



**Office of Evaluation and Oversight, OVE  
Inter-American Development Bank**

1300 New York Ave. N.W., Washington, D.C. 20577

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***RE-270***

***Evaluation of the  
Public Utilities Policy  
(PU Policy, OP-708)  
for Potable Water and  
Sanitation Services***

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Office of Evaluation and Oversight

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## ACRONYMS AND ABBREVIATIONS

CAF	Andean Development Corporation
CAF-ILPES	Latin American and Caribbean Institute for Social and Economic Planning
CAMEP	Central autónoma metropolitana de agua potable [Autonomous Metropolitan Potable Water Service]
CASEN	Encuesta de Caracterización Socioeconómica Nacional
CRA	Comisión de Regulación de Agua [Water control commission]
CREPA	Comisión Reguladora de Servicios de Agua Potable y Saneamiento [Haiti's independent regulatory agency]
ECAPAG	Empresa Cantonal de Agua Potable y Alcantarillado de Guayaquil
ECH	Encuesta Continua de Hogares [Permanent household survey]
ECLAC	Economic Commission for Latin America and the Caribbean
ECV	Encuesta de Condiciones de Vida [Living standards survey]
EIH	Encuesta Integrada de Hogares [Integrated household Survey]
EMAPQ	Empresa Municipal de Agua Potable de Quito
EMOS	Empresa Metropolitana de Obras Sanitarias, S.A.
ENACAL	Empresa Nicaragüense de Acueductos y Alcantarillados
ENCV	Encuesta Nacional de Calidad de Vida [National quality of life survey]
ENGH	Encuesta Nacional de Gastos de Hogares [National household expenditure survey]
ENOHSA	Ministry of Infrastructure and Housing
ETOSS	Ente Tripartita de Obras y Servicios Públicos [Public services and works tripartite body]
FIEL	Latin American Economic Research Foundation
INAA	Instituto Nicaragüense de Agua y Alcantarillado
INDEC	Instituto Nacional de Estadística y Censos de la Republica de Argentina
JUNAC	Junta del Acuerdo de Cartagena
LSMS	Living standards measurement surveys
OVE	Office of Evaluation and Oversight
PPV	Pesquisa sobre Padrões de Vida
PU	Public Utilities
PWSS	Potable water and sanitation services
ROS/ITC	Regional Operations Support Office/Information Technology Office
SABESP	Companhia de Saneamento Básico do Estado de São Paulo
SEDAPAL	Servicio de Agua Potable y Alcantarillado de Lima [Lima Water and Sewer Utility Company]
SNEP	Servicio Nacional de Agua Potable [National Potable Water Service]
SUNASS	Superintendencia Nacional de Servicios de Saneamiento [Office of the National Superintendent of Sanitation Services]

## CLASSIFICATION OF CONDITIONS FOR OPERATIONS

CP	Community participation
CR	Cost recovery
DC	Decentralization
EFS	Economic and financial sufficiency
EI	Environmental improvements
ES	Economic sustainability (cost recovery)
IOE	Improved operating efficiency
IWSC	Increase in water and sanitation coverage
PSP	Private-sector participation
RF	Regulatory framework

## Executive Summary

In 1996 the Bank changed its strategy for addressing problems in the potable water and sanitation sector by approving the public utilities policy (OP-708) which replaced the public utilities tariffs policy (OP-718) that had been in effect since 1982.

The sector analysis on which approval of the PU policy was based was that potable water and sanitation services are trapped in a vicious circle of poor quality, in which *political interference* and the confusion of roles played by the State lead to inefficient management practices by operators and to the maintenance of low tariffs that fail to ensure sustainability of the services in the long term, with a negative impact on quality and coverage, which leads to greater political interference. To break this *vicious circle*, the PU policy proposes the need for “*insulation from political interference*” in the services through three inter-related instruments: (i) a new institutional arrangement to be brought about by a new legal framework that establishes acceptable separation of roles and creates independent regulatory bodies; (ii) a new delivery model based on a tariff policy and structure to ensure the economic and financial sustainability of the services; and (iii) the creation of competition in the sector, chiefly through the inclusion of private operators to improve the efficiency of the services.<sup>1</sup>

(I) Selection of the institutional arrangement for potable water and sanitation services called for in the PU policy was strongly influenced by the process of change in the telecommunications and electricity industries. However, the structural characteristics of the potable water and sanitation sector, which are compounded in Latin America by poverty levels, scant ability to pay and a major investment backlog, suggest that the same model that was established for other public utilities and that guided the PU policy cannot be applied to the sector without adaptation.

Given developments to date, the institutional arrangement proposed by the PU policy is difficult to apply. The main difficulties encountered in building the regulatory capacity required by the policy involve:

- A mismatch between the model of regulation by a centralized agency and the decentralization of service responsibilities present in most of the region's countries.
- A shortage of technical capacity and information for regulatory purposes.

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<sup>1</sup> These three instruments are used by Management to evaluate how well sector operations conform to the policy in the document “Issues related to public utilities policy. A review of projects” (SDS/IFM) 1999. In addition, other documents that Management could use to evaluate the PU policy include: Memo Public Utility Policy: Everything to Everybody or One Size Fits All? Millán, José Jaime. Principal Economist SDS/IFM prepared for the Executive Vice President of the Bank in 1999; Beato, Paulina "Participación del Sector Privado en los Sistemas de Agua Potable y Saneamiento : Ventajas, Riesgos, y Obstáculos" (IDB/IFM-73 1998; Water & Sanitation Subsector: Issues and Options Note (RE1, RE2, RE3, SDS, ROS) 2001.

- Technical and political imbalances in a highly monopolistic market with a large presence of public companies.
- A mismatch between the rules and procedures and the real situation of operators, particularly their operational and managerial shortcomings and the large investment backlog.
- A mismatch between a single, centralized regulatory model and a diversity of service management models.

The changes called for by the PU policy in this area require strong political support in the countries. The absence of that support has been identified as one of the main restrictions on progress in the proposed changes.

(II) The service and management model supported in the policy has been effective, although not without problems, in addressing the need for services in large cities where sources of financing for subsidies are ensured through large clients or public investment flows or when the backlog of investments is not too large<sup>2</sup>. However, this model is not appropriate for guiding actions to increase coverage in rural and marginal urban areas, which is one of the Bank's core fields of action under the mandate of the Eighth Replenishment. In particular, for medium and small cities with sharp social conflicts and with very high investment requirements, and in very poor areas and essentially in rural ones, the model is not appropriate at all.

Three issues found to be fundamental in the Bank's own experience in addressing service requirements in particularly poor areas are not dealt with by the PU policy, given the specific traits of the sector. They are: (i) the linkage between projects and urban development, particularly in marginal urban areas; (ii) the possibility of market segmentation as a means of achieving a quality/price ratio in keeping with community expectations and ability to pay; and (iii) the need for greater community participation.

Ensuring the economic and financial balance of operators requires a complex strategy of gradual adjustments, in which the tariff regime, a change in the culture of paying for services and a solution for more effective subsidies are key factors to which no response has been forthcoming.

(III) The momentum for efficiency created by the inclusion of private operators has been an appropriate mechanism for reversing precarious levels of service relatively quickly. The clear increase in management stability and depoliticization of technical teams achieved by private operators is a further accomplishment. However, the momentum has been very slow and complex when compared to the momentum achieved in the privatization of other public services (telecommunications, electricity, trash collection) in the 1980s and 1990s. The possibility of including private resources in financing the investments needed in the potable water and sanitation sector was one of the reasons for encouraging the involvement of private operators, particularly in view of the financial constraints faced by many countries of the region. However, experience has shown that the capital obtained through this channel has

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<sup>2</sup> The problems lie in the shortcomings in adapting to the nature and economic structure of the sector.

been limited, hampered as it is by structural elements in the industry: strong externalities, high regulatory and political risks, lengthy periods associated with the industry and the large investment backlog. Also, in a business with a high preponderance of public companies on the international level, there are few private companies interested in moving into the region.

The status of the PRI's private-sector loan portfolio points to the difficulties of including private operators and the scant number of players present, with the risks that this implies in terms of the consolidation of anti-competitive markets. For operations under way in December 2001, *Lyonnaise des Eaux* was the operator and beneficiary in four of five loans or guarantees in progress. The other loan was to the large French water company, Vivendi.

Despite the explicit mandate of the PU policy, which calls for the development of specific guidelines, none have been drawn up for the potable water and sanitation sector to respond to its differences and specific features.

Furthermore, application of the policy has been plagued by: (a) lack of consistency, (b) lack of the necessary systemization capacity, and (c) lack of the necessary practical flexibility.

- a. As for the lack of consistency, it is sufficient to note that the Bank takes three different approaches to the sector which lead to three different categories of projects in function of objectives and strategies. The categories are entrepreneurial, social and environmental. The differences between these categories arise from the Bank's approach to the sector and where the focus of attention placed with respect to factors determining the nature of the water and sanitation services. In other words, whether it is economic, social or environmental, and from the type of project under consideration. This lack of consistency can even be detected in operations in the same country.
- b. The lack of systemization capacity can be seen internally and in relation to the extent to which the PU policy is actually applied in the countries. On the inside, there is a process of 'internal migration' from formal water and sanitation projects to other types of social or multisector projects that include water components, in order to avoid the conditionalities that might otherwise be established. Externally, the situation in the sector has changed very little in the countries, where many of the postulates called for in the practical application of the PU policy are rejected.
- c. As for flexibility in applying the PU policy, the considerable variation in applying its postulates, depending on the borrowing country and the different types of projects that include water investment components (social, decentralization, municipal strengthening projects, etc.), points to the presence of something like three different policies:
  - (i) The *minimum requirements policy*, which is the furthest removed from the PU policy's aims;
  - (ii) The *maximum requirements policy*, which is applied to the smallest and institutionally weakest countries, such as Haiti and Honduras, where the postulates of the PU policy are strictly followed; and
  - (iii) The *meta-policy*, which is applied to projects that, while not directly in the water sector, include funds or resources to finance investments in



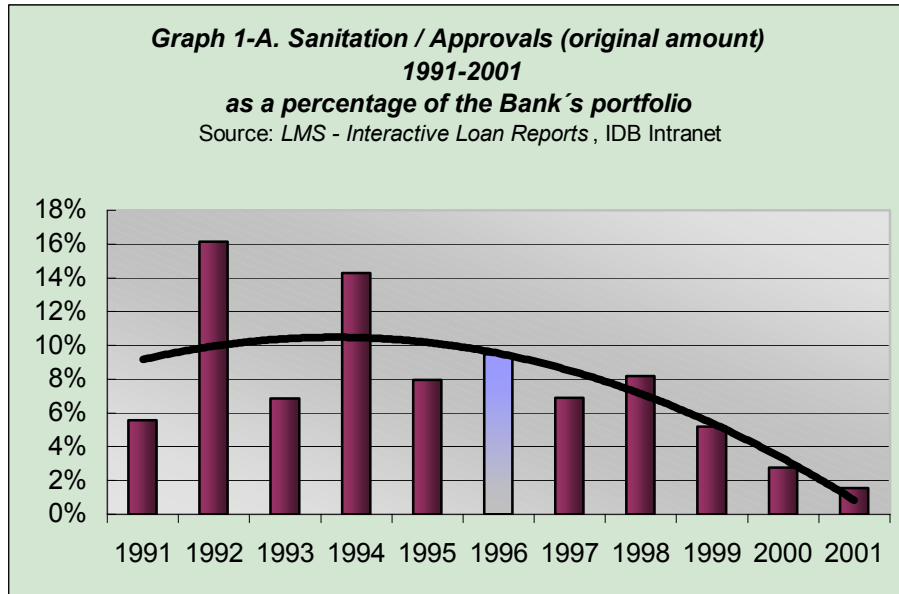
infrastructure, whose conditions and requirements are subject to different criteria. These projects are processed with a kind of procedural opacity that is accepted but not acknowledged. Due to these circumstances, it has been impossible to clearly and transparently determine the process, system or criteria used for their approval or for determining their conditions or requirements.

Although justifiable, these differences find no response in the PU policy in the form of reasoned guidelines for action. Given this vacuum, policy application transmutes from flexible application to unjustified discretionality.

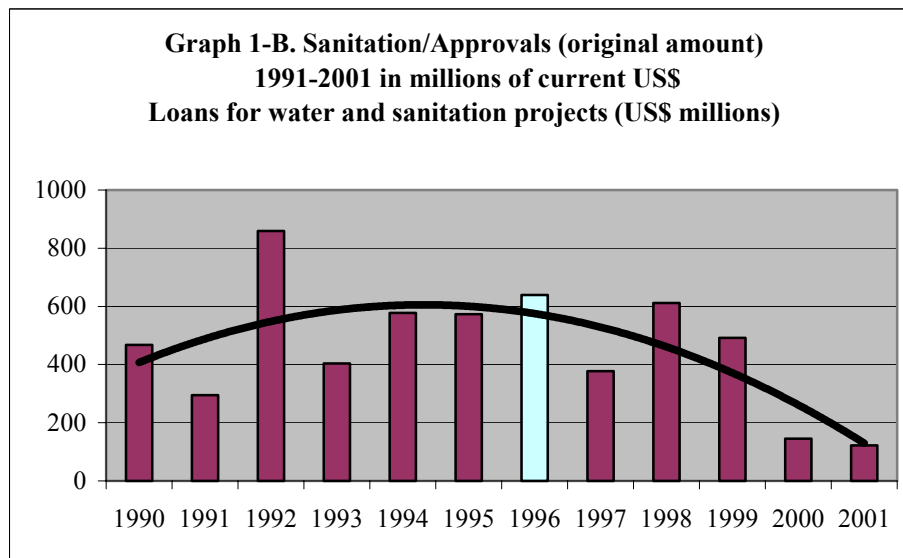
Balanced against what has been said so far, the fact of the matter is that in the countries where the Bank is active more than 124 million people have no residential drinking water and 240 million are not connected to sewer systems<sup>3</sup>. About US\$36 billion would be needed to provide water and sewerage for the close to 53 million households in Latin America without it today. Despite the fact that the water and sanitation sector has accounted on average for 8 percent of all loans approved since the Bank was founded, rising to an average of 10 percent between 1980 and 1995, with the introduction of the PU policy total funds approved have dropped rapidly, particularly in the period 1998-2000. In 2001 it fell to an all-time low when they made up just 1 percent of all loans approved, as can be seen in graph 1-A.

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<sup>3</sup> According to World Bank data in *Accounting for poverty in infrastructure reform—learning from Latin American experience, 2002*, there are 125 million people without household connections to clean water and 200 million without sanitation. The Pan American Health Organization (PAHO), in *Agua potable y saneamiento, estado actual y perspectivas, 2001*, cites higher figures at 131 million without water supply and 256 million without household connections to sanitation. Although the different organizations use different criteria for measurement, the numbers are very similar and quite high no matter which method is used.

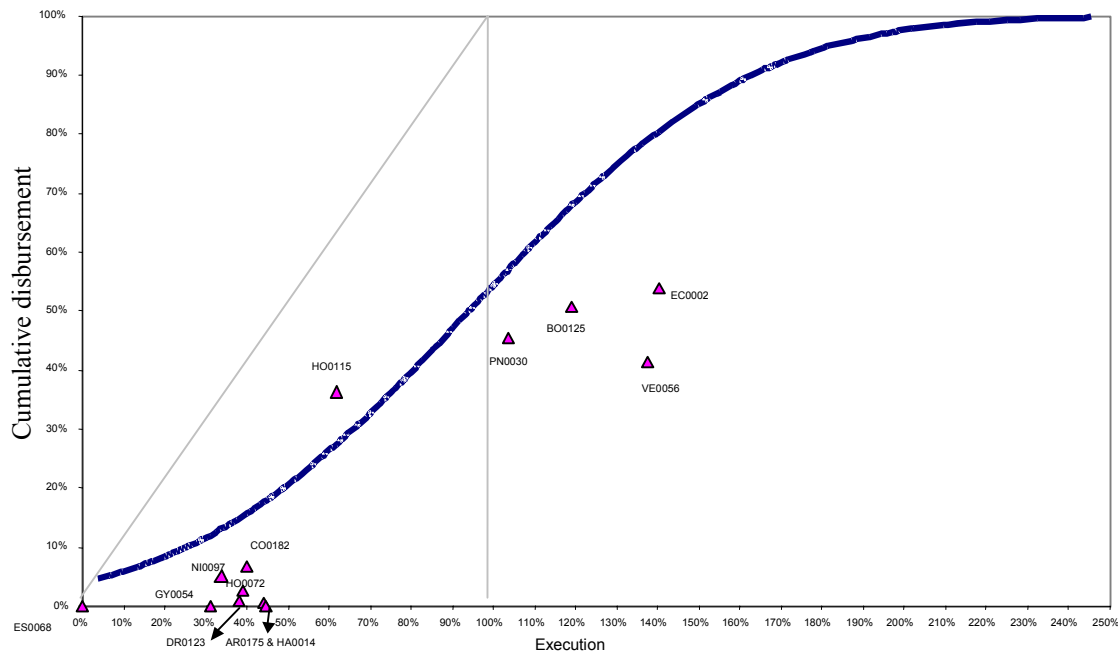


The trend in the portfolio based on annual value of operations in current US\$ is shown in graph 1.B.



A comparison at 31 December 2001 of execution of the portfolio identified in the Bank's classification system as water and sanitation projects with average Bank portfolio execution indicates that its performance is considerably below average. This low performance is worse when the comparison is made solely on the basis of loans identified as entrepreneurial, i.e. loans that have higher levels of conditionalities, as can be seen in the following graph.

**Graph 2. Cumulative disbursements and execution times of investment projects: Selected water projects (entrepreneurial vs. the Bank)**



The lack of action guidelines, the absence of criteria for interpreting the PU policy and adapting it to sociopolitical conditions in the countries, failure to recognize the need for gradually transforming transit systems into a more efficient management model that is consistent with policy principles, and the absence of an alternative to solve the problem of subsidies have resulted in operations being designed that present serious problems in execution, the appearance of different approaches and windows, the establishment of different degrees of conditionality in operations—without any apparent criteria or justification—and, last, a rapid drop in the portfolio.

An increase in the Bank’s investment efforts in the countries, adoption of systems to track and improve the portfolio, changes in the protocols for processing operations, the establishment of reasonable criteria for flexibility in the design and implementation of the PU policy, and the approval of action guidelines to comply with the policy’s mandate are all measures that require an immediate response.

Accordingly, the specific recommendations made in this document are as follows:

1. Increase investment efforts in the sector, making PWSS a priority in Bank strategies. To that end, Senior Management should submit a plan of action for the sector to the Board of Executive Directors within 60 days, containing as a minimum:
  - a. A plan to increase the flow of resources to the sector so that within one year, the sector portfolio will rise to a level that is consistent with needs and with the historical weight of the sector in the Bank’s annual portfolio.

- b. A plan to develop, over the same period, a specific strategy for the sector in each of the countries of the region.
  - c. A plan to improve the portfolio in execution, establishing mechanisms to facilitate the actual disbursement of capital and to achieve the objectives established in the different projects.
2. Prepare operating guidelines for the application of the PU policy to the water and sanitation sector. The guidelines should be submitted to the Board of Executive Directors for consideration within 60 days and, based on an evaluation of the evolution of the water and sanitation sector portfolio and an analysis of the origin and cause of the main problems encountered in project design and execution, take the following steps, as a minimum:
- a. Define precise strategies in light of the Eighth Replenishment of Resources to place the objectives of expanding coverage for the poorest groups as a tool to combat poverty and environmental protection on a par with the economic and financial sustainability of the services.
  - b. Define specific criteria and strategies applicable to operations whose target population lives in rural areas and on the outskirts of large cities, where the poorest people congregate.
  - c. Define operating criteria and a specific strategy to promote a gradual transition to the model proposed by the PU policy, that is compatible with an increase in the resources channeled to the sector and with better management of the systems.
  - d. Adjust the proposals for transforming the sector to the sociopolitical situation in the countries and to their economic situation.
  - e. Establish a clear and transparent procedure for processing operations that include potable water components in other types of sector or social projects.
  - f. Promote in the countries the establishment and strengthening of sector policy and planning bodies, including mechanisms for efficient financing that focuses on service for the poorest groups.
  - g. Review the PRI's lending strategy to focus it on solving the imperfections of the private capital market for the sector, principally by promoting the establishment of new private operators adapted to the size of the systems in the region.
  - h. Establish precise criteria for making the institutional arrangement proposed by the PU policy compatible with the decentralization strategy approved by the Bank and with the extreme fragmentation in the sector.

## I. METHODOLOGY

### A. The IDB and potable water and sanitation services

- 1.1 Attention to investment requirements in the potable water and sanitation sector has been one of the fundamental areas of activity of the Inter-American Development Bank (IDB) since it was founded. In fact, the IDB's very first loan in 1961 was for the sector.<sup>4</sup>
- 1.2 From the time the Bank was founded up to 2001, the potable water and sanitation sector averaged 8 percent of its portfolio.<sup>5</sup> In 1980-95, the sector increased its weight in the portfolio to an average of over 10 percent<sup>6</sup> of all loans approved by the Bank. This investment effort consolidated the sector as one of the Bank's largest, coupled with energy and integrated urban and rural development. Over these decades, the IDB supported the sector in an effort to expand the coverage of services in most of the region's countries and helped in the different attempts to provide it with strong, stable and, in many cases, centralized organizations.
- 1.3 Over the five years between 1996 and 2000, the potable water and sanitation sector's share in lending approved fell significantly, to under 6 percent of the total. The drop in the portfolio was particularly significant in the last three years of that period, when it sank to 3 percent. It is alarming that in 2001 it plunged to just 1 percent, as shown in the following graph.<sup>7</sup>

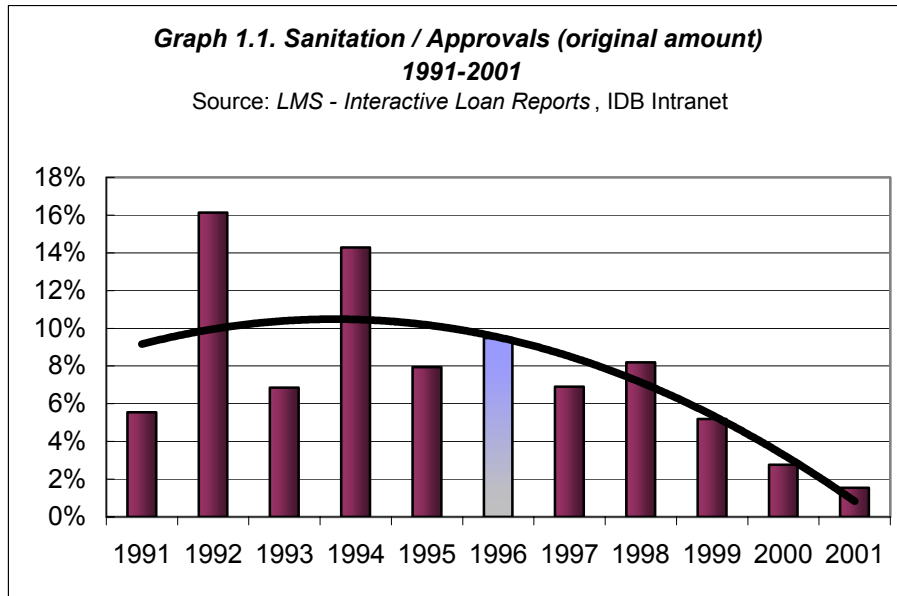
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<sup>4</sup> IDB. Improvement and expansion of water and sewerage systems. Corporación Saneamiento de Arequipa, Peru. 1961.

<sup>5</sup> See IDB Annual Report 2001, Draft, 22 January 2002. EXR.

<sup>6</sup> Refers exclusively to all loans specifically for the potable water and sanitation sector out of all lending approved by the IDB. It therefore excludes funds targeted to the sector through multisector loans (SIF, urban or rural development funds, etc.).

<sup>7</sup> A more detailed analysis of this extreme is presented in Chapter VI of this report entitled "Effectiveness of the PU policy", Section B "Effectiveness in the flow of resources". In addition to the operations shown in this graph, there are social operations that include water components that OVE has tried to estimate, but they are not reported in the Bank's systems as sector operations.



- 1.4 The drop in the sums earmarked for the sector contrasts with requirements for water and sewer coverage. Data from a sample of 11 countries with a total population of 318 million or 64 percent of the region's population suggest that one fourth of them (over 81 million people) have no residential drinking water service, while 46.5 percent (over 148 million people) are not connected to sewers. Extrapolation of these figures to the total population in the Bank's sphere of action would indicate that over 124 million people have no residential drinking water and close to 240 million have no sewer connections.<sup>8</sup>
- 1.5 The strategy that the Bank used to address problems in the sector underwent significant changes. Loans to finance the public utilities infrastructure in Latin America, which took a strongly social view of services, have gradually been replaced by others where there is greater stress on economic and business aspects, giving priority to economic and financial sustainability, and institutional arrangements are being promoted that are new to the sector.
- 1.6 The sector policy that consolidates this strategy is the public utilities policy (PU policy) approved in July 1996, which lumped water and sewerage services together with telecommunications, electricity, natural gas, and trash collection.

<sup>8</sup> According to World Bank data in *Accounting for poverty in infrastructure reform—learning from Latin American experience, 2002*, there are 125 million people without household connections to clean water and 200 million without sanitation. The Pan American Health Organization (PAHO), in *Agua potable y saneamiento, estado actual y perspectivas, 2001*, cites higher figures at 131 million without water supply and 256 million without household connections to sanitation. Although the different organizations use different criteria for measurement, the numbers are very similar and quite high no matter which method is used.

