

# **Environmental and Social Review Summary (ESRS)**

# Project 12676-02 - Sabesp - Tietê River Depollution Project Phase IV

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# General Information of the Project and Overview of Scope of IDB Invest's Review

The proposed transaction consists of a loan to Companhia de Saneamento Básico do Estado de São Paulo S.A. ("Sabesp", the "Company," or the "Client") to assist it in the implementation of the fourth phase of the Tietê River Depollution Project ("Tietê Program IV" or the "Project"). The purpose of Tietê Program IV is to help restore the water quality of the Tietê River and its tributaries in the Metropolitan Region of São Paulo ("RMSP") by expanding the sanitary sewage system. This program encompasses various activities, including: (i) optimization of the sewage collection network with the construction of 200 km of collectors and 160 km of interceptors; and (ii) expansion of the wastewater treatment plants ("WWTPs") named Parque Novo Mundo ("PNM"), São Miguel ("SMG") and Barueri. The Project will benefit, directly and indirectly, 34 municipalities in the RMSP.

The Environmental and Social Due Diligence (ESDD) process included on-site visits by members of the IDB Invest team and by an independent engineer retained to perform a technical assessment of the Project. The ESDD also involved videoconference with key Company representatives as well as a review of pertinent environmental, social and occupational health and safety data supplied by Sabesp, including: i) the corporate environmental and social management system; ii) human resources policies and health and safety practices adopted; iii) bidding documents for project construction; and iv) procedures adopted with regard to waste management, social communications, chemical products management, and other matters according to Brazilian law and international good practices.

Sabesp is an existing client of the IDB Group and the Company's environmental and social (E&S) performance has been rated as satisfactory according to several supervision and monitoring activities that were performed in recent years. The Tietê Program IV has been supported by the IDB Group<sup>1</sup> and, under this specific operation, IDB Invest intends to finance the portion for which Sabesp is responsible.

#### 2. Environmental and Social Categorization and Rationale

In accordance with IDB Invest Environmental and Social Sustainability Policy ("ESSP"), the Project has been classified as Category B since the risks and impacts are considered to be of low to average intensity and can be mitigated via measures that are available and feasible to implement in the context of the proposed operation. Key E&S risks and impacts include: i) arrangements for managing and sharing responsibilities between the Client and the companies to be subcontracted in managing environmental, social and occupational health and safety aspects in accordance with Brazilian legal requirements, as well as requirements of the ESSP; ii) management of environmental and social aspects in public areas, including noise, traffic restrictions, dust emissions, etc.; iii) management of hazardous products, including chemicals used in the WWTPs; iv) management of solid wastes, particularly wastes accumulated during

<sup>&</sup>lt;sup>1</sup> Further information about the ongoing financing can be found at <a href="https://www.iadb.org/pt/project/BR-L1492">https://www.iadb.org/pt/project/BR-L1492</a>.



construction and sludge and graded materials generated in the WWTPs; and v) structured management by the Client and subcontractor companies for engagement with impacted by the works.

The Performance Standards ("PS") triggered by the Project are: PS1: Assessment and Management of Environmental and Social Risks and Impacts; PS2: Labor and Working Conditions; PS3: Resource Efficiency and Pollution Prevention; and PS4: Community Health, Safety, and Security.

#### 3. Environmental and Social Context

# 3.1 General characteristics of the Project's site

The Tietê River Depollution Program is the largest environmental sanitation project under way in Brazil. Its key objective is the expansion of the collection and treatment of sewage, thereby reducing the volume of pollutants discharged into the main rivers and creeks that course through the Metropolitan Region of São Paulo. Most of the construction works will take place in a heterogenous urban scenario that is densely populated. The RMSP is one of the largest urban agglomerates in the southern hemisphere, ranking among the world's six largest, according to United Nations figures.

With the introduction of the Tietê River Depollution Project, priority was given to the works that would be included in the first phase, conceived and launched between 1995 and 1998 with the inauguration of three new WWTPs and expansion of the Barueri WWTP. During the second phase (2002-2008), 36 km of interceptors, 110 km of trunk collectors, 1,200 km of collector mains, and 290,000 new household connections were achieved. The third phase begun in 2010 and is expected to be completed in 2022, and it focused on the expansion of sewage collection and treatment in the Alto Tietê Basin. Once the third phase is finalized, significant results will have been achieved. More than 13 million residents will be benefited, reaching a sewage collection index of 87% and a wastewater coverage index of 84%.

