

**PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE**

Report No.: AB4213

Project Name	Sao Paulo Water Recovery Project - REAGUA
Region	LATIN AMERICA AND CARIBBEAN
Sector	General water, sanitation and flood protection sector (100%)
Project ID	P106703
Borrower(s)	STATE GOVERNMENT OF SÃO PAULO
Implementing Agency	State Secretary for Water, Sanitation, and Energy
Environment Category	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> FI <input type="checkbox"/> TBD (to be determined)
Date PID Prepared	August 26, 2008
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1. Key development issues and rationale for Bank involvement

Background

1.1 Water is an essential element of Brazil's strategy to promote sustainable, equitable, and inclusive economic growth. Brazil's achievements over the past fifty years have been closely linked to development of its water resources and to the expansion of water supply and sanitation (WSS) services; however, many challenges have yet to be addressed, such as water scarcity, pollution control, and universal access to services.

1.2 Over the past several decades Brazil has undergone a spectacular process of urbanization, catalyzing economic innovation and expansion yet bringing with it myriad problems, including WSS needs and environmental degradation. These problems are a serious constraint on sustainable growth in one of the world's most urbanized areas. The State of São Paulo is emblematic of the urban challenges facing Brazil. The most populated of the Brazilian states, with a population of 41 million people, of which 38.8 million live in urban areas, São Paulo is composed of three metropolitan regions of which the state capital, São Paulo, is the fourth largest city in the world with 19.5 million inhabitants. São Paulo state alone generates 27 percent of Brazilian GDP.

Key Development Issues

1.3 The State Water Company of São Paulo (SABESP) operates water and sewerage services in 367 out of 645 municipalities, which corresponds to approximately 59 percent of the service provided in the State. Most of the remaining municipalities have local departments as service providers, with at least five private companies and five public companies run under private law. SABESP provides water and sanitation to nearly all the municipalities that make of the state capital in the Metropolitan Region of São Paulo (MRSP).

1.4 According to the PNAD/IEBG 2006 report, 92.7 percent of urban areas in Brazil have access to safe drinking water through household connections and 54.4 percent are connected to a sewerage network. Within the urban population of the State of São Paulo 0.4 million people lack access to safe drinking water, 4.8 million people are not connected to a public sewerage network, and 2.5 million people lack adequate sanitation. Furthermore, approximately 15.7 million people in São Paulo have wastewater collection but no treatment. This lack of wastewater treatment has compounded the problems of pollution and water scarcity, as it is a source of non-point pollution in urban areas, especially in low-income neighborhoods living close to major reservoirs and river banks. Water scarcity is a particularly critical issue for the competitiveness and economic growth of the MRSP, which is forecast to grow by almost 4 million people by the year 2025, and where current raw water availability (in the Alto Tietê basin) is only 200 m³ per capita per year, worse even than in the dry states of the Brazilian Northeast. The 2006 UN Human Development Report states that annual availability below 1,000 m³ represents a state of ‘water scarcity’ and below 500 m³, ‘absolute scarcity’. Moreover, São Paulo’s Council on Water Resources has determined that watersheds are in critical condition when the relationship between demand and availability surpasses 0.50. According to this definition of water scarcity, nine of the twenty two watersheds in the state (those serving the most urbanized areas of the state) are in critical condition.

1.5 According to the Bank’s Water Sector Strategy for Brazil, “The pollution of rivers and other water bodies in urban and peri-urban areas is Brazil’s biggest water quality challenge and continues unabated.” Uncollected and untreated wastewater not only poses significant health and environmental risks but also reduces the capacity of rivers to provide water. Only about 49 percent of collected wastewater in the State of São Paulo is treated, and even in the municipalities served by SABESP only 62 percent of collected wastewater is treated. In Guarulhos, the second largest population of the MRSP, there is no wastewater treatment.

1.6 Water losses also account for the scarcity of water in the State of São Paulo. According to the *Sistema Nacional de Informações sobre Saneamento* (SNIS) statistics for 2006, of the 426 municipalities reporting to SNIS, 9 percent have water losses above 50 percent, 53 percent have water losses above 30 percent, and only 19 percent have water losses below 20 percent. This lack of homogeneity reflects huge variations between utilities, for example, water losses average 40 percent for SABESP, 57 percent for the *autarquia* in Guarulhos, and 26 percent for SANASA in Campinas. SABESP has recently implemented a ten year program to control and reduce water losses by focusing on better infrastructure and staff training. While São Paulo does better in terms of water losses compared to the rest of the country, there is still considerable room to improve by building upon existing activities to continue to reduce water losses in a state already facing tremendous water scarcity problems, and to replicate the approach in Brazil and globally.