1.7 This report presents an evaluation of the PU policy as it applies to potable water and sanitation services.

1.8 This evaluation was prepared by Laura Guarnieri and David Beltrán, with support from two prominent external consultants who are experts in the sector:

- **María Elena Corrales**, graduate in engineering from the Central University of Venezuela with specialized and post-doctoral studies in energy economics at the University of Paris. She has been an associate researcher with the Instituto de Gobernabilidad of Barcelona since 1996 and is the author of a number of publications, in particular “El reto del agua” Editorial Galac, Caracas, 1998, and ¿Qué hay de nuevo en las regulaciones? Editorial Eudeba, Buenos Aires 1997. She has been a consultant with the World Bank, UNDP, CAF, JUNAC and ECLAC and energy and industry economist with the IDB. Among other positions, she was Deputy Minister of the Office of Coordination and Planning of the Office of the President of Venezuela and Deputy Minister-General Manager of the Investment Fund of Venezuela. She has been a consultant with the Nicaraguan Potable Water and Sewerage Administration, with CAF-ILPES in conducting the studies “Marco Regulatorio, Privatización y Modernización del Estado” in 1995-96, and “Estudio del Marco Regulatorio, Privatización y Modernización del Estado en las Empresas de Servicios Públicos por Redes en América Latina” in 2000, and advisor with Hidrocapital of Venezuela, where she was responsible for coordinating the institutional modernization of the company that provides drinking water for the metropolitan area of Caracas. She conducted the case studies and performed the basic policy analysis.
- **Fernando Navajas**, Licentiate in Economics from the National University of La Plata in Argentina, MA and Ph.D. in Economics from Oxford University. He is Professor of Economics at the University of La Plata and Senior Visiting Research Fellow in Oxford. He is the author of many publications, particularly “La regulación de la competencia y de los servicios públicos”, Buenos Aires 1999, “Regulation and Contractual Adaptation in Public Utilities”, IDB 1998, and “Environmental Resources, Public Inputs and Fiscal Constraints”, Review of Economic Studies, Georgetown University. He was Senior Economist with the United Nations Economic Commission for Latin America and the Sindicatura General de Empresas Públicas de Argentina. Today he is Chief Economist at FIEL (Latin American Economic Research Foundation). He conducted the study on economic policy in the sector.

## **B. Framework for sector policy analysis and evaluation**

1.9 Broadly speaking, policy analysis is a form of applied research that is carried out to gain a deeper understanding of the social and economic issues that underlie all processes of policy definition and adoption. The analysis examines possible courses of action, generating information and organizing evidence on the hypothetical benefits and consequences that would follow from adopting one option or another, to help choose the best one.

- 1.10 However, policy analysis is not cast in stone; it is a discipline subject to continuous changes in its methods. These changes in method and attitude stem from the inability of quantitative, conventional methodologies to address all the sociopolitical aspects of public issues that lie at the heart of policy formulation. Therefore, when we talk about policy analysis, the concept is employed in its broadest sense, requires the use of judgment and intuition, and includes more than just operational research, evaluation of the results of policies that have been applied and an analysis of how well they adapt to the socioeconomic situation. It also includes the need to break down policies into their elements, weight them, understand how they mesh and interact, explain their relations and formulate hypotheses regarding them—in short we must obtain the model that underlies the policy being analyzed.
- 1.11 The core of any analysis is to establish a clear, precise and manageable process to obtain information on the consequences of any action that could be undertaken. This process is what is called a ‘model’, in other words a mechanism that represents reality and allows us to answer the questions we ask about that reality itself. The model can be used to adopt more reliable decisions on the consequences of the actions envisaged. The task of taking decisions is a process of sequential use of a model.
- 1.12 All policies start from a historical, social, economic situation, identify objectives, determine priorities and establish strategies for their application, and the explicit or implicit model that was selected for adopting the policy can be found precisely in the interplay of these components. All coherent sector policies must define the institutional arrangement that is sought with their adoption, in the extent to which it defines the rules of the game that guide the actions of the different organizations in the sector, identifies the nature of the sector organizations or agents, and postulates the strategies to be followed in implementing the institutional arrangement.
- 1.13 Before analyzing the PU policy, we must determine whether the general concepts described above are applicable to Bank policies. In other words, whether they can be called policies because their components and nature are similar to any other public policy and whether it is possible to extract from them the ‘reference model’ on which they are based.
- 1.14 Document OP-101 defines IDB **policies** as “directives that define the general lines of action of the Bank with regard to operations, administration and personnel”. It also states that **sector policies** “... contribute to the development of a specific branch of the economy and provide a strategic framework for programming the Bank’s country and regional operations in that branch”.
- 1.15 It stresses that a policy paper should include:
1. *“Background on the Bank’s experience and action in the area, and information and analysis for a better understanding of the proposed policy and the grounds therefor.*
  2. *The policy itself, including:*



- a. *the purpose and principle of the policy;*
  - b. *a description of the objective(s) of the proposed policy;*
  - c. *field(s) of activity and priorities—chiefly applicable to sector policies;*
  - d. *criteria or basic guidelines to facilitate and clarify the application of the policy.”*
- 1.16 A simple glance at this document shows that the term ‘policy’ is being correctly used and that its nature and components allow it to be identified and included in the general classification of ‘public policies’.
- 1.17 The evaluation of a sector policy is a complex matter that goes beyond measuring its impact on the sector it is intended to change. It is broader in scope, since it also includes an examination of the validity of the postulates used to formulate it and of its effectiveness, in function of the purposes of the organization that establishes it.
- 1.18 Accordingly, an evaluation of the IDB’s policy on potable water and sanitation services requires an analysis on three different planes:
- First, we will examine the Bank’s purposes when it defines and approves its sector policies and establish the qualities they should contain to achieve those purposes.
  - Second, we will identify and validate the theoretical postulates that underlie the formulation of the policy and their congruity with the situation in the countries.
  - Last, we will determine the impact that application of the policy has had on the situation it is called upon to change.
- 1.19 Broadly speaking, the construction of a bold and realistic reference model that effectively addresses the problems detected is based on an exercise that requires a correct understanding of the nature of the sector on different planes (technical, economic, social and political) and a good understanding of the reality to be transformed, so as to be in a position to recognize the complexity, potential and risks of the process of transformation itself. The ideological content that inevitably accompanies this activity can only be surmounted or counteracted if a strong analytical foundation is available. If a factual base is absent, policy could become a more or less well informed ideological expression of how the sector ought to function and what its optimum image ought to be.
- 1.20 Even where a solid and objective analytical base is available, the policy continues to be a wager on the future, in which expectations of what ‘should be’ undoubtedly influence the selection made, both with regard to the weight attached to sector objectives, which are sometimes contradictory, and the strategies designed to achieve them. This is why it is important to evaluate the relevance of the policy in relation to the economic and political structure of the sector and in relation to the real situation it is intended to address.
- 1.21 The policy that the Bank applies to potable water and sanitation services (PWSS), proposes a long-term vision of the sector that corresponds to a kind of reference

model that postulates how the sector should function and what the energizing tools or forces are. It also establishes priority objectives and strategies to achieve them. Identifying that reference model and examining its consistency with the nature and theoretical structure of the sector and the situation actually observed in the countries is particularly important for the evaluation.

### C. Purposes and qualities of sector policies

1.22 Based on the definitions established above,<sup>9</sup> we can infer that in designing a sector policy, the Bank has a dual purpose at the minimum:

**First**, it seeks to organize Bank actions and make them coherent so that they “...offer a strategic framework for programming (...and we understand ‘implementing’ as well) *its operations on the national and regional levels*”. Coherence would mean harmony between operations approved in a sector and the Bank’s higher objectives and strategies, as well as the possibility of establishing some degree of homogeneity within the sector itself by applying common basic criteria and guidelines in the many kinds of sector operations carried out by the Bank in the countries.

**Second**, sector policies propose to achieve predetermined objectives “*that contribute to the development of a specific sector of economic activity*”. To do so, it is necessary to identify bottlenecks or the main challenges in the sector, establish the objectives to be achieved and the set of strategies or courses of action that will guide the design and execution of operations, in order to surmount the problems detected.

1.23 To achieve those two purposes, a policy must be:

- a. **Consistent** with the Bank’s higher objectives so that appropriate synergy can be established among Bank actions in the different sectors.
- b. **Systematizing**, meaning that it facilitates the preparation, negotiation and approval of operations and, while respecting the undeniable differences among countries, is able to build the necessary consensus and effectively harmonize Bank operations.
- c. **Relevant** in the sense that it responds to specific sector objectives, based on a correct long-term vision of the sector, the problems to be solved and the best courses of action or strategies to be followed, in function of the countries’ real potential and limitations.
- d. **Efficient** with regard to the Bank’s specific purposes and in its nature as an instrument for channeling financial resources into the region and its function of

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<sup>9</sup> IDB. “Strategy and Policy Formulation Since IDB-8”. Sustainable Development Department. 2000.

resolving the problems for which it was designed and generating impetus for transformation that promotes the target image of the sector.

#### **D. Evaluation methodology**

- 1.24 To perform the evaluation based on the qualities identified, we have followed a methodology that includes the following courses of action:
- a. **Analysis of policy papers:** The documentation that gave rise to the formulation and approval of the policy and the papers evaluating and analyzing implementation of that policy prepared by Bank specialists were compiled and studied. Interviews were held with key players in Management and the Board of Executive Directors<sup>10</sup> to understand the nature, postulates, strategies and scope of the policy.
  - b. **Analysis of Bank operations:**<sup>11</sup> Loan proposals and technical-cooperation proposals approved during the 1990s targeted wholly or partially to potable water and sanitation services (PWSS) were analyzed, in order to gain an idea of the size of the effort and identify how policy is included in operations. More than 110 loan and technical-cooperation documents were reviewed, excluding multisector operations that did not include a major component in the potable water and sanitation sector, environmental loans that did not have a significant impact on expansion of sewage disposal and treatment services, and adjustment loans that did not include reform of the sector.<sup>12</sup>
  - c. **Selection of a sample of countries and operations:**<sup>13</sup> A series of countries and operations was selected on the basis of that analysis, which make up a broad and representative sample of the different situations confronted by the Bank, in order to evaluate the consistency of the policy with the situation in the region<sup>14</sup> and progress in its implementation, its impact on sector indicators, the problems that have arisen and the adjustments made. Visits were paid to eight countries (Argentina, Colombia, Brazil, Bolivia, Ecuador, Honduras, Nicaragua and Peru) and 26 lending operations were reviewed in detail.<sup>15</sup>
  - d. **Analysis and policy evaluation missions:** Visits were made to the countries in the sample between April and August 2001. Interviews were held with specialists from the Country Offices, executing agencies and other government authorities with responsibilities for planning, regulating and operating PWSS. Case studies

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<sup>10</sup> Annex 2 (Country Studies) contains a detailed list by country of the people interviewed.

<sup>11</sup> Throughout this study, the term 'operations' is used in the sense commonly employed in the Bank, i.e. it alludes to all loans and technical-cooperation programs that the Bank negotiates and carries out in the countries.

<sup>12</sup> See Annex 3 of this report.

<sup>13</sup> Annex 4 includes a table listing the countries and operations selected for the sample.

<sup>14</sup> The word 'region' includes all the countries in which the IDB carries out lending and technical-cooperation operations.

<sup>15</sup> See Annex 3.

were prepared for each of the countries, which are presented in Annex 2 of this report.

- e. **Study on the economics of the potable water and sanitation industry:** In parallel to this analysis, a study was prepared on the economics of potable water and sanitation services to identify elements to evaluate the hypotheses that form the basis of the Bank's policy in the sector. The study is presented in Annex 1.

## II. ANALYSIS OF THE BANK'S POTABLE WATER AND SANITATION SERVICES POLICY

### A. Historical context in which the potable water and sanitation policy was defined

- 2.1 The Bank's policy for the potable water and sanitation sector is established in document OP-708 "Public Utilities Policy" (PU policy) and is complemented by the "Basic Environmental Sanitation Policy" set out in document OP-745.<sup>16</sup> The PU policy was approved in July 1996, after a long process of analysis that began in 1993. One fundamental step in the process was approval of the profile in May 1995.<sup>17</sup> The PU policy replaced the public utilities tariff policy set out in document OP-718, which had been in effect since 1982. The policy was applied by the Bank in its operations relating to network-based public utilities, particularly in the electric power sector.
- 2.2 The period when the PU policy was discussed and approved by the Board of Executive Directors coincided with a period of sweeping changes in the region and within the Bank. During the first half of the 1990s, most Latin American countries were immersed in a sharp fiscal crisis and in negotiating or carrying out macroeconomic adjustment and reform programs with different multilateral lending agencies (the International Monetary Fund and the World Bank, among other institutions) in the context of what became known as the Washington Consensus<sup>18</sup>. Two major events took place within the Bank at the time: discussion and approval of the Eight General Increase in Resources and a process of administrative restructuring that deeply changed its organization and operating processes.
- 2.3 In this context, definition of the PU policy as a substantive policy of the public utility tariff policy was strongly influenced by the changes that were occurring in a number of network-based public utilities and by the trends toward radical changes in the role and functions of the State. However, time has shown that the initial

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<sup>16</sup> In the specific case of PWSS, the PU policy (OP-708) maintains the basic environmental sanitation policy (BESP), approved in December 1994 (OP-745 Dec. 1994) which, when the PU policy was approved in 1996, was considered complementary in attending to the needs of the potable water and sanitation sector. However, an analysis of the BESP raises doubts about the complementarity in question. The postulates and the objectives and strategies of the BESP are difficult to link to those established in the PU policy. Conversations with IDB staff clearly showed that the policy that should be applied to operations in the water and sanitation sector is the PU policy and it is this policy whose application is overseen by the Bank's departments with responsibilities in this area. Discussions in the Bank, including in the Board of Directors, are also based on this tool.

<sup>17</sup> IDB. "Public utilities profile". Document GN-1869. May, 1995.

<sup>18</sup> Among the main principles of the Washington Consensus, strongly supported by most international organizations, are fiscal discipline, privatization, deregulation, trade liberalization, and reallocation of public spending as the formula to achieve economic development. Application of these principles means making structural changes in the role of the State.

expectations on which the trends were based did not materialize. Actually, the presence of a broad enough private sector willing to assume the risks inherent in the water supply and sanitation sector is one of the reasons the expectations proved groundless. It should be noted that the structural changes proposed under the Washington Consensus were embraced by various international organizations and the countries in the region themselves as an efficient formula to achieve sustainable development even though there was little empirical proof of their effectiveness and they implied certain prior conditions that were not the case in much of the region. However, the collective enthusiasm for the proposed solutions was a decisive feature of the period during which the PU policy was approved.

- 2.4 The tariff policy replaced by the PU policy sought to adopt rates that would ensure the stability of public utilities and the economic and financial balance of the operators, promoting the establishment of tariffs in function of the long-term marginal costs of the services. In 1993, Bank Management presented a report to the Board of Executive Directors for consideration identifying the problems that had arisen in applying the policy.<sup>19</sup>
- 2.5 The report points out that the tariff policy approved just prior to the financial crisis in Latin America was not designed to respond to the growing climate of economic constraints under which services must now be developed. The policy was described as an “... *incomplete and inadequate strategy for promoting economically and financial efficient tariffs appropriate for the countries ...*”.
- 2.6 The inadequacies of the tariff policy for confronting adverse macroeconomic conditions in the countries, coupled with technological changes in network-based public utilities, were what led to its review and replacement.
- 2.7 A rapid process of technological innovation in the telecommunications industry began at the start of the 1980s, as well as a significant, though less profound, change in electric power industry. These changes led to a rapid process of demonopolization and a movement away from intervention in those industries, through the introduction of competition and, in general, market dynamics in sector relations that redirected management by service providers toward strictly entrepreneurial criteria. Since then, there has been growing privatization and internationalization of activities associated with the provision of public utilities, particularly in telecommunications and electricity. This led to a change in the role of government in the delivery of utilities, which came to play a regulatory and oversight role.
- 2.8 A reading of the report by the Review and Evaluation Committee, the 1995 public utilities policy profile<sup>20</sup> and the postulates for preparing the new policy on public

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<sup>19</sup> IDB. “Report on evaluation of the tariff policy and loans in the electric energy sector. Recommendations of the Review and Evaluation Committee”. Document RE-187-3, 16 November 1993.

<sup>20</sup> The Policy Profile recognized that: “*The proposed approach is based on a recognition that the public utilities sector and the electricity subsector, in particular, have undergone fundamental changes in institutional and financial aspects since OP-718 was conceived*”.

utilities,<sup>21</sup> clearly shows that although it is applicable to all residential services (electricity, natural gas, water, sewerage, telecommunications and trash collection), the diagnosis on which it was formulated was mainly based on the electric power sector.

- 2.9 The design of the PU policy is heavily influenced by this set of considerations, which characterized the situation in telecommunications and electricity industries and which were extended to water and sanitation. However, the principles and dynamics of the transformation described above have very different potential for being transferred from one service to another. The possibilities are huge in the case of telecommunications; they exist in some spheres of the electric power industry, and present serious difficulties in the case of potable water and sanitation services.
- 2.10 It is not clear what criteria lay behind the proposal for a single vision for all utilities, nor what the analysis was that justified its application to PWSS. It seems clear, however, that the committee that designed the PU policy recognized significant differences that are reflected in the policy paper that was approved by the Board simultaneously with the PU policy,<sup>22</sup> and which led it to propose that “*Management prepare, and periodically review, specific guidelines for each sector to facilitate the application of the general principles*”.
- 2.11 However, despite the specific mandate of the policy and the glaring differences between the utilities covered, the PU policy has not been specifically developed for the potable water and sanitation sector to include the differences and singularities that are typical of it.

## **B. Objectives of the PU policy**

- 2.12 The PU policy defines a general objective or end, which is really a purpose or overriding objective and some specific objectives. The **general objective** expressly stated in the policy<sup>23</sup> is: “*To promote the provision of public utility services that contribute to the long-term economic development of the region and to the well-being of its people by adopting a sector structure and regulatory policy seeking to...*” (OP-703, paragraph 1) achieve the **specific objectives**, which include:
- a. To ensure the long-term financial sustainability of the services, ensuring a stream of financial flows for service suppliers that covers the operating, maintenance and capital expenditures associated with the services and their political sustainability through consumer satisfaction (OP-708, paragraph 2).

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<sup>21</sup> IDB. “Public utilities policy. Rationale for a change in policy”. June 1996. Document prepared by Management as a supplement to the policy paper and approved by the Board of Executive Directors when it approved the public utilities policy. Document GN-1869-2, June 1996.

<sup>22</sup> See paragraph 3.1 of IDB document, “Public utilities policy. Rationale for policy change”. June 1996.

<sup>23</sup> IDB document, OP-708. “Public utilities policy”. January 1997.

- b. To achieve economic efficiency, adding that the most efficient means of promoting economic efficiency is competition, but that when circumstances do not permit competition, efficiency can still be enhanced through a variety of institutional and regulatory mechanisms (OP-708, paragraph 3).
  - c. To safeguard quality, through a regulatory framework that defines and controls quality standards (OP-708, paragraph 3).
  - d. To promote accessibility, through effective social policies (OP-708, paragraph 5).
  - e. To meet wider national objectives such as protection of the environment (OP-708, paragraph 6).
- 2.13 The PU policy itself acknowledges the existence of a significant number of trade-offs and that the simultaneous achievement of these five objectives could pose some conflicts that could be difficult to solve. This acknowledgement leaves room for different interpretations when it comes time to incorporate the principles into operations. It is precisely at this point that the **prime objective** of financial and economic sustainability comes into play, since the policy points out that “*Project documents should clearly state the extent to which the objectives are attained. However, there is one area in which no compromise should be made and that is in meeting the objective of long-term service sustainability by ensuring that financial flows rise to a level compatible with full cost recovery, while guaranteeing economic efficiency as a general goal of service provision*” (OP-708, paragraph 7).<sup>24</sup>
- 2.14 That specific objective is simply a combination of the first two general objectives mentioned earlier, while the others, particularly promoting accessibility and environmental sustainability, could be viewed as subsidiary or second-tier objectives, in the extent to which they can only be achieved if long-term sustainability is ensured. Therefore, the objectives of the PU policy can be shown graphically as follows.

**Table 2.1**

<b><i>GOAL</i></b>	<ul style="list-style-type: none"> <li>• To promote the provision of public utilities that contribute to the long-term economic development of the region and to the well-being of its people.</li> </ul>
<b><i>PRIMARY OR FIRST-TIER OBJECTIVES</i></b>	<ul style="list-style-type: none"> <li>• To ensure the long-term financial sustainability of the services, through full cost recovery.</li> </ul>

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<sup>24</sup> The review of operations approved by the Bank and the reports prepared by Bank specialists. See “Issues related to public utility policy: a review of projects” (SDS/IFM), “Water & Sanitation SubSector: Issues and Options Note, 2000” and the memorandum “Public Utility Policy: Everything to Everybody or One Size fits All?”, Millán, José. Principal Economist, SDS/IFM, submitted to the Office of the Executive Vice President of the Bank in 1999.



	<ul style="list-style-type: none"> <li>• To obtain economic efficiency.</li> </ul>
<b>GENERAL OR SECOND-TIER OBJECTIVES</b>	<ul style="list-style-type: none"> <li>• To safeguard quality.</li> <li>• To promote accessibility.</li> <li>• To protect the environment.</li> </ul>

2.15 Acknowledgement by the PU policy of the existence of a large number of trade-offs leaves room, as we have said, for different interpretations when it comes time to incorporate the principles into the design of operations. This situation was fully acknowledged by Bank Management in the paper “Public utilities policy. Rationale for a change in policy”<sup>25</sup> which states that: *“In addition, given the diversity existing between sectors and countries, the policy acknowledges that the institutional and legal structure proposed for each market and regulatory framework—in both its design and implementation – should be flexible enough to adjust to the particular needs and situations of the different countries and public utilities.”*

**C. Scope and coverage of the PU policy**

2.16 Theoretically, the PU policy applies across-the-board to all Bank operations in the electricity, natural gas, **water supply, sewage**, telecommunications and trash collection sectors. The policy responds to a basic premise to the effect that these services *“...jointly share many important economic characteristics”* (OP-708, paragraph 21) and require a similar institutional model.

2.17 Without stopping to analyze this premise in depth,<sup>26</sup> what does seem clear in light of the results obtained is that it is incorrect and that the similarities and differences in the sectors need to be pointed out with a view to proposing strategies for change.

2.18 With respect to actual application of the PU policy, consideration should be given to the evolution of IDB operations in the field of public utilities. A general analysis of Bank operations shows that:

- a. There has been very little lending for telecommunications, gas and trash collection, the vast majority of which have been handed over to private companies.
- b. In the case of electricity, which was one of the cornerstones of Bank activity, lending operations in the sector over the last decade are becoming increasingly fewer in number and are mainly directed to the private sector.<sup>27</sup>

- 2.19 In practice, then, the PU policy is applied almost exclusively to potable water and sanitation services, since the IDB's operations with the private sector answer to a different logic and in many cases hinge on whether the postulates of the PU policy are already in effect.

#### D. PU policy strategies

- 2.20 Broadly speaking, the policy approved by the Bank promotes the central elements that define the new institutional model for the provision of network-based services and includes the following courses of action:

- a. Introduction of an **adequate sector structure** *“to be judged by its overall impact on the sector, and in particular by the extent to which this structure can facilitate the development of competition”* (OP-708, paragraph 10), i.e. that promotes or permits **competition** in different activities associated with services.
- b. Approval and development of a **legal framework** that ensures *insulation from political interference* in services and an suitable separation between regulation and policy formulation, and regulation and operation of services (OP-708, paragraph 9, basic conditions 8 and 9). The framework should also promote a favorable climate for private investment, ensure competition to the extent possible or adequately regulate activities carried out under natural monopolies, ensure long-term sustainability, and protect users rights (OP-708, paragraph 11).
- c. Creation of effective **regulatory bodies** that are independent of the political branch and the regulated agencies (OP-708, paragraph 12) to ensure that the legal framework is applied.
- d. Improvement in the management efficiency of service providers stressing the inclusion of the **private sector** where possible as a tool for its achievement. The PU policy contains a call to *“consider the viability for wider changes in the system encompassing, among others, the areas of public sector procurement procedures and contract law, in order to facilitate various modes of private sector participation”* (OP-708, paragraph 13) and to adopt efficient private management models—*“Generally speaking, the most effective means of achieving this goal is through private sector participation”* (OP-708, paragraph 14)—and reaffirms this strategy when it notes *“If private sector participation is not a viable option at the time ...”* (OP-708, paragraph 14).

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<sup>25</sup> IDB. “Public utilities policy. Rationale for a change in policy”. Document GN-1869-2, paragraph 2.6.

<sup>26</sup> See Annex 1 of this report, which points out important differences between water and sanitation services and other network-based public services. Also see: World Bank, Carlos Vélez, “Competencia y Regulación en los servicios de redes públicas: Semejanzas y diferencias entre sectores”. Seminario de Regulación del Sector Agua Potable y Saneamiento Básico. Colombia, March 2001.

<sup>27</sup> Over the last five years (1996-2000), the IDB approved a total of 31 operations for the electricity sector, for a total of US\$3,887.6 million, with just 13 going to public companies and 18 to private companies, for 35.3% and 64.7% of the loans, respectively. In comparison, over the same period, 45 operations totaling US\$5,225.49 million were approved for PWSS, with just 11.1% going to private sector operations.

- e. Design of a tariff and subsidy regime that ensures economic and financial sustainability of the industry in the long term, avoiding the use of cross subsidies (OP-708, paragraph 11(iii)).

## **E. Reference model of the PU policy**

- 2.21 The target image or ideal final situation that the PU policy establishes for potable water and sanitation services was based on progress made and sometimes consolidated in electricity and telecommunications services. For these two utilities, the PU policy and its proposed target image did not include major innovations. They simply reflected what had been happening overall in the region<sup>28</sup>: the introduction of new regulatory frameworks, single national regulatory agencies, restructuring of the industry to promote demonopolization, competition and participation by the private sector in companies providing the services.
- 2.22 In contrast, the transformation that the PU policy proposes for PWSS in the region<sup>29</sup> is a major break with the institutional approach that existed at that time in most of the countries which can very broadly be summarized as: services with a high degree of political interference, public operators on the central or municipal level, major backlogs in investments, operating inefficiency, tariffs that did not cover the full cost of the services, and generalized subsidies that jeopardized the long-term sustainability of PWSS.
- 2.23 Exhaustion of the traditional service-delivery model left the region with an infrastructure that was still only half built, highly dependent on central government contributions—not just for investments but also in many cases for operating and maintenance costs—and with very little technical and managerial capacity to address the challenges. The financial crisis of the 1980s only aggravated the situation and contributed to the physical and institutional deterioration of the service model used in previous decades. At the time the PU policy was discussed and approved, the analysis of PWSS included the above-mentioned characteristics plus a strong belief that political interference lay at the heart of the problems.
- 2.24 To put an end to *political interference*, the public utilities policy applied to potable water and sanitation services (PU policy/PWSS) seeks to promote the construction of a new institutional arrangement by defining new rules of the game, restructuring the industry, establishing bodies responsible for the development, supervision and oversight of those rules of the game and modifying the formal and informal behavior of all the players (government, operators and users) to bring it in line with the new arrangement.

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<sup>28</sup> See paragraphs 2.1 to 2.6 of “Public utilities policy. Rationale for a change in policy.” Document GN-1869-2.

