



The World Bank

SABESP - IMPROVING WATER SERVICE ACCESS AND SECURITY IN THE METROPOLITAN REGION OF SÃO PAULO PROJECT (P165695)

Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 25-Sep-2018 | Report No: PIDISDSA24726

BASIC INFORMATION

A. Basic Project Data

Country Brazil	Project ID P165695	Project Name SABESP - IMPROVING WATER SERVICE ACCESS AND SECURITY IN THE METROPOLITAN REGION OF SÃO PAULO PROJECT	Parent Project ID (if any)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date 24-Sep-2018	Estimated Board Date 29-Nov-2018	Practice Area (Lead) Water
Financing Instrument Investment Project Financing	Borrower(s) SABESP	Implementing Agency SABESP	

Proposed Development Objective(s)

The Project Development Objectives are to increase access of vulnerable people to water services and to contribute to the reduction of water losses and pollution loads in the Metropolitan Region of São Paulo.

Components

Expand access to water services, reduce water losses and increase system resilience in the MRSP
 Reduce pollution loads to scarce water resources in the Guarapiranga water basin
 Technical assistance and Project management and supervision
 Contingent Emergency Response Component – CERC

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	350.00
Total Financing	350.00
of which IBRD/IDA	250.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	250.00
Non-World Bank Group Financing	
Counterpart Funding	100.00
Borrower	100.00

Environmental Assessment Category

B-Partial Assessment

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Country Context

1. **After a decade of rapid growth and social progress up to 2013, Brazil’s economy first stumbled and then fell into deep recession.** A decade of sound macro policies and a favorable external environment contributed to fast economic and social progress between 2001 and 2010. However, the deterioration in both factors led to a steady decline in growth declining from an average of 4.5 percent per year in 2006–10 to 2.4 percent in 2011–14, followed by contractions of 3.5 percent in 2015 and 2016. While external factors triggered the slowdown, an expansionary policy response led to rapidly rising fiscal disequilibria and, with rising domestic political uncertainty, a loss of confidence and sharp drop in investment. Economic recovery remains weak with 1 percent growth in 2017 and 1.2 percent growth projected in 2018.
2. **The crisis threatens a decade of development progress.** Brazil experienced an unprecedented reduction in poverty and inequality between 2006-2015 when 24.8 million Brazilians escaped poverty and the Gini coefficient of household incomes fell from 0.59 in 1999 to 0.51 in 2015. Most of this reduction was explained by the creation of formal sector jobs, resulting in a sharp decline in the unemployment rate to a low of 6.8 percent in 2014. However, the economic crisis precipitated a rapid rise in unemployment with job losses of 0.6 million in 2015 and 2.0 million in 2016. As a result, poverty increased in 2015 and 2016. With on-going tepid economic growth poverty is estimated to have leveled off at 20.6 percent in 2017.
3. **Restoring fiscal sustainability is the most urgent economic challenge for Brazil.** To address unsustainable debt dynamics, in December 2016 the government adopted a constitutional amendment to limit public expenditure growth, which entails an accumulated adjustment of 5 percentage points of GDP for the period 2019-2026 and would stabilize debt at around 89 percent of GDP by 2026, declining thereafter. Implementing this fiscal adjustment requires alleviating the rigidities affecting public spending and revenue earmarking mechanisms, which turn mandatory over 90 percent of the federal government’s primary spending. It will also

require a comprehensive reform of social security to halt the projected increase in the deficit and possible adoption of controls on the wage bill and rationalizing programs to support private sector development. This large fiscal disequilibrium also affects subnational governments with limited capacity to cope with growing wage bill and pension payments unless reforms are adopted.

4. **Brazil will also need to accelerate productivity growth and infrastructure development.** The income of an average Brazilian has only risen by 0.7 percent per year since the mid-1990s - one tenth the rate in China and only half the average in OECD countries. This is mainly explained by the lack of total factor productivity growth between 1996 and 2015. The productivity problem in Brazil stems from the lack of a conducive business environment, distortions created by market fragmentation, multiple business support programs, and a market that is relatively closed to external trade and competition. Brazil also posts one of the lowest infrastructure investment levels (2.1 percent of GDP 2000-2013) compared to its peers and the quality of this investment is low. Accelerating productivity growth remains a key priority for the country as the demographic transition is over and there will be given limited space for public sector led growth. Reforms could focus on boosting market competition, greater access to external markets and cheaper inputs and technologies and simplifications to the tax system. Higher levels of investment in infrastructure will also be needed to ensure adequate maintenance and expansion of existing infrastructure stock necessary to meet the needs of the population and to increase Brazil's prospects for further economic growth and competitiveness. This calls for improved planning capacity at government level, improving the regulatory environment and leveraging private resources to finance investments.

5. **Generating 33 percent of Brazil's GDP, São Paulo is the most populous state, a major industrial complex, and home to roughly 11 percent of the country's poor.** Located in the Southeast region of the country, the State of São Paulo houses roughly 46 million people (24 percent of Brazil's total population). An estimated 96 percent of its population is concentrated in urban areas, the largest of which is in the Metropolitan Region of São Paulo (MRSP). With almost 22 million habitants, the MRSP is the largest region in Brazil and one of the 10th largest in the world, generating close to 60 percent of the state's GDP. Despite its lead standing in terms of size and economy, approximately 0.7 million people live below the poverty line of US\$5.50 income per day¹ while almost 20 percent of the population of the MRSP falls under the high and very high social vulnerability category (which is 62 percent of the state's vulnerable population)². In São Paulo, as elsewhere in Brazil, households headed by single women with children were overrepresented among families living below the poverty line³, many of which live in vulnerable and high-risk areas with poor water and sanitation services.

Sectoral and Institutional Context

¹ IBGE, *Síntese de Indicadores Sociais 2017*, available at <https://biblioteca.ibge.gov.br/visualizacao/livros/liv101459.pdf>.

² In 2010 the Seade Foundation developed the São Paulo Social Vulnerability Index (IPVS), based on information derived from the Census. The index considers not only income data, but also various determining factors of social vulnerability such as inter alia, schooling, health, family structure, labor market, access to public services. https://www.seade.gov.br/wp-content/uploads/2014/06/Primeira_Analise_n8_novembro_2013.pdf.

³ The mono-parental families headed by women with children are among the most vulnerable social group. Extreme poverty – counted people living with a monthly household per capita income below the 5.50 US dollars threshold – hits 55.6 percent of these families in the country and 64.0 percent of the families headed by black women (IBGE, *Síntese de Indicadores Sociais 2017*). Mono-parental families headed by women with children also count for most of the families registered on the national flagship cash transfer program (Bolsa Família). They comprise 36 percent of the total beneficiary families of the program and 65% of them are extremely poor. (Ministry of Social Development, *Perfil das Pessoas e Famílias no Cadastro Único do Governo Federal – 2013b*).

6. **Brazil is characterized by a huge diversity in terms of needs and local conditions for water.** While home to 19 percent of total world freshwater resources, these are unevenly distributed. Whereas 70 percent of Brazil's freshwater is in the Amazon basin -- which houses less than 5 percent of the population -- only 1.6 percent of water resources are available in the State of São Paulo, where one-fourth of the population resides. The country's contrasting climates, population densities, and development patterns have resulted in wide differences in water supply and demand among regions. Water availability is rapidly becoming a major constraint to growth and the poor are more directly and disproportionately affected by the lack of water.

7. **The need to efficiently manage competing water and development demands is particularly relevant in the State of São Paulo.** Half of its 22 water basins face crucial water shortages⁴ – due to the increase in population and high urban concentration which impact water quality – the worst being the Upper Tiete basin responsible for 88 percent⁵ of the average water supplied to the MRSP. The per capita water availability of 140 m³/inhabitant/year for the MRSP is comparable to the driest areas in the Northeast. While 95.6 percent of the State's households are connected to the water supply network, only 79 percent are connected to the sewerage network, of which, only 62 percent is treated. Hence, a considerable amount of wastewater is discharged directly into water bodies, further impacting the quality and availability of water in the region. Water services will also become increasingly vulnerable to climate variability. The 2014-15 drought and water crisis that affected São Paulo and its MRSP is likely to become more frequent and severe. Droughts not only decrease water availability but also worsen water quality by reducing the capacity of rivers to dilute pollution loads.