1.7 Poverty is an important dimension to the scarcity of water and deficit of wastewater treatment in São Paulo. Low income residents represent 29.5 percent of the state’s urban population and 15.9 percent of the MRSP, millions of people lacking adequate services and most affected by water scarcity and pollution. For example, 53.7 percent of the poor live in areas of critical water deficit and 58.5 percent lack proper sanitation. One in six inhabitants of the MRSP lives in a slum, and these neighborhoods are particularly vulnerable to the adverse affects of pollution resulting from the absence of appropriate wastewater collection and treatment.

1.8 In a densely urbanized state like São Paulo, the attainment of water efficiency and the reduction in water pollution are of crucial importance to sustainable growth. Rather than focusing on expansion in an already water scarce environment, SSE's project goal is to improve the efficiency and quality of WSS provision.

Rationale for Bank Involvement

1.9 The State Government of São Paulo (GESP) has identified the following as the main challenges for WSS in the State: (i) maintaining near-universal coverage to potable water, in a more efficient manner; (ii) working towards universal wastewater collection; (iii) reducing pollution by increasing the amount of wastewater treated; (iv) and complying with the requirements of the new Federal Law No. 11,445/2007, which establishes national guidelines for the provision of water supply and sewerage services and the management of solid waste and urban drainage.

1.10 The Federal Law 11,445/2007 brings a long overdue institutional and regulatory framework to the sector. It sets mandatory requirements for states and municipalities in regard to WSS policy and planning as well as service provision and contracting, and puts regulation of WSS at its core. Essentially it is intended to strengthen the technical and institutional capacity of the main stakeholders, the state and local governments and their agencies, to regulate and provide WSS. To modernize and align the state WSS policy to the new federal law, the State of Sao Paulo has recently approved the State Complementary Law No.1025/2007. The new state law strengthens the State regulatory and enforcement role, integrates planning and implementation activities, and strengthens a collaborative environment with municipalities and social participation, through the State Council for WSS (CONESAN). To develop its regulatory duties the State has transformed the former gas and electricity regulator CSPE into a broader scope multi-sector agency ARSESP (*Agencia Reguladora de Saneamento e Energia do Estado de São Paulo*), thereby taking advantage of previous knowledge and experience and of economies of scale and administrative rationality. Within this new structure the State has also created two guidance committees, for energy and for WSS, and established new instruments for social participation, such as public hearings, public consultation, and an independent ombudsperson.

1.11 To address the needs of attaining universal coverage of potable water and proper sanitation, improving pollution control by increasing the amount of wastewater treated, and working on water resources management in accordance with current legislation, the State government and the Bank have agreed on a 10-15 year programmatic engagement in the WSS sector. This project represents an essential piece of this commitment. It builds on a rich partnership between the Bank and the GESP, as highlighted by Annex 1 which describes the key sectoral challenges the GESP has faced over the past two decades as well as the role of the Bank and its exit strategy for the respective operational engagements. The matrix also examines the sectoral issues for current and coming decades and the proposed roles and exit strategies for the Bank as this relationship further develops. The Bank is a key player in designing and supporting innovative approaches to the challenges facing the WSS sector. One of these approaches is the design of results-based actions to address water quality recovery and water quantity conservation

issues throughout the state. The State and municipal counterparts assert that the Bank plays a crucial role in moving such a complex agenda forward – a role that no other national or international partner has demonstrated the capacity and flexibility to undertake.