<sup>29</sup> We are aware of the great risk of imprecision that we run by making general comments on Latin America and the Caribbean. However, our interest is to present features and challenges that are common to many water and sanitation systems, although we recognize that there have always been exceptions to the general rule.

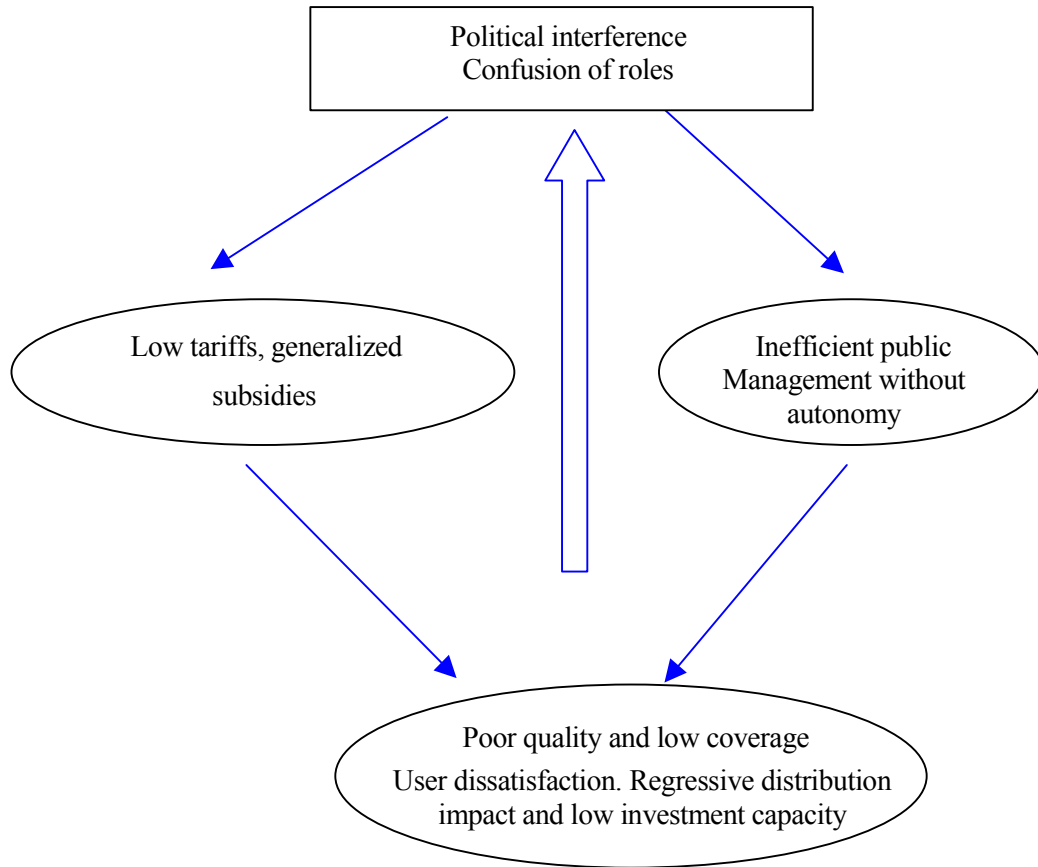
- 2.25 The incentives given to support the process are linked to market mechanisms, recreating through regulation, competitive conditions in those areas where natural monopolies exist.
- 2.26 The diagnostic review of the sector appears to have based the need for change on the fact that PWSS are trapped in a vicious circle of poor quality, according to which *political interference*<sup>30</sup> and confusion of the roles of the State lead to inefficient management practices in service operators and maintain low tariffs that do not guarantee the long-term sustainability of services. Both practices have a negative impact on the quality and coverage of services and feed back into greater political interference.<sup>31</sup>
- 2.27 As we have seen, to break this *vicious circle*, the PU policy posits the need to isolate the services from *political interference* in services through three interrelated instruments: a new legal framework that provides for adequate separation of roles and the establishment of independent regulators, a tariff policy and structure that ensure economic and financial sustainability of the services, and the inclusion of private operators to improve efficiency and separate operation of the services from the government's guidance, regulatory and oversight functions.

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<sup>30</sup> We understand the political interference alluded to in the PU policy to mean interference by public players in the industry's managerial, operational or economic decisions for short-term or opportunistic political purposes.

<sup>31</sup> This situation has been rightly identified as a "vicious circle of growing inefficiency in water and sewerage services" by Paulina Beato in "Participación del sector privado en los sistemas de agua potable y saneamiento: Ventajas, riesgos y obstáculos". IDB 1998. FM-113.

**Figure 2.1. Vicious circle of poor quality**



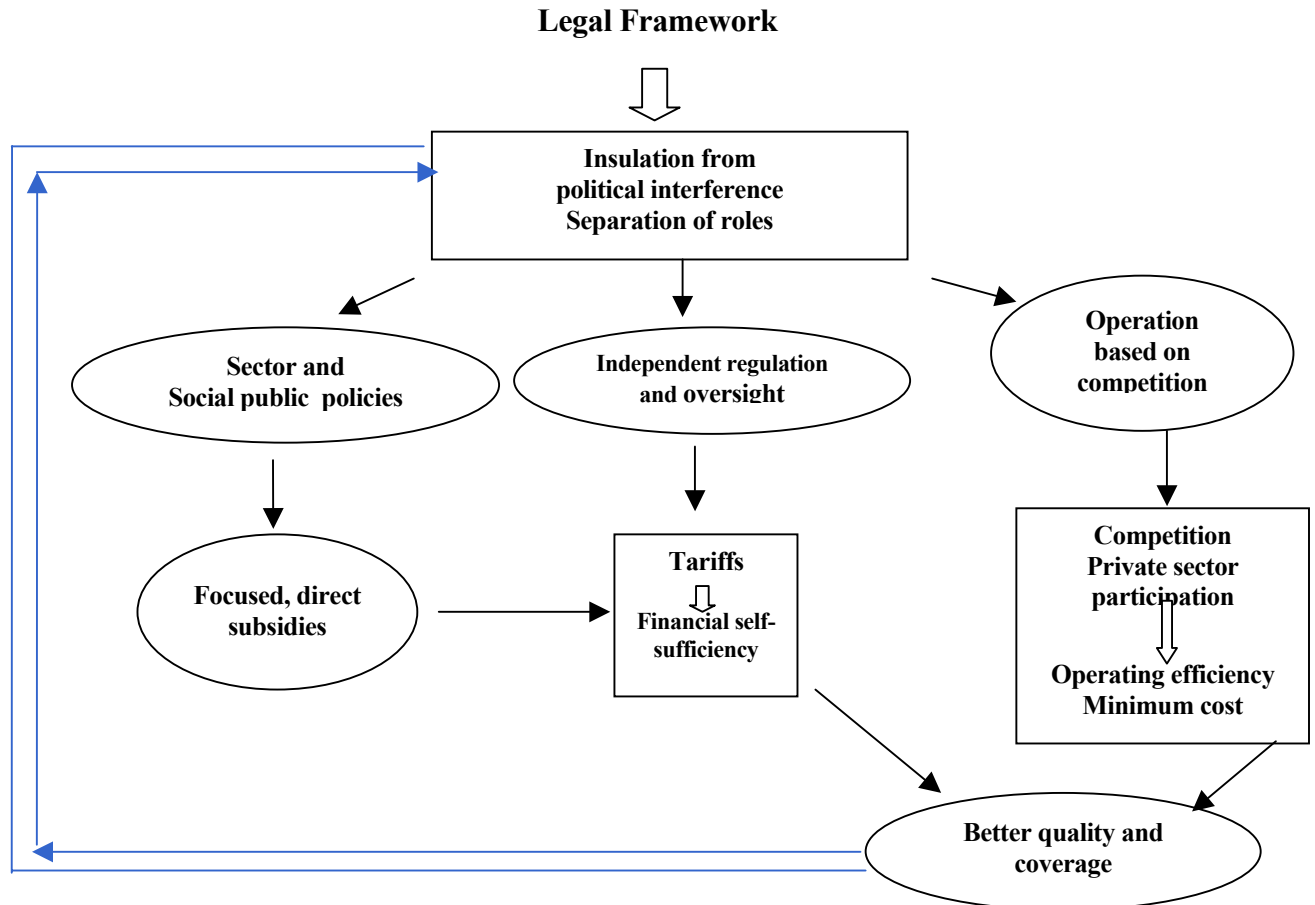
2.28 In particular, the isolation from political interference proposed by the PU policy/PWSS involves:

- Creating a regulatory and oversight body free from political pressure, that is independent of the agents it regulates, to ensure implementation of the guiding principles of the reference model (OP-708, paragraph 9).
- Preventing political interference in tariff setting to ensure the full recovery of operating, maintenance and investment costs and suitable returns on investments (OP-708 paragraph 11 (iii)).
- Preventing political interference in the operation of the services, by transferring the companies to the private sector although, *“Such participation need not entail outright asset sales, but may take a variety of lesser forms including, among others: lease contracts and concessions; and Built Operate and Own (BOO) or Built Operate and Transfer (BOT) type contracts. If private sector participation is not a viable option at the time, [i.e. secondary to*

this hypothesis] *there are a number of modes of governance within the public sector ...*”(OP-708, paragraph 14).

- Separating social policies and promoting access to services through subsidies targeted to needy groups which, where possible, are financed through direct transfers to facilitate access by the target population (OP-708, paragraph 5).

**Figure 2.2. Virtuous circle of better quality**



2.29 This process of insulation from *political interference* would lead to a substantial improvement in the quality and coverage of services, based on investments led by the private sector and major improvements in the economic and financial efficiency of service delivery. The improvements would ensure that users receive good quality services at the lowest possible cost. In turn, user satisfaction and the channels created by the new institutional arrangement for their direct participation reduces the need, inclination and justification for political intervention in the operation and financing of services, building the momentum for change proposed by the PU policy and creating a ‘*virtuous circle of better quality*’.

2.30 This reference model, its prescriptive content and the clear wager on its feasibility is resolutely reaffirmed in the policy paper (OP-708, paragraph 20), which states that:

*“The policy cannot encompass all of these circumstances, and consequently, it is conceivable that a departure from one or more of the basic conditions could be countenanced in some cases. In such circumstances, those advocating any such departure must show compliance of the proposal with the objectives of this policy”.*

- 2.31 The existence of a reference model or a target institutional arrangement in the above terms is based on the PU policy, as we have mentioned. It is also recognized by Bank specialists in the document *“Water & Sanitation Subsector: Issues and Options Note”*, prepared in September 2001 by an ad-hoc working group that brought together sector specialists and SDS professionals.<sup>32</sup> The document affirms, in particular, that *“the institutional model for delivery of water and sanitation service is relatively clear and that a reasonable level of consensus and consistency exists among the Bank’s specialists on what the model should include.”* Further on, the model is even a paradigm in the following reference *“the reform of the water and sanitation sector, using the generally accepted paradigm, ...”*
- 2.32 Apart from being spelled out in the PU policy, the elements that make up the reference model are again recognized and reaffirmed in the document quoted, which analyzes the difficulties that the Bank is encountering in applying the model. In particular:
- the need to avoid political interference in the services (2.02),
  - the need for a new legal framework (2.04),
  - the separation of functions (2.03),
  - the need for new regulatory frameworks (4.01(b)),
  - the objective of private sector participation (3.01(5), (4.01(1) (b) and (c), and 5.01),
  - the need for tariffs to be set at rates that will permit the economic and financial sustainability of the services (4.01(1) (c) and (d) and (3.02 (1)).
- 2.33 In short, the target vision for the sector and the strategies designed to achieve it, according to the interpretation of the PU policy used for water and sanitation operations are:

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<sup>32</sup> “Water & Sanitation Subsector: Issues and Options Note” prepared in September 2001 by an IDB working group composed of Hugo de Oliveira (RE1), Antonio Almagro (RE1), Christopher Jennings (RE2), Rubén Avendaño (RE3), Paulina Beato (SDS), Diego Rodríguez (SDS), Laura Ramírez-Ramos (ROS/PMP) and Camille Gaskin-Reyes (ROS/PMP). Also see document BID IFM-73, Paulina Beato. Op. cit.

**Table 2.2**

<p><b>Target vision</b></p> <ul style="list-style-type: none"><li>◆ Services are provided by technical and financially efficient companies, preferably in the private sector, that provide quality services at the lowest possible cost.</li><li>◆ The government concentrates on regulating the industry's activities that are performed under monopolies, recreating and opening up room for competition to the extent possible. The main purpose of this function is to guarantee the rights of operators and users of PWSS provided under natural monopolies.</li><li>◆ Tariffs are sufficient to ensure the long-term sustainability of the industry, by covering all costs associated with delivery of the services, including investments in replacements and increased coverage and reasonable returns for the service companies.</li><li>◆ Subsidies to provide access to services by low-income groups are direct and focused and are paid from public funds administered efficiently and transparently.</li></ul>
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**Table 2.3**

<p><b>Strategies:</b></p> <ol style="list-style-type: none"><li>1. Passage of a water and sanitation services act that consolidates the guiding principles of the reference model.</li><li>2. Creation of an independent regulator to develop an approved legal framework and supervise and oversee its application.</li><li>3. Business restructuring of the operators and inclusion under different modalities of private companies in the delivery of services.</li><li>4. Introduction of criteria to regulate competition in the delivery of services that promotes improvements in their quality and coverage.</li><li>5. Tariff adjustments to bring rates close to the long-term marginal costs of the services.</li><li>6. Replacement of cross subsidies with direct subsidies targeted to people with scant ability to pay.</li></ol>
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**F. Underlying hypotheses of the PU policy**

- 2.34 The reference model described is well conceived to respond to the diagnostic analysis and the strategies that could be implemented to achieve a change in the proposed direction. Undoubtedly one of the main problems encountered in PWSS in many countries in the region has been inefficiency, in some cases corruption, and the inability of governments to create a momentum for efficiency that would ensure, over the long term, the right of users to receive good quality service at the lowest possible cost. The PU policy seeks to reverse this situation through independent regulators and the transformation of operators into efficient companies, preferably in the private sector.
- 2.35 However, in the case of PWSS, certain assumptions must materialize if that momentum is to be built:
- a. The State creates a regulatory body able to define sector policy following the postulates established in the PU policy and, to establish the necessary linkage with social and environmental policy.



- b. The government is capable of creating and developing efficient regulatory agencies within a reasonable period.
- c. The industry can be restructured to establish areas of competition.
- d. There are private enterprises interested in helping to deliver the services.
- e. The incorporation of private operators increases the efficiency and quality of the service.
- f. There is a capital market able to cover the financial needs of the private companies.
- g. The long-term balance of the services is closely linked to economic and financial sustainability.
- h. The public has the culture, willingness and ability to pay tariffs that will generate the funds necessary to cover all costs, including investments and returns that reflect the risks (country risk and regulatory risk) expressed in the cost of capital.
- i. The government has the necessary resources and capacity to efficiently and transparently administer direct subsidies to the low-income population.

2.36 In the absence of these assumptions, the proposal for change made in the PU policy will face serious problems with implementation and could lead to an impasse that hampers Bank action in a sector of fundamental importance for the region.<sup>33</sup> The “Water & Sanitation Subsector: Issues and Options Note” prepared by Management in 2001, identifies the following main elements as obstacles or problems in implementing the operations in the portfolio: the lack of commitment by central and local governments to reform, delays in the passage of legislative reforms, social resistance to the reforms, particularly to an increase in tariffs and to private sector participation, and the lack of capacity of executing agencies. These problems are closely linked to the assumptions mentioned earlier and will be analyzed later.

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<sup>33</sup> The “Water & Sanitation Subsector: Issues and Options Note” clearly reflects this situation.

### III. EVALUATION OF THE PU POLICY. CONSISTENCY WITH THE BANK'S OBJECTIVES, PARTICULARLY WITH THE EIGHTH REPLENISHMENT

- 3.1 The Bank's mandate, updated during the Eighth Replenishment of Resources,<sup>34</sup> establishes that the fundamental objective of its activities is the social sphere, understood as resolving the problems of the accumulated social debt in the Latin American countries.<sup>35</sup> To achieve this higher objective, the Eighth Replenishment singles out three main fields of activity:
- (i) poverty reduction and social equity,
  - (ii) the environment,
  - (iii) modernization and integration.
- 3.2 *Poverty reduction and social equity* include specific actions in three closely linked areas:
- a. the needs of family, women and youth,
  - b. higher levels of public health and nutrition, and
  - c. human capital formation.
- 3.3 Potable water and sanitation services are chiefly approached from the angle of health and nutrition, where it is noted that:<sup>36</sup> “*In the health sector, emphasis will be placed on preventive measures and on primary health care. Priority will be given to combating infectious and contagious diseases, as well as to reducing infant and child mortality ... i.e. mass vaccination campaigns ... and to support implementation of environmental health projects, particularly in the water supply and sanitation subsectors...*”. The Eighth Replenishment stresses the social value of potable water and sanitation services and their nature as a tool for combating poverty, given their direct impact on public health.
- 3.4 With respect to *modernization and integration*, the Bank will assist in this process through work in many areas that include actions such as:<sup>37</sup>
- establishing adequate regulatory and supervisory functions through new regulatory frameworks in certain areas, particularly the delivery of public services;
  - moving ahead with privatization;

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<sup>34</sup> IDB. *Report on the Eighth General Increase in the Resources of the Inter-American Development Bank*. April 1994. Document AB-1638.

<sup>35</sup> IDB- 8R. Op. cit. page 15 and ff.

<sup>36</sup> IDB-8R. Page 23, paragraph 2.25.

<sup>37</sup> IDB-8R. Paragraph 2.37 (d), (e) and (g).

- strengthening the capacity to enforce existing laws, regulations and contracts;
  - supporting decentralization and strengthening local capabilities.
- 3.5 While not making explicit reference to PWSS, the Eighth Replenishment document outlines an institutional model for delivering public services that brings together the establishment of a regulatory State and decentralized delivery, under management models that include private initiative.
- 3.6 Last, in relation to the *environment*, the document establishes that the Bank will ensure that its guidelines take account of possible environmental impact in its areas of action. It specifically recognizes that “...*the demand for public services in the region has become overwhelmed, as for instance in potable water, collection and treatment of industrial and domestic wastewater...*” and calls for an improvement in the environmental quality of operations financed by the Bank, stating that “...*In the case of projects whose effects can easily be identified and monitored, project design will include measures to alleviate and control environmental damage*”.<sup>38</sup> On the basis of these affirmations, we can conclude that the Bank singles out the ‘environmental value’ of PWSS and orders that operations be designed to include measures to mitigate their environmental impact.
- 3.7 To achieve this, the Eighth Replenishment document indicates that the Bank must strengthen its own strategic planning, linking its programs and operations to the replenishment guidelines. Since the PU policy/PWSS was discussed and approved after the Eighth Replenishment, the policy should be consistent with these general objectives and link operations in the potable water and sanitation sector to the guidelines.
- 3.8 The PU policy mentions the lines of action set forth in the Eighth Replenishment. However, for the purposes of evaluation, we must establish whether it is consistent with them, using the expansion of coverage as a tool for poverty reduction, stressing the objective of modernization of the State, and paying sufficient attention to the environment.

#### **A. The PU policy and poverty reduction**

- 3.9 With regard to expanding coverage as a tool for poverty-reduction, the PU policy advocates that the economic and financial balance and sustainability of the utilities be guaranteed as an instrument for achieving other objectives, and in particular, as an avenue for surmounting the social and environmental externalities associated with the services.
- 3.10 Three cases are of special interest for assessing the consistency of the PU policy with the Bank’s higher objectives, since they demonstrate the limitations encountered in applying the policy: the case of Argentina, particularly the company Aguas de

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<sup>38</sup> IDB-8R. Page 34, & 2.44 (c).

Argentina that serves the city of Buenos Aires; the case of Aguas de Illimani in Bolivia; and the case of the ACUACAR company of Cartagena, Colombia.

- 3.11 In the case of Aguas de Argentina,<sup>39</sup> which serves the city of Buenos Aires and the outlying area, it was found that the service concession contract included obligations to make investments and increase coverage. However, it did not give a definition of new connections or the population that would receive the increase in access to services. Although the targets were not met, the changes and investments made were significant. Despite this, the situation of the poor living in the outskirts continues to be critical and water service is provided for just 44 percent of people in the lowest income decile (compared to 55 percent nation-wide), while only 17 percent are connected to sewers (compared to 30 percent for the country).<sup>40</sup>
- 3.12 In Bolivia,<sup>41</sup> in response to the mandates established in the concession contract, the company Aguas de Illimani, which holds the concession in the cities of La Paz and El Alto, has made significant progress in coverage, particularly for the low-income population, where levels are close to 100 percent for water and over 80 percent for sewerage. However, a set of cultural elements and conditions of extreme poverty not evaluated in the contract hold water consumption to very low levels in large parts of the city (less than 15 liters a day). Given these circumstances, the benefits of providing services to alleviate poverty, while not negligible, have been minimized.
- 3.13 Last, in the case of Cartagena,<sup>42</sup> the concession contract restricted operation to existing infrastructure and future expansions. Within this framework, ACUACAR has been able to increase coverage in the area it serves, but the poorest zones on the outskirts of Cartagena have been left out of this process and access levels are below 10 percent. The way in which the private operator was included meant that it was responsible for providing the service in the part of the city that already had infrastructure, and coverage there today is very high. However, in the outskirts, where the poorest population lives, coverage is much lower, since only areas benefiting from company expansion are included.
- 3.14 The difficulty in undertaking operations to address the service problems of the very poor, particularly in marginal rural and urban areas, by applying the general strategies established in the PU policy is of particular relevance for the Bank, since poverty alleviation is one of the priority objectives of the Eighth Replenishment. The PU policy document itself recognizes these difficulties: “*Recognizing the diversity of technological conditions in the different sectors, Bank Management will periodically issue specific operating guidelines for each sector, to facilitate application of the policy in particular cases*”. Given the difficulties encountered, the PU policy

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<sup>39</sup> Annex 2, Case study AR-0238.

<sup>40</sup> Navajas, Fernando. “Mirando el nivel de cobertura en Agua y Saneamiento en Argentina: Datos preliminares”. June 2001.

<sup>41</sup> Annex 2, Case study BO-0172.

<sup>42</sup> Annex 2, Case study CO-0227.

mandate could have led to the development of specific action guidelines to facilitate attending to needs in these areas. However, that has not been done and operations targeted to these areas, which account for 23 percent of funding for the sector<sup>43</sup> and 40 percent of the number of operations carried out over 1996-2000, are processed with a kind of opacity that is accepted but not acknowledged.

- 3.15 Many of the operations studied that identified their primary objective as providing access for the very poor rank the social value of the systems above their economic and financial sustainability, stressing community participation rather than seeking efficient operators, thereby sidestepping the central postulates of the PU policy as it is being interpreted and applied in operations.
- 3.16 The cases of Brazil and Bolivia allow us to identify two approaches, one to the urban and one to the rural context, respectively.
- 3.17 In Brazil,<sup>44</sup> attention to coverage requirements in marginal urban areas under the Favela Program teaches interesting lessons in terms of the linkage between urban development and expansion of service coverage. Based on its experience, attention to the needs of people living in informal settlements cannot be separated from attention to urban problems, use of space and regularization of ownership. In Latin America today, the number of people moving to the capitals and larger cities continues to be on the rise. They settle in an irregular, disorderly and often illegal manner on the outskirts of those cities, often establishing new urban centers. This aspect of the PWSS is of particular importance. To a large extent, the problem of providing poor populations with utilities is linked to the problem of informal settlements,<sup>45</sup> which requires actions that go beyond the limits of PWSS and involves a complex process of integrating those groups formally into the city.
- 3.18 The lessons learned from the case of Bolivia<sup>46</sup> indicate that to address the shortcomings identified in infrastructure projects for smaller rural populations, more community participation is required. After the investments have been made, permanent training and system monitoring are required and instruments must be designed to ensure that trained operators will stay on the job for a minimum period.
- 3.19 In Bolivia, reform increases community participation, since decisions regarding specific projects are made directly by the municipalities, with broad community participation. In the specific case of water and sanitation projects, the community can choose from among three different service models, each of which has a given

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<sup>43</sup> Only the amounts earmarked for projects in the potable water and basic sanitation sector have been included.

<sup>44</sup> Annex 2. Case study BR-0280.

<sup>45</sup> The technical characteristics of ground water distribution and sewer systems link them closely to the existence of some degree of urban development. Unlike electric systems, which are mainly aerial, water and sewer systems are underground and require an area to have a street layout before the infrastructure can be built.

<sup>46</sup> Annex 2. Case study BO-0146 and BO-0175.

tariff. The community selects the quality/price alternative that best suits its expectations and ability to pay. This type of market segmentation in function of the social and cultural conditions of the public to be served is particularly important for redefining the idea of universal services based on homogenous residential utility systems.

## **B. The PU policy and environmental protection**

- 3.20 Efforts to reduce the environmental degradation caused by the potable water industry are still in their infancy in the region. The possibility of making investments to address environmental deficits is limited by the impact they would have on tariffs or by the fiscal restrictions affecting most of the countries in the region. Given this situation, in many cases the strategy followed is linked to consideration of sewage treatment as a social good to be financed, at least partially, by the government. Only two of the countries included in the case studies are making major investments in sewage treatment.
- 3.21 Brazil takes a dual approach to treatment. In the large cities, mainly São Paulo and Rio de Janeiro, investment is repaid through tariffs. In parallel, the National Water Agency (ANA) launched a program of incentives for sewage treatment, which consists of the purchase, using federal government funds, of a percentage of the effluent treated by the service companies, to promote the activity and reduce its impact on tariffs.
- 3.22 In Colombia,<sup>47</sup> two projects to finance treatment are being carried out, one in Bogota and one in Cartagena. In the case of Bogotana de Aguas y Saneamiento, a consortium headed by Suez Lyonnaise des Eaux, a PRI operation is guaranteeing construction of stage one of a plant to clean up the Bogota River, which will be paid for directly by the district from tax revenues. In Cartagena, the process of cleaning up the bay is being carried out with loans from the IDB and the World Bank, arranged directly with the district, with little effect on rates.
- 3.23 In both cases, significant amounts of investment financing have proven to be a necessity for making headway in addressing the severe environmental externalities linked to the potable water and sanitation industry. In these cases, sustainability of the operations does not rely on tariffs but on the availability of public funds. This is particularly serious in the case of the investments of Bogotana de Aguas y Saneamiento, where additional investments of US\$1.1 billion are required, i.e. nine times the amount invested in the first stage, which probably cannot be obtained under the same financing scheme. In these circumstances, the long-term sustainability of the project appears to be extremely fragile and its impact on contamination of the Bogota River will be very limited, since in this first stage, just 12 percent of the city's sewage is undergoing primary treatment.

