APRIL 2004

Operational Guidance for World Bank Group Staff

Public and Private Sector Roles in Water Supply and Sanitation Services

THE WORLD BANK
GROUP

Water Supply
& Sanitation
Sector Board

ACKNOWLEDGEMENTS

This Note, a joint product of the Energy and Water Department and the Infrastructure Economics and Finance Department was prepared by a team consisting of Clive Harris and Jan Janssens. The note has benefited from considerable input from staff in the water supply and sanitation practice, including International Finance Corporation (IFC) and Multilateral Investment Guarantee Agency (MIGA), and has been endorsed by the Water Supply and Sanitation Sector Board.

ACRONYMS

AAA	Analytical and Advisory Activities
ADERASA	Asociación de Entes Reguladores de Agua Potable y Sanamiento de las Americas
AFUR	Africa Forum for Utility Regulation
BNWP	Bank-Netherlands Water Partnership
BOT	Build-Operate-Transfer
CAS	County Assistance Strategy
GPOBA	Global Partnership on Output-Based Aid
IAP	Infrastructure Action Plan (the "Plan")
IBNET	Water and Sanitation International Benchmarking Network
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IFC	International Finance Corporation
IFI	International Financial Institution
IFUR	International Forum for Utility Regulation
MDGs	Millennium Development Goals
MIGA	Multilateral Investment Guarantee Agency
MTEF	Medium Term Expenditure Framework
NGO	Non-Governmental Organization
O&M	Operations and Management
OBA	Output-Based Aid
PCG	Project Coordination Group
PER	Public Expenditure Review
PHRD	Policy and Human Resources Development
PLC	Public Limited Company
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public-Private Partnership
PRG	Partial Risk Guarantee
PRSP	Poverty Reduction Strategy Paper
REDI	Recent Economic Developments in Infrastructure
SAFIR	South Asia Forum for Infrastructure Regulation
SMEs	Small and Middle-sized Enterprises
SWAps	Sector-Wide Approaches
TA	Technical Assistance
WBI	World Bank Institute
WSP	Water and Sanitation Program
WTP	Willingness to Pay
WUP	Water Utility Partnership for Capacity Building in Africa

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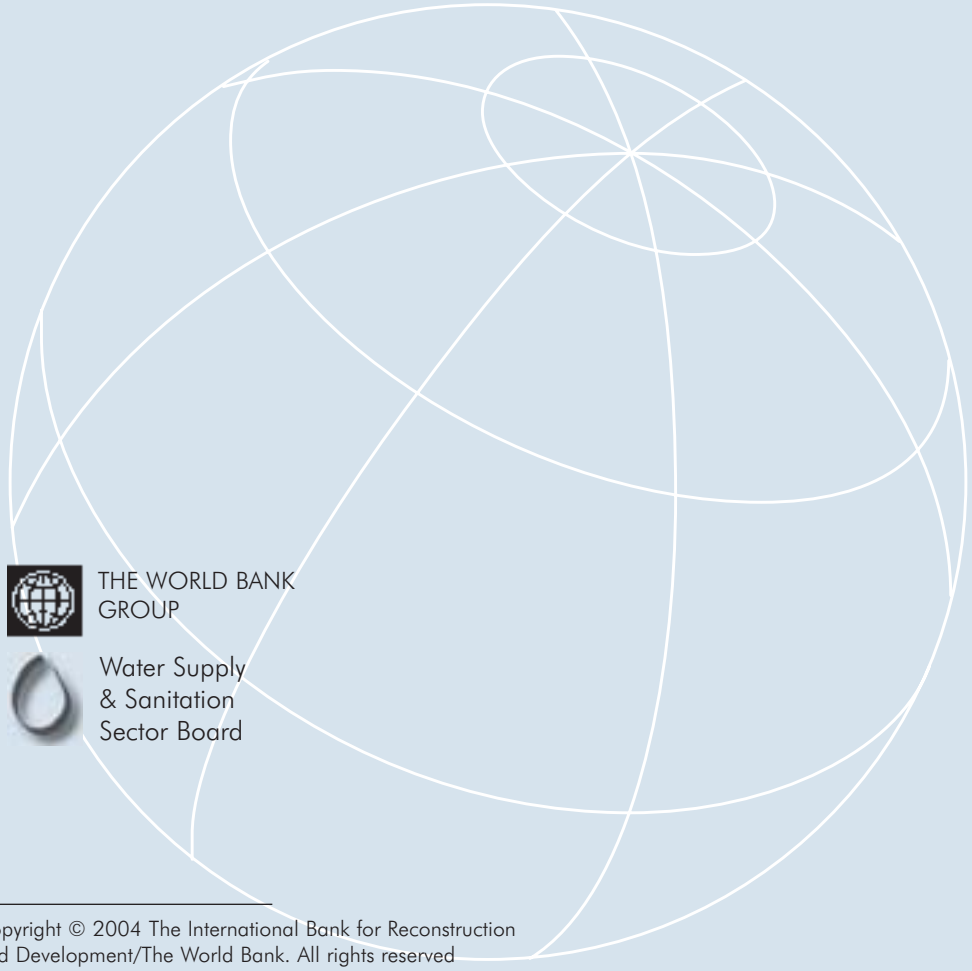
The World Bank, Washington, DC



THE WORLD BANK GROUP

Water Supply & Sanitation Sector Board

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FOREWORD

In all of our borrowing countries effective delivery of water supply and sanitation services is essential for poverty reduction. Bringing these services to the billions who are still unserved and meeting the Millennium Development Goals remains a daunting challenge.

Private financing flows for water supply and sanitation in developing countries have declined in recent years, alongside declines in private flows for other infrastructure sectors. Much of this reflects difficulties in sustaining the reforms required to place the water supply and sanitation sector on a commercial footing in many countries as well as a wider reduction in investment flows to emerging markets.

At the global level, the majority of consumers connected to networks are served by publicly owned and operated utilities, and public finance remains the predominant means of funding the expansion of water and sanitation services. This has led to a search for practical approaches to public-private partnerships for the provision and financing of water supply and sanitation services that lie between the purely public and purely private solutions.

This Note provides guidance to World Bank Group staff on assessing the suitability of available options for public-private roles in the provision and financing of water supply and sanitation, and the main considerations in choosing among these options. It cautions against one-size-fits-all prescriptions, recognizing the variations in circumstances among developing countries. The note links the various public-private options with appropriate World Bank Group instruments, including project-specific, sector-wide, and broader interventions.

As we proceed with implementation of the Infrastructure Action Plan, the Note provides a framework within which staff can design assistance programs and individual operations in a manner that ensures the quality of our interventions.

Jamal Saghir
Director, Energy and Water
Chairman, Water Supply and Sanitation Sector Board

Hossein Razavi
Director, Infrastructure Economics and Finance

April 2004

EXECUTIVE SUMMARY

Context

The Bank's Infrastructure Action Plan (IAP) sets out a series of measures to revitalize the Bank Group's infrastructure business. This Note is one of the actions to be undertaken under the Plan, namely providing clients with a broad menu of options for public and private sector roles in the provision and financing of infrastructure services.

Purpose of the Guidance Note

The Note provides guidance to Bank staff for assessing available options for the public and private sectors in the provision and financing of urban water and sanitation services. The Note links available approaches with appropriate Bank Group interventions and instruments. It does not provide detailed recommendations for each and every situation Bank staff may encounter. It focuses on the supply of these services in urban areas. Provision in rural areas is not specifically addressed, but many of the issues discussed are relevant there.

