approach 4: Bids are for a service fee, with or without an incentive component. This approach is suitable for management contracts. If bidders are required to bid on an incentive component (such as a revenue sharing rule) as well as a service fee, the two may be weighted to select the winning bid.

The approach chosen for specifying and evaluating financial proposals will depend, first, on the kind of contract being bid. Approach 1 is suitable only for share sales and divestitures. Approaches 2 and 3 are suitable for concessions and leases, where the government retains ownership of the assets but the private sector is asked to take responsibility for their operation and for the commercial risk involved. Approach 4 is more suitable for contracts that transfer little risk to the private sector, such as management contracts.

Complaints and appeals. The more complex a bidding process, the greater the chance that competition will be perceived to be unfair or that those unsuccessful will raise questions about the choice, such as:

- Did the successful bidder have some kind of inside information?
- Was the scoring method used to evaluate technical proposals the right one—or did it favor some bidders over others?
- Was too much weight put on technical issues relative to price, or vice versa?
- Once a choice was made, did the negotiations leading to contractual closure result in substantial changes in what the successful bidder was required to do?

The first-best solution to such problems, of course, would be to make perfect information available to all the bidders, have a pure and unambiguous bidding rule (the highest price or lowest tariff wins), and preclude substantive negotiations after the bidding contest. For obvious reasons, this is rarely possible. The next-best solution is to structure the process as clearly as possible, ensuring that everyone gets access to the same information (no one has privileged discussions). Bidding and evaluation rules should be as simple as possible and clearly explained at the outset, and there should be clearly defined limits on post-bid negotiations.

But no bidding process, no matter how carefully structured, can eliminate the potential for complaints and appeals. So, as part of the bidding process, the government should create a mechanism for handling complaints, specifying:

- Who will be responsible for hearing and arbitrating complaints and appeals.
- On what basis will complaints and appeals be heard.
- How should complaints and appeals be formulated.
- Whether a fee must be deposited (to discourage frivolous complaints).
- Deadlines for the receipt of complaints and appeals and their resolution.

C. Getting to closure

Once a contract has been awarded, several steps remain in finalizing the project. The developer or sponsor must negotiate and sign a series of contracts with other project participants—including consortium members and financiers—defining, for example, how the risks allocated to the project are shared among the participants. The successful bidder's objective in this final, critical stage is to achieve financial closure, when all the equity for the project has been unconditionally committed and all loan documents have been signed so that disbursement of loans can start without further problems. (This is clearly most relevant for concession-BOT-type contracts, which require the private partner to make investments and take financial risk.) Although lenders first become involved at this stage, their likely concerns should have been taken into account much earlier to avoid derailing the process after bidding.

The government and the successful bidder will probably need to clarify some issues before signing their contract or contracts with each other. Some of these issues will arise as a result of gaps or lack of clarity in the draft contract documents; others may arise as the successful bidder seeks financial closure.

All these post-bid processes can be lengthy. They can also lead to many changes in the resulting private sector arrangement, a possibility that can have important implications for the bidding process, primarily that bidders may bid to win, knowing that there would be scope for changes in their commitments during the contract negotiations. Governments have several means at their disposal for reducing the risks associated with this approach:

- Requiring detailed and firm evidence at the bidding stage that financial closure can be reached within a specified period (this is likely to be difficult to enforce).

- Preparing draft contracts so as to minimize the scope for changes as a result of post-bid negotiations (this requires great clarity and consistency in drafting).
- Keeping the runner-up in the bidding process in the wings.

The future regulator may also be involved in the post-bid negotiations. Its participation is a good way for it to become familiar with the private company (and for the company to become familiar with the regulator) and with controversial issues in the contract. It helps give both a deeper understanding on which to base their future relationship.