With the launch of the fourth phase (named Tietê Program IV), subject of the proposed operation, high indices of sanitary sewer collection and treatment will be achieved in the area of the RMSP that is served by Sabesp, benefiting about 3.7 million residents.

#### 3.2 Contextual risks

The Tietê Program IV will be implemented in densely populated urban areas that are part of one of the biggest urban conglomerates of the southern hemisphere. Like many metropolitan regions in the world and especially in Latin America, the RMSP faces a number of socioeconomic problems including social inequality, high unemployment, violence, inadequate infrastructure, and environmental issues related to waste collection, sporadic flooding, illegal settlements and other situations that have collateral effects on sanitation.

Despite high violence rates, recent studies point to a consistent decline in crime in the state of São Paulo during the past ten years, especially with regard to the preservation of human lives. As reported in the Violence Atlas published by Brazil's Institute of Applied Economic Research ("IPEA")<sup>2</sup>, homicides in São Paulo State fell by 53.8% between 2009 and 2019.

<sup>&</sup>lt;sup>2</sup> Available at <a href="https://www.ipea.gov.br/atlasviolencia/publicacoes">https://www.ipea.gov.br/atlasviolencia/publicacoes</a>.



- 4. Environmental Risks and Impacts and Proposed Mitigation and Compensation Measures
- 4.1 Evaluation and Management of Environmental and Social Risks and Impacts
- 4.1.a E&S Assessment and Management System

Environmental Management at Sabesp is based on two pillars: environmental compliance and a change in the Company's environmental culture. In this context, various corporate programs are being adopted involving subjects such as: Greenhouse Gas ("GHG") Emission Management, Environmental Education, Environmental Licensing and Grants of Rights to Use Water Resources, Environmental Management System ("EMS") at Water Treatment Plants ("WTPs") and Wastewater Treatment Plants ("WWTPs").

Prominent among these programs is the gradual introduction of an EMS at WWTPs and WTPs that began in 2009. Based on ISO 14001<sup>3</sup> guidelines, the purpose of this program is to refine operations and processes at the treatment stations to improve efficiency and minimize accidents and the development of environmental liabilities. Sabesp is applying the ISO 14001 standard at a limited number of certified stations and using its own environmental management model, known as SGA-Sabesp, at the other stations. That model features similar requirements and processes but is not directed toward certification. According to company reports, the model was developed to accelerate the adaptation of the SGA. Its guiding principle is to facilitate the incorporation of environmental management tools into the operational routine.

The SGA seeks to improve operational procedures and practices, especially those related to management of effluents, solid wastes, chemical products, odors, and noise, as well as the routines for keeping up to date the applicable legal documentation -for example, management of deadlines for renewal and compliance with the conditions on which environmental licenses and grants of hydric resource usage right are based. The SGA also includes actions to be taken to improve the infrastructure of the facilities as part of continued improvement and prevention of pollution that also contributes to grater operational safety. The SGA is currently implemented at 558 Sabesp stations, 36 of which are certified according to ISO 14001 requirements. Sabesp's goal is to implement the SGA at all its operating stations by 2024.

In addition to the procedures and actions that comprise corporate environmental management, the Company has also adopted control mechanisms and actions directed toward Occupational Health and Safety in the Workplace ("OHS") and stakeholder engagement.

In the calls for bids on expansion of WWTPs and the sewer network a series of requirements was included regarding Health, Safety and the Environment, ("EHS"). It became mandatory to draw up management plans<sup>4</sup> on the environment, safety, workplace hygiene and medical care, all of which had to follow the principles of ISO 14001 norms (environmental management) and ISO 45.001<sup>5</sup> (occupational health and safety), as well as other requirements directed toward social aspects and community safety—such as stakeholder engagement and traffic management. These requirements are described in a document entitled "Guiding Document" which requires that the contracted companies must produce specific

<sup>&</sup>lt;sup>3</sup> The ISO 14001 norms specify the requirements for an Environmental Management System and permits an organization to develop a structure to protect the environment and promptly respond to changes in environmental conditions.