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<sup>47</sup> Annex 2. Case study CO-0208 and CO-0227.

### C. The PU policy and modernization of the State

- 3.24 The main elements established in the Eighth Replenishment in the area of modernization of the State have been incorporated into the postulates and strategies of the PU policy, insofar as it combines a regulatory State with service delivery under management models that include private initiative.
- 3.25 However, the creation of central regulatory agencies for the region with the powers envisaged leads to conflicts with other Bank strategies and policies, particularly with the decentralization strategy,<sup>48</sup> whose philosophy and approach to public management is precisely the reverse. In particular, in the case of the provision of infrastructure, the decentralization strategy states that: *“The provision of infrastructure is a traditional field of activity of subnational governments and encompasses a variety of essential services (water, sewerage and waste collection services, roads and drainage, public lighting, markets, abattoirs, transportation terminals). Current approaches to infrastructure provision seek efficiency gains through privatization and charging user fees, whenever possible. This represents a change in the role for subnational governments from that of direct provider of water and sewerage services to a regulator of privatized utilities ...”*. In the face of this option, the PU policy appears to lean toward the presence of a single, central regulatory agency, which is the model being implemented in practice in most operations, including in countries where services have been, or are being, decentralized, e.g. Peru, Colombia and Ecuador.
- 3.26 The PU policy’s conception of reforms on the country level is expressly mentioned when dealing with sector restructuring measures and establishing regulatory institutions and regimes. OP 708, paragraph 17 states that: *“Also, in most cases, it is desirable that such measures be implemented at a national level, thereby facilitating an integrated and cohesive treatment of the issues. With piecemeal reforms, there is always the danger of taking a narrow view of the problem resulting in the adoption of solutions which lack overall coherence, compromise the long term political viability of the effort, and which may constrain the options available elsewhere”*.

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<sup>48</sup> Subnational Development Strategy. IDB. SDS.

#### IV. THE PU POLICY: SYSTEMIZATION CAPACITY

- 4.1 It has already been noted that one of the qualities of policies is to systemize the Banks activities in the sector, lending them some degree of homogeneity and simultaneity and guiding the discretionary authority of its staff when addressing the variety of situations present in the region. This implies, internally, that the policy must be *known and interpreted consistently* by the Bank staff responsible for its application and adaptation to lending and technical-cooperation operations and, externally, in the countries themselves by the leaders and agents of change.
- 4.2 In addition, for PU policy to serve as an instrument to systematize Bank action, it must necessarily be included in all operations approved by the Bank and, as called for in the Eighth Replenishment, guidelines must exist for adapting it to the broad range of situations that are typical of services in the region and in each of the countries in particular.
- 4.3 We will examine three specific aspects:
- (i) extent of knowledge and acceptance of the PU policy by the agents responsible for applying it;
  - (ii) extent of its incorporation into Bank operations; and
  - (iii) extent of its permissiveness and flexibility, i.e. the way in which the policy is interpreted.
- A. Extent of knowledge and acceptance of the PU policy**
- 4.4 The opinions voiced during the interviews indicate that Bank professionals responsible for specific operations in the potable water and sanitation sector are very knowledgeable about the policy, although there are some discrepancies regarding how its postulates should be reflected in operations.<sup>49</sup>
- 4.5 However, borrowers and executing agencies in the countries visited almost unanimously reported that they were unfamiliar with the PU policy and that it had not been brought to their attention, provided or explained by Bank staff during the process of negotiating and implementing operations.
- 4.6 While not claiming that the views expressed are statistically representative, at the interviews, the key elements in the PU policy were touched on to determine opinions about them. The aspects in which less consensus was found were the advisability or need to include the private sector and the possibility of setting tariffs at levels to cover all costs, including new investments and company profits.

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<sup>49</sup> See “Water & Sanitation Subsector: Issues and Options Note”, 2000 and the memorandum “Public Utility Policy: Everything to Everybody or One Size fits All?”, Millán, José Jaime. Principal Economist, SDS/IFM, submitted to the Office of the Executive Vice President of the Bank in 1999.



- 4.7 In particular, the economic and financial sustainability that was viewed as desirable was deemed difficult to achieve for political or social reasons and, in some cases, on account of macroeconomic imbalances in certain countries.
- 4.8 Last, with respect to the strategy for introducing direct subsidies to replace cross subsidies, the interviewees in the countries were almost unanimously of the opinion that it was not feasible or advisable, which will be discussed later.

## **B. Incorporation of the PU policy in Bank operations**

- 4.9 Since the PU policy leaves room for different interpretations, the interpretation made by Bank specialists will be used to measure its systemization capacity. The review submitted to the Loan Committee by SDS/IFM of compliance with the PU policy in project design between July 1996 and June 1999, used the following compliance criteria: (a) separation of regulation from service provision through an independent regulator; (b) tariff regime that guarantees the recovery of all costs, including profits and risks; (c) competition; and (d) institutional capacity and private sector participation.<sup>50</sup>
- 4.10 To evaluate the extent to which the PU policy is incorporated into operations, loan and technical-cooperation documents were analyzed, identifying their objectives, targets and conditionalities, in order to gauge their consistency with the policy.<sup>51</sup>
- 4.11 In each operation we looked for the **core elements of the PU policy**, which have already been identified and which refer to:
- **The regulatory framework for PWSS:** definition of a regulatory framework, passage of a law on potable water and sanitation services that consolidates in legislation the basic principles of the reference model established by the PU policy and the creation of an agency to regulate and oversee the services.
  - **Economic and financial sufficiency:** understood as the adoption of a tariff and subsidy regime that covers the operating, maintenance and depreciation costs and returns on investments.
  - **Private sector participation:** whether the operation incorporates or promotes the transformation of service providers into private mercantile companies, with or without a government interest, which in most cases takes the form of concession contracts and, more recently, total management contracts.
  - **Improvement in operating efficiency:** improvements in the efficiency of service providers, including improvements in the commercial management of the services and employee productivity. This category also included physical rehabilitation of the systems, which has significant implications for continuity and the quality of the water delivered.

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<sup>50</sup> See “Issues Related to Public Utilities Policy: A Review of Projects” (SDS/IFM).

<sup>51</sup> See Annex 3 of this report.

- 4.12 Most of the operations studied included these elements of the PU policy as disbursement *conditions*. However, they were not included as conditions in countries that have already passed a law governing services, established a regulatory agency or privatized operations. Instead, they were incorporated into the operation, since their existence was considered a basic premise for its approval or execution.
- 4.13 Using the analysis of operations, we established three categories of projects based on their objectives and strategies:
- (i) entrepreneurial,
  - (ii) social,
  - (iii) environmental.
- 4.14 The differences between these categories arise from the Bank's approach to the sector and whether the operation focuses on economic, social or environmental sustainability.
- 4.15 The **entrepreneurial** category includes operations in which the treatment of PWSS resembles the PU policy proposal, i.e. the idea is to transform operators into efficient service providers by designing and introducing profit-generating incentives, converting PWSS into a private good, financed and remunerated by consumers, and redirecting the function of government into correcting market imperfections caused by service monopolies and externalities.
- 4.16 **Social operations** focus on improving the standard of living of the low-income population through the provision of basic infrastructure. In these operations, the policy elements are distanced from those identified as central to the PU policy and are closer to the basic sanitation policy, including the recovery of operating costs and the organization and promotion of community participation in identifying needs, designing and implementing solutions and, often, in the subsequent operation and maintenance of the services. In general, operations of this kind are multisector and OVE has estimated the amount that would be allocated to water and sewer service on the basis of resource distribution in the sample considered in the project reports or in project performance monitoring reports. When this information could not be obtained, estimates were based on resources allocated to the sector in 25 percent of all cases. Management has indicated that it does not have the information on amounts used for water and sewer service for operations of this kind and suggests that the estimates be based on 25 percent of the entire project.
- 4.17 Last, **environmental operations** were identified as operations that focus on environmental externalities. Generally speaking, they involve cleaning up water courses whose main source of pollution is sewage discharged by water companies. To achieve their objectives, sewer coverage and sewage treatment prior to discharge into the water source need to be stepped up.

4.18 The classification into these three types of projects can be seen clearly by comparing the indicators established for each of them, despite the apparent similarity of their objectives. By way of example, the following tables<sup>52</sup> compare the objectives and key indicators of typical projects selected from each group.

**Table 4.1. PROJECT DEVELOPMENT OBJECTIVE(S)**

<b>Entrepreneurial: HA-0014</b>	<b>Social: ME-0150</b>	<b>Environmental: NI-0142</b>
<ul style="list-style-type: none"> <li>◆ To bring about a lasting improvement in water supplies in Haitian cities, establishing an institutional framework for the gradual development of sewer and sewage treatment services.</li> <li>◆ To support establishment of an independent regulatory agency for the water and sanitation sector.</li> <li>◆ To support private sector participation in water supplies for the city of Port-au-Prince and other urban centers.</li> <li>◆ To bring about a lasting improvement in the quality and coverage of potable water services in urban centers and rural communities and hence in health conditions.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Sustainable provision of water and sanitation in rural zones.</li> </ul>	<ul style="list-style-type: none"> <li>◆ To complement the financing under loan NI-0027, by providing funds to cover the additional costs of sewage treatment works since the loan was approved by the Bank in 1996. The objective of the loan is to improve environmental conditions and the quality of life of the inhabitants of Managua.</li> </ul>

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<sup>52</sup> Taken from ROS/ITC. Web Data Analyzer. <http://ops/execprj/execprj.asp>.

**Table 4.2. KEY PROJECT PERFORMANCE INDICATORS**

<b>Entrepreneurial: HA-0014</b>	<b>Social: ME-0150</b>	<b>Environmental: NI-0142</b>
<ul style="list-style-type: none"> <li>◆ Law reforming the sector in force no later than six months after the loan contract becomes effective.</li> <li>◆ The enabling regulations of the law enter into force 18 months after the loan contract becomes effective.</li> <li>◆ The national potable water service (SNEP) and the autonomous metropolitan potable water service (CAMEP) are merged no later than six months after the loan contract becomes effective.</li> <li>◆ The independent regulatory body (CREPA) is established no later than six months after the loan contract becomes effective.</li> <li>◆ Signature of the lease or service contract for the Port-au-Prince system no later than 18 months after the loan contract becomes effective.</li> <li>◆ The investment policy for the sector is defined two years after the loan contract becomes effective.</li> <li>◆ Financing mechanisms for the sector are implemented no later than three years after the loan contract becomes effective.</li> <li>◆ Increase in the rates of private connections (the figures in parenthesis refer to the low-income population).               <ul style="list-style-type: none"> <li>* 9% &amp; (0%) 30% &amp; (12,5%) in 2002 Cayes</li> <li>* 5% &amp; (0%) 39% &amp; (20%) Port de Paix</li> <li>* 10% &amp; (0%) 35% &amp; (15%) on average for the other systems.</li> <li>* Reduction in the rate of water-borne diseases.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>◆ Number of communities and users receiving water and sanitation services in rural areas:               <ul style="list-style-type: none"> <li>Year 1, year 2, year 3, year 4, year 5</li> <li><b>Communities:</b></li> <li>Potable water 100 150 250 350 350</li> <li>Sanitation 40 80 180 300 350</li> <li><b>Users (thousands)</b></li> <li>Potable water 170 270 410 540 480</li> <li>Sanitation 45 115 240 410 480</li> </ul> </li> <li>◆ Percentage of potable water systems functioning adequately (continuity of water/hours/day; amount of water; water quality at source and end point)               <ul style="list-style-type: none"> <li>3<sup>rd</sup> year ---- 80%</li> <li>5<sup>th</sup> year ---- 90%</li> </ul> </li> <li>◆ Percentage of sanitation systems properly used:               <ul style="list-style-type: none"> <li>3<sup>rd</sup> year ---- 80%</li> <li>5<sup>th</sup> year ---- 90%</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>◆ Clean up along the lakeshore opposite Managua.</li> <li>◆ Rehabilitation and modernization of sewer services in Managua.</li> <li>◆ Public education and public participation in sanitary actions and vector control.</li> <li>◆ Development and execution of a plan to monitor health and environmental sanitation indicators in the lake.</li> </ul>

4.19 Management has recognized this situation in the document “Water & Sanitation Subsector: Issues and Options Note”, paragraph 3(b) by stating that “*The institutional model for potable water and sanitation is relatively clear and there is a*

*reasonable level of consensus and consistency among the IDB specialists on what this should comprise. Similar conditions are not necessarily applied to other types of projects, classified as social, housing and municipal development projects, which have components that can be used to finance water and sanitation works. Consistency is a sine qua non.*<sup>53</sup>

- 4.20 About 25 percent of all funding approved during the 1990s was used to finance projects that embraced core elements of the PU policy, whereas 38.4 percent went on environmental operations and 36.7 percent on social projects. An analysis of the five years (1990-1995) indicates that some operations already reflected the core elements of the PU policy and, as such, can be considered 'entrepreneurial'. However, their weight was not relevant in comparison with environmental and social loans. The classification of operations approved by the Bank during the five years the policy has been in effect (1996-2000) following the methodology described, is presented in Table 4.3. It is important to note that in order to conform to the criteria set out in the PU policy, the project must satisfy three of the four criteria considered essential by Management. These are that the project have a regulatory framework (RF), result in improved operating efficiency (IOE), provide for private sector participation (PSP), and be economically and financially sufficient (EFS)<sup>54</sup>

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<sup>53</sup> *Different Approach and Conditions.* The institutional model for potable water and sanitation is relatively clear and there is a reasonable level of consensus and consistency among the IDB specialists on what this should comprise. Similar conditions are not necessarily applied to other types of projects, classified as social, housing and municipal development projects, which have components that can be used to finance water and sanitation works. Consistency is a *sine qua non*

<sup>54</sup> See Annex A in which the necessary criteria are identified for each project.

**Table 4.3. Distribution of operations by classification (1996-2000)**

Country	Total operations			Entrepreneurial			Social			Environmental		
	# Ops/ PU policy Ops	Total MM US\$	% of total	# Ops/ PU policy Ops	Total MM US\$	% in country	# Ops/ PU policy Ops	Total MM US\$	% in country	# Ops/ PU policy Ops	Total MM US\$	% in country
Argentina	3/3	1,149.60	22.0	3/3	1,149.60	100.0						
Bolivia	3/2	213.03	4.1	2/2	157.03	73.7	1/0	56.00	26.3			
Brazil	6/1	977.13	18.7	1/1	260.00	26.6	4/0	317.13	32.5	1/0	400.00	40.9
Chile												
Paraguay	1/0	12.67	0.2				1/0	12.67	100.0			
Uruguay												
<b>Total</b>	<b>13/6</b>	<b>2,352.43</b>	<b>45.0</b>	<b>6/6</b>	<b>1,566.63</b>	<b>66.6</b>	<b>6/0</b>	<b>385.80</b>	<b>16.4</b>	<b>1/0</b>	<b>400.00</b>	<b>17.0</b>
Costa Rica												
El Salvador	2/1	76.66	1.5	1/1	60.00	78.3	1/0	16.66	21.7			
Guatemala	1/0	12.25	0.2				1/0	12.25	100.0			
Haiti	2/1	65.66	1.3	1/1	60.96	92.8	1/0	4.70	7.2			
Honduras	5/4	95.89	1.8	4/4	40.29	42.0	1/0	55.60	58.0			
Mexico	2/0	1,595.00	30.5				1/0	560.00	35.1	1/0	1,035.00	64.9
Nicaragua	4/1	110.77	2.1	1/1	21.00	19.0	1/0	26.11	23.6	2/0	63.66	57.5
Panama	2/1	73.12	1.4	1/1	65.00	88.9	1/0	8.12	11.1			
Dominican Rep.	1/1	89.00	1.7	1/1	89.00	100.0						
<b>Total</b>	<b>19/9</b>	<b>2,118.35</b>	<b>40.5</b>	<b>9/9</b>	<b>336.25</b>	<b>15.9</b>	<b>7/0</b>	<b>683.44</b>	<b>32.2</b>	<b>3/0</b>	<b>1,098.66</b>	<b>51.9</b>
Bahamas	1/1	20.00	0.4	1/1	20.00	100.0						
Barbados												
Colombia	4/3	294.24	5.6	3/3	169.24	57.5				1/0	125.00	42.5
Ecuador	2/1	75.37	1.5	1/1	50.00	66.3	1/0	25.37	33.7			
Guyana	2/1	35.36	0.7	1/1	30.00	84.8	1/0	5.36	15.2			
Jamaica	1/0	5.01	0.1				1/0	5.01	100.0			
Peru	1/0	64.73	1.2				1/0	64.73	100.0			
Trinidad & Tobago												
Venezuela	2/2	260.00	5.0	2/2	260.00	100.0						
<b>Total</b>	<b>13/8</b>	<b>754.71</b>	<b>14.5</b>	<b>8/8</b>	<b>529.24</b>	<b>70.1</b>	<b>4/0</b>	<b>100.47</b>	<b>13.3</b>	<b>1/0</b>	<b>125.00</b>	<b>16.6</b>
<b>Total</b>	<b>45/23</b>	<b>5,225.49</b>	<b>100.0</b>	<b>23/23</b>	<b>2,432.12</b>	<b>46.5</b>	<b>17/0</b>	<b>1,169.71</b>	<b>22.4</b>	<b>5/0</b>	<b>1,623.66</b>	<b>31.1</b>

**Source:** Loan proposals and own calculations.

**Note:** The operations only include the estimated amounts spent on projects in the potable water and sanitation sector.

4.21 The following conclusions regarding the incorporation of PU policy into Bank operations can be extrapolated from the table:

1. Over half of Bank funding for the sector in the period 1996-2000, after the PU policy was approved, went for operations that do not include its core elements. In this period, entrepreneurial operations rose to 46.5 percent, environmental to

31.1 percent, and social to 22.4 percent. If the analysis is based on the number of operations approved, entrepreneurial operations account for slightly over half (51 percent), social for 38 percent and environmental for just 11 percent, although the latter involve larger amounts for each operation.

2. Region 3<sup>55</sup> has the largest number of loans that incorporate the PU policy, although the total amounts for the region are substantially lower than for Regions 1 and 2. In Region 2, the percentage of funds channeled through the entrepreneurial window is smallest. However, this situation masks sharp differences between Mexico and the smaller countries.
3. The laxest requirements for incorporating the PU policy are for countries with the highest levels of Bank activities, i.e. Mexico and Brazil, while the strictest requirements for PU policy elements are for the smallest countries: Haiti (92.8%), Guayana (84.8%), Dominican Republic (100%), El Salvador (78.3%), Ecuador (66.3%) and Panama (88.9%). Special mention should be made of Argentina, where all the loans are entrepreneurial as a result of changes made by the country itself before the PU policy was approved.
4. Entrepreneurial operations were more frequent in Region 3, since eight (61.5 percent) of the 13 operations approved during 1996-2000 for that region were of that kind, while the figures for Regions 1 and 2 were 46.1 percent and 37.5 percent, respectively
5. During the period after the PU policy was approved, 70 percent of funds for Region 3 went for entrepreneurial operations. Region 1 saw a similar level of 66.6 percent. The lowest effort to apply the PU policy was in Region 2, where just 15.9 percent of the funds approved went for entrepreneurial operations. However, this conclusion masks large differences among the countries in Region 2, since no operation of this kind has been approved for Mexico, while the figures for countries like Haiti, Panama, the Dominican Republic and El Salvador are above 78 percent.
6. Environmental operations in the period 1996-2000 were concentrated in just four countries: Mexico (US\$1,035 million, 63.7%), Brazil (US\$400 million, 24.6%), Colombia (US\$125 million, 7.7%), and Nicaragua (US\$63.6 million, 3.9%).
7. Region 1 had the most social operations, determined by their frequency in Brazil, four of whose six operations were of this kind. Mexico and Brazil alone obtained 75 percent of the funds that the IDB lent for social operations.
8. Last, there was migration of funds from formal water and sanitation operations to social operations that include water and sanitation components.

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<sup>55</sup> The Bank's regional classification of countries for internal purposes has been used.

### C. Flexibility and permissiveness

- 4.22 From the above, it can be deduced that the PU policy has not become an effective instrument for making operations in the sector homogeneous and that there is considerable room for permissiveness to address specific situations.
- 4.23 The lack of homogeneity is particularly apparent in the possibility of acceding to Bank funding through different windows, which creates differences in the conditions required between *entrepreneurial* operations and the operations we have identified as *social* and *environmental*. While these differences are valid and justifiable, they are not based on explicit guidelines. This gap means that the PU policy is applied on a discretionary basis, based on the negotiating capacity of the countries and the individual judgment of Bank staff involved with the sector.<sup>56</sup>
- 4.24 It is striking that the requirements or *conditionalities* negotiated with one country can differ substantially from those applied to another. In general, heavier demands are placed on the smaller countries with lower levels of economic development, with respect to institutional transformation and implementation of the model proposed by the PU policy, than on the larger countries.
- 4.25 For example, in Haiti, in a single operation costing US\$60.96 million, the loan conditions include approval and introduction of a new legal framework, tariff levels that cover all costs, and even privatization of the services in Port-au-Prince.<sup>57</sup> In Nicaragua, Honduras, and some other countries, operations have also been approved that maintain all the core elements of the policy, with varying success.
- 4.26 At the other extreme, none of the operations approved in Mexico have included the PU policy and in Brazil the operation recently approved for the public company in the Federal District only included the policy partially and not as a loan condition.
- 4.27 Therefore three types of policy can be identified: one that could be called a “*minimum requirement policy*” that applies to social loans; one of “*maximum requirements*” for the entrepreneurial loans and, as we will see later, a third that

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<sup>56</sup> See the memorandum “Public Utility Policy: Everything to Everybody or One Size fits All?”, Millán, José. Principal Economist SDS/IFM submitted to the Office of the Executive Vice President of the Bank in 1999, which begins by noting: “During recent discussions of public utility projects, and private power in particular, different readings of OP-708 have been argued by parties opposing or backing a given project. On one corner side those with a strict interpretation of the policy; for them, meeting the basic conditions is a prerequisite for Bank lending, any departure is sought as a sign of permissiveness. On the other corner side those with a weak interpretation, most commonly exposed by project teams, aiming to demonstrate that the project meets a weak version of policy objectives or that the policy is not applicable, because the only countries meeting the conditions are in not need for Bank help. And so the argument goes almost three years after the policy was adopted and nobody seems to be pushing for the implementation of actions that may break the stalemate. These actions, by the way, are explicitly addressed in OP-708 and its supporting document”.

<sup>57</sup> IDB. Potable water and sanitation sector reform program. HA-0014. 1998.



could be called a “*parallel or meta-policy*” when the loans have environmental objectives.<sup>58</sup>

- 4.28 Clearly, the PU policy allows for a significant amount of flexibility which is necessary, given the different levels of institutional and sector development in the different countries. However, this flexibility is not used to adapt the policy to the different levels of institutional development or the specific situation in the sector in a given country. On the contrary, the lower the level of economic development and the greater the institutional fragility, the higher the levels of requirements regarding the core elements of the PU policy<sup>59</sup> in lending operations, which in some cases creates insurmountable difficulties and delays in the execution of operations. It appears that the words of the PU policy to the effect that: “*The ability to undertake these changes, which is closely related to the size and level of development of the country, human resource endowments and the particular political environment, may severely limit the range of options and the timing of private sector participation available to the country*” have been interpreted inversely when it comes time to determine the level of conditionalities required from the countries.
- 4.29 Two additional aspects are worth noting. The first is that it has not been possible to determine the reasons why operations that do not comply with the conditions established in the PU policy have not requested exemptions from it, as would appear to be mandatory.<sup>60</sup> As mentioned earlier, during the benchmark period 52 percent of all lending operations should have received a waiver in connection with the application of Bank policy before they were approved by the Board of Executive Directors. This clearly illustrates that the policy’s capacity to systemize is very low.
- 4.30 The second refers to social or urban development operations that include the establishment of funds or grants for the poorest groups, which frequently include water infrastructure components, usually intended to increase coverage in remote or very poor communities. In these cases, we have been unable to determine who gives approval or establishes the conditions governing activities or what criteria are applied, or how it is done.
- 4.31 Table 4.4 shows the disparity in applying the PU policy in all 93 operations approved during the 1990s. It identifies the core elements in the policy and shows when they are reflected in one way or another.<sup>61</sup>

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<sup>58</sup> See footnote number 44, memorandum by José Millán, which confirms the presence of two contrasting positions in the interpretation of the PU policy and notes that the problem arose as soon as the policy was approved.

<sup>59</sup> OP-708, paragraph 13 (e).

<sup>60</sup> OP-708, paragraph 20.

<sup>61</sup> The table has been taken from Annex 3, which provides more information on the method used to prepare it and the meaning of the abbreviations used.

**Table 4.4**

Type of project	Goals		Main				Supplementary		
	IWCS	EI	IOE	RF	PSP	EFS	DC	CP	CR
SOCIAL	36	10	15	2	0	13	19	18	15
ENTREPRENEURIAL	22	8	26	38	34	28	13	6	2
ENVIRONMENTAL	4	12	9	2	1	10	1	3	0
TOTAL	62	30	50	42	35	51	33	27	17

**IWCS:** increase in water and sanitation coverage  
**EI:** environmental improvements  
**IOE:** improvements in operating efficiency by providers  
**RF:** creation or modification of the regulatory framework  
**PSP:** private sector participation  
**EFS:** economic and financial sufficiency understood as tariffs that cover operating, maintenance, depreciation and investment costs  
**DC:** decentralization of PWSS  
**CP:** promotion of community participation  
**CR:** tariffs that only allow for cost recovery

- 4.32 A gradual increase can be observed in social projects, i.e. projects that include water and sanitation as one of their specific components but in a broader social framework. Different questions arise out of this phenomenon, which has also been detected in some other sectors of Bank activities. All indications are that operations staff from the Regional Divisions, in the absence of operating guidelines, in the presence of obvious difficulties in strict and immediate compliance with the postulates of the PU policy—as has been demanded in operations—, given the lack of response from Management to the problems encountered and the need to respond to the demand for resources, have opted for an imaginative alternative in the form of ‘window migration’, which has allowed for more flexible conditions than might be required for operations formally identified as water and sanitation operations per se, or their avoidance altogether.
- 4.33 The flexibility allowed for by the PU policy, which is explained and justified in the paper on rationale prepared by Management, was intended to respond to four aspects: adaptation of the PU policy to the singularities of the potable water and sanitation sector; determination of the rules and steps to be followed in the transition to the model or target vision defined in the policy; adjustment of the policy and its postulates to specific conditions in the countries; and the linkage of the policy postulates and conditionalities to the diversity of water and sanitation systems present in the region.
- 4.34 However, the situation presented above shows how the flexibility called for in the PU policy to address the differences in the process of moving toward the target vision it defines has not been consistently applied or interpreted. In the absence of operating guidelines that establish the basic rules, this flexibility has turned into a motive for internal disagreement, with the consequent loss of homogeneity in operations, and into the source of unjustified permissiveness.