Organization of the Note

The Note is organized into three sections: (1) a Context and Background section, summarizing the sector and institutional considerations that require a coherent Bank Group response; (2) a Sector Reform Strategies section focusing on financial sustainability, public and private roles, establishing regulatory frameworks, access by the poor, environmental sustainability, and domestic financial markets; and (3) a section on Strategies for Bank Group interventions, complemented by a matrix at the end of the Note.

Financial Sustainability

Financially viable service providers are essential for improving sustainable access to safe water supply and adequate sanitation services, regardless of the roles of the public and private sectors. Operators must receive sufficient revenues from user fees and government transfers to cover the costs of operations and maintenance as well as finance rehabilitation and new investments. Revenue streams must be consistent with the costs implied by the desired service standards and system expansion targets.

Improving the Performance of Public Sector Providers

The Bank will work with well-performing public utilities and those that put in place credible programs to improve performance over time. Such a program would establish a sound overall policy and regulatory framework, address key operational performance issues, and foster the financial sustainability of the utility. Revenues recovered from users within the near term are to cover the utility's operations and maintenance costs. The feasibility of the program should be assessed through comparison with prior performance and benchmarks within the industry.

Broadening Private Provision

The recent decline in private interest means that governments face greater challenges in bringing in the private sector, particularly where investments are sought. Most public-private partnerships in the sector will continue to see substantial levels of public funding. This should be focused on specific goals, such as improvements in access or covering a temporary shortfall in revenues over costs. Reforms should encourage the local private sector to participate where feasible, and should accommodate small-scale providers, which often serve the poor.

Regulatory Frameworks

Regulatory frameworks have to be consistent with the nature and structure of service delivery. Regulation of public sector providers will require a different approach than regulating private sector operators where investment is being sought. In situations in which service provision is decentralized, the role of national regulatory bodies should be carefully evaluated. Environmental standards should be consistent with economic and social policies, and should imply investment levels consistent with the revenues of the service provider as set under the economic regulatory framework.

Next Steps

Bank staff should use the framework provided in the Note in conducting a dialogue with clients, and identifying and preparing new projects. This Note will be supplemented with technical reference materials that address specific issues.

A. CONTEXT AND BACKGROUND

Infrastructure services are critical to poverty reduction, growth, and the achievement of the Millennium Development Goals (MDGs). Extending access to safe water and improved sanitation will help to reduce child mortality from diseases related to unsafe water and inadequate sanitation, and reduce the time and income spent on obtaining water. There are enormous unmet needs for water supply and sanitation services in developing countries: it is estimated that investment must double from the current US$15 billion to $30 billion annually to achieve the MDGs for this sector.[1]

Closing the gap of access to service is not simply a matter of providing more money. Consumers have for the most part been served by inefficient, unresponsive utilities that recovered less in revenues than the cost of provision. In reaction, some governments have sought to increase the role of the private sector in the management and financing of these utilities. However, private financing in water supply and sanitation has accounted for less than 10 percent of investment in water utilities over the last decade.[2] Private financing flows for water supply and sanitation in developing countries have declined in recent years, alongside declines in private flows for other infrastructure sectors. Much of this reflects difficulties in sustaining the reforms required to place the water supply and sanitation sector on a commercial footing in many countries as well as a wider reduction in investment flows to emerging markets.[3] At the global level, the majority of consumers connected to networks are served by publicly owned and operated utilities, and public finance remains the predominant means of funding the expansion of water and sanitation services.

Under its Infrastructure Action Plan (IAP), the World Bank Group will revitalize its operations in this sector by working across the full range of public and private options for the provision and financing of these services.[4] The plan addresses three key areas: responding to country demand by offering a broad menu of options for public and private sector infrastructure service provision; the rebuilding of infrastructure sector knowledge bases; and applying new and existing Bank Group instruments to effectively maximize the impact of Bank's assistance. This Note forms part of the first set of actions, providing guidance on a broad menu of options for public and private infrastructure service provision and financing. The plan also stresses that the Bank Group must remain focused on the efficient delivery of infrastructure services rather than simply building new physical capacity.

Using the private sector or communities to deliver services will remain part of the Bank Group's activities where this is feasible and effective. The Bank will continue to engage with efficient and reforming publicly owned utilities. However, financing inefficient utilities that lack a clear reform program will remain a thing of the past, as this will not produce sustainable improvements in service. Regardless of whether provision is public, private, or community-based, country policies and programs supported by the Bank must foster the financial viability of service providers operating in the sector.

1 Global Water Partnership. 2000. *Towards Water Security: A Framework for Action.* Stockholm, Sweden.
2 World Bank Group. 2004. "Program for Water Supply and Sanitation."
3 Harris, C. 2003. "Private Participation in Infrastructure in Developing Countries." World Bank Working Paper Number 5, April. Washington, D.C.
4 World Bank Infrastructure Action Plan, presented to the Board, July 8, 2003.

Given the variety and complexity of country circumstances, this Note does not provide detailed recommendations for each and every situation Bank staff will encounter. It focuses on the provision of water supply and sanitation services in urban areas, including smaller urban centers and towns. For water supply this means both utility-based models and smaller-scale provision, while for sanitation it includes both on-site and network systems. Rural water supply and sanitation is not specifically addressed. However, many of the issues discussed here are also relevant to rural areas. The range of possible Bank Group interventions is summarized at the end of the Note.

B. FORMULATING AND IMPLEMENTING SECTOR REFORM STRATEGIES

Water supply and sanitation sector strategies should create the conditions for the sustained expansion of access to services of adequate quality, thereby contributing to poverty alleviation, improved health outcomes, and sustainable economic growth. The major elements of these strategies, such as private participation, tariff policy, or the reform of public sector utilities, are not ends in themselves. Rather, by improving the economic efficiency and financial viability of service providers and the environmental sustainability of service provision, they seek to contribute to these goals.

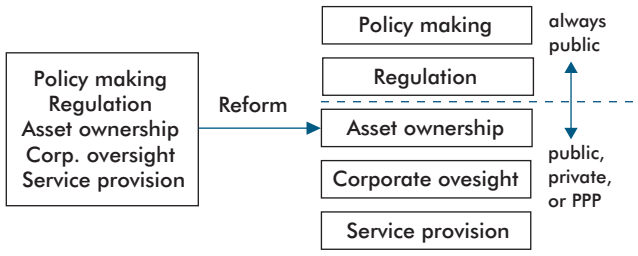
These strategies have to be adapted to conditions that differ from country to country as well as to the specific situations that service providers face within each country. Important factors include income levels, the population density and size of the area served, and the existing structure for service provision (for example, water supply and sanitation separately; water supply and sanitation combined; and the last two combined with other infrastructure services such as electricity).

"One-size-fits all" solutions for water supply and sanitation sector reform are therefore to be avoided. But while conditions differ across countries, solutions must address a common set of concerns. In particular, water supply and sanitation services have to be ultimately paid for by either consumers or taxpayers. Shortfalls in revenue prevent system expansion and lead to deterioration in service.

In addition to addressing financial sustainability, sector reform strategies will also have to strengthen sector policy and regulatory frameworks, improve the commercial and operational efficiency of the service provider, address the specific needs of the poor, and reflect externalities and environmental impacts. They may also include strengthening the management and financial capacity of local government units of which water service providers are a part. Basic steps such as separating service provision from policymaking and regulatory functions not only reduce political interference in day-to-day operations, but also provide greater clarity and accountability in policy formulation, oversight, and service delivery (see figure 1).