MANAGING THE PUBLIC-PRIVATE PARTNERSHIP

A. General Issues and Capacity Building

Contract closure marks the beginning of an ongoing partnership between the public and private sectors. The quality of the contract and the quality of the contractual partner are very important to the success of this partnership, but so too are the institutions put in place for maintaining and governing the partnership and for perpetuating competitive pressure on the private partner. Typically transfer of operation and management responsibility over existing water and sanitation distribution assets and distribution areas involves substantially more risk and complexity than BOT-type contracts for greenfield infrastructure such as a new treatment plant or new distribution system. These risks arise largely on account of inherent uncertainty about the condition of buried assets and conflicts which arise between the new private partner and incumbent management, staff, consumers and other interest groups.

Capacity must continue to be strengthened at the **local level** to manage the PSP contract and monitor utility performance, and at the state level to improve the quality of regulatory support. Depending on the type of PSP, local authorities would typically need to be prepared to:

- Approve adjustments in tariff rates and structures;
- Mobilize investment capital, and possibly provide working capital to make up any short-falls resulting from below-cost tariffs and non-payment by customers who cannot be disconnected for non-payment;
- Monitor utility performance and its public service obligations;
- Implement labor agreements such as staff reduction, redeployment, retraining, severance, etc.;
- Implement programs to build local contracting capacity;
- Ensure adequate supply of raw water;
- Enforce law and order, and other agreements under the PSP contract; and
- Foster sound utility governance.

At the **State level**, the State's Reform Facilitation Team and / or Economic Regulator (when it is established) would complement local capacity to manage the public-private relationship while also continuing to implement sector reforms at the state-level. For example, they could set up early warning systems to pickup signs of contract stress and mediate disputes before formal arbitration procedures are invoked.[6] Recognizing that there will be conflicts between private operators and disaffected stakeholders, state government can play an important role as a neutral broker to nurture the partnership through the early stages.

If the private partner is unable to meet performance obligations, despite best efforts of local and state authorities, and bankruptcy or contract abandoned procedures are invoked, the independent state regulator may decide to bring in a private or public operator from another city as a caretaker until another PSP transaction is designed and executed.

B. Specific Mechanisms for PSP Contract Oversight

Most public-private partnerships are long, and planning for their maintenance is critical. The poorer the quality of information at the start and the greater the doubts of both parties about their relationship, the more inevitable renegotiations will be and the more important it is to introduce

[6] In some cases, getting to contract closure may require explicit undertakings by the State government ranging from compensation for any adverse changes in the legal framework to timely provision of state subsidies and fair water allocation under river water sharing agreements.

robust provisions for re-negotiation and to supplement competition at the bidding stage with future competitive pressures. Specifically:

- Any adjustment or re-negotiation of a contract must assure results in accordance with the spirit of the initial contract and the interests of customers.
- A degree of competitive pressure must be maintained on the private sector partner.
- A clear distinction must be ensured between appropriate regulation and inappropriate interference in the private sector's job of running a utility.

Renegotiating the contract. Most initial contracts are based on incomplete information, for example, about the condition of underground assets or the most appropriate forms of investment for addressing service deficiencies. But even if a contract were bid on the basis of perfect information about the status of water utility assets and about new investments needed, the future would hold uncertainties that could not all be handled by contract. So careful provision must be made to deal with unexpected events over the life of a contract.

The issues that should be covered by contractual and institutional provisions for re-negotiation and adjustment of contracts would be set out in detail with assistance from the Transaction Adviser. Four general elements are essential:

- The conditions under which adjustment of terms or re-negotiation may occur (including penalties to curb frivolous re-negotiation).
- When (and under what conditions) contract re-negotiation must occur, other than price or service adjustments by agreement or by regulatory discretion.
- The process by which re-negotiation must be initiated and conducted.
- The procedures to be followed, and the organizations or individuals to be appealed to, in the event that the parties to the contract cannot agree on how to resolve an issue (arbitration provisions).