8. **The São Paulo State Water Utility (SABESP) provides water supply and sanitation (WSS) services to two-thirds of the state's population.** SABESP has concessions contracts⁶ with 368⁷ municipalities in the state, directly providing WSS to approximately 28 million people⁸. In these municipalities, 98 percent of the households are connected to the water supply system while 89 percent are connected to sewerage, of which 74 percent is treated. To supply water to the MRSP, SABESP operates an Integrated Water Production System composed of seven production systems, with 19 dams or reservoirs (see details on SABESP in Annex 2-A).

9. **More equitable and widespread WSS provision is key to reducing poverty, promoting shared prosperity and ensuring the overall wellbeing of a growing population.** The majority of São Paulo's four million inhabitants are at high and very high risk, living in informal settlements or slums located at the fringes of metropolitan regions in the state. In the MRSP, an estimated 300,000 low-income households are not formally connected to the water supply network but rely on illegal connections. These connections contribute significantly to water losses and inefficiencies in the system and expose users to dangerous coliforms and other pathogens.

10. **Growing encroachment and pollution of the Guarapiranga Water Basin increases the risk to the population and economy of the MRSP.** The Guarapiranga reservoir supplies water to a quarter of the MRSP's population. Uncontrolled urban growth, irregular settlements and untreated wastewater discharge continue to rapidly deteriorate the quality of water in this critical reservoir. Significant progress has been made since the 1990s in cleaning up this reservoir, including through the World Bank financed Guarapiranga and Mananciais

⁴ São Paulo Water Resources Report, 2016 (SigRH website).

⁵ Data informed by SABESP based on 2017 average water production by water system.

⁶ Concessions contracts (usually 30-year long) includes gradual targets to expand and improve WSS services, based on the Municipal Sanitation Plans and other state planning instruments. The services include: intake, transport and treatment of raw water; transport, reservation and distribution of treated water; and, collecting, transport, treatment and final disposition of wastewater.

⁷ 281 concessions contracts are regulated and supervised by the *Agência Reguladora de Saneamento e Energia do Estado de São Paulo (ARSESP)*.

⁸ 27.9 million people direct users and 3 million through bulk water supply to four municipalities.

Projects⁹, however there is much to be done to complete the universalization of sanitation services and clean-up of this important water basin. Although water and sanitation services have reached a significant number of neighborhoods, many informal settlements remain unserved and continue to contaminate the reservoir. The persistent financial constraints of municipalities have limited investments in upgrades and expansion of sewage systems. Nevertheless, SABESP collects and treats roughly 70 percent of the wastewater produced within the Guarapiranga basin. In addition, SABESP manages a proactive program to reduce overflows, breakages and leakages of the sewage system, along with clean-up programs of rivers within the basin.

11. Increasing water security is critical to sustaining the local economy and the quality of life of São Paulo. In 2014 and 2015, the State of São Paulo faced one of the most serious droughts in recorded history. In February 2015, the total water volume in the MRSP reservoirs was at 22 percent of its capacity. Total water production fell from 71.4 m³/s, in February 2014 when the drought intensified, to 54.8 m³/s, in December 2015. SABESP adopted a number of emergency measures to reduce the impacts of the drought. Water demand management was promoted with the provision of financial incentives to reduced consumption. Between 2014-16, about 80 percent of water consumers received a bonus for reduced consumption, which resulted in an average reduction from 155 to 118 liters/person/day¹⁰. SABESP also expanded pressure reducing valves to 55 percent of the network, significantly reducing water losses and increasing water supply control, which accounted for an estimated 50 percent in water savings throughout 2015.¹¹ New water storage facilities and pumps to access the remaining water in reservoirs were built (raising much interest of national and international water utilities). Ultrafiltration membranes were installed to increase water treatment capacity of the Guarapiranga water treatment plant. These measures combined with investments¹² to increase water transfers within the existing seven water caption systems, resulted in an increase of 10 m³/s to the integrated system. The World Bank financed Mananciais Project funded half of this increase.

12. Water shortages and the current macroeconomic issues continue to provide major challenges to the sector and SABESP. The water crisis combined with Brazil's persisting macroeconomic situation since 2014 continue to bring uncertainties and restrictions to SABESP. Although the volume of water in reservoirs serving the MRSP increased to 49 percent¹³ of their capacity in 2017 and the critical impacts on water supply availability have gradually subsided, SABESP faces new paradigms as the consumption rate has declined by 23 percent¹⁴ and large customers have migrated to other water supply sources. There are also uncertainties concerning tariff increases in the short term, particularly regarding remuneration over asset base. Despite the 6.9 percent extraordinary tariff increase in 2015 to compensate higher water supply costs and reduced consumption, it did not compensate for the losses in revenues resulting from the bonus program. The Regulatory Agency of Sao Paulo (ARSESP) considered the bonus as a demand-driven management decision taken by SABESP and not part of the formal tariff structure. However, SABESP is currently requesting the inclusion of the bonus in the tariff

⁹ Guarapiranga Project – São Paulo, Paraná and Federal Government Water Quality & Pollution Control Project SAR N^o. BR-28962 (1992), Loan Agreement BR-3503 (1992), closed in 2002; Mananciais Project - Integrated Water Management in Metropolitan São Paulo Horizontal Adaptable Program Lending (APL) – Loan Agreements BR-7661; 7662 and 8149; approved in 2009 and closed in 2017.

¹⁰ SABESP. CHESS. 2015 - http://site.sabesp.com.br/site/uploads/file/crisehidrica/chess_crise_hidrica.pdf

¹¹ SABESP - Relatório da Administração, 2015.

¹² Drawing on recommendations in particular from the “Plano Diretor de Aproveitamento de Recursos Hídricos para a Macrometrópole Paulista”, COBRAPE, 2013.

¹³ 1.8 billion m³. Without the emergence works it is estimated it would be 6.5 percent lower. SABESP, *Relatório da Administração*, 2017.

¹⁴ In 2017 water consumption per capita was 130 l/day, same as in 2016, and 23% lower than the 169 l/day registered in 2013. SABESP – *Relatório de Sustentabilidade*, 2017. Current consumption per capita informed by SABESP averages to 149 l/day.

structure to manage future crisis's. As a result, SABESP has not been able to financially recover from the crisis and reestablish EBITDA¹⁵ back to pre-drought levels. In addition, the financing of emergency investments had a negative impact over SABESP's indebtedness capacity¹⁶.

13. **SABESP has adopted a comprehensive investment plan aimed at ensuring universal water supply, reducing water security risks, and promoting economic and financial sustainability.** The 2018-2024 Investment Plan includes three main areas for investments: (i) expansion of access to water and sanitation services; (ii) rehabilitation and renewal of existing networks; and (iii) improvements in energy efficiency, operational and institutional performance. The investments total BRL 24.7 billion (approximately US\$7 billion) of which 44 percent is allocated to the MRSP region. About 66 percent will be financed with own budget and 34 percent from loans, of which 56 percent are already effective¹⁷ and the remaining is being prepared¹⁸. The proposed Project will finance part of SABESP's Investment Plan in the MRSP region. The proposed Project will assist SABESP in achieving the goal of reducing water losses by 34 percent of the needed replacement of 2,600 km of aging pipelines and connecting 79 percent of the 240,000 households of the *Água Legal* Program's by reducing illegal connections and non-revenue water. The Plan also includes investments in the sanitation program for the MRSP, with an estimated cost of BRL 1.3 billion. The proposed Project will fund approximately 20 percent of the Plan, and target investments in Guarapiranga basin.