Establishing clear and realistic targets for service levels that are monitored and reported on will help in evaluating the performance of service providers in meeting policy goals. Measuring progress toward these national objectives, as well as benchmarking progress against other countries, will be important in evaluating the impact of reform strategies. Economic and sector efforts that provide cross-national indicators, such as the Recent Economic Developments in Infrastructure (REDIs), can contribute to this, as does the International Benchmarking Network (IBNET).

Figure 1: Separating Functions within the Water and Sanitation Sector



Note: PPP: Public-Private Partnership

As water supply and sanitation services are often decentralized, assignment of respective roles of different levels of government in defining and implementing reform policies requires careful assessment. Central governments retain an important role even where service provision responsibility resides at the subnational level. This may include, for example, the development of common approaches and core contractual/regulatory principles for private participation and national-level monitoring and disclosure of the performance of local utilities. Such performance benchmarking should help guide the allocation of central government cofinancing, whether through budgetary transfers or development banks.

Policies need also to address the broad institutional framework for service delivery, and ensure effective coordination between the institutions responsible for providing water and sanitation services. Responsibilities for sanitation provision in particular are often shared across several ministries. Entities responsible for asset management and service provision may not be the same as those responsible for financing and executing investments. In some cases one entity may be responsible for water supply and another for sewerage, and the former may be responsible for collecting revenues for both services, which will require mechanisms to ensure an adequate flow of revenues to both service providers.

Staff should assess the credibility and realism of proposed government strategies when considering Bank interventions that support the sector. A realistic medium-term performance improvement plan should address reductions in 'non-revenue' water, collections, staffing levels, tariff levels and structure, subsidy levels and mechanisms, service to the poor, and recovery of operations and maintenance costs and depreciation and financing costs. The credibility of the program should be assessed through comparison with past performance and some benchmarks within the industry, which will indicate what is typically feasible within a given timeframe.

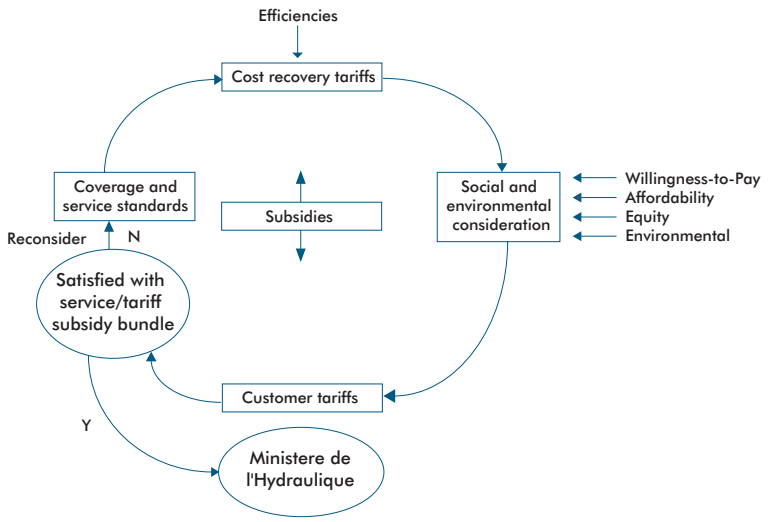
Establishing credibility will be particularly challenging where governments choose to approach reform measures only gradually or have backtracked on earlier reform efforts. Concrete measures in addition to commitments for future actions should be a precondition to Bank support in these situations. This might include, for example, tariff adjustments, the separation of publicly owned water providers from line departments, or the mobilization of private operators or subcontractors.

Financial Sustainability

The long-term financial viability of service providers is central to reform strategies and is essential for sustainable improvements in access to safe water supply and adequate sanitation services. Operators must generate revenue streams sufficient to cover operations and maintenance costs, including depreciation, as well as provide a return on invested capital in order to expand systems and improve service quality. The revenue requirements for the utilities concerned, on this basis, should be compared to the sum of revenues from user charges and from transfers and subsidies to be provided by the government. Expected revenues may not always support the desired investment levels and service standards (see figure 2).[5] In these cases, less ambitious targets should be established, their timeframe for achievement delayed, or revenues must be increased. This requires a careful evaluation of priorities for the sector—for example, expanding water supply services versus rolling out sewerage networks.

Key measures for a reform program to bring about a more sustainable financial situation might include an agreed program of tariff increases that keeps the ability to pay of different segments of the population in perspective; predictable, performance-based allocation of tax revenues for targeted and well-justified subsidies; and appropriate incentives for service providers to improve billing and collection performance and more generally to reduce costs.

Figure 2: Matching Standards and Coverage Targets to Sector Revenues



In some cases, steps such as simply sending out and collecting bills can substantially improve the financial position of the utility. There is often considerable scope for reducing costs by improving efficiency, but such improvements will take time. Therefore changes in the level and structure of user fees will often be required. Total revenues collected from users for these services are often well below costs—even though many consumers are willing to pay for services if service providers can be held accountable for meeting quality and performance benchmarks.[6] However, in many countries tariff adjustments to reflect the true cost of service will have to be implemented

5 "Private Participation in Water and Sanitation. A Guide for Governments in Developing Countries." Forthcoming in 2004. PPIAF/World Bank Toolkit.

6 World Bank. 1994. *Infrastructure for Development* (World Development Report 1994). September, 1994

gradually, during which time government transfers will be required to bridge the gap between overall revenue and costs.

Where changes in the level and structure of prices for services are required, Bank staff should work with governments to identify the nature and impact of these changes. Given concerns about impacts on the poor who are connected to these networks, it will be important to evaluate the extent to which existing tariff structures are pro-poor, and the impact of changing these.[7] Cross-subsidies are commonly employed to meet social goals. However, these cross-subsidies are often not well targeted and consequently enjoyed by too many consumers, meaning that revenues are insufficient to maintain and expand services. In many cases, tariff rebalancing will be required where subsidies to certain segments of the population are to be financed by other users.

Where government support is provided, it will be important to evaluate the rationale and efficacy of government transfers, existing and proposed, to service providers operating in the sector. Analytical work such as Public Expenditure Reviews (PERs), and Poverty Assessments can help to evaluate the extent to which planned government support to the sector will effectively meet social and environmental objectives, the administrative costs of these programs, and whether these programs represent priority areas of expenditure compared to other sectors.[8] This analysis should also determine whether there is sufficient fiscal space for these subsidies to be sustained. Understanding whether subsidies are directed at the expansion of access to the network as opposed to the consumption of water by connected consumers, particularly where a sizeable proportion of poor households do not have access to network services, will be important.

Although services have to be paid for either by users or taxpayers, the extent to which each is relied on has important implications for the sector and the economy. Government transfers are ultimately funded by taxation, which implies some economic costs. Relying heavily on these transfers is likely to make a utility more beholden to those in charge of authorizing transfers than to consumers, and is also likely to prove a less reliable source of revenues over time. Where provided, therefore, subsidies should be predictable and based on clear and transparent criteria that hold the service provider accountable for delivering the services for which the subsidies are intended.

Achieving financial sustainability is particularly challenging for sanitation where substantial externalities are present. Sanitation offers important positive environmental and public health benefits for society. In many situations, for example where coverage is low, or population density is only moderate, it may be better to promote on-site sanitation rather than the expansion of sewerage networks. Where on-site sanitation is concerned, realizing the benefits of improved sanitation and hygiene depends largely on investment decisions at the household level. Public funds should be allocated principally to the promotion and stimulation of demand for sanitation rather than to subsidizing individual households' installation of the hardware. In some situations governments can consider subsidizing investments in on-site sanitation.