1.12 The proposed project clearly supports the new Country Partnership Strategy (CPS) in which water is recognized as an important part of promoting sustainable growth within a more equitable and inclusive society. The CPS states that Brazil continues to falter in the area of environmental sustainability, and that water scarcity and environmental degradation are urgent problems hindering Brazil’s sustainable growth. The Bank has been asked to help tackle several challenges, including that of urban development. In the past the Bank focused on upgrading slums and financing specific water and drainage interventions. However, in part because of the availability of federal money for such investments and in greater part so that the Bank engages at the higher value end of this challenge, the Bank “will now focus on...introducing results-oriented mechanisms for providing urban services.” The project objective is primarily to improve the efficiency and quality of service provision rather than its expansion. Increasing water availability, either by improving quality or recovering quantity, will benefit the state’s economy and population as a whole. The new CPS also supports long-term planning and strengthening of regulatory, policy and institutional environment, activities that will also be supported by this project.

1.13 The proposed project objectives are in line with the goals of the GESP as well as the water sector strategy for Brazil as part of the new CPS. The project also complements the forthcoming Mananciais Program, which focuses on pollution control and slum upgrading within the MRSP, and the 1994-2002 Sao Paulo Water Quality and Pollution Control Project (Guarapiranga), which over that period initiated the cleaning of the Guarapiranga river basin and brought WSS services to urban slums in the area. Although access to services by the poor and wastewater treatment are immediate WSS challenges in São Paulo, efforts to improve service efficiency have become increasingly important to reduce costs, increase investment capacity, and reduce water losses. The majority of Brazilian water utilities operate inefficiently, and in a monopolistic sector such as WSS there are few incentives to seek improvements. However, experience shows that sound regulation and enforcement combined with adequate economic and financial incentives can lead to efficiency gains. Results based approaches have proven to be a valuable incentive for service providers to develop more effective solutions as well as expand services for the poor.

2. Proposed project development objective(s)

2.1 The proposed project development objective is to increase water availability in the State’s critical watersheds through: (i) improving water demand management and water consumption efficiency, controlling and reducing water losses, and reusing wastewater; (ii) building new and optimizing existing sewerage systems, and cleaning selected water streams; and (iii) improving the WSS sector’s legal, institutional, and regulatory framework in the State, and supporting the project beneficiaries (municipalities and WSS providers) in the design, operation, and maintenance of the programs and facilities.

2.2 The project should directly benefit the population of São Paulo, notably the poor, who suffer greatest from inadequate provision of WSS, the critical watersheds, and the local environment. Project interventions will prioritize areas of extreme water scarcity as well as focus on serving the poor as defined by the São Paulo Social Vulnerability Index (IPVS). The expected benefits of the project are the: (i) expansion in the access to WSS services by increasing water availability; (ii) reduction in the levels of water pollution; (iii) sustainable use of watersheds; (iv) reduction of long-run costs of WSS provision by increasing the efficiency of service providers; (v) improvement in the levels of human and environmental health in the state by reducing exposure to water borne and environmental related diseases; and (vi) enhancement in the quality of life for the urban population affected by deteriorating environmental conditions and the deficient provision of WSS.

3. Preliminary description description

3.1 The project would be supported by a Sector Investment Loan (SIL). Project interventions will be focused on the watersheds of Piracicaba/Capivari/Jundiaí, Alto Tietê, Sapucaí Mirim/Grande, Mogi Guaçu, and Sorocaba/Médio Tietê – São Paulo’s five most critical watersheds based on a water demand/availability ratio of higher than 80 percent.

3.2 The project would encompass three components. The first two components would be focused on increasing the quantity of available water and improving the quality of water, respectively, and would be structured around functioning programs developed by SABESP, which make them ideal candidates to apply results-based financing approaches. The third component would be focused on the institutional and technical development of Sao Paulo’s WSS sector.

3.3 **Component One: Increasing water availability.** This component would finance activities aimed at increasing the quantity of available water in the targeted watersheds. Specific activities to be financed by this component include the reduction and control of water losses; the reduction of water consumption in buildings and public places; the implementation of reduced water consumption appliances in low-income housing; environmental education to spread knowledge on the control and rational use of water; and the reuse of treated wastewater.

3.4 **Component Two: Enhancing water quality.** This component would finance activities aimed at improving the quality of water in the targeted watersheds. Specific activities to be financed by this component include the construction of new sewerage systems, notably where wastewater currently goes untreated and small-size treatment plants offer satisfactory solutions; the optimization of existing sewerage systems, notably by building new sewerage connections to existing networks; and the control and reduction of water pollution in selected water streams.