14. **In a constrained environment, innovative approaches are necessary to reach WSS for all in a sustainable way.** The proposed Project will introduce and solidify some innovative approaches and draw lessons from other experiences to be replicated by other utilities in and outside Brazil. Technical innovations and customized solutions combined with output and performance-based contracts will be scaled up. The successful experience of SABESP with these contractual models to manage water losses will be tailored to other type of interventions to: (i) ensure high quality and well performing outputs; (ii) transfer the performance risk to the contractor; and (iii) allow for a more favorable disbursement schedule. Expanding this contractual model to other capital intense investments and social activities will require challenging adjustments to be supported by the Project. The proposed Project will pilot innovative technologies for river clean up, increasing energy efficiency of pumping stations and improving operational efficiency of treatment plants. The experiences and results will be closely monitored and recorded to draw lessons to be shared with other utilities around the world.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

15. The Project Development Objectives are to increase access of vulnerable people to water services and to contribute to the reduction of water losses and pollution loads in the Metropolitan Region of São Paulo.

Key Results

16. The proposed PDO would have the long-term objective of securing the access of communities to safe and sustainable water services by SABESP and of contributing to ensure water resources are secured for the future even in the context of climate variability associated risks. The following indicators will measure the proposed

¹⁵ Earnings Before Interest, Taxes, Depreciation, and Amortization.

¹⁶ SABESP, *Orçamento Empresarial 2018 e Plurianual até 2014 – Diretrizes Operacionais, 2017*.

¹⁷ Loans already effective: BNDES, BRL 1.32 billion; Caixa, BRL1.36 billion; IDB, BRL 313 million; JICA, BRL 248 million; and FINEP, BRL 34 million. Source: SABESP, *Estruturação do Financiamento do Programa de Investimentos*, September 2017.

¹⁸ Loans under negotiations: IDB, BRL 840 million; Caixa, BRL 700 million; Debentures, BRL 600 million; IBRD, BRL 520 million. Source: SABESP, *Estruturação do Financiamento do Programa de Investimentos*, September 2017.

PDO outcomes:

- (a) People¹⁹ provided with access to improved water sources (number) – core indicator
- (b) Volume of non-revenue water reduction (millions of cubic meters)
- (c) Volume of wastewater removed from the Guarapiranga basin sent to treatment²⁰ (liters per second)

D. Project Description

17. **Component 1 – Expand access to water services, reduce water losses and increase system resilience in the MRSP (US\$ 255.8 million):**

(a) *Subcomponent 1.1: Increase access of the vulnerable population to WSS services (US\$ 73.9 million).* The scope of this subcomponent is to increase water supply and sanitation services access to vulnerable people in peri-urban areas of the MRSP by scaling up the “Água Legal” Program. The Project will benefit families that face high and very high social vulnerability (as per IPVS) living in low-income areas in the peri-urban areas of the MRSP by connecting them to the existing SABESP WSS network, including preparation and implementation of social development plans and activities.

(b) *Subcomponent 1.2: Rehabilitation and renewal of critical water networks (US\$ 128.7 million).* The scope of this subcomponent is to reduce leakages in the water network by scaling up SABESP’s replacement program of critical aging water networks²¹, including inter alia the replacement of reticulation mains, pipelines and water connections in the MRSP. This subcomponent aims to reduce non-revenue water; reduce potential impacts on the quality of the supplied water; reduce the natural rate of loss growth; increase resilience and water availability in the system; reduce operational costs and improve asset management in the overall MRSP network and enable SABESP to expand water services in peri-urban areas and increase system resilience.

(c) *Subcomponent 1.3: Reducing water losses in specific water sectors in two low-income neighborhoods (US\$ 41.0 million).* This subcomponent’s scope is to reduce water losses in specific water sectors with a comprehensive water losses reduction plan, including, inter alia, district metered areas (DMAs), infrastructure replacement, pressure control as well as active leakage repair in low-income neighborhoods located in the Guarapiranga and Billings Basins. The existent water distribution control measures in both areas are weak and the water losses rate is very high. These interventions are consistent with the priorities of the approved MRSP water master plan (2016).

(d) *Subcomponent 1.4: Repairing and improving operation & maintenance of assets, lifespan extension of the MRSP Dams System (US\$ 12.2 million).* This subcomponent aims to increase the resilience of the main water sources of the MRSP water production system in order to sustain long term water services access by improving the safety of the dams and associated structures. This subcomponent will support activities to improve SABESP’s safety of the dams with regards to, inter alia, correction of anomalies and repair of dams’ associated structures; increase control of eroded material or leaks; acquisition and installation of monitoring, control, electrical and mechanical equipment; and supervision of such activities.

¹⁹ People here refers to the population that will benefit from subcomponent 1.1 interventions that are in the lower end of the IPVS range.

²⁰ Wastewater will be sent to the existing Barueri treatment plant with total treatment capacity of 16,000 l/s, currently treating around 13,000 l/s.

²¹ Networks were selected using a robust multicriteria analysis. Details are presented in Annex 2.



18. Subcomponents 1.1, 1.2 and 1.3 are expected to combine output and performance-based contracts (tailored to each subcomponent) to carry out the proposed activities. Additional details can be found in Annex 2.

19. Component 2 – Reduce pollution loads to scarce water resources in the Guarapiranga water basin (US\$59.9 million):

(a) *Subcomponent 2.1: Expanding sanitation services provision to vulnerable people (US\$31.3 million).* This subcomponent will expanding sanitation services provision to the vulnerable people by reducing the direct discharge of sewage on water bodies upstream of the Guarapiranga through, inter alia, investments including sewerage networks, collectors, pumping stations and connections to the existing Barueri Wastewater Treatment Plant.

(b) *Subcomponent 2.2: Reducing pollution loads in rivers (US\$ 16.0 million).* To further help reduce the pollution loads reaching the Guarapiranga reservoir, the subcomponent will invest in innovative approaches to remove nutrients from rivers in the Embu Mirim river which contains about 41 percent of the nutrient load currently released in the reservoir. This activity would also assist in accomplishing the maximum target of pollution load reaching the Guarapiranga reservoir, as defined in the water quality law for the reservoir.

(c) *Subcomponent 2.3: Increase sewerage system reliability (US\$ 12.6 million).* Under this subcomponent, the proposed Project would finance (a) the rehabilitation and modernization of existent sewerage pumping stations in the Guarapiranga Basin; (b) the replacement of the Guavirutuba Sewerage Main Trunk Pipeline; and (c) the replacement of the Talamanca Discharge Pipeline. The rehabilitation and modernization of existent sewerage pumping stations are an integral part of the existing sewerage systems that transport untreated wastewater to treatment plants located in a different river basin. The proposed rehabilitation and modernization aim at addressing the frequent failures these facilities face by increasing their resilience to operate in adverse conditions. The subcomponent would also finance the replacement of the Guavirutuba sewerage main trunk pipeline. This subcomponent would likewise finance the replacement of the Talamanca discharge pipeline which was also built some 30 years ago and is facing severe operational failures and material deterioration. In total, activities proposed under this subcomponent would benefit low-income people living in the MRSP periphery and, is also expected to improve asset management and the population's health and quality of life.

20. Component 3 – Technical assistance and Project management and supervision (US\$ 34.3 million).

(a) *Subcomponent 3.1: Exploring innovative approaches, strategic studies and alternative-pilot solutions (US\$3.2 million).* It includes bringing in innovate approaches, implementing alternative-pilot solutions, preparing key strategic studies, documenting case studies and best practices, providing training material, and promoting knowledge-sharing events, among other activities, to support SABESP in responding to key sector and institutional challenges. Identified studies and activities may include: (i) Energy micro generation study; (ii) Automation system pilot; and (iii) SABESP Metropolitan Department Operational System Integrated Plan. At corporate level, this subcomponent will support SABESP in improving technical capacity to deal with regulatory requirements and asset management.

(b) *Subcomponent 3.2: Project Management and Supervision (US\$ 24.6 million).* This subcomponent aims to support SABESP with project management and works supervision demands. The contracting of firms and/or individual consultants to assist with project supervision of all works and to support SABESP's PIU in monitoring Project activities would be fully paid with counterpart funds.

(c) *Subcomponent 3.3: Institutional support, development of studies, plans, designs and investigations to support the renewing and lifespan extension of the dams in the MRSP (US\$ 6.5 million).* This sub-component will support the increase the institutional capacity and the development of key dam safety-related tools to enhance SABESP's capacity to respond to the dam safety requirements and benchmarks.