<sup>&</sup>lt;sup>4</sup> Plans must include the following topics, as a minimum: i) quality; ii) communications; iii) a roads system (iv) workplace safety, hygiene and medicine; v) the environment; vi) risks management; and vii) emergencies.

<sup>&</sup>lt;sup>5</sup> ISO 45001 is an international standard for occupational health and safety management system that replaces the OSHA 18001 rule.



documents that apply particularly to their individual construction work, using the Sabesp model as foundation.

The Guiding Document is available and is included with the call for bids packets regarding construction so that the contracted companies are familiar with the content in advance and can prepare their costs strategies in connection with the Company's quality, environmental, and communication requirements.

# 4.1.b Policy

Sabesp has adopted policies on Quality in Occupational Health and Safety (OHS) and Quality in Laboratories and the Environment. These encompass the EHS requirements applicable to the Company's operations and contractor management. Policies are consistent with PS1 requirements and include such items as company commitments to: (i) prevention of water pollution and solid waste management; (ii) human resource development in order to promote continued improvement of products, processes and services with a view to maintaining environmental quality; (iii) ensuring compliance with environmental laws and OHS, as well as any signed commitments; (iv) adopting environmental and OHS criteria for management of contracted workers; and (v) promoting the development of technologies aimed at the protection, conservation and recovery of the environment.

Such policies are applicable to all Sabesp units, regardless of its management system. Furthermore, depending on the company's contracting format, Sabesp will notify companies that are responsible for construction of the Tietê Program IV of the aforementioned policies and inform stakeholders of their objectives.

# 4.1.c Identification of Risks and Impacts

As part of its ESMS, Sabesp has a Preliminary Risks Analysis ("APR") process based on matrices for identification and evaluation of environmental aspects and impacts, as well as analyses of risks and opportunities and other tools for workplace safety management. Use of those instruments is also recommended in the contracting calls for bids. Each contractor must evaluate the risks and impacts related to the work that it will perform.

The management plans, programs and procedures are based on such documents. They contain guidance, directives and instructions pertaining to work that would minimize and control the identified risks and impacts.

It should be pointed out that in order to expand the WWTPs, Sabesp must apply to the Environmental Company of the State of São Paulo (Cetesb) for certain licenses, including the preliminary license and the installation license ("LP" and "LI") where, via a Memorandum of Description ("MCE") the details of the project to be licensed will be presented as well as a risks analysis and a description of the security systems to be adopted. However, most of the construction work that is connected with the sewer mains are not required to be licensed under Resolution SMA/SP No. 54 of 2007<sup>6</sup> because of their smaller size and low potential impact.

It should be emphasized that the IDB Group has already performed several socioenvironmental evaluations for projects to be financed under Tietê Program IV. Those studies are available on IBD's disclosure page.<sup>7</sup>

<sup>&</sup>lt;sup>6</sup> Resolution SMA 54/07 provides as regards environmental licensing and restoring to proper status some urban enterprises and basic sanitation projects considered as public utilities and serving the interests of society.

<sup>&</sup>lt;sup>7</sup> Available at <a href="https://www.iadb.org/pt/project/BR-L1492">https://www.iadb.org/pt/project/BR-L1492</a>.



#### 4.1.c.i Gender Risks

Generally speaking, Brazil presents high indices of gender violence. There has been a significant increase in domestic violence in recent years due to the deterioration of socioeconomic conditions imposed by the COVID-19 pandemic. In comparison with other Brazilian states, São Paulo has the lowest rate of homicides against women, there having been a significant drop in absolute numbers in recent years (-38% between 2009 and 2019). Despite the reduction in this index in recent years, the numbers are still significant and higher than in many other countries of the region.

The bulk of the labor contracted for the Tietê Program IV works will be comprised of local RMSP workers. This means there will be no need for lodging, no extra burden on host communities, and no risk of external vectors of disease. Moreover, the expansion and improvement of basic sanitation by the Project will reduce the exposure to disease in the population that is being served.

As a means of preventing gender violence in the community during construction and operation, Sabesp has been setting up specific educational content about the subject. This program was implemented as part of the action plan for the most recent financing<sup>8</sup> provided by IDB Invest and, in the context of the proposed transaction, Sabesp will expand that program and ask contractor companies to conduct informational campaigns directed at the labor force allocated to the Project.