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7 Foster. V., C.A. Gomez-Lobo, and J. Halpern. 2000. *Designing Direct Subsidies for Water and Sanitation Services: Panama, A Case Study.* Washington D.C.: World Bank.

8 Watson, PL., and C. Revels. 2003. *Assessing Resource Fows in the Water Supply and Sanitation Sector: Guidelines for a Sectoral Public Exenditure Review.* BNWP Working Paper Series. Washington, D.C.

Improving the Performance of Public Sector Providers

Many governments will seek to improve the performance of publicly owned and operated service providers so that they can better meet the water supply and sanitation demands of their present and potential consumers. The critical issue for utilities that do not currently operate efficiently is how to establish a reform program to improve governance and introduce incentives to improve efficiency and customer responsiveness.

The separation of policy and regulation from functions such as asset ownership, corporate oversight, and service provision can help to provide greater autonomy and accountability for service providers. Many countries still use the traditional direct public management model, where asset ownership and service provision are concentrated in a single entity, such as a department or ministry. This entity often also exercises de facto policymaking and a nominal regulatory functions. Direct public management models have in general proven to perform poorly.

Changes in institutional structures can improve performance. Going from lesser to greater autonomy, these are: creating a ring-fenced department; creating an autonomous statutory body; and establishing the utility as a government-owned enterprise, the public limited company (PLC). (See box 1 for details.) However, these also need to be complemented by competent and independent oversight of management, and mechanisms must be established to incentivize managers and staff of service providers to meet targets, and to hold them accountable for poor performance. Given the history of many performance-related contracts with public sector enterprises, caution has to be adopted in expecting major changes in incentives and, more important, commitments by governments to reduce interference in day-to-day management of the utilities.[9] More generally, the quality of public sector governance should be taken into account, as should the overall financing and management of municipalities.

Internal incentives should be reinforced by external pressures, including the comparison of utility performance against sensible benchmarks, and the public disclosure of these results.[10]

The responsibility for water supply and sanitation service provision is decentralized to subnational government bodies in many of the Bank's client countries. This can help introduce local knowledge into service delivery and sharpen lines of accountability but raises questions as to whether the required technical capacities will be present in smaller, decentralized entities. A particular concern is smaller population centers in decentralized environments that have small revenue bases. Given the limited capacity at the municipal level, staff should consider the extent to which well-performing water utilities might be able to play a role of institutional anchor. Financial resources provided by central government and its agencies to decentralized entities can be linked to performance and meeting clear targets for operations and expansion, thereby providing an additional impetus for reform and accountability.[11]

Sanitation often requires different approaches that are not centered on networks. The vast majority of urban residents in developing countries do not enjoy the benefits of sewerage, and their best hope for service in the near term frequently lies in on-site sanitation. Therefore the development and support of institutions to promote on-site sanitation is a high priority to achieve meaningful progress in this area.[12] Expanding sewerage networks will require supportive land-use management and housing policies and programs.

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9 World Bank. 1995. *Bureaucrats in Business.* Washington, D.C.
10 World Bank. 2004. *Making Services Work for Poor People* (World Development Report 2004). September, 2004.
11 World Bank. 2004. *Making Sevices Work for Poor People* (World Development Report 2004). September, 2004.
12 Elledge, M. 2003. *Sanitation Policies–A Thematic Overview Paper.* A joint publication of the Environmental Health Project and the International Water and Sanitation Centre., May. Available for download from http://www.irc.nl/page.php/282.

Box 1. Structural Options for Service Provision

Creating a ring-fenced department. This would be established by separating ("ring fencing") the service provision into a separate body. Although part of a (local) government, a ring-fenced department has separate accounts and a certain level of autonomy for day-to-day management. The management oversight function remains with the owner of the utility. Ring-fenced departments in general function more efficiently than do direct public management models. However, this utility model has not been proven to work in a sustainable way over the long term, as it is prone to political interference.

Creating an autonomous statutory body. This step is essentially a change of legal status: a government department becomes an undertaking with an independent corporate oversight board. These autonomous bodies separate the functions of asset ownership (often the local government), the management oversight (a board), and the service provision function (a utility with the legal identity of a statutory body). Creating an autonomous statutory body offers opportunities for improvements in efficiency by (i) allowing bureaucratic administration to be replaced by commercial management, (ii) facilitating the introduction of clear financial and operational performance targets and cost accounting systems, (iii) creating greater management autonomy, and (iv) allowing centralized supply-driven decisions to be replaced by demand-driven ones. The model is fairly common around the world, and has had mixed performance.

Establishing the utility as a government-owned enterprise, the public water PLC.[13] This would operate under company law, while the shares of the company are owned by national, regional, or local government authorities. The legal framework under which government-owned companies operate can create a buffer between the day-to-day commercial business operations of the utility and the political environment in which it operates.

Broadening Private Provision

Private participation has been sought in the expectation that it would introduce efficiencies in operations and investments, and that the contractual and commercial discipline involved would also prompt the government to put in place better rules for the sector, such as more cost-reflective prices and more clear-cut policy and regulatory objectives.

There are a wide range of private participation options. Going from lesser to greater transfer of risks and responsibilities to the private partner these include service and management contracts, leases, concessions, and in a few cases, divestitures. There are a number of variations of these main forms, such as public-private companies (for example, *empresas mixtas*). The likely benefits flowing from these options will vary (see table 1).[14] In assessing the suitability of these options, the present situation in the sector and the objectives to be achieved through private participation are the key factors to be taken into account.

13 Blokland, M.W., O.K. Braatbaart, and K. Schwartz. 1999. *Private Business, Public Owners-Government Sharholdings in Water Enterprises.* The Netherlands: Ministry of Housing, Spatial Planning and the Environment, The Hague

14 "Private Participation in Water and Sanitation. A Guide for Governments in Developing Countries." Forthcoming in 2004. PPIAF/World Bank Toolkit.

Table 1 Likely Benefits from Different Forms of Private Sector Participation

	Service contracts	Management contracts	Leases affermages	Concessions/ BOTs
Management expertise	Yes but limited to scope of contracted-out functions	Yes	Yes	Yes
Tariff discipline	No	In some cases, but limited to O&M	Yes, but limited to O&M	Yes
Access to private capital	No	No	Yes, but limited to working capital, and partial financing of network renewal	Yes

Notes: BOT: Build-Operate-Transfer
O&M. Operation and Management

There may be scope for transferring some investment responsibility to the private operator, as well-run utilities finance a significant part of their development from cash generated from operations. Although this would not necessarily cover major investments, it could include the supply of meters and the rehabilitation and extension of the secondary distribution network.[15]

Where service areas extend beyond large urban areas, Bank staff will need to work with governments to identify the options suitable for those circumstances. These options may include aggregation of services areas and strengthening local capacities to manage smaller systems.

Most public-private partnerships in the water supply and sanitation sector will continue to require public funding, either because of difficulties in raising tariffs to cost-covering levels in the near term, or because there are social or other objectives that cannot be met through cross-subsidies. Public funding may be utilized to augment private sources in all types of contractual arrangements, including deeper forms of private participation, such as concessions. It should be focused on specific service goals, such as access expansion or covering a temporary shortfall in revenues over costs. There are a number of approaches to subsidy delivery, including output-based aid (OBA), that should be examined with client governments.[16] Public financing is likely to be particularly important in funding the expansion of sewerage networks, although the private sector may invest in treatment plants.