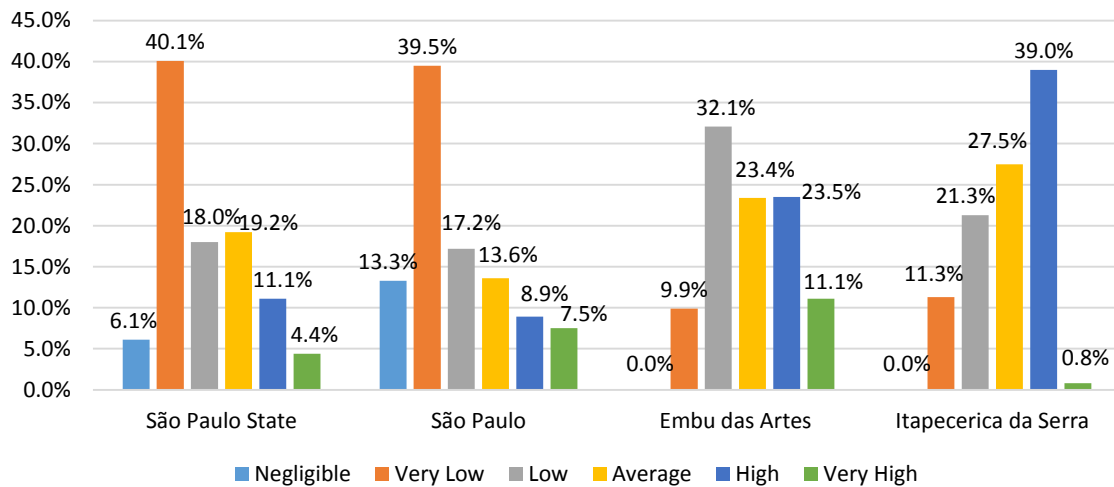
21. **Component 4: Contingent Emergency Response Component – CERC (zero budget).** The objective of this component is to provide immediate support to SABESP in responding to an eligible crisis or emergency by quickly re-allocating project funds. This component is a zero-fund disaster recovery contingency component that could be used in the event of a crisis or an emergency. A crisis or emergency eligible for financing is an event that has caused, or is likely to imminently cause, a major adverse economic and/or social impact, associated with a natural or man-made crisis or disaster. Once the CERC is activated, the funds can be mobilized quickly from uncommitted funds towards response-activities, with minimal procedural steps. SABESP would be the implementing agency of the CERC. As first year activity of project implementation (and as conditions for disbursement of the CERC component), SABESP will prepare, with the Bank's support, a CERC Annex to the Project Operations Manual (POM). This CERC Annex will lay out, as detailed as possible, the provisions for activating and implementing the CERC and the operational, fiduciary and technical details of the CERC. The criteria for activation would include a submission of a formal request from the Government to the Bank for support for an eligible emergency through the CERC (as indicated by formal documents issued by either/or ANA and DAEE, related to the main MRSP reservoirs²²), the preparation by SABESP of an acceptable Action Plan of Activities (APA) for the use of CERC funds, and the Bank's approval of such Plan. CERC may finance works, goods, non-consulting and consulting services, training, and operating costs.

22. **Project Beneficiaries.** The project would contribute to increase the safe and legal access to water services for up to 665,000 very poor people (190,000 families) living in outskirt areas in the MRSP with high social vulnerability as measured by IPVS.²³ In addition, it will increase access to sanitation to about 24,150 people (6,900 families) living in the municipalities of Embu das Artes and Itapeverica da Serra, which face high and very high social vulnerability. Furthermore, an additional 400,000 people are expected to indirectly benefit from the replacement of aging water supply networks in the MRSP, and 850,000 people living in low-income neighborhoods of Jardim Angela and Grajau, with improved and more reliable water supply services. Also, the interventions to sewerage main trunk and discharge lines will benefit 80,000 and 306,000 vulnerable people respectively, also living in the poorest neighborhoods within the MRSP. Overrepresented in the higher levels of social vulnerability according to IPVS, the beneficiary families of these Project activities are characterized by poor socioeconomic and living conditions as well as by large parcels of households headed by youth, women, and the elderly. In total, the interventions supported by the proposed Project will provide direct benefit to more than 2 million people, mostly in vulnerable areas. Indirectly, the proposed Project will benefit a much large number of people living in the MRSP by reducing the water security risks.

²² Formal documents by ANA and/or DAEE may include "Portarias" publicly available at the respective websites informing restrictions to SABESP for the total volume of water intake possible due to an emergency (usually caused by droughts in main water systems).

²³ IPVS indicator – levels 5 and 6 (2010). Indicators of high social vulnerability areas include household income per capita, average income of the head of the family by gender, percentage of heads that are literate, average years of study, percentage of children 0 to 5 years old, among others.

Graph 1. Social Vulnerability Index (2010)²⁴



23. **Citizen engagement.** Dissemination events and public consultation processes with key stakeholders, beneficiaries, and affected people were carried out by the borrower during preparation (further information provided below). Throughout implementation, SABESP will rely on its robust strategy of engagement with interested parties for the works of its *Programa Água Legal*. Beneficiary communities will be consulted prior the start of civil works and social development plans will be developed in each one of them. These social development plans comprise: (i) a mapping exercise of community leaderships; (ii) demographic and socio-economic profile of beneficiary families; (iii) educational and awareness raising meetings and household visits; (iv) dissemination of gender-sensitive communication materials; (v) periodic meetings with community leaderships to evaluate the provision of WSS by SABESP; and (vi) satisfaction researches at the end of the works. The project would rely on both the social development activities carried out at the local level and the network of community leaderships (and their periodical meetings) to increase awareness about the efficient use of water resources and the protection of water sources, promote environmental and sanitary education, improve civil participation and get feedback from the beneficiaries of subcomponents 1.1 and 2.1.

24. **Grievance Redress Mechanism (GRM).** SABESP has already in place several channels for receiving and redressing complaints. In addition to service agencies in all municipalities covered by SABESP, these channels include a website, online chat, and free telephone lines with special services for hearing- and speech-impaired persons. On top of this, SABESP has an Ombudsman Office (with a dedicated toll-free phone line, website, and e-mail address). The project’s GRM will rely as much as possible on these structures, processes, and procedures that are already in place in the implementing agency, but additionally an exclusive free of charges telephone line will be made available to receive and process complaints related with project implementation. The operation of the project’s GRM will be periodically reported to the Bank and monitored according to agreed performance indicators.

25. **Gender.** Preliminary gender-sensitive assessments carried out during preparation identified that SABESP lacks information on (i) the composition of families that have access to its water and sanitation services, (ii) how perceptions

²⁴ Source: SEADE Foundation/Assembleia Legislativa do Estado de São Paulo - <http://indices-ilp.al.sp.gov.br/view/index.php?selLoc=0&selTpLoc=2&prodCod=2>.

of service accessibility and quality vary among men and women, and (iii) how levels of satisfaction with water and sanitation services also vary according to gender. In consequence, it concludes that (iv) the information disseminated by Sabesp with regards to sanitation and the importance of upgrading sanitation facilities lacks on gender sensitive. The preliminary assessment also identified that: (v) women headed households have recently grown in the Metropolitan Region São Paulo, now comprising more than 40% of the families; (vi) women headed households have lower income levels than men's and this gap has grown (from 6.1%, in 1995, to 10.8%, in 2015, at the country level); (vii) women headed households are overrepresented among the low-income population living in peri-urban communities, and, consequently, (viii) they are disproportionately impacted by unreliable access to water and sanitation services. Hence, the assessment also concluded that Sabesp needs to better understand (a) the societal dynamics of low income families among the vulnerable groups that are the main beneficiaries of the Project's subcomponents 1.1 and 2.1, and the different impact these subcomponents may have according to the gender of household heads to reach its goals of social inclusion and sustainability.