- 4.35 The lack of action guidelines, rigorous interpretation of the PU policy and the failure to recognize the need to undertake a gradual transition to a more efficient management model based on the principles established in the policy have led, on the one hand, to a rapid decline in the portfolio, the design of operations that present serious difficulties in execution, and the appearance of different approaches and conditionalities in operations and, on the other, to the birth of two opposing currents within the Bank itself that are very difficult to reconcile.
- 4.36 Thus, on the one hand, there is a current that calls for a radical defense of the postulates of the PU policy and their immediate application, whose best reflection is found in the document “*Water & Sanitation Subsector: Issues and Options Note*”.<sup>62</sup> On the other, there is a current that calls for greater flexibility in the PU policy and its adaptation to country conditions.<sup>63</sup>
- 4.37 In all events, it is very striking that despite the fact that the issue was raised when the policy was approved and that Management has systematically been made aware of the difficulties with the portfolio, discrepancies between staff and calls for the approval of action guidelines,<sup>64</sup> no steps at all have been taken, although the portfolio has continued to deteriorate and the total and relative weight of the sector has declined in Bank operations.

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<sup>62</sup> Op. cit. See note 22.

<sup>63</sup> “Public Utility Policy: Everything to Everybody or One Size fits All?”, Millán, José. Principal Economist SDS/IFM submitted to the Office of the Executive Vice President of the Bank in 1999.

<sup>64</sup> Recommendations or calls for the approval of action guidelines can be found in a wide variety of documents, including, “Issues related to public utilities policy, a review of projects”, 2000, Millán, op. cit., 1999; minutes of the Programming Committee since 1999, etc.

## V. RELEVANCE OF THE PU POLICY

### A. Relevance in the regional context

5.1 The relevance of the PU policy/PWSS is determined by how relevant the underlying assumptions of the policy are in the current context of services in the region.

5.2 As has been mentioned, the PU policy applied to PWSS was a major break with the model that had been used up until then for the delivery of services. The institutional arrangement called for in the PU policy for PWSS was, and continues to be, a very radical change, based on very little practical experience in the region or even internationally. Although some Latin American countries made progress in establishing an institutional arrangement such as the one proposed, the transformations called for in the PU policy/PWSS were far from being widespread, unlike the situation in the telecommunications and electricity industries. In the case of PWSS, the change was just beginning and limited to four countries:

(i) **Chile**,<sup>65</sup> which began a gradual process of restructuring and improving its public utilities at the end of the 1970s and which only included private operators in service delivery starting in 1998, after its regulatory structures had been consolidated.

(ii) **Argentina**, which under the program for general reform of the State that began at the start of the decade moved ahead quickly with privatization by granting concessions for the old public utilities, linked to the creation of supervisory and oversight bodies on the inter-jurisdictional (ETOSS) and provincial levels.

(iii) **Bolivia and Colombia**, which are also engaged in sweeping programs for reform of the State, passed new legislation on public utilities at the start of the decade that included PWSS and reflected the strategic lines of the PU policy. However, their programs have made slower headway and are still in the very early stages of implementation today.

5.3 It is precisely the lack of concrete experience with the institutional arrangement to be built which makes it advisable to evaluate the potential and limitations associated with the assumptions of the PU policy/PWSS that are intended to prevent political interference in the sector and steadily improve the quality of service.

### B. Relevance of the underlying assumptions of the PU policy

5.4 We have already identified the underlying assumptions of the PU policy, which are necessary if its postulates are to be effective. We will now look at the extent to

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<sup>65</sup> The strategy of private sector participation in the delivery of services was not part of Chile's program at the outset.

which those assumptions are geared to the political economy of the sector (Annex 1) and at the actual situation in the countries, based on the case studies (Annex 2).

**1. The government establishes a lead institution able to define sector policy based on the PU policy and to establish the necessary linkage with social and environmental aspects**

- 5.5 The process of change proposed by the policy implies that a body exists to design sector policies that can guide and direct the process of transforming services and act effectively and in coordination with the regulatory agency and the authorities responsible for social and environmental policies. Since transition takes a long time, a strong governmental body is needed to promote the transformation, design government financing policy, promote institution building programs for the operators and design sector policies based on social, health and environmental objectives. The need for a body of this kind is greater where the process is complex and, in particular, where the political content is high, which requires strong will for public management of a sector that is often fragmented and almost always suffers from political interference.<sup>66</sup>
- 5.6 The results of the case studies indicate that planning, coordination and policy bodies do not exist in hardly any of the countries. Attention to sector planning has always been a pending task and the activity was almost never a permanent part of the planning systems implemented in the 1960s and 1970s. In most cases the guidance and planning function was given to national public suppliers. The changes brought about by the introduction of the PU policy have not been able to surmount this shortcoming.
- 5.7 The vast majority of the new legal frameworks call for the establishment of an independent body to design and approve sector policies. However, virtually no country has established a body of this kind. In general, less emphasis has been placed on planning and guidance bodies than on regulatory and oversight bodies. This gap becomes evident when it is necessary to find valid interlocutors for designing national programs, given the fragmentation of the operators and the deficit in the supply of services.
- 5.8 The cases of Nicaragua, Peru and Bolivia stand out, since although the law orders that such bodies be established, this has been postponed. Only three of the eight countries studied have national lead institutions.
- 5.9 In Brazil, sector planning and management is located in the Department of Urban Development and plays a leadership role in guiding the sector and defining special programs to increase access to services by the very poor. The body does not form part of a sector reform program, but of the country's old planning regime. It would have to be reformed under the bill currently being debated.

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<sup>66</sup> The existence of a lead agency is particularly important in light of the needs identified in each country with respect to households without water or sewer connections and the size of the investment required.

- 5.10 In Colombia, as part of the new institutional arrangement, the Directorate General of Water and Basic Sanitation of the Ministry of Economic Development was strengthened in the areas of leadership, technical assistance and financial support for service providers. The coexistence of this directorate with the Water Regulation Commission (CRA) is not easy, and most of the players interviewed expressed their concern over the lack of coordination. The new institutions for sector regulation and control (CRA and the Office of the Superintendent) are still weak compared to a ministry that has been building up experience and that carries out central government functions with respect to the linkage of financing policies, which leads to frequent problems of concertation, coordination and conflicts of jurisdiction.
- 5.11 In Peru, the National Sanitation Directorate has been established only recently, after the lead agency (SUNASS) had been operating for more than six years, to fill a gap in sector policy and promote the process of transformation that had been at a standstill until now.<sup>67</sup>
- 5.12 The absence of a lead agency affects Bank actions, since it is often unable to find valid interlocutors to introduce national reform processes. Ad hoc agencies with no continuity are established to take its place (PRONAP in Peru),<sup>68</sup> or the reforms are assigned to government bodies lacking the necessary technical expertise (investments in water and sanitation in Honduras).<sup>69</sup>

**2. The State is able to establish and develop effective regulatory agencies within a reasonable period**

- 5.13 Success in the process of overcoming *political intervention* sought by the PU policy is based on the premise that effective and independent regulatory agencies can be established in a relatively short time. Preventing political *interference* in services through an independent and effective regulatory function is a particularly difficult, slow and complex task that involves the risk of the measures to be taken becoming politicized, given the heavy social impact they have. This problem, compounded by those stemming from the relatively widespread notion that water is a public good that should be provided free of charge, creates an atmosphere in which overcoming political intervention may clash with highly politicized measures, requiring an additional effort on the part of the governments and cautious, phased-in implementation of the necessary measures. For the regulatory function to be effective, the regulatory agency must form part of a broader regulatory scheme that includes entities that specialize in areas such as environmental regulation, consumer protection and protection of competition, and should be anchored in a reliable and effective judicial apparatus that can act as a valid arbitrator in cases of conflict. A construction of this kind requires the development and coordination of specific capacity that is novel in many of the region's countries. The task of building this

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<sup>67</sup> Office of the Deputy Minister of Infrastructure. Directorate General of Sanitation. Sanitation Sector Policy (proposal). Lima, May 2001.

<sup>68</sup> Annex 3. Case study PE-0032.

<sup>69</sup> Annex 3. Case study HO-0072.

regulatory capacity has been particularly difficult in fragile and distorted institutional environments, where the civil service tradition is not strong and efficiency is poor and professional and technical resources are in very short supply, as is the case in many countries of the region.

- 5.14 This difficulty, which is expressly recognized in the PU policy, became clear during most of our visits and requires a review, not so much of the relevance of the regulatory and oversight function, but of its content, deadlines, mechanisms and the support needed to move ahead with a long-term process of construction and development.
- 5.15 In the specific case of PWSS, development of the regulatory and oversight function can also counteract the monopolies and scant room for competition that mark the industry, by regulating behavior in a sector with high sunk costs in long-term investments, market imperfections that stem from environmental externalities and serious income-distribution imbalances, and therefore inequalities in the capacity to gain access to infrastructure services.
- 5.16 A review of the case studies has made it possible to identify a series of situations that make regulation difficult and which should be taken into account in institutional designs to improve the potential for success of the regulators. The most frequent include:
- **Mismatch between central regulation and decentralized responsibilities:** In most Latin American countries, PWSS are the responsibility of local or regional governments. In these circumstances, the establishment of a national regulatory body may be inexpedient or lead to conflicts of jurisdiction with local or regional regulatory bodies. This problem has been found in Peru and Colombia, where the design of the regime and the tariff adjustments proposed by the central regulator to move toward economic and financial sufficiency of the services have not been implemented in the service providers owing to the disapproval of local governments. Furthermore, as was mentioned earlier, the creation of central regulators with the powers called for in the PU policy can lead to conflicts with other Bank strategies and policies, depending on how they are implemented and, in particular, on the decentralization strategy, whose philosophy and approach to public management is precisely the contrary.
  - **Shortage of capacity:** In general, the regulatory and oversight function is very new in many countries of the region, particularly the smallest. Introduction of an effective, transparent and independent regulatory function demands institutional abilities in the civil service that are far higher than required to operate the utilities and, at present, they are insufficient and deleterious. In such circumstances, it is difficult to establish a highly-capable technical team

able to tackle these challenges and its stability is often subject to the same vicissitudes as those affecting the civil service.<sup>70</sup>

- **Inadequate information systems.** The design of suitable information systems for the regulatory exercise is also slow and in many cases must confront the lack of information kept by the regulated companies themselves. The Bank has carried out technical-cooperation programs to surmount this inadequacy in virtually all the countries that have established regulatory agencies (Argentina, Bolivia, Nicaragua, Peru and Colombia). Operations of this kind have made progress in designing standards, compiling information and making regulatory principles and practices public. However, in day-to-day regulation and oversight of providers, the deficiencies and imbalances between regulators and regulated continue to be considerable.
- **Regulatory imbalances in monopolistic markets:** One of the most difficult problems to surmount is the regulatory imbalances that accompany monopolies. The imbalances mainly have to do with information and political power and differ depending on whether the regulatory process involves public or private companies. When a private operator has been included, the tendency to raise the tariffs charged by the company, coupled with greater technical capacity, becomes hard to control.<sup>71</sup> The case study on Argentina point to these difficulties. During the process of renegotiating the contract with Aguas de Argentina, the regulatory and oversight body ETOSS was not consulted and the decisions were made through negotiations between the company and the government's political bodies.
- When the operator of the services is a public company, the regulatory difficulties are greater. Very frequently they are two government entities, with the operator having more political power than the regulator, since the operator manages investments, jobs and execution capacity that is useful for governments and politicians. This has been the case in Nicaragua,<sup>72</sup> where the operator has resisted providing information to the regulator from the outset of the process and, during the last tariff review exercise, the disputes between the operator and regulator were resolved by the country's president in favor of the operator.
- **Ineffective rules and procedures:** The regulatory and oversight bodies we studied have worked hard to create and develop rules and procedures, in many

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<sup>70</sup> The "Water and Sanitation Study", op. cit., also questions the capacity of Bank staff to develop, define and implement operations and proposes a change in the professional profile of sector specialists.

<sup>71</sup> The last tariff review exercise of the company EMOS of Santiago, Chile, demonstrated the difficulty experienced by the Chilean Superintendency, one of the most capable in the region, in dealing with the propensity of the company to raise tariffs after it was privatized. (See M.E. Corrales, Case study of Chile, ECLAC, 2000.)

<sup>72</sup> Annex 3. Case study Nicaragua TC-00-03-00-9.



cases supported by technical-cooperation funds from the Bank. However, they are difficult to apply when operators have severe operational and management shortcomings. One example is SUNASS in Peru,<sup>73</sup> which has made a praiseworthy effort to develop rules and procedures but they are not applied by the operators, who the Office of the Superintendent is unable to control. This creates a culture of violation of rules and procedures that debases the civil service.

- The transition from an initial situation of poor quality, absence of standards and lack of instruments to enforce compliance, to a desirable future situation is slow and, in addition to demanding heavy investments, also requires changes in the social and political culture, which take a long time to mature. It is crucial for the regulator and the operators to share a strategy for change that promotes gradual improvement in the quality of services and the sustained development of regulatory and oversight activities to build credibility around a function that is new in most countries.
- **Central regulation and operating diversity:** The model of regulation by a central agency which is the basis for many of the institutional arrangements in the region, except for Argentina, was developed in Britain as part of the process of restructuring and privatizing PWSS. Generally speaking, the model implies the creation of a centralized regulatory body that monitors compliance with the law and applies sanctions to a considerable, but limited, number of companies that deliver the services. One of the most important functions of the regulatory agency is to set or approve the tariff structures to be charged by the companies and to grant licenses or permits to operate the services.

5.17 The merits of the British regulatory model have been widely publicized, to the point where modern regulation is largely associated with that model. However, the British model forms an integral part of a specific and coherent institutional arrangement. The model, centralized in a national agency, cannot be viewed separately from the way in which services are provided in Britain, which involve a few large, mature, privatized companies that bear full responsibility for delivery of the services. The efficiency of the model is also directly linked to the tradition and level of efficiency of the civil service, which determines the quality of the regulatory exercise and confidence in the decisions taken by the regulatory agency.

5.18 In Latin America, Chile's experience comes closest to the British model. Chile nationalized the services and established companies by region, which are few and large enough to be controlled on the national level by a single agency. The process adequately separated the operating and regulatory and oversight functions and achieved significant levels of efficiency in the operators and credibility in the regulatory process. In recent years, Chile finally privatized the operators, thereby completing the institutional arrangement developed by the British.

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<sup>73</sup> Annex 3. Case study Peru.

- 5.19 However, in a large number of cases in the region, services are provided by the municipal or provincial governments, which has led to a large number of operators whose current and target levels of quality vary widely and which have fallen far behind in investments. Furthermore, the vast majority of the operators belong to the state or municipal governments. The host of companies to be regulated, their different levels of quality, the different ways of managing the services and the investment backlog make central regulation a difficult exercise, and one that is often impossible to perform effectively.
- 5.20 Given this situation, two of the countries included in the sample, Bolivia and Colombia, after designing a single, centralized regulatory agency, have established a classification of systems and operators in order to segment the standards to be applied and the bodies responsible for their supervision. Obviously, arrangements of this kind are more complex and imply a decision regarding how political power is to be divided between national and local bodies and the building of a national consensus that lends stability to the agreements reached.
- 5.21 Table 5.1 shows the different kinds of regulation in effect in the region.

**Table 5.1. Different approaches to regulation in the region**

Country	Regulatory arrangement	Situations identified
Argentina	Provincial regulatory and oversight bodies, whose main function is to monitor and oversee concession contracts.	Each body oversees a single company, which leaves room for regulatory inconsistencies and hampers the use of regulation by comparison.  Regulation of contractual matters is performed by the concessionaire and the regulatory agency has been excluded so far.  Poor technical capacity. ETOSS has the best capacity and, in its own opinion, even that is far from enough.
Bolivia	Initially, service regulation formed part of the sector regulation system. In 1999 a new law was passed that ordered the establishment of the Office of the Superintendent of Basic Sanitation.	Recently-created regulatory agency with very little technical capacity.  Still under construction since no regulations have been approved yet.  Specialized regulation and control based on the size of the systems.
Brazil	A bill is being debated that would introduce local regulatory agencies and a national body that would act as a 'regulator of regulators'.	The local bodies in existence today are state or municipal, depending on the services, and are technically weak. The model operates more on the basis of 'self-regulation'.
Colombia	The legal framework separated regulation and the development of standards (CRA) from control (Office of the Superintendent of Public Utilities) which forms part of a multi-sector oversight body.	Regulatory and standardization function scattered and difficult to coordinate. Difficulty in central regulation given the large number of operators.  Poor effectiveness of the tariff setting process.  No oversight and control since the Office of the Superintendent is not operative.

**Table 5.1. Different approaches to regulation in the region**

Country	Regulatory arrangement	Situations identified
		A review of regulatory strategies is under way.
Ecuador	There is no national body.	In the only local case where the PU policy has been implemented (Guayaquil), regulation is established under contract with a body responsible for supervision and oversight (ECAPAG, the company that existed prior to the concession) which has representatives from the central government, city hall and civil society. Very recently created and its regulatory capacity must still be built.
Honduras	There is no national body. A bill is being debated.	In San Pedro Sula and Puerto Cortés local regulatory and oversight bodies have been created recently. Both plan for regulation by contract and supervision and oversight through municipal government organizations, with participation by civil society. Very recently created and regulatory capacity must still be built.
Nicaragua	A national regulatory and oversight body has been established (INAA).	Imbalances in information and political control with respect to the national public operating company.  Progress is being made in tariff evaluation and design.
Peru	National Office of the Superintendent of Sanitary Services which reports to the Ministry of the Office of the President, with a national mandate. The legal framework has been modified recently.	Lack of consistency between the decentralized service model and central regulation.  Many standards in existence but with low levels of application and control.  Poor effectiveness of the tariff regulation process.  Conflicts of jurisdiction with other sector entities.

### 3. The industry can be restructured to allow for competition

- 5.22 The design of structures that open up room for competition in the industry is sharply limited in the case of PWSS since they are natural monopolies.<sup>74</sup> All the countries we visited were aware of this fact. In all cases in which private operators have been incorporated through concessions, the contract has consolidated the monopoly by allowing the industry to provide exclusive service in different geographic areas. The systems operated by public companies continue to be integrated along the entire chain of the industry and by geographic zone.
- 5.23 The case of Colombia is of particular interest. Today, the Colombian authorities are engaged in a very interesting discussion of the adjustments that need to be made to the current regulatory and oversight model in function of the difficulties identified. One proposal has been to break up the industry and permit free access to the networks in order to promote competition in service provision in areas that are not currently served or where coverage is poor. There is no concrete experience to back

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<sup>74</sup> See Annex 1 of this report.

the proposal and therefore the immediate possibility of implementing it has been strongly questioned.

- 5.24 Lack of room for competition is one of the greatest difficulties facing regulators of PWSS. Leaving market competition aside, one ally of the regulatory process would be to establish regulation based on competition by comparison. The strategy used to restructure the industry could facilitate this possibility by promoting the existence of an adequate and comparable number of companies that would permit regulation by comparison of key indicators.
- 5.25 Suitable restructuring of the industry also affects the possibility of making the services sustainable. Management units that combine wealthy and poor areas and are of adequate size would make it possible to develop technological and management capacity and attract the interest of private operators should be established prior to the transformation process in order to avoid the skimming-off that leaves the most vulnerable population neglected by the utilities.
- 5.26 In the cases studied, the subject of restructuring to facilitate regulation, introduce competition or ensure the sector's sustainability has generally not been broached,<sup>75</sup> and the processes of modifying the structure of the industry have been associated with the transfer of responsibilities to local governments that has led to a horizontal breakdown of the industry based on political and administrative criteria that do not facilitate regulatory activity.

#### **4. Private companies are interested in delivering the services**

- 5.27 The process of incorporating private operators into the provision of water and sanitation services in Latin America has advanced with great difficulty. With the exception of Argentina where private companies were rapidly and extensively incorporated through concessions and of Chile which privatized its companies in recent years through the sale of shares, in the rest of Latin America the inclusion of private operators in PWSS is still embryonic.
- 5.28 The process, which began with some degree of expectations in the 1990s, has been losing impetus and, more seriously, consensus regarding its feasibility.<sup>76</sup>
- 5.29 The situation in each of the countries visited is shown in Table 5.2.

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<sup>75</sup> The only case in which the IDB broached the subject of restructuring services for regulatory purposes and business size was in Nicaragua. However, in the end, it was decided to leave a single national company for reasons of the financial and economic sustainability of the services.

<sup>76</sup> Apart from the processes in Argentina and Chile, between 1991 and 1998 there were a series of more or less advanced attempts to include private operators in the services (Caracas, Lima, Panama, Mexico, Rio de Janeiro, Guayaquil, 17 mid-sized cities in Colombia). Only the operations in Guayaquil and three cities in Colombia have concluded. After that, the number of processes has declined considerably and today there is virtually no bidding going on in the region for the concession of services.

**Table 5.2**  
**Private sector participation**

Country	Privatization processes carried out	Proposed processes	Comments
Argentina	Fourteen private companies operating in the country's largest provinces. In small and medium-sized cities, services are provided by cooperatives or user associations.		The process has been concluded.  In 1996 the concession contract in Tucumán was rescinded.  Recently (October 2001) there have been two new cases of rescission in the province of Buenos Aires.
Bolivia	Aguas de Illimani: La Paz-El Alto.  Aguas de Tunari (Cochabamba).	No new processes are planned.	Rescission of Aguas de Tunari's contract as a result of social protest over the increase in tariffs and poor communications by the concessionaire led to strong social rejection of the strategies to include private operators.
Brazil	There are 20 municipal concessions to private operators in medium-sized cities.	The process is only just beginning.	Problems with contractual design, skim-off and the absence of regulatory agencies.  Unresolved problems of jurisdiction on the municipal and state levels have limited the privatization process.  One the new law is passed, it is hoped there will be a new impetus for the process.
Colombia	Cartagena, Santa Marta, Barranquilla, Montería, Río Hacha, Maicao.  Local operators for the Antioquia systems.  BOT for sewage (Tibitoc, Bogota).	Privatization program under way in mid-sized cities.	Difficulties in making headway in incorporating private operators owing to the institutional transition, regulatory risks and macroeconomic and political instability.
Ecuador	Concession contract in Guayaquil	No new processes are planned. The IDB is promoting a management contract for the city of Cuenca.	The economic and political crisis in the country has impeded agreement on strategies for PWSS.
Honduras	Concession contract in San Pedro Sula	Process under way in Puerto Cortés and Tegucigalpa	The discussions on privatization have been recurrent, particularly in Tegucigalpa, but there is still no consensus.  The IDB is providing technical support for the discussions.
Nicaragua		Total management contract in León and Chinandega.	Limitations owing to the size of the business.  Possible skim-off of the business.
Peru	In 1994 there was an unsuccessful attempt to privatize SEDAPAL, Lima.	The process in Piura is under discussion.	Controversial issue for the new government.

5.30 The momentum of the process of including private companies in the water and sanitation sector has been very slow and complex compared to the privatization of other utilities in the 1980s and 1990s (telecommunications, electricity, trash collection).

- 5.31 This leads to the assumption that there are structural elements in the industry that hamper the process, which have already been discussed extensively by sector experts.<sup>77</sup> In a business where public companies predominate, international private companies have scant interest in participating in the region. Furthermore, outside the large cities and heavily-settled areas, there are many small systems at high risk (owing to availability of the water resource and the population's ability to pay and culture of payment) that would probably not be attractive to private international operators.
- 5.32 Two examples illustrate these difficulties: the new modalities being explored by the Bank and the status of the PRI portfolio in the sector.
- 5.33 With respect to the first, which is the perception of business risk that does not favor private participation, the Bank has begun to promote participation through total management contracts. There are projects of this kind in Brazil, Colombia, Nicaragua and Venezuela (Brazil, the GOIAS project, CO-0182, NI-0097, VE-0056). This could temporarily incorporate better management capacity into delivery of the services, through assured remuneration that is largely financed by the loan itself. However, it does not solve the problem of investments or the long-term sustainability of this management model.
- 5.34 Of all the cases studied, only Colombia, with a World Bank loan, has attempted a large-scale program to include private operators in mid-sized cities—the business modernization program being carried out by the Ministry of Economic Development since 1998. This privatization program initially planned to incorporate private operators in 17 mid-sized cities. The results have not been very promising to date. It has only been possible to successfully conclude three of the planned programs (Montería, Río de Hacha and Maicao) and in the case of Montería, financial intervention by the ministry was required to ensure the sustainability of the process.
- 5.35 It is difficult to arrive at a conclusion about the reasons that have stood in the way of the process in Colombia, since it has been affected by a complex parallel process of institutional and legal transition and by one of the periods of greatest macroeconomic and political instability in its history, whose main impact has been to shrink the supply of operators and investors.<sup>78</sup> However, the restrictions identified by the executing agency itself include the absence of national companies or operators that are willing and able to participate in the processes. The recommendation is that a new balance be struck between the requirements for participation by private operators under real market conditions and the need to ensure the necessary experience and financial capacity in each case.
- 5.36 Last, the status of PRI lending to the private sector points to the difficulties of including private operators and the scant number of players present, with the risks

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<sup>77</sup> See Beato Paulina, *op. cit.*, among others. A detailed discussion is presented in Annex 1 of this report.

<sup>78</sup> “Reflexiones Programa de PSP en Agua Potable”. Daniel Rivera, May 2001.

that this entails in terms of consolidating market situations that are opposed to competition.<sup>79</sup> The following data are available for the loans in execution at December 2001.