Even where prices fully reflect costs, explicit measures to attract private financing may be required, owing to uncertainties regarding the long-term financial viability and the sustainability of the legal and regulatory framework. In the absence of a solid track record of compliance with contractual obligations, governments may have to provide stronger commitments to agreed contractual and regulatory frameworks. Backstopping commitments on risk-sharing and regulatory regimes with

15 Broklehurst, C., and J.G. Janssens. 2004. "Innovative Contracts, Sound Relationships: Urban Water SEctor Reform in Senegal." World Bank WatSan Sector Board Discussion Paper Series, No. 1, 51 pp. Washington, D.C., January.
16 See the Global Partnership on Output-Based Aid (GPOBA) Web site, www.gpoba.org, for more information on output-based aid approaches and specific applications in the utilities sectors.

partial guarantees from third parties can be used to help mitigate these risks as well.[17] Table 2 shows some examples of public support; however, the nature and extent of public support should be carefully evaluated on a case-by-case basis.

Table 2 Examples of Government Support to PPP Projects

Type of support	Examples
Funding from taxpayers	• Government financing of investment expansion for management contracts and leases, and other forms of PPPs • Output-based aid subsidy provided for system expansion, providing access to the poorest • Direct subsidies to poor households for consumption of water
Government risk-bearing	• Guarantees to extend the term of debt financing for private water supply and sanitation projects • Political risk guarantees to commit to agreed contractual frameworks • Taxpayer coverage of foreign exchange risks

Responsibilities, risks, and rewards need to be carefully allocated in public-private partnerships. This could take the form of a risk and reward allocation matrix for private participation options, as well as an assessment of explicit and contingent government liabilities so that the real costs and benefits of each private participation option are clear to the government and its development partners.[18] Where governments decide to provide some form of financial support, staff should work with clients to evaluate whether or not the proposed instruments match the policy objective to be supported. For example, direct subsidies will be the best approach to meeting social objectives or dealing with externalities. Credit enhancement to reduce the cost and/or extend the maturities of financing will help to address concerns about investments in assets that have long lives compared to the tenor of debt available commercially.

In fashioning reform strategies, governments should consider the full range of private sector options available. Qualified domestic or regional companies should have the opportunity to compete for public-private partnerships. In countries with low coverage levels, the gap between connected and unserved households is often filled by small scale providers, usually community-based organizations, nongovernmental organizations (NGOs), and the small-scale local private sector. Community-based programs focused on on-site sanitation are a necessary complement to network sewerage systems, and the local private sector can play an important role in providing necessary services for on-site sanitation. Measures for strengthening or more formally incorporating small-scale service providers should be undertaken as part of a broader strategy for extending services to poor and unserved households. Recent initiatives to integrate these providers into utility contracts and invite small-scale operators to provide a range of services have yielded positive results for consumers, particularly those in poor households.[19]

17 Gupta, P., R. Lamech, F. Mahar, and J. Wright. 2002. "mitigating Regulatory Risk for Ditribution Privatization–The World Bank Partial Risk Guarantee. "Energy and Mining Sector board Paper No. 5, World Bank, Washington, D.C.
18 Irwin, T. 2003. "Public Money for Private Infrastructure." World Bank Working Paper No. 10, July, Washington, D.C.
19 Water Utility Partnership Africa. 2003. "Better Water Supply and Sanitation for the Urban Poor–Good Practices from Sub-Saharan Africa." Final Report. Abidjan, Côte d'Ivoire.

Regulatory Frameworks

Water supply and sewerage network services have natural monopoly characteristics, as well as significant health and environmental impacts. Regulation of service provision is therefore required regardless of whether the provider is a public or private entity. In situations in which regulation has been bundled with service provision, very often the first steps will be in setting up the framework that will operationalize policies, covering tariff structure and levels, service standards, and expansion targets. There may be a need to create a specialized regulatory agency to implement this framework, but staff should work with clients to assess the need for this, and the appropriate mandate and powers of this agency.

Local responsibility for service provision in many countries can represent a significant challenge, with a large number of decentralized service providers, accountable to their respective local governments. While local regulation may make the best use of local knowledge, technical and management capacity is often uneven at the lowest tiers of government. National regulatory authorities may have greater capacity, but will have difficulties or may be prohibited, constitutionally or otherwise, from regulating a large number of diverse local service providers. The appropriate distribution of roles between national and local authorities needs to be clearly established. The information generated by regulators can also be used by central funding agencies in allocating financial resources on the basis of actual performance.

The regulation of public sector providers poses a unique challenge as public sector entities do not typically respond to economic incentives that drive much of private regulation. Where there is little planned reform in terms of transformation of the service provider, the need for changing the regulatory framework greatly, for example by creating independent regulatory agencies, needs to be carefully evaluated. However, better oversight and monitoring of performance of public sector service providers can lead to increased transparency and pressure for further reform.

Where private finance is sought, the regulatory framework must provide financiers sufficient comfort that they will earn a return on their investments commensurate with the risks involved. Developing robust regulatory frameworks and the strong institutions to implement them takes time. In many countries it will be necessary to provide stability and predictability in the regulatory regime by limiting the amount of discretion that regulatory bodies have in setting prices and key parameters, particularly during the initial years of public-private partnerships. This can be done by setting out the main parameters, such as prices and service standards, in the key regulatory instruments, such as licenses or contracts, or by having clear principles in legislation. Robust and workable dispute resolution mechanisms that allow for credible and timely scrutiny of regulatory determinations and contribute to the accountability of regulators are an integral part of such measures. Placing contracts and other regulatory instruments in the public domain will also improve transparency.

In countries undertaking reform, Bank staff should work with clients to assess the appropriateness of alternative regulatory oversight arrangements, taking into consideration that regulatory institutions, instruments, and skills develop over time (see table 3). Placing the key regulatory instruments in the public domain will increase transparency within the sector.

Building professional regulatory capabilities requires political commitment and adequate funding on the part of the government. Where these prerequisites are in place, staff can help mobilize a wealth of resources and networks (for example, IFUR and the regional networks such as SAFIR,

Table 3 Designing Regulatory Frameworks

Institutions	Instruments	Skills
What attributes are necessary for regulators to perform their mission?	*What comprises the legal framework within which the regulator works?*	*What are the tools with which to manage within this framework?*
Independence	Legislation	Monitoring
Accountability	Contracts	Enforcement
Transparency	Licenses	Asset valuation
Adequate funding	Arbitration and alternative dispute resolution	Demand analysis
Legitimacy		Financial analysis
Professional and technical expertise	International agreements (such as bilateral investment treaties)	Benchmarking
		Industry and company financial models

AFUR, and ADERASA).[20] In countries with little regulatory capacity, contracting out of many of the technical functions of regulation should be considered. Support from established regulatory agencies—perhaps linked through regional fora—will be important in transferring knowledge and best practice.

Extending Services to the Poor

Reforms that place the sector on a sound financial footing will generate increased resources for investment in system expansion. But this alone will not guarantee that the poor are reached. Extending services to the poor requires specific attention and targeted interventions. The nature of the problem—involving a lack of the access by the poor to credit and unaffordable connection fees and consumption charges—should first be well analyzed, and this diagnosis should form the starting point for formulating policies to address access and equity issues in the sector.