# 4.1.c.ii Climate Change Exposure

The WWTPs, because they are situated on the banks of bodies of water, are naturally exposed to the vagaries of nature such as sporadic inundations on flood plains. Some climate models<sup>9</sup> project that changes in patterns of precipitation may become more moderate by the end of this century, considering a conservative climate scenario.

However, it should be stated that under Brazil's National Plan for Adaption to Climate Change ("PNA") the investments in effluent treatment stations are considered important to promote climate resilience, both in the context of basic services provision and in terms of urban resilience in general.

As verified during the ESDD process, the WWTP at São Miguel ("SMG") has already experienced flooding during extreme weather events. And so in the context of the intended expansion of that WWTP, studies are required to increase the resilience of that unit and offer engineering solutions that may mitigate potential future floods, which may occur more frequently and in greater magnitude due to climate change. In addition, under the proposed transaction, Sabesp will implement a Natural Disaster Risks Management Program that will call for responses and contingencies in the case of floods and water overflow. That program will be expanded for the WWTPs that are the subject of this transaction, with a focus on the WWTP at SMG in the hope of protecting the facilities and ensuring the safety of employees.

### 4.1.d Management Programs

Sabesp seeks to manage its operations in conformity with pertinent national requirements and international good practices. The company is currently implementing various EHS policies and procedures, addressing questions related to effluents and chemical products management, service providers, use of personal protection equipment (PPE), collective protection equipment (CPE), and other topics. Some aspects of occupational health and safety (OHS) are managed via specific procedures, including the

<sup>&</sup>lt;sup>8</sup> Further information available at https://www.idbinvest.org/en/projects/sabesp-green-capex-facility.

<sup>&</sup>lt;sup>9</sup> Such as the GFDL-CM3, as an example, developed by the U.S. National Oceanic and Atmospheric Administration (NOAA).



Environmental Risks Prevention Program (PPRA) and the Medical and Occupational Health Control Program (PCMSO).

Through the Environmental Management Units ("NGA") the Company publicizes a number of different corporate environmental management and sustainability programs in an effort to ensure uniformity of procedures and data. One example is the Corporate Program for Sustainable WWTPs, which aims to apply solutions and practices to transform the subproducts generated at the WWTPs (biogas, sludge, and effluents) into sustainable resources that have a marketable value, considering their advantages in terms of energy. The Program features a management structure coordinated by the Company's Corporate Environmental Management Area and is staffed by representatives from Operational Development, Finance, Research and Development, and Operations.

The bidding documents describe various environmental and social management programs to be implemented during the construction phase. The WWTPs will be expanded and then operated temporarily (assisted operation for up to 36 months) by the contracted companies.

# 4.1.e Organizational Capacity and Competency

As part of its ESMS, Sabesp has a corporate environmental area, as well as the NGAs in the company business units. These are connected hierarchically to the corporate area of the company. the NGAs are operating agents of environmental management and seek to ensure uniformity of procedures and reports as well as to publicize the corporate programs among other units of the company.

Professionals at the corporate level focus on strategic environment and social issues and on the design of procedures, targets and the monitoring of the performance of the various operational units. To that end, Sabesp has expert personnel who hold functions related to (i) facilities and maintenance; (ii) human resources; (iii) occupational health and safety; (iv) legal affairs; (v) environmental management; and (vi) quality control, including audits, risk management, and compliance.

The responsibility for direct management of environmental matters is assigned to the NGAs at the operational level. Questions pertaining to OHS are handled by the coordinators who report to the human resources department of the business unit. In some cases environmental management and OHS management are further delegated to OHS technical personnel or, more customarily, by attribution of those responsibilities to operations personnel. Implementation of social responsibility activities is also assisted at the local level, by communications coordinators, assisted by operations managers.

# 4.1.f Emergency Preparedness and Response

Sabesp has a clear approach to emergency preparedness and response, following the pertinent federal, state and municipal rules on fire safety, chemical products and first aid. The Company has more than 290 brigades at all its units. They hold meetings, offer training (mainly for fire, emergencies involving chlorine, first aid, and chemical products). They perform inspections and carry out simulations of emergencies so as to keep first responders well informed and prepared to react in an emergency. In addition, in light of the territorial extent of its operations, the Company has a total of 380 plans in place, well controlled and available in a computerized system that covers the entire company and, when applicable, considers possible impacts on neighboring communities.