3.5 **Component Three: Developing institutional and technical capabilities.** This component would finance activities aimed at increasing the efficiency of Sao Paulo’s WSS sector by enhancing and consolidating its institutional, legal and regulatory framework and the strengthening of its technical expertise. Specific activities to be financed by this component include establishing a complementary and more detailed WSS information system in the State to be used by ARSESP to develop additional/more precise performance indicators to better inform

and monitor WSS providers, by the state government to better define policy and planning, and by the WSS providers to improve their service; technical assistance to the State Secretary for Water and Energy (SSE), ARSESP, local governments, and service providers to speed up their compliance with the new federal and state laws; and technical assistance, capacity building and training to service providers in the design, operation, and maintenance of programs and facilities associated with the implementation of components one and two, including institutional restructuring, corporate governance and project preparation.

3.6 The SSE formed a Project Preparation Unit (UPP) to coordinate the preparation of the project. The UPP will design rigorous yet objective criteria to determine eligibility, priority, and selection of WSS providers. These criteria should be related to results indicators that can express real impacts on water quantity and quality. To do so the GESP in collaboration with the UPP will develop methodologies that link inputs, outputs, relative costs, and volume of water recovered. Priority will be given to populations that face high social vulnerability conditions – as defined by the IPVS Index (*Indice Paulista de Vulnerabilidade Social* of São Paulo's *Fundação SEADE*), as well as municipalities facing inter alia extreme water scarcity in watersheds, high volume of water losses, high levels of pollution, low coverage rates for sanitation and wastewater treatment.

3.7 The project is to be implemented over the course of five years. It will have a total cost of USD 130 million, with 60 percent financed by the World Bank and 40 percent financed by the Borrower, the GESP. The project would be partially financed through payments based on effective improvements in environmental quality and water supply. The project intends to go beyond traditional financing of works (inputs) by implementing arrangements that instead buy results in some components and activities. This Output Based Disbursement Mechanism (OBD) has proven to be a successful way to expand services, especially for the poor, as it provides incentives for service providers to develop more cost-effective solutions. The project aims to be a laboratory to test the possibility of using OBD mechanisms in a wide range of activities directly related to the quantity and quality of water throughout the rest of Brazil.

4. Safeguard policies that might apply

4.1 It is not envisioned that the project will entail any significant or irreversible negative impacts on the environment; on the contrary it is expected to have a positive environmental impact in the State by (i) preserving/increasing water quantity in critical watersheds; (ii) improving the quality of water; (iii) connecting people to existing and new sewerage collection and treatment systems; and (iv) increasing efficiency in the provision of water and sanitation services. Furthermore, selected investments will only be executed in consolidated urban areas, some of which might include improvements to protect river banks located in urban areas, and all project financed infrastructure facilities will be small-size investments since the size of the loan and the total project cost do not allow building larger facilities.

4.2 Environmental management mechanisms will be developed during the project preparation phase to examine the project's potential negative and positive impacts and define measures needed to prevent, minimize, mitigate or compensate for adverse impacts and improve environmental performance. These mechanisms will be submitted for Bank review and approval prior to appraisal. Moreover, the general quality of the State of Sao Paulo's procedures for

ensuring good environmental results and its extensive experience addressing environmental matters, are widely acknowledged, as is the appropriateness of the environmental legislation and institutional capacity in place. As required by the local law, the project activities will also be submitted for review and approval by the State environmental authorities. To ensure that the project complies with the Bank’s environmental and safeguard policies a framework for social and environmental assessment will be developed by SSE defining a set of minimum standards that should be met by any investment activity to be financed by the project. SSE will put in place a screening process that will identify and exclude from project financing any subproject that involves involuntary resettlement or that could result in significant and permanent negative impacts on the environment. Besides subproject eligibility criteria, specific criteria will also be defined for assessing and approving selected activities. An assessment of institutional capacity for environmental management will be conducted as part of project preparation. Moreover, the activities financed by the project must comply with both federal and local legislation in Brazil and be compatible with social and environmental assessment in the country. In addition, this project is under consideration to become a pilot under OP 4.00 for the application of country systems in the context of OP 4.01, OP 4.04, and OP 4.11.

5. Tentative financing

<i>Source</i>	<i>US\$ million</i>
Borrower	52.0
International Bank for Reconstruction and Development	78.0
Total	130.0

6. Contact point

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