Staff should work with government counterparts to ensure that the content and sequencing of reforms and investments take into account the needs of the urban poor. Deferring the implementation of pro-poor reforms in order to focus on improving services for existing consumers may worsen conditions for the poor. In several cases, reform programs have suffered setbacks because of public perception that the poor have been adversely affected. This would include upfront poverty mapping, demand and willingness-to-pay (WTP) assessments, design of contractual arrangements that encourage the operator (whether public or private) to serve new customers regardless of their expected level of consumption, and a tariff structure that favors access to and minimum consumption of piped water.[21]

20 IFUR: International Forum for Utility Regulation; SAFIR: South Asia Forum for Infrastructure Regulation; AFUR: Africa Forum for Utility Regulation; ADERASA: Asociación de Entes Reguladores de Agua Potable y Sanamiento de las Americas.

21 WSP/PPIAF. 2000. *New Designs for Water and Sanitation Transactions–Making Sector Participation Work for the Poor.* Report, 66 pp. Washington, D.C.

The urban poor often have unique and differentiated service demands that cannot be met through one-size-fits-all approaches. In some cases, service might be best supplied by non-network solutions. Successful reforms require inclusive, transparent, and well-informed stakeholder consultation. Improving mechanisms for communication and participation, by providing greater voice to and acceptance by poor communities, will assist in developing programs that meet the needs of the poor. Developing or strengthening partnerships between utilities or regulatory agencies and NGOs, community organizations, and civil society should be explored. Identifying and removing administrative and legal barriers that the poor face in connecting to water supply and sanitation networks is often critical, as is tackling land tenure security, housing, and land-use management through broad citywide strategies.

A number of regulatory and policy approaches can be used for expanding access and affordability.[22] These include the use of direct or cross-subsidies, connection targets or universal service obligations in PPPs, liberalizing entry for unserved or under-served areas, and allowing differentiated levels of service in line with consumer preferences and their ability to pay. Very often existing subsidies are captured for the most part by non-poor households and suitable measures should be taken to redirect these to lower-income consumers. As noted earlier, where subsidies are proposed, even where these benefit the poor, the government's ability to fund these should be fully assessed.

Environmental Considerations

The Bank Group supports effective environmental management of water supply and sanitation services, regardless of the state of sector reform and the mix of public and private roles. Reform of the sector provides an opportunity for improving environmental oversight, and for assessing the relationship between the economic and environmental regulation in terms of standards, institutional roles, and decisionmaking processes. It is particularly important to ensure that environmental standards are consistent with the economic and social policies and regulations and that compliance is within the financial capacity of the operator, customer base, and government. Failure to do so may lead to, for example, environmental standards requiring investments that cannot be financed by user fees or government transfers.

Raising Finance from Domestic Capital Markets

Utilities that improve their financial position may be able to directly access local financial markets. This might include longer-term borrowing, particularly in middle-income and transition economies. Where utilities are in a position to repay from their own revenues the costs of financing, this option can be a good possibility for mobilizing financial resources to fund system expansion. Borrowings by state undertakings should be monitored and ultimately controlled by the government, since both explicit and implicit government guarantees may affect the government's overall fiscal position.

In the long run, local currency financing will be the most sensible approach to dealing with foreign exchange risks in a sector where revenues are denominated in local currency. However, domestic capital markets in many countries are limited, and developing them requires reform that goes well beyond the scope of water supply and sanitation, encompassing the country's financial sector, pension systems, and insurance markets among others. Reforms here will require the use of banking, capital markets, and municipal finance skills.

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22 Estache, A., Foster, V. and Q. Wodon. 2003. *Accounting for Poverty in Infrastructure Reform.* WBI. Washington, D.C.

Access by local governments and their utilities to domestic savings through financial markets can provide additional sources of financing for investment. There are many ways in which utilities and their parent government bodies can access local credit markets, including general municipal bonds, revenue bonds linked to water supply and sewerage programs, project/structured finance, and long-term bank debt. There is scope for international financial institutions to play a role in the development of these financial markets by providing appropriate risk mitigation and sub-sovereign lending instruments. This could include credit enhancement to lengthen the tenor and reduce the cost of finance accessed by creditworthy water companies and their municipalities.

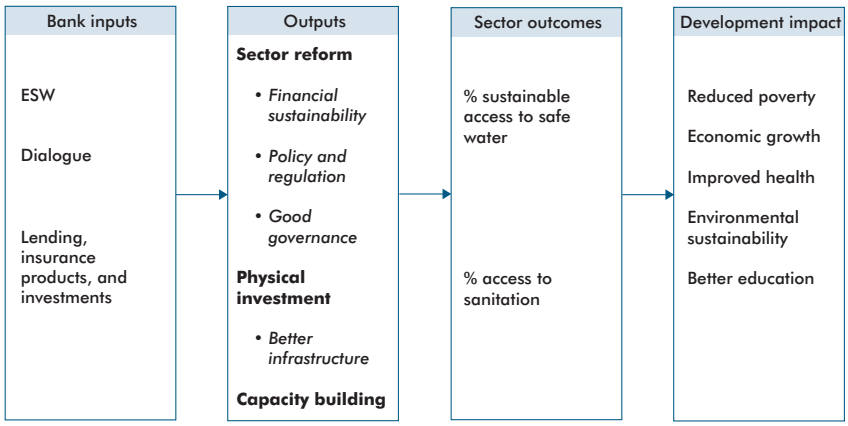
C. STRATEGIES FOR EFFECTIVE BANK GROUP INTERVENTIONS

Bank Group interventions aim to ensure the efficient, affordable, and sustainable delivery of water and sanitation services. The Bank Group supports reforms that contribute to expanding access to, and improving the quality of, these services. An intervention should focus on a subset of the issues that the government is seeking to address in its reform policies. The range of options available to Bank staff is broad, ranging from technical assistance, adjustment loans/credits, and investment loans including OBA, Sector-Wide approaches (SWAps) and local currency financing, as well as International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA) guarantees, IFC investments and guarantees, and MIGA guarantees. The potential for combining products promises new opportunities. The Bank Group will work across the full spectrum of public and private options for management and financing.

Staff should ensure that proposed activities are consistent with the country's poverty reduction strategy and within the County Assistance Strategy (CAS) as well as engage clients in a dialogue about how the water supply and sanitation strategy fits into the broader poverty, economic, and environmental priorities. Many Bank Group interventions in the sector take place through multisectoral initiatives, such as social funds, rural development, and natural resource management operations. The basic principles outlined in this guidance Note should be consistently applied irrespective of where project management resides.

Many interventions will require cross-sectoral approaches. Developing financial markets to improve access to domestic savings is one example. Interventions in the water supply and sanitation sector will only likely yield improvements in health outcomes if a broad strategy is pursued that includes sound hygiene practices. Where private participation is being considered, or financial markets developed, the institutions within the Bank Group will need to work effectively together. This coordination should start as far upstream as possible—preferably at the level of the Poverty Reduction Strategy Paper (PRSP) and CAS and Bank Group strategies for individual country sectors. Measurement of the effectiveness of Bank assistance in terms of client country outcomes as well as inputs and outputs will be important and should be built in at this stage and regularly assessed.

Figure 3: Results Chain of Bank Group Interventions in the Water Supply and Sanitation Sector



Note: ESW: Economic and Sector Work

Implementing substantive reforms and achieving sustained progress often takes a number of years, and Bank Group staff should be aware of the need for long-term engagement, as well as dimensioning and sequencing assistance in line with progress achieved. Capacity building should be an integral part of many Bank interventions. Assistance to governments to build capacity can often be done effectively through on-the-job-training and knowledge exchange in a regional context—that is, through regional peer-to-peer networks,[23] but resources should also be provided for training activities, and capacity building for entities charged with regulating and monitoring the sector.