In the context of Tietê Program IV, the contracted companies must submit Emergency Action Plans ("PAEs") that are in line with state laws. Basic requirements must be considered during the course of the construction and during operation of the expanded WWTPs. The Natural Disaster Risks Management



Program will be revised to cover emergency scenarios for use during floods and other potential scenarios of extreme weather that could occur at the WWTPs that are the subject of this Project.

### 4.1.g Monitoring and Review

As mentioned earlier, analysis of SSMA indicators and quality are the subject of periodic meetings both by the corporate team and the operational team. Under Tietê Program IV, Sabesp will expand its monitoring and analysis to include activities at the construction sites. When the period of assisted operation ends (applicable only to the expanded WWTPs) Sabesp will be directly responsible for operating that new equipment when installed at existing WWTPs.

Sabesp is also presenting the results of some of its monitoring work to the agencies involved in licensing, such as Cetesb and those that, like IDB Invest, are financing its construction. The works under the Tietê Program IV will be monitored by the IDB Group via supervisory visits, technical reports and audits by independent teams.

# 4.1.h Stakeholder engagement

Sabesp, as a supplier of public utility services, has a wide variety of stakeholders, including customers (users), shareholders, lenders, suppliers, civil society, workers, regulatory bodies, unions, the press, and many others.

The Company is active in communications and outreach to stakeholders in a comprehensive manner and, in addition to those audiences who are consulted specifically for determining the content of their communications and internal and external engagement, Sabesp is making sectoral studies to evaluate its positioning and the topics relevant to companies, whether Brazilian or international in the sector, as well as the demands and interests of the stakeholders. As a result of this process, Sabesp has adopted an outreach plan that encompasses the following elements: i)informational campaigns and the presentation of the project to residents in the vicinity of the work site; ii) publicizing of channels for making suggestions or asking questions and filing complaints; iii) a schedule for meetings and visits to the neighboring and affected communities, indicating the actions to be taken with each group; and iv) monitoring and evaluation reports.

In this regard, the principal actions of engagement in progress at this time are focused on the following subjects: (i) promotion of universal access to water and sewer services; (ii) development of local communities; (iii) water security; (iv) corporate governance and ethics; (v) management of effluents and wastes; (vi) economic/financial performance; (vii) eco-efficiency of operations; (viii) loss of water during distribution; and (ix) management of people.

In the context of Tietê Program IV, Sabesp, in partnership with the IDB, has held several public hearings to present and discuss the Project. Furthermore, the calls for bids provide for drafting and implementation of communication plans involving key stakeholders (society, municipal government, state government agencies) so as to ensure the flow and management of information, as well as the relationship between those who coordinate the work sites and the Sabesp inspectors, including channels of communications (emails, letters, formal notices, minutes of meetings, and other necessary media).



#### 4.1.h.i Disclosure of information

Sabesp releases reports on actions associated with the Tietê Program IV through various channels, both in-person events and through its accounts on social networks. The Company also produces videos<sup>10</sup> and other media periodically to demonstrate key activities already performed and in progress.

# 4.1.i External Communications and Grievance Mechanisms

Since 2007, Sabesp has published annual reports on sustainability<sup>11</sup> based on the *Global Reporting Initiative*<sup>12</sup> a methodology in which are described, both quantitatively and qualitatively, the socioenvironmental risks and impacts related to the operation of the Company. Furthermore, the Company has a channel for receipt of complaints<sup>13</sup> that assures confidentiality of the information and anonymity of grievances. That channel is also available to all direct workers, contractors and any interested party.

Besides this channel, and in the context of the Plan for Stakeholder Engagement, the Company is implementing informational campaigns and presenting the project to neighboring settlements, as well as publicizing the channels for suggestions, questions, and claims.

# 4.2 Labor and Working Conditions

### 4.2.a Working Conditions and Management of Worker Relationships

Sabesp has a clear approach to hiring, training, and retaining a well-qualified labor force. Because it is a semipublic enterprise, publicly held, the company handles contracting via public competitive events when hiring employees, interns and apprentices. Sabesp has about 13,000 employees as well as 660 interns and apprentices. Approximately 20% of the labor force are women. It is important to note that the Company does not use outside contractors; It only signs services contracts in accordance with the needs of the business.