26. **The project is gender tagged.** First, subcomponents 1.1 and 2.1 aim to provide reliable access to water and sanitation services to poor and extremely poor communities where women headed households tend to be overrepresented and to foster connections by providing subsidies to these families.²⁵ Thereby, the project will contribute to remove barriers to poor and extremely poor women's access to affordable and reliable WSS services. Second, under these subcomponents the project will develop and carry out "social development activities", which will comprise: (i) the preparation of demographic and socioeconomic profiles of its beneficiaries; (ii) the preparation and dissemination of gender-sensitive sanitary communications and awareness raising materials through both community meetings and household visits; and (iii) an adaptive planning of the social development activities based on lessons learned and evidences generated by a continuous process of results monitoring and evaluation.²⁶ Finally, the project is gender tagged because it will track – on a gender-sensitive basis – (a) access to WSS services by low income groups, (b) levels of satisfaction with services provided, and (c) levels of satisfaction with the community development plans.

27. **Screening for climate change and disaster risks:** the project has been designed to increase local water sector resilience to climate-induced shocks, especially drought. Potential climate-related benefits from Project's components involve i) a reduction in vulnerability through increased water savings and pollution controls, ii) increased water productivity by investing in infrastructures that would allow better integration of systems to cope with water scarcity, and treatment of water outflows, iii) stronger mitigation of human and environmental risks by providing access to safe water and sanitation services; iv) energy efficiency gains by improving policies and testing pilots that could generate energy and/or reduce its use; and v) reduction in sources of system's obsolescence by upgrading key aspects of wastewater and sanitation infrastructures. Please refer to the Project's PAD Annex 3 for a detailed breakdown of each sub-components' contribution to increased local climate resilience in the water sector and mitigation activities.

E. Implementation

²⁵ Sabesp policy of subsidies to encourage and support access of low-income families to water and sewerage services are comprised in the so-called "social tariff" for users with low monthly water consumption levels and specific socioeconomic profiles (10 cubic meter). The "social tariff" cadaster mostly enrolls women (%). The project will also track rates of nonpayment among project beneficiaries in comparison to other groups benefitting from the "social tariff" policy.

²⁶ Gender-sensitive messages in sanitary education activities comprise messages that are aligned with and tailored to specific interests and concerns of men and women, for example, by considering major ways of how men and women obtain information, specific literacy rates of men and women, or the explicit elaboration and presentation of benefits.

Institutional and Implementation Arrangements

28. **Project implementation arrangement.** SABESP will be the Borrower of the loan. The Planning and Control Unit (MP), under the Metropolitan Department (M), will coordinate the Project implementation. In this regard, the SABESP's Board of Directors will create the Project Implementation Unit (PIU) with roles, decision making capacity and responsibilities satisfactory to the Bank before negotiations. A chart nominating and identifying specific responsibilities to the staff participating in the PIU has been discussed with the Bank. The final list of staff taking part at the PIU will be presented to the Bank during negotiations. The main profiles and team composition for the PIU will be included in the Operations Manual.

29. Several units, all under M, will be in charge of the implementation of the activities that fall under their regular responsibility. Other departments beyond M will also participate in the Project implementation as follows: (i) unit responsible for fundraising and monitoring disbursement aspects from the Financing Department; (ii) unit responsible for procurement and contracts from the Corporation Management Department, (iii) unit responsible for corporate level regulatory aspects in SABESP's CEO Office. Within M, the following units will participate in the Project implementation: Business Units (downtown, north, east, and west). The Business Unit for Water Production (MA), the Entrepreneurship Management Division (ME) and the Comptroller Division (MDC) will also participate in Project implementation. Annex 1 presents the arrangements proposed for Project implementation.

30. **Project management support.** Based on lessons learned from previous Projects, a support to MP in managing the Project will be provided by a consulting firm with acknowledged expertise in implementation of multilateral-financed operations. Subcomponent 3.2 will include the details of the support to be provided by the firm which would include, inter alia, monitoring and planning Project implementation, safeguard and fiduciary-related demands, validation of contracts' performances and ad-hoc demands.

31. **Overall supervision of works:** In addition to the Project management firm, consultancies to supervise specific Project activities are envisaged, inter alia: (i) Supervision of the execution of the activities for subcomponents 1.1 (a specific contract); and 1.2 and 1.3 (in another contract), under the management of MP; and (ii) Supervision of activities in Component 2 under the management of ME.

32. **Capacity in managing financed operations:** SABESP has a strong experience in managing operations financed by various banks, including large loans financed by multilateral agencies. The proposed Project is properly rooted in its organizational structure, especially at the Metropolitan Planning unit, and linked with SABESP's business plan priorities. Having support from consultancy firms to manage a project is a common practice in SABESP (e.g IADB and JICA financed- projects) in order to have more dedicated qualified team members to support carrying out heavy Project-related activities.

33. **Institutional capacity for social and environmental risk management.** SABESP has considerable and successful experience working with the World Bank and applying its safeguard policies. The overall environmental and social safeguard policies were addressed adequately during the implementation of the Mananciais Program, which triggered same safeguard policies as the proposed Project. An Environmental Impact Analysis, a Social Assessment, an Environmental Assessment Report, and a Resettlement Policy Framework were prepared by São Paulo State Secretary of Water Resources and Sanitation (SSRH) and SABESP, which has also satisfactorily implemented some Resettlement Action Plans and managed environmental and social risks.²⁷ In addition, as required by the Brazilian environmental licensing procedures, specific environmental studies were conducted.

²⁷ Follow-up activities related to complying with the Safety of Dam Panel's recommendations for the Taiaçupeba dam are being monitored.

34. **SABESP corporate governance and auditing procedures.** SABESP's corporate governance structure includes a Board of Directors assisted by an Audit Committee, Fiscal Council, and an Internal Audit Department that reports to the CEO, whose activities are overseen by the Audit Committee. KPMG (independent auditors) issued an unmodified opinion over the latest available (FY2016) consolidated financial statements. The consolidated financial statements are under the responsibility of its Board of Directors and have been prepared in accordance with International Financial Reporting Standards issued by the International Accounting Standards Board. The federal and state government auditing institutions also audits SABESP.

F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

Project activities will take place within the Metropolitan Region of São Paulo (MRSP), which is composed by the state capital city of São Paulo and 38 neighboring municipalities. The MRSP is situated on a plateau, at an average altitude of 750 meters above sea level and distant about 60 km from the coast. The MRSP comprises an area of 8,000 km². Thirty-four of these municipalities are located in the Upper Tietê River basin. Extending over 5,985 km², the Upper Tietê basin covers a highly urbanized area and is characterized by low levels of water availability, comparable to that prevailing in the driest areas of the Brazilian Northeast. Its superficial water resources are scarce. Water supply and demand balance is a critical issue for sustainable growth in the MRSP's. The MRSP houses a population of nearly 21 million people. The MRSP generates half of the Gross Domestic Product (GDP) of the State of São Paulo and about 20 percent of the Brazilian GDP. Nevertheless, about 4 million people living in the MRSP are socially vulnerable, whereas 5.6 million live under the poverty line (per capita household income up to US\$ 5.50 per day) in the state of São Paulo. Mostly of them live in the peripheral areas of the MRSP and in precarious urban settlements. The proposed project includes activities that aim to ensure reliable access to water and sanitation at low-income areas of the MRSP, benefiting about 200,000 families (about 570,000 people). It also includes the financing without costs for these low-income families of their intra-household connections to the water and sewage systems as well as awareness raising, educational and social development works. Low income families are eligible to a system of subsidies (called "Tarifa Social") granted by Sabesp. These works will focus on the municipalities of Embu das Artes, Itapeverica da Serra and the south and southwest administrative regions of the municipality of São Paulo. These areas show above than state's average levels of high and very high social vulnerability as measured by the Sao Paulo Index of Social Vulnerability ("Índice Paulista de Vulnerabilidade Social" – IPVS) . Regulating access to water and providing access to sewage, the proposed activities would contribute to reduce water losses and improve the quality of the water offered to the population. The Project is expected to have positive impacts on public health and the environment.