Engaging with the Public Sector

The Bank will work with well-performing publicly owned and -operated utilities as well as those that put in place a credible program to improve performance over time. Where they are performing poorly and cannot demonstrate credible reform measures as evidenced by concrete actions already taken, investment lending should be deferred. In this circumstance, Bank assistance should focus initially on policy dialogue and advisory work to create a consensus for policy reforms and provide resources to build capacity.

There is scope for continuing to lend to well-performing public utilities. Benchmarking against comparator utilities will enable staff to judge the performance of utilities that wish to access Bank resources. There is also scope for engagement with utilities that have embarked on a credible and sound reform program. The realism of the proposal should be assessed through comparison with past performance and benchmarks within the industry. The following would be components of such a program:

- A sound policy and regulatory framework for the utilities concerned that establishes realistic policy objectives and aims at the separation of service provision from policy and regulatory functions;
- A medium-term performance improvement plan that addresses reductions in 'non revenue' water and staffing levels, improvement of collections, service to the poor and recovery of operation and maintenance (O&M) costs, and depreciation and financing costs;

23 Examples include Water Utility Partnership for Capacity Building (WUP) Africa, www.wupafrica.org; and South Asia Forum for Infrastructure Regulation (SAIR), www.safir.teri.res.in.

- Financial sustainability with the utilities' revenues from user charges and government transfers covering the costs of service provision, including financing and depreciation;
- Recovery of revenues from users within the near term to cover the utility's operations and maintenance costs; and
- The establishment of an adequate governance and institutional framework for service delivery.

The Bank may consider engaging in investment programs and policy reform advice *in parallel*, provided that most of the initial phase of sector reforms have already successfully been undertaken—as opposed to waiting for all reforms to be completed. However, in all cases the extent to which a utility can access Bank financing will depend on an assessment of its financial strength and past operational performance. Bank staff should regularly assess whether progress in reforms warrant continued Bank support and take appropriate action where they do not.

Assistance for investment financing can be through on-lending to the utility or municipality, budgetary transfers, or where utilities are in a strong financial position, through credit enhancement products to improve the terms obtained from capital markets. Financial support should be complemented by technical assistance to help governments improve performance for entities that remain in the public sector, by advising on how to increase autonomy and accountability of service providers, and by developing sector information systems that measure and disclose the range of utility performance.

Engaging with the Private Sector

The Bank Group will continue to support reforms where private sector participation is introduced as a means for increasing the efficiency and performance of infrastructure service providers. Technical assistance should be provided where needed to help governments design and implement an appropriate private participation option. The Bank Group will support a broad range of private participation options including management contracts, leases, and concessions, and will work with the local private sector and small-scale providers. Bank staff should work with counterparts to ensure that private participation options are based on realistic investment and service targets and with an appropriate allocation of risk and responsibilities between the parties.

A broad range of Bank Group instruments are available to support private participation. Investments by IFC in debt and equity in hard currency and local currency financing, and support from MIGA, will form an important part of Bank Group assistance to private projects. Both the Bank and MIGA are well placed to provide noncommercial risk guarantees on management contracts to the extent that private financing is mobilized under these. Bank Group risk mitigation instruments may also be used to support the maintenance of regulatory and contractual frameworks and to improve the terms on which finance is accessed from capital markets. MIGA guarantees can be extended to cover commitments by sub-sovereign entities without the need for a central government counterguarantee.

Public funding will be an important part of many private participation options. This includes the on-lending of IDA/IBRD funds for output-based subsidies and other approaches for parallel financing from public and private sources. Where output-based aid mechanisms are proposed, there may be a need to put in place some form of guarantee or security to provide comfort to the private sector that promised government transfers will be forthcoming.

Staff should factor in the state of private sector and financial sector development when assessing the possibilities for small and middle-sized enterprises (SMEs) or community-driven models in the sector. The development of small-scale providers may require government-supported capacity-building initiatives. In many cases, Bank Group support for these initiatives could be channeled through existing facilities such as SME development windows and NGO-supported microfinance and business development entities. Where Bank Group resources are channeled for investment to smaller-scale private sector entities, effective mechanisms should be utilized to channel funds.

In some situations, the Bank Group may support interventions directed at communities and households, either through matching grants or via intermediaries that provide microfinance. This may be justified even where the reform efforts for the main utilities are limited or nonexistent. Where microfinance is proposed, Bank staff should assess the capability and experience of microfinance agencies being considered for on-lending. Support for this might be provided in a variety of ways, including refinancing of intermediary loans to households. Again, there may be a need to package capacity building for communities and the intermediaries involved.

Providing Financial Resources to Sub-Sovereign Entities

IBRD and IDA have traditionally provided financing to sub-sovereign entities through a range of mechanisms, including Municipal Development Funds, development banks, infrastructure funds, and in some cases through capital market operations to support attempts by municipal entities to access domestic capital markets.

These options require either central government on-lending or a guarantee. The Bank Group is currently developing new approaches that would permit the provision of assistance to sub-sovereign entities without central government involvement, for example through the Municipal Fund created in 2003 which is an experimental attempt to fill this gap. The products offered by this Fund include direct lending to subnational governments (local or state) and their enterprises, credit enhancement—with no sovereign counterindemnity—of local currency borrowings (bonds or bank loans) by subnational entities, and debt or equity investments in financial intermediaries serving the municipal sector.[24]

24 In 2004, the Fund closed its first transaction, a partial guarantee for a peso bond issuance supporting a municipal water project in Tlalnepantla, Mexico.

Matrix of Bank Group Water Supply and Sanitation Interventions—Technical

SUB-SECTOR	KEY ISSUES	PRIVATE SECTOR INTEREST	GOVERNMENT APPROACH TO REFORM	BANK GROUP INSTRUMENTS
Drinking water supply: production capacity and transportation	Water resource management / storage Water demand forecast Rehabilitation / Upgrading Nonrevenue water reduction and sequencing of capacity augmentation How to finance required investments Efficient procurement and implementation of investments	MODERATE Interest primarily in bulk water supply/water treatment facilities Policy and regulatory environment has to be right Broader investment climate, conducive to private participation Hybrid take-or-pay arrangements Government commitments on risk-sharing, payment guarantees and regulatory predictability with backstopping from third parties (international financing institutions, IFIs)	Public support for investments particularly for assets with long life-cycles (for example transportation mains, reservoirs) and for investments that address sector externalities Strengthen financial capacity and creditworthiness of municipalities and their utilities Depth and receptiveness of domestic financial markets	IDA / IBRD • Investment lending • Credit enhancement: partial credit guarantee (PCG) and partial risk guarantee (PRG) • Financing of operating contracts Sector-Wide Approach, SWAp IFC • Partial guarantees • A and B loans MIGA • Noncommercial risk insurance, including breach of contract by a sovereign or sub-sovereign
Drinking water distribution and access	Rehabilitation Expansion for new connections, especially serving the poor	MODERATE to LOW Interest primarily in operating systems	Avoiding tariff shock is key political economy concern	IDA / IBRD • Investment lending • Credit enhancement: PCG and PRG