**Table 5.3. PRI loans in execution at December 2001**

<b>Loan</b>	<b>Amount</b>	<b>Country-City</b>	<b>Company</b>
AR-0211 Aguas provinciales de Santa Fe	\$85.0	Argentina Santa Fe	Lyonnaise des Eaux Aguas de Barcelona <sup>80</sup>
AR-0238 Aguas Argentinas	\$300.0	Argentina Buenos Aires	Lyonnaise des Eaux Vivendi and others
BO-0172 Aguas de Illimani	\$15.0	Bolivia La Paz-El Alto	Lyonnaise des Eaux
CO-0208 Bogotana de Aguas	\$31.3	Colombia Rio Bogota	Lyonnaise des Eaux
CO-0231 Tibitoc	\$18.0	Colombia Bogota	Vivendi

- 5.37 The table shows that of the five operations under way, four are by the same company, which is both the operating company and the beneficiary of the corresponding loan or guarantee. Thus, just two companies, Lyonnaise des Eaux and Vivendi, account for 100 percent of the PRI's lending activities in the sector.
- 5.38 The additional private funding (not sourced by the operating company or through lending from multilateral financial institutions) to these five operations accounts for approximately 37 percent of total project financing.
- 5.39 Given this situation, it is worth recalling what Management said in the document giving the rationale for the change in policy:

“There are some instances in which financing an apparently commercially sound operation may lead to an economically unsound investment or even worse, jeopardize the whole reform process. A main concern for the evaluation of private projects is how to reconcile the Bank's objectives of promoting competition as an instrument to attain economic efficiency with requirements imposed by non-resource financing. Competition assures economic efficiency but may increase investor risks and the cost of capital in the short term. If this risk is not handled with the proper instruments it may cripple the prospects for future competition.

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<sup>79</sup> See *Le Monde Diplomatique*. Southern Cone edition, 10 May 2002 which states that the sector is dominated by two large French multinationals, Vivendi-Generale des Eaux and Suez-Lyonnaise des Eaux, which control nearly 40% of the present market and service over 110 million customers each. Vivendi is active in 100 countries and Suez-Lyonnaise in 130. In the water market, these two gigantic French firms and their numerous affiliates have been signing extremely lucrative privatization contracts for the past 15 years.

<sup>80</sup> Aguas de Barcelona is a company in which Lyonnaise des Eaux holds shares.

The solution offered by the policy to reconcile these apparently conflicting interests is to reach an agreement with governments on the actions and milestones toward sector reform required before or simultaneously with private sector operations. In the absence of these conditions those loans should be subjected to the same kind of sector scrutiny as ordinary government guaranteed loans and not only to purely commercial considerations”.

## **5. Private companies improve their levels of service efficiency and quality**

- 5.40 This implies that private companies have better technological and management capacity than the public company that is transferred to their operators and that they undertake a sustained process of improvements in operating and financial efficiency and in service quality indicators, including client service.
- 5.41 The case studies confirm that where private operators have been included in service delivery, the operating efficiency of the companies has improved quickly and substantially in quality and coverage. The three systems in the sample (Buenos Aires, Cartagena and La Paz-El Alto) showed a significant increase in management capacity and in investments, for a considerable improvement in the quality of the services.
- 5.42 It is difficult to arrive at conclusive results from the opposite standpoint, i.e. with regard to whether this progress is greater than the progress that could be made by a public company under equal conditions, particularly with management stability and political independence. In Brazil, at least two of the public companies we visited, São Paulo and Brasilia,<sup>81</sup> also have high performance levels and after a major investment program in the public companies in Nicaragua and Lima, the achievements have also been substantial.
- 5.43 What can be concluded is that the momentum for efficiency generated by the inclusion of private operators has been an appropriate mechanism for improving precarious service levels in relatively short times. The clear increase in management stability and the depoliticization of the technical teams achieved by private operators should be added.

## **6. There is a private capital market that serves the financial needs of private companies**

- 5.44 The possibility of finding private sector funds to finance the investments required by the potable water and sanitation sector has been one of the reasons for promoting the

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<sup>81</sup> Despite the fact that the public company in São Paulo (SABESP) is considered quite efficient by Latin American and even international standards, the Bank took two years to approve the loan for stage two of the cleanup of the Tiete River. The main reasons for the delay, according to the document “Issues Related to Public Utilities Policy, A Review of SDS Projects” were: (a) SABESP’s lack of financial and administrative capacity and (b) the lack of private sector participation. With respect to the second point, minutes 98/00 of the Loan Committee recommend that the project team consider a two-stage operation, with the second stage conditional on progress in private sector participation in the company.



inclusion of private operators, particularly in view of the financial constraints facing many of the countries of the region.

- 5.45 However, private capital inflows have been very limited. The business risk and the long periods associated with the industry throw up high barriers to private capital participation. Given this situation, the Bank maintains a large presence in companies holding concessions through its private-sector lending window (PRI). In the cases studied, Bank participation seeks to reduce business risk by establishing guarantees to facilitate participation by private financial agents. However, as mentioned earlier, the loan portfolio with the private sector is limited to just two companies that have good possibilities of obtaining credit on the private market, and therefore it does not appear that this strategy is helping to build a capital market for the sector.
- 5.46 The only Bank experience to date intended to directly develop a long-term capital market to which service providers can gain access—mainly private companies—is the loan to support reform of the potable water and sanitation sector approved at the end of 1998.<sup>82</sup> Initially, the operation sought, through a system of trusts in commercial banks and in the Banco de la Nación, to generate a flow of funds to finance investments by private water companies. Despite the efforts, commercial banks have not been interested in becoming involved in this process, which indicates that the risks and the terms and conditions associated with water and sanitation projects are unattractive. The central government is also debating the advisability of feeding more funds into the Banco de la Nación for sector financing. In particular, the evaluation conducted by ENOHSA<sup>83</sup> concludes that it will be very difficult to place the funds and that there should be a return to credit figures similar to those used in earlier loans, without attempting to include commercial banks, and targeting the funds directly to companies and medium and small cooperatives.

## **7. The long-term balance of the services is closely linked to economic and financial sustainability**

- 5.47 The PU policy stresses the economic and financial sustainability of the services above the other policy objectives and, in particular, above those of increasing access and environmental protection. The PU policy is silent on the degree to which the other objectives are subordinate. It is true that it will only be possible to have companies that can respond to the social and environmental needs of the services if progress is made in stability. The case studies have noted that this progress is not automatic and, more importantly, in some cases, the rupture of the sociopolitical balance can put the entire transformation process at risk.
- 5.48 In the case of PWSS, as no other residential service, there are significant externalities in terms of health and environmental impact and the long-term balance

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<sup>82</sup> Annex 2, AR-0175.

<sup>83</sup> Ministerio de Infraestructura y Vivienda. ENOHSA. Program to support reform of the potable water and sanitation sector. PROARES. June 2001. Mimeo.

is based on three different, inter-related and complementary levels that are not subordinate:

- (i) economic and financial,
- (ii) sociopolitical, and
- (iii) environmental.

An imbalance in any of these three levels places the desired transformation process at risk.

- 5.49 In particular, the **economic and financial** balance seeks to generate appropriate economic returns for operators, in function of risk, that are closely linked to the delivery of an efficient, good quality service.
- 5.50 In contrast, on the **sociopolitical level**, the returns enjoyed by ‘politicians’ are more closely associated with low quality and tariff levels, which generates a contradiction between the two balances. If the responses and the quality/tariff ratio are not perceived by the public to be appropriate or ‘fair’, the rupture of the sociopolitical balance will have severe consequences for the possibility of moving towards and maintaining economic and financial balances. This lack of harmony appears to lie at the center of many of the difficulties encountered in raising tariffs to the levels required for economic and financial sustainability. These difficulties have been expressly recognized by Bank experts in the sector in the document “Water & Sanitation Subsector: Issues and Options Note”<sup>84</sup> which, to solve the problems created when private operators wish to raise tariffs, proposes that tariffs be raised before the services are privatized.
- 5.51 In the cases studied, two countries, Colombia and Peru, established time frames for reducing cross subsidies and raising tariffs. In both cases, the process of gradually adjusting tariffs could not be carried out owing to difficulties and opposition by the public authorities who considered it socially inexpedient. The *Cochabamba event* in Bolivia has become a classic case, where the rupture of the sociopolitical balance led to a strong social explosion that not only rescinded the contract with the private concessionaire but led to a review of the entire process of transforming PWSS in Bolivia.
- 5.52 Last, the returns generated on the **environmental level** are associated with the possibility of using the services without covering the environmental costs. In such cases, operators and users benefit from the environmental returns whereas the associated costs can be postponed. The rupture in the environmental balance is slow and the quest for sustainability has few allies, given the high costs entailed, which could make sustainability on the other two levels even more fragile. This is why it is crucially important for the Bank to focus on environmental sustainability.

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<sup>84</sup> Op. cit. See note 22

**8. There is public willingness and ability to pay and a culture of accepting tariffs that permits service providers to obtain the income necessary to cover all costs, including investment costs, and obtain profits that reflect risks**

- 5.53 The economic and financial sustainability mentioned in the PU policy, and which is necessary to achieve a true absence of *political interference* in PWSS, refers to the possibility that operators can, through their income from tariffs, generate the funds needed to cover all their costs, including investments, and to obtain profits that reflect business risks. As has been said, this is the primary objective of the PU policy.
- 5.54 In cases where subsidies are necessary, the recommendation is that they be direct and focused on the population requiring them, in an attempt to separate social policy from the business environment and place it on the level of relations between the public authorities and citizens who need subsidies. Any other kind of tariff subsidy will be perceived as being on a lower level and could leave room for the *political interference* in the sector that the policy wishes to avoid.
- 5.55 The possibility of introducing and maintaining a tariff regime that meets the requirements of the PU policy will depend on the relationship between the tariff levels needed and the ability to pay and culture of payment of the public. In the specific case of the Latin American countries, two issues affect the possibility of achieving the economic and financial sustainability of PWSS through tariffs alone.
- 5.56 First, most systems have fallen far behind in investments and, as will be seen later, the amount needed to remedy this shortfall is an estimated US\$36 billion, largely to increase access by low-income groups, which has a major impact on the tariffs needed to cover and remunerate these investments.
- 5.57 Second, the shaky economic situation in many countries and the steady rise in poverty levels work against the possibilities of making tariff adjustments and reducing subsidies. This difficulty is particularly significant in the case of PWSS, since in many cities<sup>85</sup> up to 40 percent of all the drinking water supplied would have to be subsidized, while the figure for telecommunications and electricity under similar conditions would not be more than 2 percent and 8 percent, respectively.
- 5.58 The issue of tariff increases to achieve economic and financial sufficiency was discussed in all the case studies. More than the true ability to pay of the public, there appears to be a sharp cultural reluctance to accept the increases, since they imply a rupture with a consolidated historical situation.
- 5.59 Although this situation exists in many of the countries we visited, it is particularly important for Aguas de Illimani, which supplies the cities of La Paz and El Alto in Bolivia. In this case, coupled with scant ability to pay, there is a culture of very low per capita water consumption (about 15 liters a day), with no trend toward an

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<sup>85</sup> Data obtained for Cartagena, Quito, Nicaragua and Caracas.

increase, which makes the possibility of recovering investments even more remote. Average monthly billing for low-income families is just US\$1.50, which the company considers to be very low compared to the direct costs of the services. The five-year tariff adjustment is currently under discussion and Aguas de Illimani has proposed a flat rate for low-income families of US\$2.00 a month. The increase has been rejected by low-income families, who claim their right to metering and billing at current levels.

5.60 The situation in each of the countries visited is summarized in the following Table.

**Table 5.4. Economic and financial sustainability**

<b>COUNTRY</b>	<b>TARIFF/SUBSIDY STRUCTURE</b>	<b>ECONOMIC AND FINANCIAL SUFFICIENCY (EFS)</b>	<b>LIMITATIONS ON TARIFF ADJUSTMENTS</b>
Argentina: Aguas de Argentina	Subsidies not planned initially. Later a charge was established for existing clients (SUMA) to finance investments in expanding the services.	EFS guaranteed in the concession contracts.	Rejection of connection charges. Need to establish cross subsidies.
Bolivia	Heavy cross subsidies: Indust. US\$1.3 m <sup>3</sup> Resid. US\$0.22 The La Paz-El Alto concession is experiencing problems owing to a reduction in the number of clients financing the subsidies and low consumption by residential users.	Differentiated treatment for each system. EFS in the large cities, particularly La Paz and Santa Cruz. Mid-sized cities partly cover operating and maintenance costs. Problems with small systems.	Extreme poverty and low income level. Cultural patterns determine the excessively low levels of water consumption. Sociopolitical restrictions on raising tariffs 'Cochabamba event'.
Brazil	Cross subsidies are applied throughout the country.	Of the 37 operators, just four do not cover their operating costs from charges for the service and one half cover their total costs, including depreciation and debt service.	Have not been relevant.
Colombia	The law provides for coverage of long-term marginal costs. Cross subsidies were supposed to be gradually eliminated but this has not been possible.	Little progress in tariff adjustments. 70 percent of the companies do not cover their costs.	For sociopolitical reasons, the municipal authorities do not approve the tariff adjustments estimated by the CRA and it has been impossible to eliminate the cross subsidies.
Ecuador	Cross subsidies. Tariffs are too low to achieve financial balance. Transfers of income from telecommunications to PWSS. EMAPG: Tariff = US\$0.20 + 38 percent where sewers exist. Tariff adjustments are insufficient owing to high inflation.	Precarious EFS. On average, tariffs cover about 42 percent of total costs. Guayaquil: the concession contract guarantees EFS through heavy cross subsidies.	Economic crisis. High inflation. Increasing poverty. No legal framework. Guayaquil: groundwater. It has been decided that well users will pay the same tariff per m <sup>3</sup> as users of the system.

**Table 5.4. Economic and financial sustainability**

COUNTRY	TARIFF/SUBSIDY STRUCTURE	ECONOMIC AND FINANCIAL SUFFICIENCY (EFS)	LIMITATIONS ON TARIFF ADJUSTMENTS
Honduras	The proposed tariff regime recognizes the need for cross subsidies and investment subsidies. The proposed legislation is vulnerable in financial aspects.	Levels of EFS are not satisfactory. It has not been possible to finance the necessary investments. <b>Puerto Cortés:</b> Tariffs cover operating and maintenance costs.	Political, social and economic reasons are delaying improvements in services.
Nicaragua	Cross subsidies. Tariffs rose from close to zero to an average of US\$0.52. Tariff structure has been simplified.	Low EFS is more a result of company inefficiencies than of low tariffs. Between 1997 and 2001 tariffs increased by almost 60 percent in real terms. With current tariffs, ENACAL is able to cover all its operating and minor maintenance costs.	Difficult national economic situation. Many illegal connections. High degree of urban informality. Cross subsidies were increased in the last tariff discussion process.
Peru	The law establishes that tariffs should be set in function of long-term marginal costs. Widespread cross subsidies.	Companies in serious financial difficulty. Of 45 companies 15 are completely insolvent. Just 10 cover their operating, maintenance and debt service costs.	The adjustment period was not complied with except in SEDADAL. For political reasons, the municipal authorities do not observe SUNASS guidelines for tariffs.

- 5.61 Given the difficulty of achieving the tariff levels necessary for economic sustainability, the courses of action followed in the operations studied are worth examining. First, the vast majority of the countries and specific projects studied have used heavy cross subsidies in cases where the population served by the system includes a group of users—generally industries or services—that are able to finance the subsidies. This is the case with two recently-incorporated private operators, one in San Pedro Sula and one in Guayaquil. Although cross subsidies ensure the economic and financial sufficiency of the operators in Cartagena (ACUACAR) and La Paz (Aguas de Illimani), they are beginning to have difficulties owing to the drop in the number of clients who finance the subsidies compared to the number of clients who receive them.
- 5.62 Although the PU policy considers **cross subsidies** to be of lesser quality, they are the only instruments that have continued to be employed in operations approved by the Bank and, in general, they are turned to as a social policy to promote access to services by the entire population. These subsidies have advantages and drawbacks that merit a closer examination.
- 5.63 Criticism of cross subsidies is rooted in conditions that apply to the telecommunications and electricity industries that do not apply to PWSS. Both the communications and electricity markets have been totally or partially demonopolized and clients are able to freely select their suppliers. This makes it difficult to maintain cross subsidies. In contrast, PWSS have few possibilities of competition and, except in cases where groundwater resources are available, they are monopolistic markets.

- 5.64 The definition and application of cross subsidies has limits, of course, at the lower end to prevent the waste of drinking water and at the upper end to prevent large clients from using their own sources or tempting them to locate outside the reach of the systems. But between these extremes, efficient cross subsidies can be designed that also provide operators with better guarantees than direct subsidies, since they only depend on their own collection efficiency.
- 5.65 The second course of action that has been followed to surmount the difficulties associated with tariff increases has been to reduce investment expectations and adjust them periodically as a function of the tariffs actually approved and any direct investment subsidies that may be forthcoming from the public authorities. This is the case of the recent concession contracts in San Pedro Sula and Guayaquil and is the basis for the service delivery agreement in Cartagena.
- 5.66 Ensuring the economic and financial balance of operators is a necessary condition for the sustainability of the services. However, a complicated strategy of permanent and progressive adjustments must be followed to achieve it, including quality expectations, operator efficiency, focus and efficiency of investment subsidies for the socially vulnerable population and a regime of tariffs and cross subsidies that build a new culture of payment for services.

**9. The government has the resources and capacity to efficiently and transparently administer direct subsidies for the low-income population**

- 5.67 The possibility of establishing **direct subsidies** is strongly conditioned by: (a) the availability of public funds to finance them; and (b) the capacity of governments to administer them efficiently, in a nondiscretionary and transparent fashion, and ensure their timely payment to operators. Also, the population that will benefit from them must be selected using objective and verifiable indicators to avoid the political opportunism that could otherwise be involved.
- 5.68 Criticism of the State-operator has been based on doubts regarding the government's sustained capacity and financial ability to administer subsidies and has been used to justify a large part of the transformations called for in the PU policy for PWSS. It cannot validly be argued that the region's governments generally have that capacity as a justification for the strategy of direct subsidies.
- 5.69 The alternative of **direct subsidies for demand** is undoubtedly more efficient than any other kind of subsidy. The problem lies in the lack of information about the population, particularly those who require subsidies most urgently, and the weak administrative capacity and transparency of the public authorities. This is why, with the exception of Chile, subsidies of this kind are not used in the region. There is no practical experience in any of the cases studied with direct subsidies for demand. Further, both public and private operators unanimously consider them inexpedient owing to the risk of political *interference* in the business.
- 5.70 **Direct subsidies for investment** have been used in a large number of the cases studied. They are frequent in social loans, which recognize that the cost of investments will be shouldered in full or in part by the public executing agency. But

they have also be used to support the investments made by Aguas de Cartagena and Bogotana de Aguas, which are both private companies.

- 5.71 Although a significant number of the operations reviewed included a condition that tariffs be raised after investments, the necessary adjustments are not made to enable the executing agencies to remunerate the investments. In these circumstances, investments end up including large generalized subsidies.

## VI. EFFECTIVENESS OF THE PU POLICY

- 6.1 The preliminary evaluation of the effectiveness of the policy applied to PWSS, in terms of its impact on the solution of sector problems, is a complex issue that involves particular difficulties that are well known to the Bank in its periodic impact assessment exercises.
- 6.2 The complexity stems from problems of attribution, i.e. whether the results achieved or the impact observed are due to the Bank's intervention or contribution and from the opposite problem, i.e. the difficulty of determining what would have happened if the Bank had not been present or a different strategy had been followed. More specifically, to what extent achievement of the objectives depends on Bank action and how the actions of the relevant players outside the IDB should be included in the evaluation. The evaluation problem becomes more acute if the policy objectives are more ambitious when balanced against the true prospects for Bank action. Last, another element to be kept in mind is the lag between the execution period, the time the results are obtained and the time of the evaluation, which becomes even more significant in unstable political or economic contexts where it is difficult to ensure the stability and consistency of government actions.
- 6.3 In the case of water and sanitation policy, the Bank's actions seek to redefine sector institutions and propose a different model for the delivery of PWSS, whose construction demands substantial changes in the cost of services, in the organizations involved and in the conduct of public and private agents—operators, users and regulators. For this reason, an analysis of effectiveness in terms of impact should take account of three parameters:
- (i) The effectiveness of the PU policy in terms of capturing funds for investments in the sector.
  - (ii) Its effectiveness in terms of its impact on the institutional arrangements in the countries.
  - (iii) Its effectiveness in terms of increased coverage of services.
- 6.4 To evaluate the effectiveness of the PU policy in terms of its impact on surmounting the major deficits in coverage in the region, estimates have been made of current coverage in Latin America and investment requirements. When the estimates of the investments needed in the sector for Latin America are compared with the total value of Bank loans and, in particular, their recent evolution, an indicator can be obtained of the size of the effort that still must be made and the need for a substantial increase in flows of financing into the region.



**A. Current coverage and investment requirements<sup>86</sup>**

- 6.5 The estimate was made examining water and sewer system coverage in 11 Latin American countries: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Jamaica, Nicaragua, Panama, Paraguay and Peru.<sup>87</sup> These countries have a population of almost 318 million or almost 64 percent of the region’s population and produce close to 68 percent of regional GDP and somewhat more than 66 percent of fixed gross domestic investment. Mexico was left out because there are no reliable, homogenous figures available for it.
- 6.6 Water and sewer system coverage for the set of countries under consideration is not sufficient for the population overall and there are major variations among countries. One fourth of the population of these countries (more than 81 million people) have no residential water connections while 46.5 percent (or almost 148 million people) have no sewer connections.
- 6.7 Table 6.1 shows the percentages of coverage (measured out the whole population) for the countries under study. The differences between countries are quite marked, with Chile and Paraguay at the extremes (best and worst, respectively) of coverage.

**Table 6.1. Water and sewer system coverage in 11 Latin American countries: data and sources**

Country	Population with:(1)		Year	Source (2) / (3)	Coverage by source (4)
	Water	Sewers			
Argentina	84%	53%	1996-97	Encuesta Nacional de Gasto de los Hogares (ENGH).	National (urban, localities with over 5,000 people) – 27,260 households surveyed.
Bolivia	64%	30%	1999	Encuesta Continua de Hogares (ECH) – similar to the LSMS.	National (urban and rural) – 3,008 households surveyed.
Brazil	73%	52%	1996-97	Pesquisa sobre Padrões de Vida (PPV) – LSMS category.	Northeast and southeast regions (urban and rural) – 4,940 households surveyed.
Chile	90%	77%	1998	Encuesta de Caracterización Socioeconómica Nacional (CASEN) – similar to the LSMS.	National (urban and rural) – 48,107 households surveyed.

<sup>86</sup> Chapter VII, Section A, is a summary of the study prepared by F. Navajas and is included in Annex 1 of this report.

<sup>87</sup> The main source of information was the series of technical reports “Desigualdades en el acceso, uso y gasto del agua potable en América Latina y el Caribe” Pan American Health Organization. In the case of Argentina, the Encuesta Nacional de Gasto de los Hogares. INDEC. Población Total y Urbana, World Bank. Annex 1 of this report gives details on the data and sources used.

**Table 6.1. Water and sewer system coverage in 11 Latin American countries: data and sources**

Country	Population with:(1)		Year	Source (2) / (3)	Coverage by source (4)
	Water	Sewers			
Colombia	83%	67%	1997	Encuesta Nacional de Calidad de Vida (ENCV) – similar to the LSMS.	National (urban and two rural classifications) – 9,121 households surveyed.
Ecuador	54%	39%	1998	Encuesta de Condiciones de Vida (ECV) – LSMS category.	National (urban, rural developed and scattered) – 5,801 households surveyed.
Jamaica	65%	23%	1998	Encuesta de Condiciones de Vida (ECV) – LSMS category.	National (urban and rural) – 7,375 households surveyed.
Nicaragua	58%	62%	1998	Encuesta de Hogares sobre Medición de Nivel de Vida (EMNV) – LSMS category.	National (urban and rural) – 4,209 households surveyed.
Panama	85%	33%	1997	Encuesta de Niveles de Vida (ENV) – LSMS category.	National (urban, non-indigenous rural, indigenous rural, and remote rural) – 4,945 households surveyed.
Paraguay	41%	7%	1997-98	Encuesta Integrada de Hogares (EIH) – LSMS category.	National (urban and rural) – 4,353 households surveyed.
Peru	72%	57%	1997	Encuesta Nacional de Niveles de Vida (ENNIV) – LSMS category.	National (urban and rural) – 3,843 households surveyed.

**Notes:**

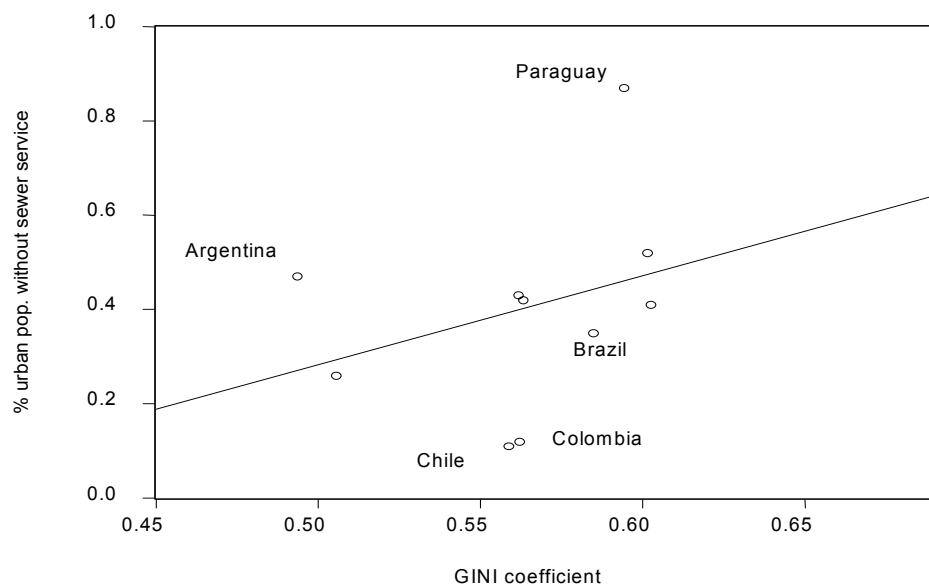
- (1) The percentage corresponds to the total population (urban and rural) with residential water and sewer connections, respectively (see Table 6.3.), except for Argentina, which only includes the urban population. In each case there are people who, while not having access to a system, have a nearby water source or some other system of sewage disposal.
- (2) The source used in all cases is “*Serie de Informes Técnicos. Desigualdades en el Acceso, Uso y Gasto del Agua Potable en América Latina y el Caribe*”. Programa de Políticas Públicas y Salud, División de Salud y Desarrollo Humano. Programa de Saneamiento Básico, División de Salud y Ambiente. PAHO. There is a report for each country. We were unable to consult Report No. 6 for El Salvador. These reports use the surveys mentioned here as their basis.
- (3) LSMS = Living Standards Measurement Surveys. This is a type of survey conducted by the World Bank to evaluate the standard of living on the national level.
- (4) Total households correspond to the total for each survey. In all cases, the number of observations used is slightly lower owing to the absence of data for some households.