Maintaining competitive pressure. In the water and sanitation sector, where monopoly power is inevitable, one important function of the regulatory system is to attempt to ensure that private companies operate as efficiently as they would have to in competitive markets. Some competitive pressure is introduced when companies compete to win a private sector contract, but it is short-lived. Regulators can exert longer-lived competitive pressure by:

- Allowing direct competition, say at the boundary of a concessionaire's area or for specific new services within its area, and by ensuring that major new capacity expansions are not simply negotiated with the incumbent, but are bid for.
- Using yardstick or comparative competition.
- Comparing performance of the private operator with international benchmarks.
- Choosing a form of price control that explicitly requires efficiency gains.
- Employing market-testing requirements. Market testing is generally used when a utility purchases inputs or services from other companies within the same group or consortium. But it can also be used for jobs carried out by the regulated utility for which comparative market costs can be obtained (for example, pipe-laying). This form of market testing is analogous to benchmarking.

Designing a regulatory system to maintain competitive pressures involves two important trade-off decisions:

- Are the costs of additional regulation justified by the potential efficiency gains?

- Will a more competitive regime increase the risks perceived by the private sector to the point where, in an already uncertain environment, the transaction simply ceases to be attractive?

Drawing a line between regulation and interference. Once a contract has been awarded to a private company, it is that company's job to run the business. This may seem an obvious point. But experience suggests that great care is needed to ensure that regulators (or public sector owners) do not become involved in the day-to-day management of the utility. Regulatory tasks—and regulatory staff—need to be focused on desirable outcomes, not on how to achieve these outcomes. For example, it is the regulator's task to specify a standard for drinking water quality and to establish a system for monitoring performance against this standard. It is the company's task to decide what technical measures and operating practices are needed to meet the standard. When a government specifies the regulator's duties and decides on the appropriate staffing and skill mix for the regulatory agency, it must have a clear understanding of the dividing line between regulation and operational management.

ANNEX 1: WATER & SANITATION SERVICES – KEY RISKS

What is the risk?	*How does it arise?*	*What steps can mitigate the risk?*	*Who typically bears the remaining risk?*	*In what PSP option does the risk arise?*	*What steps can minimize risks?*
Design and development risk					
Design defects in water or sewerage plant.	Design fault in tender specifications.	The public sector to provide a remedy or compensate project company.	The public sector.	BOT, concession (especially with new infrastructure).	Check tender specifications / specify outcomes not inputs..
	Design contractor fault.	Provisions in design contract requiring contractor to provide remedy or pay damages (insurance cover).	Design contractor. Once liquidated damages are exhausted, finance from project lenders is drawn down.	BOT, concession (especially with new infrastructure).	Monitor design work; replace contractors' insurance.
Construction risk					
Cost overrun.	Within control of construction consortium—inefficient work practices, waste of materials.	Fixed lump-sum price in the construction contract with provision for reasonable cost overrun.	The construction contractor. Once liquidated damages are exhausted, standby finance is drawn down.	Concession, BOT.	Monitor and inspect construction work; provide for early warning mechanisms in the contract.
	Beyond the construction consortium's control—changes in law, delays in obtaining approvals or permits, increased taxes.	Allocation of cost overruns in the concession contract; purchase business interruption insurance.	The insurer. Once insurance proceeds are exhausted, the investor's return might be eroded because of timing effects.	Concession, BOT.	Obtain approvals in advance; anticipate problems and allocate risk in contract; use insurance.
Delay in completion.	Within the construction consortium's control—lack of coordination between subcontractors.	Liquidated damages from turnkey contractor (sufficient to cover interest to lenders and fixed operating costs).	The constructor . Once liquidated damages are exhausted, standby finance is drawn down.	Concession, BOT.	Monitor / inspect works; provide for early warning mechanisms in the contract.
	Beyond the construction consortium's control—insured *force majeure* event.	Draw on proceeds from business interruption insurance policy.	The insurer. Once insurance proceeds exhausted, standby finance is drawn down, debt service coverage ratios reduced, and investor's return perhaps eroded.	Concession, BOT.	Rely on insurance.
Failure to meet	Within the construction	Liquidated damages payable	The construction consortium and,	Concession, BOT.	Monitor and inspect