G. Environmental and Social Safeguards Specialists on the Team

Alberto Coelho Gomes Costa, Social Safeguards Specialist
Maria Bernadete Ribas Lange, Environmental Safeguards Specialist
Juliana Medeiros Paiva, Social Safeguards Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>The proposed project include activities that aim to regularize the supply of water at low-income areas of the MRSP by making available the needed infrastructure for supplying water, measuring consumption and collecting sewage and including construction of civil works - small physical interventions related to the complementation of sanitary sewage systems (networks, trunk collectors, interceptors and pump stations) and replacement of existing networks . As the adverse environmental and social impacts are expected to be site-specific, reversible and readily mitigatable through the project management; the project was classified as category B.</p> <p>The proposed Project will not result in environmental category A type impacts. In case new activities would result in environmental category A type impacts, then the activities would need to be evaluated through an environmental impact assessment (EIA) or regional EIA/sectorial EIA. No activity with environmental category A type impacts would be financed by the Project without the Bank clearance.</p> <p>Although the proposed Project locations are not yet fully defined, mitigation measures would be required for the following potential environmental impacts which may arise because of typical project:</p> <ul style="list-style-type: none"> - Increased pollution from the improper disposal of construction materials and/or hazardous substances. - Community infrastructure investments and other project activities may impact unknown physical or intangible cultural heritage. - Construction activities can bring about noise, dust, and wastes. - Communities can be affected by the use of local roads for construction, affecting traffic patterns and



local infrastructure, increasing levels of noise and dust and other nuisances thus generating conflicts with local communities.

The mitigation of environmental and social impacts during construction require the application of good practices and close supervision of contractors. The application of Environmental, Social and Health requirements during construction will be a prerequisite.

Since many of the actions will be defined during project implementation, and not have the specific location and technical details defined, and Environmental and Social Management Framework (ESMF) was prepared.

This ESMF contemplates the environmental guidelines, including special care in the case of replacement of cement-asbestos networks, specified in the Environmental Construction Manual, which is part of the ESMF.

The ESMF gives special consideration to impacts and benefits for vulnerable social groups and incorporates a gender sensitive lens. It provides inputs to the project's Environmental and Social Management Framework (ESMF). Potential adverse impacts related with involuntary resettlement were addressed through the preparation of a Resettlement Policy Framework (RPF).

An institutional capacity assessment of the implementing agency for management of social and environmental risks was also carried-out and provided inputs for an institutional capacity building strategy set at project's Environmental and Social Management Framework (ESMF).

The ESMF and the RPF set the processes and procedures for the operation of a Grievance Redress Mechanism (GRM). This GRMs relies mostly on Sabesp robust channels of engagement with key stakeholders and other interested parties, but adds a specific toll-free phone line.



Consultations with key stakeholders, beneficiaries, affected people and other interested parties have been carried-out by the Borrower during preparation. These consultations addressed the findings of the social and environmental assessment and evaluate the identification of impacts and benefits derived from project activities as well as the proposed measures to avoid, minimize and/or mitigate adverse impacts.

The proposed Project will involve construction of civil works, but no significant labor influx is expected. Nevertheless, the project Environmental and Social Management Framework (ESMF) and bidding documents will include specific measures to address labor requirements and performance, assess and manage labor influx risk, as well as monitor potential impacts from labor influx.

The ESMF (in its Environmental Manual for Civil Works) sets the guidelines and principles of a proper “Code of Conduct” to rule the daily relationships between laborers and local people.

Specific Environmental and Social Management Plans (ESMPs) – based on the ESMF – would be prepared for the civil works to be carried out during implementation. ESMPs’ preparation would include location-specific consultations with stakeholders.

Performance Standards for Private Sector Activities OP/BP 4.03	No	This policy is not triggered, as the proposed project does not include Bank financing for private sector. The responsibilities for identifying, assessing and managing environmental and social risks and impacts will be fully owned and operate by the public sector.
Natural Habitats OP/BP 4.04	Yes	This policy is triggered. The project (components 2.1 and 2.2) may intervene in riparian Permanent Preservation Areas (APPs in Portuguese). Based on the Brazilian legal framework, an APP is an area, covered by native vegetation or not, with the environmental function to preserve water resources, landscapes, geological stability and biodiversity, facilitate genetic flows of fauna and flora, protect



the soil, and ensure human wellbeing. APPs include riparian areas of watercourse and the reservoirs in urban areas.

The Forest Code permits the removal of vegetation in urban APPs, provided by public utility or social interest, including water and sanitation services, which are considered of low environmental impact. The APPs of riparian areas of watercourses vary in width, depending on the width of the watercourse, with a minimum of 10 meters, case of water courses in the project's area of activity. In the case of natural or artificial lakes/reservoirs located in urban areas APP has 30 meters wide at the along its banks.

According to Brazilian environmental legislation, intervention in APPs for the implementation of sanitary sewage systems requires previous authorization from the state environmental agency. If there is a need to remove existing vegetation, specific compensation measures should be adopted. Specific screening criteria are designed into the ESMF to ensure that any potential habitat impacts are identified, prevented, and mitigated during the project implementation.

Component 2.2 intends to invest in phosphorus management strategies that could involve engineered wetlands, flotation plants or other systems that will be used to reduce the contribution of phosphorus to the Guarapiranga reservoir.

Forests OP/BP 4.36

No

This policy is not triggered. The proposed Project does not intend to invest in the forest sector and will not support plantations or any forest related activities, therefore the policy should not be triggered at this time.

In addition, due to the nature of the interventions, the proposed project would not affect the welfare of forest dependent communities.

Pest Management OP 4.09

No

This policy is not triggered because the proposed Project will not support the purchase or increase the use of pesticides and other agricultural chemicals as

		<p>defined under the policy. The proposed Project will not include any support for agriculture land use which could promote pest management.</p>
Physical Cultural Resources OP/BP 4.11	Yes	<p>This policy is triggered on a precautions basis, as there is no indication, so far, that the proposed Project works may interfere with known physical cultural resources. Nevertheless, some interventions under the proposed Project would require earthworks and excavation. Therefore, the ESMF includes procedures for screening any known cultural property in the Project area and incorporate 'chance find' procedures if culturally significant resources are discovered during the proposed Project implementation. Brazil has a well-developed legislation and normative framework for managing physical cultural property.</p> <p>The 'chance find' procedures would be defined in accordance with requirements from IPHAN (National Institute for Historical and Artistic Resources - Instituto de Patrimônio Histórico e Artístico Nacional) and from OP 4.11.</p>
Indigenous Peoples OP/BP 4.10	No	<p>OP/BP 4.10 Indigenous Peoples is not triggered because there are no indigenous lands within the Project's area of intervention. There are not Indigenous Peoples groups that have lost "collective attachment to geographically distinct habitats or ancestral territories in the project area" due to forced severance within the Project's area of intervention.</p> <p>In addition, in Brazil, the provision of water and sanitation services to Indigenous Peoples is an exclusive attribution and duty of SESAI (Indigenous Health Special Secretariat under the Ministry of Health).</p>
Involuntary Resettlement OP/BP 4.12	Yes	<p>OP/BP 4.12 is triggered. Land acquisition – with potential adverse impacts related with involuntary resettlement – is envisaged in the works related with the depollution of the Guarapiranga Reservoir and in construction of civil works - small physical interventions related to the complementation of sanitary sewage systems (water and sanitation mains as well as sewerage pumping stations).</p>

The potential adverse impacts related with land acquisition for the construction of sewerage pumping stations will be small in number and site specific. It is expected that the installation of water and sewerage mains will not have adverse impacts related to land acquisition and involuntary resettlement as will be carried out in public land. If, by a chance, land acquisition becomes necessary for such works, these adverse impacts will be minimized as much as technically feasible by the selection of vacant and unoccupied plots of land.

For the replacement of 1,000 kilometers of aging water supply pipes in the MRSP, the works would rely on non-destructive methods and technologies, reducing their potentially adverse impacts on the beneficiary neighborhoods.