Matrix of Bank Group Water Supply and Sanitation Interventions—Technical

SUB-SECTOR	KEY ISSUES	PRIVATE SECTOR INTEREST	GOVERNMENT APPROACH TO REFORM	BANK GROUP INSTRUMENTS
Drinking water distribution and access) *(cont.)*	Cost-covering tariffs / sustainable cash flows Cost reduction Targeting subsidies to lower income households Stable and politically acceptable tariff evolution Nonrevenue water reduction, metering, and demand management / realistic performance incentives	Challenge is appropriate risk-sharing with public sector, and public funding of noncommercial objectives Potential of domestic and small-scale service providers Interface between utility and small-scale provider, and nonexclusive arrangements Government commitments on risk-sharing, payment guarantees and regulatory predictability with backstopping from third parties (IFIs)	Extent to which subsidy schemes benefit the poor; getting the tariff right, targeting subsidies Transparent PPP process is essential for legitimacy PPP process needs to be accompanied by effective communication strategy Strengthen financial capacity and creditworthiness of municipalities and their utilities Depth and receptiveness of domestic financial markets	• Financing of operating contracts OBA support to distribution schemes Sector-Wide Approach, SWAp Effective use of risk mitigation and direct sub-sovereign lending instruments, for example GuarantCo IFC • Partial guarantees • A and B loans MIGA • Noncommercial risk insurance, including breach of contract by a sovereign or sub-sovereign
Sewerage	Realistic targets in staging development in rehabilitation, upgrading and new capacity Connection uptake rate to sewer system	MODERATE Interest in middle-income countries Interest primarily in wastewater treatment facilities	Public support for investments particularly for assets with long life-cycles (such as sewers), and for investments that address sector externalities	IDA / IBRD • Technical assistance (TA) • Investment lending • Credit enhancement: PCG and PRG • Financing of operating contracts

Matrix of Bank Group Water Supply and Sanitation Interventions—Technical

SUB-SECTOR	KEY ISSUES	PRIVATE SECTOR INTEREST	GOVERNMENT APPROACH TO REFORM	BANK GROUP INSTRUMENTS
Sewerage *(cont.)*	Cost-covering mechanisms, tariffs / sanitation surcharges / specific tax revenues / sustainable cash flows Cost reduction / condominial options to reduce cost, improve management Effective service delivery / realistic performance incentives / levels of service Appropriate and realistic effluent standards	Government commitments on risk-sharing, payment guarantees and regulatory predictability with backstopping from third parties (IFIs)	Strengthen financial capacity and creditworthiness of municipalities and their utilities Depth and receptiveness of domestic financial markets Subsidies for connection to sewer system; sources of finance for subsidies Adapt policy and regulatory framework to accommodate low-cost systems such as condominial systems	OBA support to sewerage schemes Sector Wide Approach, SWAp Effective use of risk mitigation and direct sub-sovereign lending instruments, for example GuarantCo Microcredit and microfinance for in-house sanitation facilities Capacity building via Water Sanitation Program (WSP), World Bank Institute (WBI) IFC • Partial guarantees • A and B loans MIGA • Noncommercial risk insurance, including breach of contract by a sovereign or sub-sovereign

Matrix of Bank Group Water Supply and Sanitation Interventions—Technical

SUB-SECTOR	KEY ISSUES	PRIVATE SECTOR INTEREST	GOVERNMENT APPROACH TO REFORM	BANK GROUP INSTRUMENTS
On-site sanitation	Determination of institutional home/ responsibilities within government Physical conditions; soil type, groundwater table Sludge management Stimulation of demand in a sustainable way (minimizing dependence on subsidy) Response to demand through appropriate technological options that meet needs of consumers, protect local environment Acceptance by government authorities Credit/finance needs of poor	LOW, except at level of small-scale providers, builders, sludge haulers	Demand stimulation Determination, enforcement of appropriate building code Capacity building (among small-scale providers) Support for hygiene promotion	TA loan/credit for feasibility studies, hygiene awareness and social marketing Implementation and policy support via WSP Sector-Wide Approach, SWAp Capacity building via WSP, WBI Inclusion in Sector-Wide Approaches ESW—policy review and strategy formulation Analytical and Advisory Assistance, AAA— strengthen institutional arrangements

Matrix of Bank Group Water Supply and Sanitation Interventions—Institutional

AREA	KEY ISSUES	PRIVATE SECTOR INTEREST	GOVERNMENT APPROACH TO REFORM	BANK GROUP INSTRUMENTS
Policy framework	Good governance structure, at sector and service provider level • Separation of functions • Operating legal framework • Operational autonomy concept—ring-fencing against political interference Well-organized sector • Syndication • Multi-utility • Decentralization and aggregation Well-functioning service providers • Organizational structure • Corporate oversight • Financial discipline in operations	HIGH Fair, predictable, and sound policy and governance framework is eventually critical for establishing sustainable PPP	Allow borrowing for well-performing public utilities, at different levels Facilitating reform with clear objectives, in weak public-owned utilities, across urban centers and multisector service providers Favor the creation of PPPs in order to generate an outcome that yields the highest benefits to consumers Creating effective corporate oversight function by, for example, establishing independent executive boards for water supply and sanitation utilities, with clear mandate and monitoring skills	IDA/IBRD TA Matrix condition for adjustment lending Capacity building via WSP, WBI ESW—sector review and strategy formulation PHRD, PPIAF—trust-funded studies MTEF/PER—fiscal management AAA—CAS/PRSP, and links to overall policy agenda

Matrix of Bank Group Water Supply and Sanitation Interventions—Institutional

AREA	KEY ISSUES	PRIVATE SECTOR INTEREST	GOVERNMENT APPROACH TO REFORM	BANK GROUP INSTRUMENTS
Regulatory framework	Policy formulation has to anchor the whole sector and needs to provide strategic guidance for • sector development, industry structure, regulatory framework, and responsibilities of public agencies • national goals in terms of access and service levels • financing and pricing policies including subsidy criteria and participation of different levels of government. Building professionalism in regulation—institutional options Regulatory discretion—regulation by contract	HIGH Fair, predictable, and transparent regulatory framework, including cost-recovery regime either from user charges or government transfers, is eventually critical for establishing sustainable PPP	Some reluctance regarding regulatory independence Political economy of pricing puts regulatory agencies in difficult position Regulatory institutions would need to ensure coherence among what form of regulation to implement, what aspect of service to be regulated, and at which level of government Superimposing a national regulatory body with broad powers on to decentralized service providers that operate under local or state level jurisdiction and oversight should be avoided	IDA/IBRD TA Matrix condition for adjustment lending Capacity building via WBI ESW—trust-funded studies and support for regulatory reform AAA—global and regional networks of regulators (IFUR, SAFIR, AFUR)

Matrix of Bank Group Water Supply and Sanitation Interventions—Institutional

AREA	KEY ISSUES	PRIVATE SECTOR INTEREST	GOVERNMENT APPROACH TO REFORM	BANK GROUP INSTRUMENTS
Public health and environ-mental protection	Water supply and sanitation sector investments, to be environmentally responsive and socially sensitive Improving environmental regulation, and assessing relationship with economic regulation, in terms of environmental standards, institutional roles, and decisionmaking processes Environmental sustainability Availability of water resources Sanitary disposal of excreta Effective promotion of sound hygiene practice	LOW Fair assessment and regulation mechanisms for environmental and public health outcomes key to PPP	Health and environmental concerns need to be addressed coherently in terms of ensuring consistency among environmental and public health standards and impacts, costs of attaining these standards, and revenues to cover these costs Government to identify sustainable financing for hygiene education; and social marketing programs Improving coherence among agencies handling environmental, public health, and sanitation	Support for effective environmental management of WSS services, whether public or private Capacity building via WSP, WBI ESW—policy review and strategy formulation AAA—strengthen institutional arrangements and assessment capacity Trust-funding of TA for hygiene awareness and social marketing

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