What is the risk?	*How does it arise?*	*What steps can mitigate the risk?*	*Who typically bears the remaining risk?*	*In what PSP option does the risk arise?*	*What steps can minimize risks?*
performance criteria on completion.	consortium's control—quality shortfall, defects in construction.	by the construction consortium, supplemented by insurance.	once liquidated damages are exhausted, the insurer. Once insurance proceeds are exhausted, investor return is eroded.		construction work; provide for early warning mechanisms; use insurance.
Operating Risk					
Operating cost overrun.	Change in operator's practices at project company's request.	Project company to provide a remedy or compensation under the operating contract.	The project company bears the risk under the operating contract; debt service coverage ratios are reduced; sponsor's return is eroded.	Operation & Maintenance, concession, BOT.	Build flexibility into contract; cost changes in practices in advance; define acceptable reasons for changes; provide for changes in remuneration after initial period.
	Operator failure.	Liquidated damages payable by the operator under the operating contract.	The operator. Once liquidated damages are exhausted, debt service coverage ratios and return are reduced.	Operation & Maintenance, concession, BOT.	Monitor and inspect operating practices; provide for early warning mechanisms.
Failure or delay in obtaining permissions, consent, approvals.	Public sector discretion.	Risk allocated in the operating contract.	The public sector. Where there is no public sector discretion, licenses are processed quicker by the project company, so the project company bears the risk.	Operation & Maintenance, concession, BOT.	Obtain approvals in advance where possible; ensure clear division of responsibilities in the contract.
Shortfall in water quality or quantity.	Operator's fault (malpractice).	Liquidated damages payable by the operator.	The operator. There is no effect on other parties until liquidated damages are exhausted, when debt service coverage ratios are reduced and the owner's return is eroded.	Operation & Maintenance, concession, BOT.	Monitor and sample water quality and quantity; provide for early warning mechanisms.

What is the risk?	*How does it arise?*	*What steps can mitigate the risk?*	*Who typically bears the remaining risk?*	*In what PSP option does the risk arise?*	*What steps can minimize risks?*
	Project company's fault.	Liquidated damages payable by project company to the public authority.	The project company. There is no effect on other parties until payment of liquidated damages completely erodes shareholder returns, when cash flow may become insufficient and the project company's return is eroded.	Operation & Maintenance, concession, BOT.	Quantity: Ensure security of supply; enter into bulk water supply contracts. Quality: Monitor and sample water quality; provide for early warning mechanisms.
Revenue Risk					
Increase in bulk water supply price.	Service difficulties—no security of supply.	Risk allocated by contract; adjust tariffs; if there are off-take and bulk water supply agreements, both guaranteed by the government, pass through the price increase.	As allocated by contract; bulk water supplier.	Lease, concession, BOT.	Fix price by contract and pass through price changes.
Change in tariff rates.	Fall in revenue.	Risk depends on extent of government support. Market risk can be mitigated by an off-take agreement / revenue guarantees. Otherwise, owners may use hedging facilities such as forward sales, futures and options.	The project company. There is no effect unless there is no common off-take agreement and unless hedging facilities are not in place or do not compensate for losses, in which case the return can be severely reduced.	Lease, concession, BOT.	Ensure a clear regulatory regime.
Water demand.	Decreased demand.	Risk depends on extent of government support. Use shadow tolls; use long-term take-or-pay off-take agreement that laves the demand risk with the public utility (guaranteed by the government).	Risk depends on extent of government support. If there is no support and no off-take agreement, the risk is borne by the project company.	Lease, concession, BOT.	Ensure exclusivity of supply or level playing field against competitors. Regulatory regime may provide incentives to promote conservation (reduce water demand).