As many of the works to be supported by the proposed operation are at concept stage of their engineering designs and their potential adverse impacts related with involuntary resettlement cannot be fully assessed until their specific appraisal, the Borrower prepared, publicly disclosed and consulted a Involuntary Resettlement Policy Framework (IRPF) which gives guidance to the implementation of all project activities that will be defined after appraisal.

The IRPF contains provisions to handle temporary and permanent impacts related with physical and economic displacement. RAPs and ARAPs for each intervention occurring during implementation and entailing involuntary resettlement would be prepared together with the engineering designs during Project implementation. Each RAP would be sent to the Bank for prior review and clearance before the associated civil works contracts are signed.

This policy is triggered.

Safety of Dams OP/BP 4.37

Yes

Component 1 would increase access to water services to low income population living in the

MRSP by regularizing the service provision to the existent irregular costumers.

The Integrated Water Production System for the supply of the São Paulo Metropolitan Region, operated by Sabesp, is composed of seven production systems, with 19 dams / reservoirs: (i) Jaguari, Jacareí, Cachoeira, Atibainha, Cascata, Paiva Castro, Água Claras dams (Cantareira system); (ii) Ponte Nova, Paraitinga, Biritiba-Mirim, Jundiá, Taiaçupeba dams (Alto Tietê system); (iii) Ribeirão do Campo dam (Rio Claro system); (iv) Rio Grande - Billings dam (Rio Grande system); (v) Guarapiranga and Capivari dams (Guarapiranga system); (vi) Pedro Beicht and Cachoeira da Graça dams (Cotia system); (vi) Cachoeira do França dam (São Lourenço system).

The dams of four systems are under the management of Sabesp. The exceptions are (i) the Alto Tietê system, owned by the State Water and Energy Department (DAEE); (ii) the Guarapiranga dam, owned and managed by the State Energy Company (EMAE); and (iii) the dam of the Cachoeira do França, of the São Lourenço System, owned and managed by Votorantim. These two former dams have their origin linked to the electricity power sector. The technical information about these structures are included in the National System of Safety of Dams managed by the National Electric Energy Agency - ANEEL. In both cases, Sabesp holds the granting of resources for public water supply.

Component 4. CERC component may have some dependence on dam storage and/or operation. Activities financed using the previous Mananciais Program loan resources, for instance, in response to the drought, included construction of a water-transfer pipeline from one existing dam to another.

As part of Project preparation, a specific appraisal of the current status of the safety of all 19 dams was carried out in close coordination with SABESP. The assessment included the evaluation of the capacity and procedures in place by the institutions involved in operating, maintaining and/or regulating the



dams system, in the light of the Brazilian National Dam Safety Policy - BNDSP Law, as well as of Sao Paulo State regulation on the matter, and also of the Policy 4.37 - of the World Bank Operational Manual.

Main recommendations of the assessment included: (i) carry out repairs and eliminate or reduce anomalies on specific dams; including rehabilitation, replacement or modernization of auscultation instrumentation; (ii) standardize frequency of routine and regular inspections, instrumentation interpretation, safety assessment and reports, as well as Dam Safety Plans and EAPs; (iii) promote a comprehensive (global) safety assessment; (iv) elaborate and implement a deep analysis of the existing instrumentation in order to check if it covers the potential failure modes (PMF) assessment; (v) continue the preparation of the Dam Safety Plans and EAP; (vi) proceed towards a successful conclusion of negotiations with DAEE in order to take over operation, maintenance and safety care of the five dams owned by DAEE; (vii) promote capacity building and training events; (viii) establish a dialogue with other dam safety entities to share knowledge and improve compliance with law requirements; and, (ix) promote protocols aiming at establishing responsibilities for the implementation of EAPs

Appropriate measures regarding dams' safety were taken into consideration as part of two dedicated subcomponents under the Project: (1.4) with the aim to repair and improve operation & maintenance of assets, lifespan extension of the MRSP Dams System; and (3.3) with the objective of giving institutional support, developing studies, plans, designs and investigations to support the renewing and lifespan extension of the dams in the MRSP. Agreed procedures were included in the ESMF.

Projects on International Waterways
OP/BP 7.50

Yes

This policy is applicable to the proposed Project since some of the water supply and sanitation systems to be improved and rehabilitated by the Project rely on water sources that are interconnected with the upstream of the Tiete river that is a tributary of the Parana river (shared

between Brazil, Paraguay and Argentina), which is itself an “international waterway”, which is connected to the La Plata river basin (shared between Brazil, Argentina, Paraguay, Uruguay and Bolivia) which is also considered "international waterways" for purposes of the policy.

The net extraction from the Tiete river basin by SABESP ongoing scheme is about 3.0 m³/s. This represents about 0,34 percent of the average flow of the Tiete river (871,9 m³/s). The total average flow of the Paraná River is about 11,453 m³/s . So, average raw water abstraction used by the MRSP represents only 0.03 percent of the average flow of the Paraná River. In summary, the ongoing SABESP’s water and sanitation scheme for servicing the MRSP has a minimum impact in the flow of the Tiete river when the river reaches the out flow of SABESP concession area in the MRSP.

The intervention financed by the Project will not increase the abstraction of raw water from the Tiete River Basin. The Project is expected to reduce the use of the water available in the system by 1.2 m³/s through will supporting activities to reduce the water losses by increasing formal access to water to vulnerable families that currently have illegal access to the ongoing SABESP WSS system; by reducing the physical water losses, replacing expired and broken pipes in the overall MRSP network (Component 1). This component is also expected to improve the rationale use of water, increase system resilience and water security in the MRSP.

The project interventions will improve the waste water quality discharged (about additional 60 l/s will be sent for treatment) in Tiete river system but will not affect the flow or regimen of the wastewater discharges. In component 2, the Project will invest in the reduction of pollution loads reaching one of the main water supply reservoirs in the MRSP, the Guarapiranga; by increasing access to sanitation services, reducing pollution loads directly in the Embu Mirim river; and improving the sanitation system resilience and operational capacity. All these

activities, are expected to improve water security by reducing pollution loads, and is not expected to affect the water quantity of the existing water resources system.

For the reasons above, the Project meets the criteria defined in paragraph 7 (a) of OP 7.50. The proposed activities therefore qualify for the exception to the riparian notification requirement and (i) will not adversely change the quality or quantity of water flows to the other riparian; and (ii) will not be adversely affected by other riparian possible water use.

Projects in Disputed Areas OP/BP 7.60	No	This policy is not triggered because the project will not work in any disputed areas as defined under the policy. Project activities will take place within the Metropolitan Region of São Paulo (MRSP).
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KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The proposed Project include activities that aim to regularize the supply of water for low-income areas of the MRSP. It also includes the implementation of in-house connections to the sewerage system for these low-income families as well as socio-educational works. In addition, the project will finance improve water resilience activities for by reducing water losses and replacing aging pipes and connections. The project also includes activities to increase sanitation services and improve system resilience in the Guarapiranga water basin; and reduce pollution loads.

Therefore, no negative environmental impacts are expected because all project actions are intended to: (i) reduce water losses and pressure on existing water resources; (ii) reduce the pollution loads and the direct discharge of sewage on water bodies upstream of the Guarapiranga reservoir; and (iii) remove nutrients from rivers contributing to the Guarapiranga reservoir.

Overall social impacts are expected to be beneficial and pro-poor because the project will grant access to water and sanitation services to low income and vulnerable social groups as well as help reducing significant gender gaps in access to these assets as women’s headed households are overrepresented among these underserved and vulnerable groups. Adverse social impacts related with land acquisition will be minimized and are expected to be small in number and site-specific.

By regulating access to water, providing access to sanitation and reducing pollution loads, the proposed activities



would contribute to ensure the quality of the water offered and available to the population. Then, it is expected to have positive impacts on public health and the environment, in addition to contributing to mitigate impacts of water security.