6.8 The table shows that within the overall average of 25.5 percent of households without water service, the figures differ widely from country to country, accounting for just over 10 percent in Chile and 59 percent in Paraguay. As well, the average of 46.5 percent of households without sewer service masks differences ranging from 23.1 percent in Chile to 93 percent in Paraguay.

6.9 Graph 6.1 shows the relationship between the absence of urban sewer services and inequality in income distribution (represented by the Gini coefficient).<sup>88</sup> As is to be expected, there is a positive correlation between the two, but in the case of Argentina (the country with the lowest inequality coefficient in the sample) coverage is much higher than predicted by the simple regression line.

<sup>88</sup> The data on inequality for the selected countries were taken from Szekely (2001).

**Graph 6.1**  
**Urban population without sewer service and income inequality**  
**in some Latin American countries**



6.10 When water and sewer service coverage measurements are transferred from the needy population to households, the picture is similar, as can be seen in Table 6.2.

**Table 6.2**  
**Estimated households without water or sewer service**

Country	Total households	Total households without coverage		Percentage of households without coverage	
		Without water	Without sewer	Without water	Without sewer
Argentina	8,467,087	1,224,216	3,441,322	14.5	40.6
Bolivia	1,848,837	679,263	1,286,791	36.7	69.6
Brazil	42,516,667	10,191,245	20,450,517	24.0	48.1
Chile	3,800,436	379,284	877,901	10.0	23.1
Colombia	9,715,238	1,501,004	3,235,174	15.5	33.3
Ecuador	2,705,556	1,179,893	1,661,211	43.5	61.4
Jamaica	715,556	239,711	550,978	33.5	77.0
Nicaragua	887,848	348,303	333,831	39.2	37.6
Panama	658,095	90,620	442,898	13.8	67.3
Paraguay	1,110,426	625,725	1,032,696	56.4	93.0
Peru	4,862,941	1,355,788	2,115,379	27.9	43.5
<b>Total</b>	<b>77,288,686</b>	<b>17,815,051</b>	<b>35,428,697</b>	<b>23.1</b>	<b>45.8</b>

Source: Annex 1

6.11 About 23 percent of households (17.8 million) do not have water connections, while almost 46 percent (over 35 million households) have no sewer connections.

6.12 In all the countries, low-income households contribute decisively to the figures. Of the 17.8 million households without water mentioned above, 72 percent (12.8 million households) are among the 40 percent poorest families. For sewerage,

62 percent of the 35 million households without service (more than 22 million) belong to the 40 percent poorest families.

6.13 Table 6.3 gives the data for each of the countries studied.

**Table 6.3**  
**Figures for the 40 percent of poorest households**  
**out of total households without water or sewer services**

Country	Households without service				Total of households
	Without water	Poorest 40%	Without sewer	40% poorest	
Argentina	1,224,216	705,377	3,441,322	1,931,156	8,467,087
Bolivia	679,263	495,673	1,286,791	739,536	1,848,837
Brazil	10,191,245	7,916,603	20,450,517	13,478,241	42,516,667
Chile	379,284	260,330	877,901	534,004	3,800,436
Colombia	1,501,004	1,104,623	3,235,174	2,049,954	9,715,238
Ecuador	1,179,893	698,033	1,661,211	945,966	2,705,556
Jamaica	239,711	139,176	550,978	286,224	715,556
Nicaragua	348,303	220,098	333,831	(*) 220,098	887,848
Panama	90,620	68,771	442,898	263,239	658,095
Paraguay	625,725	359,112	1,032,696	430,993	1,110,426
Peru	1,355,788	853,446	2,115,379	1,258,675	4,862,941
<b>Total</b>	<b>17,815,051</b>	<b>12,821,242</b>	<b>35,428,698</b>	<b>22,138,087</b>	<b>77,288,686</b>

(\*) Breakdown of the poorest 40% for households without sewer connections is assumed to be the same as the breakdown for households without water coverage.

Source: Annex 1

6.14 Estimates of the investments needed to complete water and sewer coverage are based on the estimated households without coverage, simulating the unit costs of water and sewer connections per country. In the absence of reliable data on those costs for the large and heterogeneous number of systems that coexist in the countries studied, we opted to simulate values based on more precise estimates for Argentina, adjusting them in function of the purchasing power of the currencies of the different countries.<sup>89</sup> We took two simulated values, a ‘low’ value (of US\$300 and US\$700 for new water and sewer connections, respectively) and a ‘high’ value (US\$450 and US\$1,000, respectively).

6.15 Table 6.4 shows the estimated cost of investments for a program intended to provide coverage for the poorest 40 percent of the population.

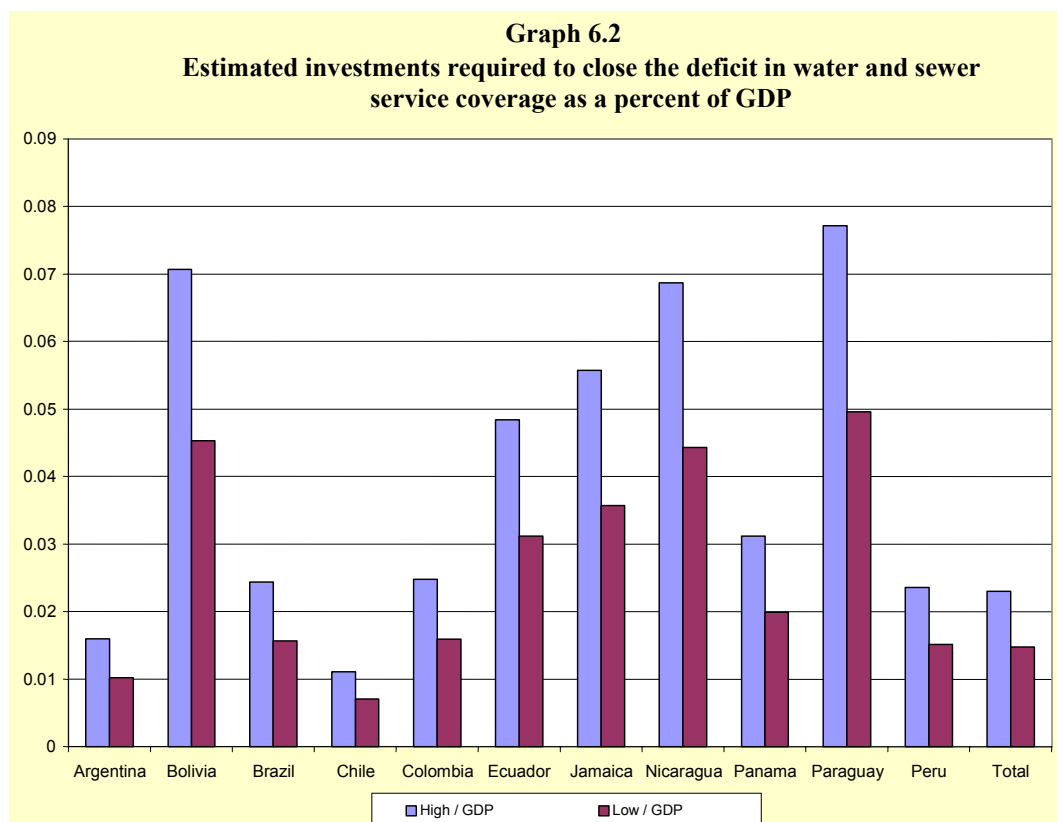
<sup>89</sup> The adjustments were made reflecting the direct costs of labor. See Annex 1 for more information.

**Table 6.4**  
**Investments needed to cover the poorest 40 percent of the population**  
**(in US\$)**

Country	Cost of connections					
	Water only		Sewer only		Water and sewer	
	\$ Low	\$ High	\$ Low	\$ High	\$ Low	\$ High
Argentina	211,613,207	317,419,811	1,351,809,200	2,124,271,600	1,563,422,407	2,441,691,411
Bolivia	48,920,819	73,381,229	165,072,781	259,400,084	213,993,600	332,781,313
Brazil	1,531,869,375	2,297,804,063	6,034,976,359	9,483,534,278	7,566,845,734	11,781,338,341
Chile	58,908,970	88,363,454	280,570,308	440,896,198	339,479,278	529,259,653
Colombia	184,681,052	277,021,578	790,130,521	1,241,633,675	974,811,573	1,518,655,253
Ecuador	76,472,650	114,708,975	234,479,465	370,039,160	311,952,116	484,748,135
Jamaica	16,903,885	25,355,828	79,318,837	124,643,886	96,222,722	149,999,714
Nicaragua	20,619,614	30,929,421	46,515,720	73,096,131	67,135,334	104,025,552
Panama	11,311,075	16,966,612	99,769,768	156,781,063	111,080,842	173,747,675
Paraguay	51,040,769	76,561,153	140,541,152	220,850,382	191,581,921	297,411,535
Peru	123,083,045	184,624,568	416,662,687	654,755,651	539,745,732	839,380,219
<b>Total</b>	<b>2,327,086,470</b>	<b>3,490,629,705</b>	<b>9,624,682,058</b>	<b>15,124,500,377</b>	<b>11,951,768,528</b>	<b>18,615,130,082</b>

Source: Annex 1

- 6.16 To complete residential water coverage in the selected countries would involve connecting 17.8 million at a cost of between US\$3.2 billion and US\$4.8 billion, depending on whether the low or high hypothesis is used. Sewer coverage for 35 million households without connections would require an investment of between US\$15.4 billion and US\$24.2 billion. Providing both services together in the selected countries would range from US\$18.6 billion to US\$29.1 billion.
- 6.17 The average investment to cover the shortfall in coverage that exists today, without considering population or urban growth, would be almost US\$24 billion. Extrapolating these figures to the rest of the Latin American countries and assuming that the parameters for the sample and the region are similar, some 53 million households would be without water and sewer service and about US\$36 billion dollars would be needed to cover the shortfall.
- 6.18 Graph 6.2. shows the investments required as a percentage of GDP in the countries. The investment is less than 1 percent of GDP only in one case (Chile on the assumption of low connection costs), while in the other countries it could rise to above 7 percent (Paraguay on the assumption of high connection costs). For the countries as a whole, the investment needed to close the existing coverage gap is between 1.5 percent and 2.2 percent of GDP.



6.19 Last, since a considerable number of the households that do not have coverage belong to the poorest 40 percent of households, the size of an investment program to cover the needs of this segment would be quite large. The investments needed to cover the poorest 40 percent account for almost two thirds of the values given above. To put it another way, about two thirds of the sums presented above would go for coverage for the poorest population segments in the countries studied, which gives an idea of the size of the subsidy program that would be required to meet these needs.

**B. Effectiveness in the flow of resources**

6.20 The evaluation of the impact of PU policy applied to PWSS in mobilizing Bank resources to the region has been made on the basis of an analysis of the amounts approved over the decade to finance sector investments or activities.

- 6.21 The funds approved by the IDB for the potable water and sanitation sector have been declining steadily.<sup>90</sup> After the PU policy was introduced, the trend worsened and in 2000 the amount approved was a little more than US\$145 million, falling from a maximum of approximately US\$600 million approved in 1998 to just over US\$100 million in 2001.
- 6.22 The increase in 1998 is associated with the approval of major loans to the private sector (Aguas de Argentina, Aguas del Illimani and Tibitoc) and some standard reform programs based on the policy in Haiti, El Salvador and Venezuela. Both types of loans were difficult to reproduce or repeat in later years. After approving these operations, in 1999, 2000 and 2001, the funds mobilized by the IDB for the sector have shrunk dramatically.
- 6.23 It would be incorrect to maintain that the reduction in the amounts approved by the Bank is exclusively the result of the policy, given the restrictive macroeconomic climate in the region and the variability that has always accompanied the flow of resources.
- 6.24 Since it was founded, the funds that the Bank has directed to sector activities have varied significantly. After a major effort during the 1960s, when over 14 percent of funds were used for the sector,<sup>91</sup> Bank activities declined during the 1970s, falling to just 6.6 percent. The sector's share recovered during 1986-1995 to about 10 percent, but declined again over the last five years (1996-2000).
- 6.25 This trend can be visualized in the following graph, which presents the changes in the percentage of loans going to the water and sanitation sector out of all resources mobilized by the Bank<sup>92</sup> over the period 1991-2001, based on the Bank's official classification.

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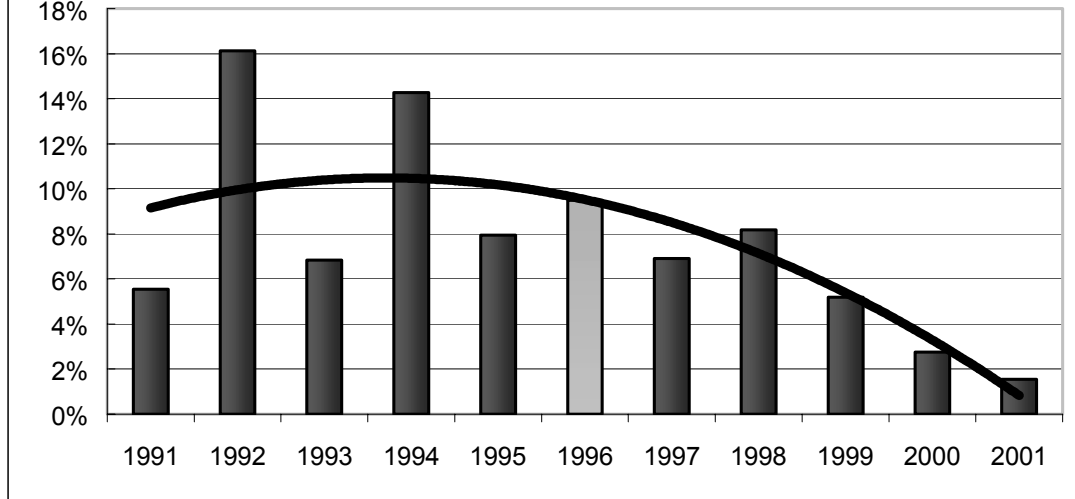
<sup>90</sup> In the specific case of investments in the sector, according to Bank specialists, the reduction is a consequence of the introduction of the PU policy, which considers institutional changes as a prerequisite for making loans for infrastructure projects. They also recognize the difficulties inherent in the complex policies associated with the proposed changes. See "Water & Sanitation Subsector: Issues and Options Note", paragraph 2.03.

<sup>91</sup> These are exclusively funds for specific loans in the water and sanitation sector and exclude the sums spent on the sector through multisector loans.

<sup>92</sup> This information uses the Bank's official classification of operations.

**Graph 6.3. Sanitation / Approvals (original amount)  
1991-2001**

Source: LMS - Interactive Loan Report, IDB Intranet



**\*The PU policy came into effect in 1996.**

- 6.26 The difficulties in implementing the institutional arrangement proposed by the PU policy, the slowness that necessarily accompanies such a transformation, the political implications it has and its obvious social impact with the attendant risk of politicization, and the lack of flexibility in loan conditionalities should all be fully weighed, since they undoubtedly are among the reasons for the decline in the portfolio.<sup>93</sup>
- 6.27 The investment requirements identified demand a careful analysis of the Bank's role, not just in ensuring greater effectiveness and transparency in the use of resources as promoted by the PU policy, but also in identifying and channeling to the region a major investment flow that can help support the process of change while simultaneously helping to solve the serious sanitary problems present. If, as the Bank's internal report<sup>94</sup> *Water & Sanitation Subsector: Issues and Options Note, September 2001*, has stated, investments should be reduced to a minimum until the new institutional arrangement is implemented, the huge shortfall identified will only increase and the service situation will worsen, to the detriment of the low income

<sup>93</sup> See "Water & Sanitation Subsector Issues...", op. cit.

<sup>94</sup> "... when reform is in progress, several small or medium operations are more appropriate than large complex operations. Operations with reform and investment components should resolve only one or two reform aspects while offering limited funds for investments. ... if all aspects of a reform are included in one operation, investment components should not be included". IDB. "Water & Sanitation Subsector: Issues and Options Note". September, 2001.



groups. The lack<sup>95</sup> of flexibility repeatedly mentioned here can clearly be seen in this way of thinking.

6.28 In addition to the reduction in the flow of funds approved recently, the limited effectiveness of the PU policy, in terms of the application of resources, is accentuated by the difficulties and delays in execution of the loans, particularly those that are most strictly subject to the guidelines of the policy. Table 6.5 shows that in 14 operations subject to the principles of the PU policy over the period 1996-1999, execution is far below the average for Bank operations. Nine of them are less than 5 percent disbursed, disbursements have not even begun for several of them, and one has been cancelled.

**Table 6.5**  
**Percentage execution of sector loans that are most closely attuned to the PU policy**

Project number	Project name	Type	PU policy conditions				Date of approval	% execution*
			IOE	RF	PSP	EFS		
AR-0175 <sup>96</sup>	Support for reform of the water and sewerage sector	Ent.	•	•	•	•	1998	0.5
BO-0125	Basic urban sanitation	Ent.	•	•	•	•	1996	50.7
ES-0068	Reform of the hydraulic sector and the potable water and sanitation subsector	Ent.	•	•	•	•	1998	0.0
HA-0014	Investment and reform of the potable water and sanitation sector	Ent.	•	•	•	•	1998	0.0
HO-0072	Investments in potable water and sanitation	Ent.	•	•	•	•	1999	2.4
HO-0115	Municipal development of Tegucigalpa, Phase I	Ent.	•		•	•	1998	34.8
NI-0097	Modernization of water and sewerage services management	Ent.	•	•	•	•	1999	5.0
PN-0030	Support for restructuring of the Instituto de Acueductos y Alcantarillados Nacionales (PREIDAAN)	Ent.	•	•	•	•	1997	45.3
DR-0123	Consolidation of reform and modernization of the water and sanitation sector	Ent.	•	•	•	•	1999	0.6
CO-0182	Potable water and sanitation in Pereira	Ent.	•	•	•	•	1999	5.1
EC-0002	Private sector concession of water and sewerage services in Guayaquil	Ent.	•		•	•	1997	52.6
GY-0054	Water and sewerage supply in Georgetown, Phase II	Ent.	•	•	•	•	1999	0.0
VE-0056	Support for modernization and rehabilitation of the potable water and sanitation sector	Ent.	•	•	•	•	1997	40.8
VE-0111	Support for decentralization of the potable water and sanitation sector.	Ent.	•	•	•	•	1999	Cancelled

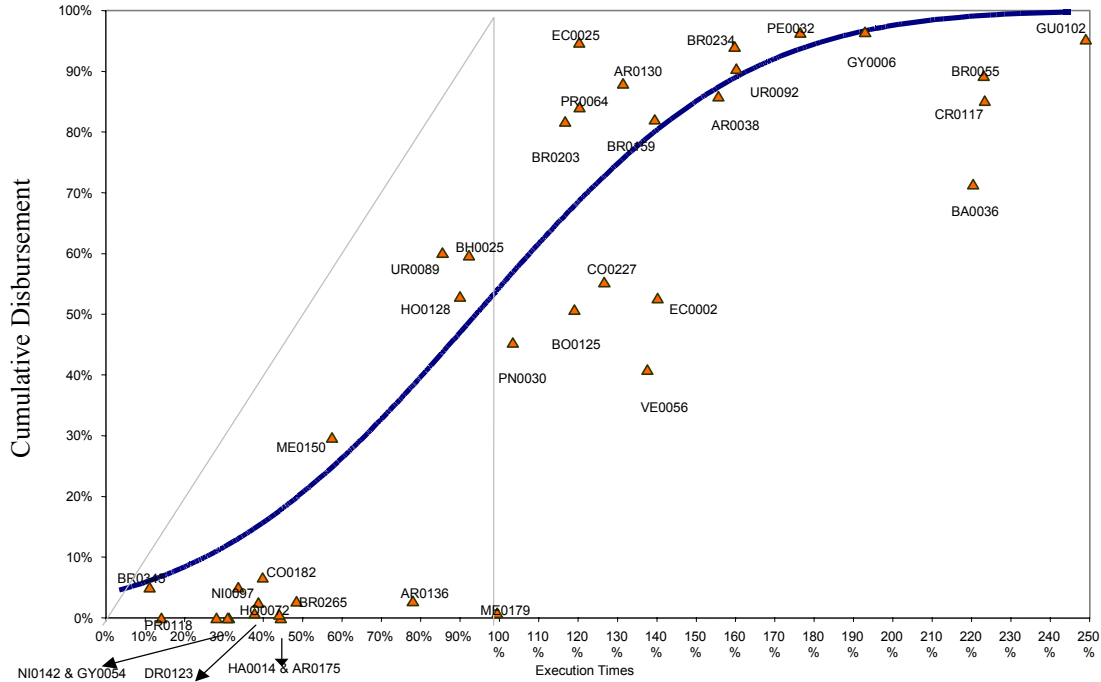
\* Information obtained from the Bank's Intranet page at <http://wda.iadb.org/wda/> Web Data Analyzer.

<sup>95</sup> See also the memorandum "Public Utility Policy: Everything to Everybody or One size fits All?" Millán, José Jaime, submitted to the Office of the Executive Vice President of the Bank in 1999, which reads "During recent discussions of public utility projects, and private power in particular, different readings of OP-708 have been argued by parties opposing or backing a given project. On one corner side those with a strict interpretation of the policy; for them, meeting the basic conditions is a prerequisite for Bank lending, any departure is sought as a sign of permissiveness..."

<sup>96</sup> After this report was written, the operation was completely reformulated under PR-2656 and the funds will be used to finance social activities.

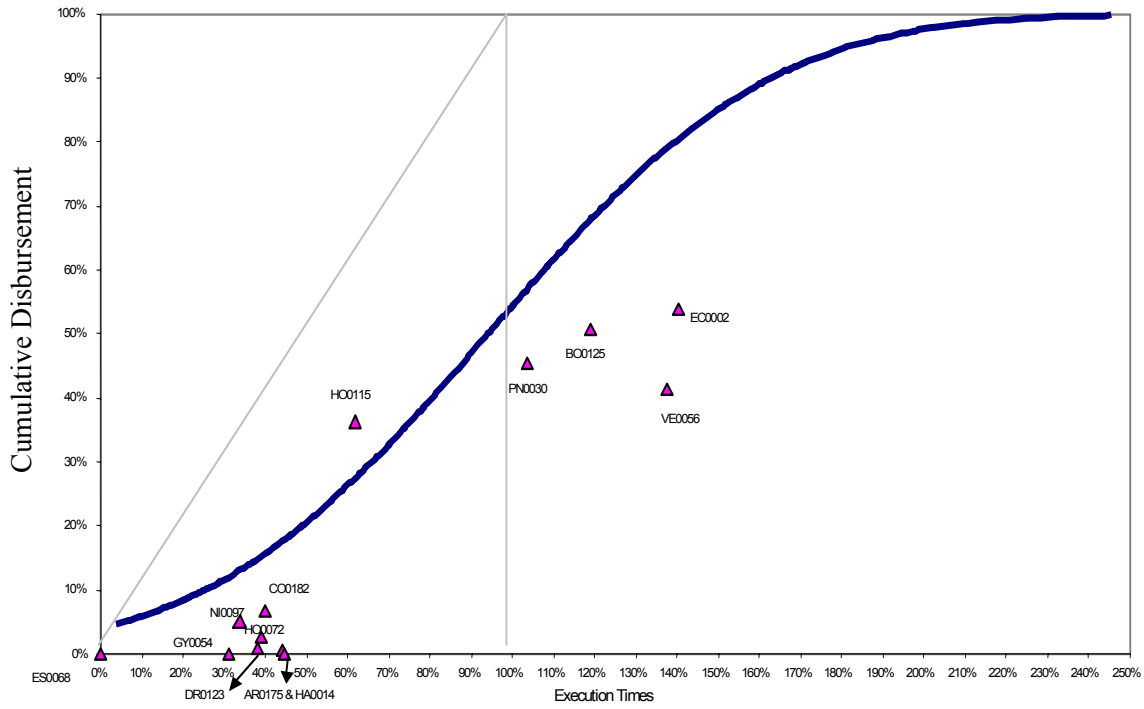
6.29 A comparison between progress in execution of the projects identified in the Bank's classification system as water and sanitation projects at 31 December 2001 and the average for Bank portfolio execution also shows that the sector has performed considerably below the Bank average.

**Graph 6.4. Cumulative disbursements and execution times of investment projects  
Water vs. the Bank average**



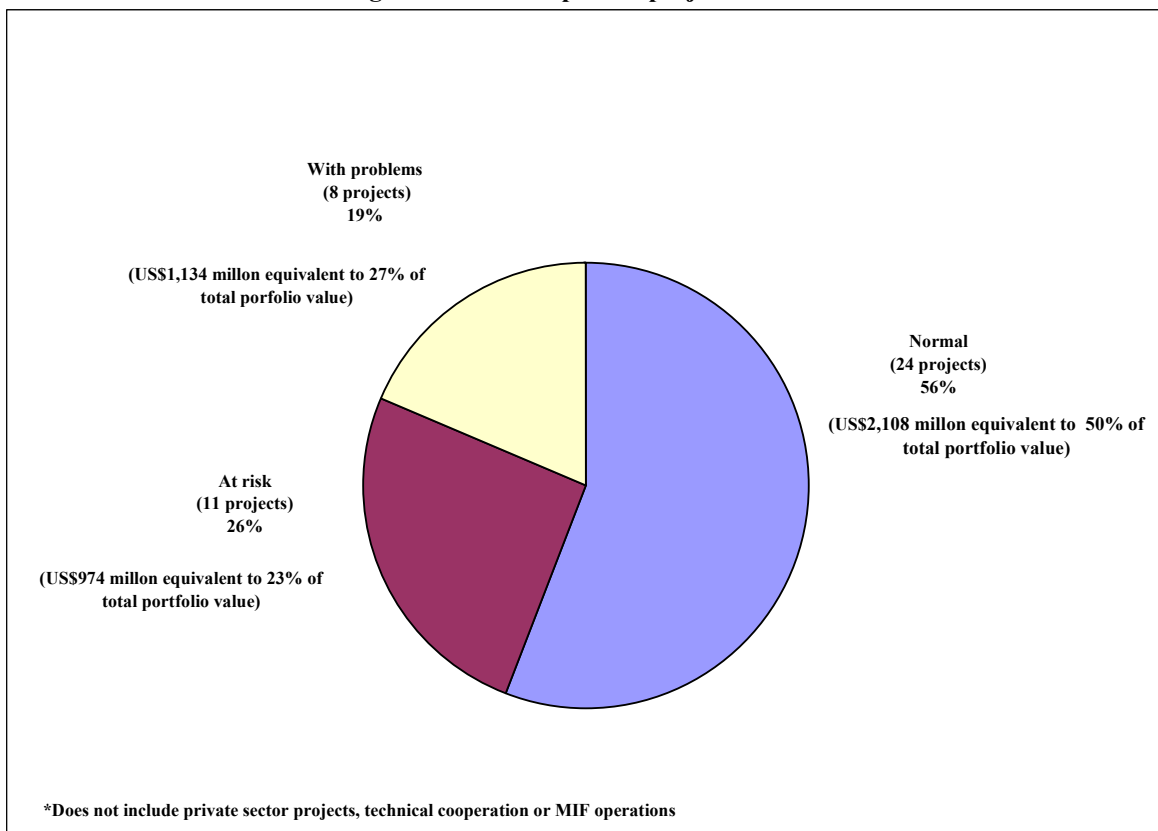
6.30 The operations included in the preceding table, i.e. those that are closest to the postulates of the PU policy and classified as entrepreneurial, approved between 1996 and 1999, have an execution rate that is far below the Bank average, as can be seen from the following graph. With one exception, they are all below average.