What is the risk?	*How does it arise?*	*What steps can mitigate the risk?*	*Who typically bears the remaining risk?*	*In what PSP option does the risk arise?*	*What steps can minimize risks?*
Financial Risk					
Exchange rate (ER).	Devaluation of local currency, fluctuations in foreign currencies.	Security package includes hedging facilities against ER risks such as currency rate swaps, caps, and floors.	There is no effect unless hedging facilities are not in place or do not compensate for losses, in which case the return can be severely reduced.	Operation & Maintenance, concession, BOT.	Require loans in local currency and same currency as revenue (if market exists).
Foreign exchange.	Non-convertibility or non-transferability.	Government guarantee availability, convertibility, and transferability (with ministry of finance a party to contract); project company can terminate if government defaults. Central bank to ensure foreign exchange availability.	The government. If the government defaults on its guarantee and the project company terminates, the government pays compensation for termination.	Operation & Maintenance, concession, BOT.	Transfer funds offshore as much as possible.
Interest rate.	Fluctuations in interest rates.	Same as above (for exchange rate risks).	Same as above (for exchange rate risks).	Operation & Maintenance, concession, BOT.	Negotiate fixed rate loans.
***Force Majeure* Risk**					
Force majeure.	Flood, earthquake, riot, strike, etc.	If risk relates to an insured event (such as earthquakes in certain regions), the policy is called; if not, standby finance is drawn down.	The insurer. There is no effect unless the event is not insured or is uninsurable. If the insurance policy is exhausted, there might be a severe impact on project returns.	Operation & Maintenance, concession, BOT.	Use insurance and government guarantees; clearly define *force majeure* in contract; include provision that government bears risk if changes project specific (rather than general).

What is the risk?	*How does it arise?*	*What steps can mitigate the risk?*	*Who typically bears the remaining risk?*	*In what PSP option does the risk arise?*	*What steps can minimize risks?*
Legal and regulatory.	Among others, changes in tax law, customs practices, environmental standards.	If, during the operating period, adjustment is possible (see provisions in contract on compensation).	The project company or operator.	Operation & Maintenance, concession, BOT.	
		During construction period, draw-down standby finance.	The contractor. Standby finance could be required.	Operation & Maintenance, concession, BOT.	
Political.	Breach or cancellation of the contract.	The project company is entitled to terminate if the government defaults.	The government pays compensation to the project company if the company terminates.	Operation & Maintenance, concession, BOT.	Use insurance.
	Expropriation.	Take out political risk insurance with official bodies, such as export credit agencies, private companies, or involve multilateral agencies (IBRD, IFC) in the financial package.	Once the insurance policy is exhausted, the project company bears the risk. See clause in contract on expropriation.	Operation & Maintenance, concession, BOT.	Use insurance.
	Failure to obtain or renew approvals.	See contract.	The government.	Operation & Maintenance, concession, BOT.	Obtain approvals in advance where possible.
	Creeping expropriation (discriminatory) taxes, revocation of work visas, import restrictions.	See contract.	See contract. If the government has discretion, it should bear the risk.	Operation & Maintenance, concession, BOT.	
	Interference, causing severe prejudice (sometimes referred to as *force majeure*).	See contract.	The government.	Operation & Maintenance, concession, BOT.	
Insurance Risk					
Uninsured loss or damage to project facilities.	Accidental damage.	Insure against all the main risks.	Once standby debt finance is drawn down, the project company's return is reduced.	Operation & Maintenance, concession, BOT.	Quantify and allocate risk in advance in the contract.

What is the risk?	*How does it arise?*	*What steps can mitigate the risk?*	*Who typically bears the remaining risk?*	*In what PSP option does the risk arise?*	*What steps can minimize risks?*
Environmental Risk					
Environmental incidents.	Operator's fault.	Indemnity from the operator.	The operator. There is no effect unless the operator's payments are exhausted and standby finance is drawn down, in which case the project company's return is reduced.	Operation & Maintenance, concession, BOT.	Use insurance.
	Pre-existing environmental liability.	Provision for public sector cleanup or compensation.	The public sector.	Operation & Maintenance, concession, BOT.	Carry out detailed environmental survey; use insurance.

[a] Adapted from World Bank's Toolkit titled "*Selecting an Option for Private Sector Participation*".

Liquidated damages are payments that the contractor or operator is required to make to the sponsor of the project if specified performance targets or milestones are not reached. They are capped at a percentage of the contract's value. The amount of the liquidated damages is agreed at the contract's signing.