Contextual risks are associated with the current economic crisis that is pushing a more people to live under poverty and in poorly serviced and irregular settlements, which may increase the pressure for the occupation of protected riverine areas.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

The project would include activities that aim to regularize the supply of water at low-income areas of the MRSP by making available the needed infrastructure for supplying water, measuring consumption and collecting sewage and including construction of civil works - small physical interventions related to the complementation of sanitary sewerage systems (networks, trunk collectors, interceptors and pump stations) and replacement of existing networks. The project would involve construction of civil works, but no significant labor influx is expected.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

Specific Environmental and Social Management Plans (ESMPs) – based on the ESMF – will be prepared before works start for all civil works. ESMPs' preparation would include project alternative analyses and location-specific consultations with stakeholders.

A strategy of institutional capacity strengthening for the management of social and environmental risks and impacts was included in the ESMF. Human and financial resources to improve SABESP's system for managing environmental and social risks were considered. Therefore, the Project will contribute to SABESP's vision by assessing/strengthening its system of social risk management.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The Sao Paulo State Water Company (Sabesp) is the major actor for water supply and wastewater collection and treatment. SABESP has large and successful experience working with the World Bank and complying with its safeguard policies. SABESP, together with the Secretariat of Water Resources (SRH) of the government of the State of São Paulo, implemented the Brazil APL Integrated Water Management in Metropolitan Sao Paulo Project (P006553) that closed in March/2017. Sabesp has demonstrated adequate procedures and capacity to identify and mitigate impacts under Bank-funded operations.

Sabesp has prepared good quality safeguard instruments to manage social and environmental risks under this new project. Because specific Project activity sites and detailed interventions are not fully known, and in view of the type of works to be carried out, an ESMF is being prepared. It includes social and environmental procedures to be followed to assess and carry out safeguard activities. Specific screening data sheet and criteria were defined into the ESMF to ensure that any potential habitat impacts are identified, prevented, and mitigated during the project implementation. A screening of all activities to be carried out in the first year of Project implementation is part of the ESMF. The need for preparing specific plans and reports is identified in the ESMF along with the expected timeline. The potential



negative impacts can be avoided and mitigated by adopting of related environmental construction measures and procedures, as established in the Environmental Construction Manual.

The Project's ESMF sets the guidelines, processes and procedures to deal with potential environmental impacts during the stages of construction and operation of the water and sanitation services. The ESMF includes procedures for screening any known physical cultural resources in the Project areas and 'chance find' procedures if culturally significant resources were discovered during the proposed Project implementation, according to the procedures of OP 4.11 and also of the Brazilian legislation. It also includes environmental and social requirements related with construction works as well as guidance on social communication, social development works, works and community safety, and "chance find" and "due diligence" procedures related with physical cultural resources. It assesses potential impacts and propose appropriate proportional mitigating measures.

Specific Environmental and Social Management Plans (ESMPs) – based on the ESMF – will be prepared prepared before works start for all civil works. ESMPs' preparation would include location-specific consultations with stakeholders.

The Project's Resettlement Policy Framework (RPF) sets the guidelines, principles and procedures required for properly dealing with adverse impacts related with physical and/or economic displacement in consequence of land acquisition. A robust grievance redress mechanism has been designed and will be operationalized and monitored during project implementation, improving Sabesp's corporative channels of engagement with stakeholders.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

Key stakeholders include project's beneficiaries and affected parties, water users and municipal governments in the Metropolitan Region of São Paulo, water regulation and environmental agencies, the Committee of the Alto Tietê River Basin. Other interested parties may include non-governmental organizations, academic institutions, and experts. An interactive process of public consultation with key stakeholders and other interested parties is ongoing relying on on-line channels and in-presence meetings. The in-presence meetings convened governmental and civil society members of the Committee of the Alto Tiete River Basin as well as municipal authorities and local community representatives, environmental and technical experts.

The main consultation meeting was convened in August 28, 2018. The findings of the social and environmental assessment were addressed. There were 91 participants in this four hours event, which was video-recorded. Participants included: representatives of local communities and ten municipalities in the Metropolitan Region of São Paulo; the State Secretariats of Environment and Health and the Agency of Metropolitan Planning (Emplasa); academic and research institutions: non-governmental organizations, the Brazilian Association of Sanitation Engineers (ABES), the Federation of Industries of the State of São Paulo (FIESP), and the Committee of the Alto Tietê River Basin. They evaluated and commented on the identification of impacts and benefits derived from project activities as well as the proposed measures to avoid, minimize, and/or mitigate adverse impacts. Three main points were raised: (i) the first referred to contextual risks related with the current economic crisis that is pushing the process of urban sprawl within the Metropolitan Region of São Paulo and driven low-income groups to live in irregular settlements often times located in protected riverine areas; (ii) the second point emphasized the need of strong mechanisms and channels of transparency and accountability; and (iii) the last pointed out the importance of strengthening institutional partnerships between Sabesp, state, metropolitan and municipal agencies fostering integrated land use and



occupation planning. This meeting was video-recorded and the online consultation process is open till September 5, 2018.

After this period of public consultations, the feedback received will be analyzed, properly answered and incorporated – as appropriate – in the final versions of the project’s ESMF and RPF. The ESMF will incorporate an Annex describing the consultation process and its outcomes. The final versions of the EMSF and RPF will be disclosed on Sabesp website and the World Bank’s external website.

SABESP already relies on a robust strategy of engagement with interested parties through its Forum of Social and Environmental Responsibility. The Forum comprises community leaderships. As described in the Project’s ESMF, every civil construction work will be preceded by consultation rounds with affected people and interested parties and SABESP will keep social teams in every site to keep a continued engagement with the local population. The project would rely on this network of community leaderships and their meetings to increase awareness about the efficient use of water resources and the protection of water sources, promote environmental and sanitary education, as well as to improve civil participation and promote gender equity.

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other		
Date of receipt by the Bank	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
20-Sep-2018	22-Sep-2018	

"In country" Disclosure
 Brazil
 21-Aug-2018
 Comments
 The safeguard instruments are available at: <http://site.sabesp.com.br/site/interna/Default.aspx?secaold=710>

Resettlement Action Plan/Framework/Policy Process		
Date of receipt by the Bank	Date of submission for disclosure	
24-Sep-2018	25-Sep-2018	

"In country" Disclosure
 Brazil
 21-Aug-2018
 Comments
 The safeguard instruments are available at: <http://site.sabesp.com.br/site/interna/Default.aspx?secaold=710>

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

OP/BP 4.04 - Natural Habitats

Would the project result in any significant conversion or degradation of critical natural habitats?

No

If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?

NA

OP/BP 4.11 - Physical Cultural Resources

Does the EA include adequate measures related to cultural property?

Yes

Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?

Yes

OP/BP 4.12 - Involuntary Resettlement

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

OP/BP 4.37 - Safety of Dams

Have dam safety plans been prepared?

NA

Have the TORs as well as composition for the independent Panel of Experts (POE) been reviewed and approved by the Bank?

NA

Has an Emergency Preparedness Plan (EPP) been prepared and arrangements been made for public awareness and training?

NA

OP 7.50 - Projects on International Waterways

Have the other riparians been notified of the project?

NA

If the project falls under one of the exceptions to the notification requirement, has this been cleared with the Legal Department, and the memo to the RVP prepared and sent?

Yes

Has the RVP approved such an exception?

Yes

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

CONTACT POINT

World Bank



Juliana Menezes Garrido
Senior Water Supply and Sanitation Specialist

Marcos T. Abicalil
Senior Water Supply and Sanitation Specialist

Borrower/Client/Recipient

SABESP
Karla Bertocco
SABESP CEO
ktrindade@sabesp.com.br

Rui Affonso
Finance Director
raffonso@sabesp.com.br

Implementing Agencies

SABESP
Marcelo Rampone
Finance Manager
mrampone@sabesp.com.br

Marcello X Veiga
Project coordinator / Planning Manager
mveiga@sabesp.com.br

Valeria Angeli
Deputy Project Coordinator
vangeli@sabesp.com.br



FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: <http://www.worldbank.org/projects>

APPROVAL

Task Team Leader(s):	Juliana Menezes Garrido Marcos T. Abicalil
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Approved By

Safeguards Advisor:		
Practice Manager/Manager:	Rita E. Cestti	25-Sep-2018
Country Director:	Doina Petrescu	26-Sep-2018