**Graph 6.5. Cumulative disbursements and execution times of investment projects: Selected water projects (Private companies vs. the Bank)  
selected water projects (entrepreneurial vs. the Bank)**



6.31 The annual report on projects in execution at 31 December 2000, which was the most recent available when this report was written, indicated that 44 percent of the projects had encountered problems or were at risk, representing 50 percent of the total portfolio, as can be seen in the following graph.

**Graph 6.6. Execution status of water and sanitation projects at 31 December 2000 according to the annual report on projects in execution\***



**C. Effect on the institutional arrangement**

6.32 The current situation in terms of the institutional arrangement for the countries included in the sample of case studies performed for this evaluation is shown in Table 6.6.

**Table 6.6. Current institutional arrangement**

Country	PWSS act based on the PU policy	Lead agency	Regulatory agency	Operation
Argentina	No	No  Some functions are carried out by ENOHTA of the Ministry of Infrastructure and Housing.	Regulation by contract.  Provincial regulatory and oversight bodies.	Integrated, decentralized systems on the provincial and, in some cases, municipal levels.  Extensive process of including international private operators, cooperatives and user associations.  70 percent of the service is provided by private operators.
Bolivia	Law 2066 of 04/04/2000. Replaced Law 2029 of 10/99 to respond demands arising from the 'Cochabamba event'.	Ministry of Housing and Basic Services.  Institutional weaknesses.	Office of the Superintendent of Basic Sanitation.  Recently created.  Centralized.	Services are a municipal responsibility.  Integrated and decentralized systems.  La Paz and El Alto systems privatized.  Large participation by cooperatives.
Brazil	A bill is under debate in Congress.	Currently the Department of Urban Development.  The bill plans for a national sanitation council with participation by local authorities.	The bill envisages local regulation.  A central body as regulator of regulators.  Some local bodies exist at present.	Integrated state or municipal systems.  The bill seeks to delimit the jurisdictions of states and municipalities.
Colombia	Law 142 on Public Utilities of 1994.	Directorate General of Water and Basic Sanitation coming under the Ministry of Economic Development.  Strong influence in the sector.	Separate regulation and oversight.  Regulation: Water Regulation Commission (CRA)  Oversight: Office of the Superintendent of Public Utilities (weak in PWSS)	Integrated decentralized systems.  Municipal responsibility.  Fragmented service.  There are 1,709 urban systems and over 12,000 in rural areas.
Ecuador	The law was not passed.  A bill was prepared but no consensus could be reached.  The topic is off the governments' agenda.	Department of Environmental Sanitation of the Ministry of Urban Development.  Weak influence.  Little response capacity.	Regulation by contract only in Guayaquil.  No regulation elsewhere in the country.	Integrated decentralized systems.
Honduras	Bill under discussion, was expected to be passed in 2001.	None.  The bill envisages lead functions for the Ministry of Health.	The bill envisages the creation of a national regulatory and oversight commission.  Regulation by contract in San Pedro Sula and Puerto Cortés through local bodies.	Different management models coexist:  national public,  local public, and  water management boards.  The bill envisages local responsibility.
Nicaragua	Law 294 of 1998.	National Water and Sewerage Commission envisaged in the law but not yet established.	Nicaraguan Water and Sewerage Administration (INAA).  Functioning and developing its capacity.	Provided by Empresas Nacional de Acueductos y Alcant. (ENACAL), which operates throughout the country.
Peru	General Services Act of 1994. An amendment to the act was recently passed.	Directorate General of Sanitation in the Ministry of Infrastructure, recently created.	Office of the National Superintendent of Sanitation Services (SUNASS).	Decentralized except for the service in Lima which is under the control of the national government.

6.33 Despite the efforts made, introduction of the institutional arrangement called for by the PU policy is still incipient and progress in the different core strategies is very uneven. Except for Chile and Argentina, the reference model continues to be a wager on the future. The degree of implementation and consistency is still very embryonic in the other countries, which gives an idea of the difficulties in implementing it and of the resistance to it. Problems of inconsistency in the institutional arrangement and its failure to meet public expectations, the offers made by politicians and the results of the process of change that has been launched feed into the crisis of governance that mark today's situation in most Latin American countries.

#### D. Progress in service coverage

6.34 Not enough progress has been made in service coverage during the 1990s to overcome the backlog in services in the region. This is especially true in rural areas and, in particular, the removal and treatment of sewage continues to be a task that needs to be addressed in the countries. The PU policy has been introduced too recently to be able to see any great difference in this area.

6.35 Progress in the coverage of services in the countries in the sample is shown in the following tables.

**Table 6.7**  
**Progress in service coverage in different countries (in %)**

System/Coverage	Potable water		Sanitary sewers		Sewage treatment	
	1990	2000	1990	2000	1990	2000
Argentina*	77 urban	83 urban	40 urban	54 urban	N/A	N/A
Bolivia	75 urban 30 rural	81 urban 31 rural	**45 urban **7 rural	63 19	Topic off the national agenda. Only included in the concession contract for La Paz and El Alto.	
Brazil ***	86 urban	92 urban 15 rural	49 urban	54 urban	N/A	20 urban
Colombia	90 urban	**94 urban 38 rural	80 urban	80 urban 13 rural	7.7 urban	7.7 urban
Ecuador	N/A	82 urban 40 rural	N/A	73 urban 30 rural	N/A	N/A
Honduras	N/A	80 urban (in large cities)	N/A	N/A	Topic off the national agenda	
Nicaragua	83.8	92.6 urban	73.5	78.5	N/A	N/A
Peru	70	75	64	74	N/A	N/A

N/A Information not available

\* Figures for 1991-2001

\*\* Figures for 1997

\*\*\* Figures for 1991-1999

**Table 6.8**  
**Progress in service coverage for the different systems (in %)**

System/coverage	Potable water		Sanitary sewerage		Sewage treatment	
	1990	2000	1990	2000	1990	2000
<b>Buenos Aires</b> Aguas de Argentina (private)	58.6*	74	33.9	50	N/A	N/A
<b>Cartagena</b> Aguas de Cartagena** (private)	70	95	60	95	N/A	N/A
<b>Bolivia</b> Aguas de Illimani (private)	*** <b>La Paz</b> 84 <b>El Alto</b> 71	100	66	82	N/A	N/A
<b>São Paulo</b> SABESP (public)		100	N/A	85	N/A	55
<b>Distrito Federal</b> CAESP (public)		91		88		62
<b>Nicaragua</b> ENACAL**** (public)	70	90	N/A	34	N/A	N/A
<b>Quito</b> EMAPQ (public)	84	93	74	79	N/A	N/A

N/A Information not available

\* Figures for 1992

\*\* Does not include settlements close to the ACUACAR with 10% coverage

\*\*\* Figures for 1995

\*\*\*\* Urban coverage

## VII. CONCLUSIONS

- 7.1 The primary objective of ensuring the economic and financial sustainability called for in the PU policy may be inconsistent with the objectives established in the Eighth Replenishment, particularly poverty reduction and environmental protection, which are not given the necessary priority in practical application of the policy.
- 7.2 Depending on how it is interpreted and applied in practice, the PU policy as it applies to potable water and sanitation services and modernization of the State may not be fully consistent with the Bank's decentralization strategy.
- 7.3 The strategy followed to date in Bank environmental operations has been defined outside the postulates of the PU policy.
- 7.4 Given the short time it has been applied, it is difficult to affirm whether the policy is valid in the medium and long terms or whether economic and financial sustainability of the services will make it possible to resolve the sector's externalities and improve the coverage of services. However, in the short term, the policy is not producing the expected results. Economic and financial sustainability has proven to be a necessary, but not sufficient, condition for increasing coverage for the poor. Only when an increase in coverage has been established as a project objective or incorporated as a conditionality of a loan or a contractual mandate for a service company has there been any significant improvement.
- 7.5 The service model established in the PU policy, based on the inclusion of private initiative, is suitable for attending to requirements in the large cities, although there are serious difficulties in adapting it to the sector, but it is not appropriate for increasing coverage in rural areas or the marginal areas of the large cities. Some aspects detected as essential in the Bank's own experience in serving the needs of very poor areas, including the linkage between projects and urban development, the possibility of market segmentation as an avenue for achieving a quality/price ratio that meets public expectations and ability to pay, and the need for greater community participation, are not addressed by the PU policy.
- 7.6 The incorporation of private operators in the sector called for by the PU policy has not been accompanied by the arrival of private capital. Few operators have become involved and their operations are highly concentrated, which leads to the risk of collusion and the creation of a new monopoly in private hands, this time on the regional level. The PU policy has been ineffective in terms of capturing investments for the sector. In fact, the funds targeted by the Bank to the sector have been declining steadily, in contrast with the sharp deficit in investments. The situation is aggravated by the difficulties in executing operations, particularly when they include more of the components contained in the service model established by the PU policy.
- 7.7 The institutional arrangement postulated by the PU policy is difficult to apply, judging from the progress detected in the Latin American countries today. The main



difficulties appear to lie in the shortage of technical capacity and information required for the regulatory exercise, the technical and political imbalances in governments and the large operators in a highly monopolistic market, and the unsuitability of a single, centralized regulatory model, given the diversity of management models and the fragmentation of services.

- 7.8 The PU policy includes implicit and explicit assumptions whose materialization or compliance is questionable in light of the results obtained from its practical application and given the sociopolitical situation in the countries and the economic condition of the sector.
- 7.9 The specific action guidelines established in the PU policy for adjusting its contents to the different sectors have never been developed, creating a large vacuum with a direct impact on the effectiveness of the policy and the status of the sector's loan portfolio.
- 7.10 The PU policy has been unable to systematize the sector in two essential aspects: including the policy in all Bank operations and making those operations homogeneous.
- 7.11 With respect to its internal application, the analysis shows that over 53 percent of the funds lent during 1996-2000 and 49 percent of operations approved do not include the basic postulates of the PU policy. To this we should add the sums in social operations and similar activities that include actions to expand water and sanitation coverage, which are not identified as belonging to the sector.
- 7.12 The PU policy has been applied in a way that makes it possible to identify the presence of three policies—a minimum requirements policy that includes few elements of the PU policy, a maximum requirements policy that includes higher demands and conditionalities if the country is smaller or exhibits greater institutional weaknesses, and a 'meta-policy' that is outside the PU policy and is applied to environmental and a good number of social operations.
- 7.13 In operations identified as social, there has been a migration from formal water and sanitation loans to others that include a component involving investments in water supply. They are processed in a completely opaque manner in an attempt to elude the requirements and conditionalities established by an inflexible interpretation of the PU policy and it has been impossible to discover who establishes the conditionalities and requisites for those operations, how, and based on what criteria.
- 7.14 Tariff levels, the management of borrowing entities and companies, private sector participation and the efficiency of subsidies for demand are the elements regarding which there appears to be the widest discrepancy between those in charge of the sector and the players involved in it.
- 7.15 The inclusion of private operators to deliver the services called for in the PU policy has proven to be an appropriate mechanisms for reversing precarious service levels

in relatively short time. However, the momentum is very slow, complicated and limited to a very few companies.

- 7.16 The investment requirements that have been identified demand a major analysis of the Bank's role, not simply in assuring greater effectiveness and transparency in the use of resources, as called for in the PU policy, but also in identifying and directing to the region a major flow of investments that can effectively spur the process of change while helping to address the major sanitary problems present.
- 7.17 The effectiveness of the PU policy with respect to increasing coverage is also debatable, in light of the 53 million Latin American households that have no water service, 72 percent of which correspond to the poorest 40 percent of the population. Investments of over US\$36 billion would be required to meet these needs. Even though this situation cannot be attributed to the PU policy, the policy has not been able to become a turning point, after which it is possible to detect a trend or a gradual reduction in these needs.
- 7.18 The lending strategy followed by PRI, which concentrates its operations in this sector on two large companies is counterproductive in that it fails to resolve the clear market imperfection that exists in view of the almost complete absence of private capital, which could lead to the consolidation of a regional quasi-monopoly, and does not respond in any way to the conditions or criteria established at the time the PU policy was approved.

## VIII. RECOMMENDATIONS

- 8.1 Increase investment efforts in the sector, making PWSS a priority in Bank strategies. To that end, Senior Management should submit a plan of action for the sector to the Board of Executive Directors within 60 days, containing as a minimum:
- (a) A plan to increase the flow of resources to the sector so that within one year, the sector portfolio will rise to a level that is consistent with needs and with its historical weight in the Bank's annual portfolio.
  - (b) A plan to develop, over the same period, a specific strategy for the sector in each of the countries of the region.
  - (c) A plan to improve the portfolio in execution, establishing mechanisms to facilitate the actual disbursement of capital and to achieve the objectives established in the different projects.
- 8.2 Prepare operating guidelines for the application of the PU policy to the water and sanitation sector. The guidelines should be submitted to the Board of Executive Directors for consideration within 60 days and, based on an evaluation of the evolution of the water and sanitation sector portfolio and an analysis of the origin and cause of the main problems encountered in project design and execution, take the following steps, as a minimum:
- (a) Define precise strategies in light of the Eighth Replenishment of Resources to place the objectives of expanding coverage for the poorest groups as a tool to combat poverty and environmental protection on a par with the economic and financial sustainability of the services.
  - (b) Define specific criteria and strategies applicable to operations whose target population lives in rural areas and on the outskirts of large cities, where the poorest people congregate.
  - (c) Define operating criteria and a specific strategy to promote a gradual transition to the model proposed by the PU policy, that is compatible with an increase in the resources channeled to the sector and with better management of the systems.
  - (d) Adjust the proposals for transforming the sector to the sociopolitical situation in the countries and to their economic situation.
  - (e) Establish a clear and transparent procedure for processing operations that include potable water components in other types of sector or social projects.
  - (f) Promote in the countries the establishment and strengthening of sector policy and planning bodies, including mechanisms for efficient financing that focuses on service for the poorest groups.

- (g) Review the PRI's lending strategy to focus it on solving the imperfections of the private capital market for the sector, principally by promoting the establishment of new private operators adapted to the size of the systems in the region.
- (h) Establish precise criteria for making the institutional arrangement proposed by the PU policy compatible with the decentralization strategy approved by the Bank and with the extreme fragmentation in the sector.

## **FULFILLMENT OF THE BASIC PU CONDITIONS**

As mentioned earlier, the basic PU conditions are improved operating efficiency (IOE), a regulatory framework (RF), private-sector participation in water and sewer service systems (PSP), and economic and financial sufficiency (EFS) which is understood to mean a system with rates that are high enough to cover all expenses including return on equity and a risk premium.

It was agreed with Management that a project would be considered to have satisfied the PU conditions when at least three of these four basic conditions were incorporated into the project design.

During the discussions with Management, OVE modified a number of qualifications pertaining to fulfillment of these conditions while in other cases it was merely noted that OVE's interpretation was at variance with Management's. This joint exercise with Management made the initial evaluation conditions adopted by OVE considerably more flexible. In fact of the 46 objections raised by Management, 34 were allowed, with disagreement continuing on the remaining 12. However, in the final analysis there has been no change in the final classification of each individual operation with respect to PU policy compliance in project design.

### **I. Points of disagreement**

#### **A. Regulatory framework (RF)**

In operations BR-0242, BR-0265, and BR-0250, Management requested that the condition be considered fulfilled on grounds that a regulatory framework was being established at the state level as was a national regulatory agency. However, in operation BR-0345 approved in 2000, and therefore after the other projects, it was acknowledged that when Decree 21,170 was issued by the Federal District a regulatory framework separate from the operating companies had not yet been established, a situation that continues to this day. Hence, this condition has not been satisfied in any of the three operations.

As to operations HO-0115 and EC-0002, Management requested that the condition be considered fulfilled since it was understood that a concession agreement is being established for these projects and an entity identified for purposes of supervision, a factor that implies compliance in the spirit of the PU policy. Despite Management's interpretation, however, the condition was not modified because supervision of a concession agreement, the standard practice called for in such an arrangement, was in spirit not even close to endowing the sector with a regulatory framework and a regulatory agency to monitor the sector. Also, in operation HO-0072 approved the year after HO-0115, one of the conditions precedent to the first disbursement for investment was that a regulatory framework be established by an act of Congress. It can be assumed therefore that Management itself was aware that there was not an adequate regulatory framework that met the conditions of the PU policy, or anything even faintly similar.

## **B. Private-sector participation (PSP)**

Management requested that this condition be considered fulfilled for BR-0265. However, the sole element of the project design that is remotely connected with private-sector participation is that the line item in the amount of US\$3 million for the development of strategies for the basic sanitation sector in the state of São Paulo would include identifying opportunities for private-sector participation. Because such participation was not a condition, the Loan Committee even agreed that the project team should explore the possibility of designing a two-phase operation if SABESP (the firm involved in this operation) should not make any progress in the privatization process. Eventually, a one-phase operation was approved without any conditions as to private-sector participation. In practice, SABESP enjoys the same legal status of a public joint-stock company as it did prior to the operation.

Management requested that the PSP condition not be considered fulfilled in the case of HO-0128 on grounds that the operation did not provide for private-sector participation but merely the establishment of a public joint-stock company. Although it is difficult to reconcile the compatibility of the conditions in these operations, it should be noted that paragraph 2.4 of the loan proposal (PR-2233) states that the 1990 municipal act provided for the creation of utility service companies controlled jointly by public and private shareholders. It further adds that the company so created, which was to be called EDASSA, would have at least five shareholders and that its shares would be marketed initially to private utility companies having a commercial interest in the operation and/or to the general public in the Puerto Cortes area. Accordingly, the condition has not been modified so that the operation can encourage private-sector participation, with the condition considered fulfilled.

With respect to operation ME-0150, Management requested that the PSP condition be considered fulfilled. However, the design of the operation is based on the delivery of PWSS in rural areas through rural community organizations, which implies that the CP condition (community participation), not the PSP condition, has been fulfilled.

In operation NI-0142, Management requested that the PSP condition be considered fulfilled since this operation was approved after NI-0097, whereby financing was granted for a comprehensive management contract for a water and sanitation system in Nicaragua. As there are no cross conditions between the two operations, however, OVE is of the view that they are not sufficiently linked to be able to say that the conditions which each company must fulfill may be mutually satisfied.

## **C. Economic and financial sustainability (EFS)**

The only operation in which this condition is found is NI-0142. The comments for the PSP condition apply here too.

#### **D. Environmental improvements (EI)**

For operations BR-0242, BR-0250, and BR-0273, Management requested that the EI condition be considered fulfilled. However, Management itself argues that these operations do not provide for sewage treatment although the projects are intended for major cities. Consequently, the conditions cannot be considered fulfilled.

### **II. Points of agreement**

In the discussions with Management, it was agreed that the PU policy conditions for the following operations would be considered fulfilled:

#### **A. Regulatory framework (RF)**

In operations NI-0142 and PE-0101.

#### **B. Private-sector participation (PSP)**

In operation HO-0072 the PU policy conditions was eliminated at Management's request.

#### **C. Economic and financial sustainability (EFS)**

In operations BR-0273 and ME-0179.

#### **D. Improved operating efficiency (IOE)**

In operations ME-0150, CO-0231, CO-0227, and HA-0037.

#### **E. Increased water and sewer service coverage (IWSC)**

In operations NI-0097, CO-0231, EC-0002, JA-0041, VE-0111, and VE-0056.

#### **F. Environmental improvements (EI)**

In operations ES-0068, HO-0128, ME-0150, DR-0123, PE-0101, and BO-0175.

#### **G. Community participation (CP)**

In operations BR-0273, NI-0097, DR-0123, CO-0227, and JA-0041.

#### **H. Decentralization (DC)**

In operations CO-0227 and JA-0041. Also, at Management's request, this condition was not considered fulfilled for operation PN-0111.

## I. Cost recovery (CR)

In operations ES-0068, BR-0242, BR-0250, BR-0273, and NI-0061 fulfillment of the CR conditions with respect to rates was included at Management's request in order to ensure recovery of costs to cover operation and maintenance.

### Residential Public Utility Service conditions (Principal and Supplementary)

Project N°	Project name	Type	Goals		Public utility service conditions							
			IWSC	EI	Principal				Supplementary			
					IOE	RF	PSP	EFS	DC	CP	CR	
AR-0116	National Water Supply and Sewerage Program – First stage	SOC	•	•	•				•	•		
AR-0130	Water supply and sanitation program – Stage IV	SOC	•	•						•		
AR-0175	Program in support of reform of the water supply and sanitation sector	PSP	•		•	•	•	•				
AR-0211	Aguas Provinciales de Santa Fe, S.A.	PSP	•	•	•	•	•	•				
AR-0238	Aguas Argentinas' 1998-2001 capital investment program	PSP	•	•	•	•	•	•				
TC-96-09-18-4	Strengthening of the sanitation services regulatory agency in the Province of Santa Fe	PSP				•						
TC-97-04-05-9	Strengthening of the water and sanitation regulatory agency of the Province of Buenos Aires, Argentina	PSP				•						
TC-98-06-32-6	Strengthening of provincial regulatory agencies and support for privatization of the water supply and sanitation sector	PSP				•	•					
BO-0029	Social Investment Fund	SOC	•									•
BO-0039	Global credit program for urban development and sanitation	PSP	•			•	•	•	•			
BO-0125	Urban basic sanitation program	PSP	•		•	•	•	•	•			•
BO-0146	Regional global credit program for urban development and sanitation (PRODURSA)	SOC	•					•	•	•		
BO-0172	Aguas del Illimani water and sanitation project	PSP	•		•	•	•	•				
BO-0175	Basic sanitation program for small municipalities	SOC	•	•					•	•	•	
TC-96-05-16-6	Development of a regulatory framework for the water supply and sanitation sector in Bolivia	PSP				•	•					
BR-0055	Project for drainage, roads, water and sewerage in low-lying areas of Belém	SOC	•		•			•				
BR-0067	Program of social action in sanitation	SOC	•	•				•	•			•







Project N°	Project name	Type	Goals		Public utility service conditions						
					Principal				Supplementary		
			IWSC	EI	IOE	RF	PSP	EFS	DC	CP	CR
NI-0097	Program to modernize the management of water and sewerage services	PSP	•		•	•	•	•		•	
NI-0142	Support for an environmental sanitation program for Lake Managua and the City of Managua	ENV		•	•	•				•	
TC-00-03-00-9	Institutional strengthening for INAA the regulator of potable water and sanitation services	PSP				•					
TC-94-07-04-1	Legal and regulatory framework governing expanded private investment in infrastructure	PSP				•	•				
PN-0030	Program of support for restructuring the national water and sewer utility (PREIDAAN)	PSP		•	•	•	•	•			
PN-0054	Social investment program	SOC	•							•	•
PN-0111	Program for poverty alleviation and community development	SOC	•							•	
DR-0079	Community action development program	SOC	•							•	•
DR-0123	Project to consolidate reform and modernization of the potable water and sanitation sector	PSP	•	•	•	•	•	•	•	•	
TC-99-01-00-5	Implementation of a new institutional and legal framework for the water supply and sanitation sector	PSP				•					
BH-0025	Family Islands water project	PSP			•	•	•	•			
BA-0036	South Coast sewerage project	ENV		•	•			•			
CO-0082	Medellin River sanitation project – First phase	ENV	•	•	•			•			
CO-0182	Pereira potable water and sanitation program	PSP	•	•	•	•	•	•			
CO-0208	Rio Bogotá wastewater treatment project	ENV		•		•	•		•		
CO-0227	Cartagena sewer system	PSP	•	•	•	•	•	•	•	•	
CO-0231	Tibitoc water treatment facility	PSP	•		•	•	•	•	•		
TC-95-03-22-9	Strengthening for the water and basic sanitation service regulatory commission	PSP				•	•				
EC-0002	Private-sector concession for water supply and sewerage services in Guayaquil	PSP	•		•		•	•			
EC-0025	Water supply and sewerage project for the City of Quito	SOC	•		•			•			
EC-0098	Regional development program for Western Pichincha	SOC	•	•						•	
EC-0158	Program of support for the emergency social investment fund (Second stage)	SOC	•							•	
EC-0161	Water supply and sanitation project for the City of Cuenca	ENV	•	•	•			•			
GY-0006	Remedial maintenance for Georgetown sewerage and water supply system	PSP			•	•	•	•			

Project N°	Project name	Type	Goals		Public utility service conditions							
					Principal				Supplementary			
			IWSC	EI	IOE	RF	PSP	EFS	DC	CP	CR	
GY-0025	Social impact amelioration program (SIMAP) – Stage II	SOC	•		•					•		
GY-0054	Georgetown water supply and sewerage program II	PSP	•		•	•	•	•				
JA-0041	Social investment fund	SOC	•		•					•	•	
PE-0032	Program to strengthen the basic sanitation sector	PSP	•		•	•	•	•		•		
PE-0101	Program in support of the Fondo Nacional de compensación y Desarrollo Social (FONCODES II)	SOC	•	•		•					•	•
VE-0056	Program of support for the modernization and rehabilitation of the water supply and sanitation sector	PSP	•		•	•	•	•		•		
VE-0074	Local social investment program (PROINSOL)	SOC	•					•		•		
VE-0111	Program to support decentralization of the potable water and sanitation sector	PSP	•		•	•	•	•		•		