The Company has a Human Resources Policy and established procedures for recruiting, training, performance ratings, etc. Sabesp also adopted a Code of Conduct and Integrity<sup>14</sup> that clearly prohibits any kind of forced labor, child labor, discrimination, threats, coercion, abuse or harassment in the workplace.

Working conditions are defined in the contracts that Sabesp signs with its employees and service providers, and these are consistent with the provisions of Brazilian labor law. The company pays competitive wages and provides all the basic benefits guaranteed by Brazilian law, as well as offering additional benefits (such as access to private health insurance, life insurance, transportation and meal vouchers, and study grants) in order to attract and retain personnel and improve their performance. Sabesp also has taken a well-structured and well documented approach to managing, training, and promoting its work force. Also in place are employment contract termination procedures, in case they are needed.

<sup>&</sup>lt;sup>10</sup> The videos released by the company can be viewed at <a href="https://www.youtube.com/c/SabespCia/videos">https://www.youtube.com/c/SabespCia/videos</a>

<sup>&</sup>lt;sup>11</sup> Available at https://site.sabesp.com.br/site/interna/Default.aspx?secaoId=93

<sup>&</sup>lt;sup>12</sup> The *Global Reporting Initiative* (GRI) is an international organization, nonprofit, and a pioneer in the development of a comprehensive structure for Reports on Sustainability. These documents report good conduct, standards for sustainability, the values of the organization, and a model for governance.

<sup>&</sup>lt;sup>13</sup> Available at <a href="https://www.contatoseguro.com.br/sabesp">https://www.contatoseguro.com.br/sabesp</a>

<sup>&</sup>lt;sup>14</sup> Available at <a href="https://site.sabesp.com.br/site/interna/Default.aspx?secaoId=174">https://site.sabesp.com.br/site/interna/Default.aspx?secaoId=174</a>



Sabesp employs a formal induction procedure under which all new personnel are welcomed by an HR professional on their first day of work and introduced to the mission, vision, and values of the company, its Code of Conduct and Integrity, and the benefits and compensation policy.

The terms and conditions of employment are clearly defined in contracts and in the collective bargaining agreements to which Sabesp is subject. Worker rights, including rights to associate and to form unions, are safeguarded by the Constitution of Brazil and the Consolidated Labor Law ("CLT"), which are aligned with the directives of the International Labor Organization ("ILO"). According to Brazilian labor law, all workers may join a union. Sabesp staff benefit from the existence of collective bargaining agreements in their sector. Approximately 65% of workers are union members, most of them in the Union of Workers in Water, Sewer and Environment of the State of São Paulo ("Sintaema"). The Company does not restrict union membership, adheres to the terms of collective agreements, and respects labor law.

In contracts connected with the construction project, Sabesp is performing an analysis of compliance by the contracted companies as regards their internal norms and fulfillment of labor and social security obligations as regards personnel hired to install and operate the equipment.

#### 4.2.a.i Grievance Mechanism

The Sabesp Complaints and Grievances Mechanism features three formal channels for receiving statements: (i) Consumer Service System ("SAC"); (ii) a telephone line (*Talk to Us*): 800 900 8001, which accepts anonymous complaints and is administered by a specialized outside contractor (Contato Seguro); (iii) email and official pages on Sabesp social media (LinkedIn, Facebook and Instagram).

These channels are widely publicized among internal interested parties using murals, posters, and emails. For outside stakeholders, they are publicized via the Sabesp website and social media.

Statements received via the phone line *Talk to Us* are recorded and systematically arranged on a platform. The flows of incoming calls, treatment of the comments, the hours elapsed in handling them, and the identities of the responsible managers are established in a policy.

# 4.2.b Protecting the Workforce

The contracts signed between Sabesp and their employees adhere to local labor law and cover, among other aspects, length of the workday, timing of the hours, overtime, paid leave days, minimum compensation, benefits, bonuses available in the law and the minimum elements of occupational health and safety. These aspects are also evaluated at the time of contracting for construction and services contracts.

# 4.2.c Occupational Health and Safety

Brazil has enacted a set of detailed and prescriptive rules about occupational health and safety (OHS). These are known as Regulatory Norms (NRs). The key NRs that apply to Company operations and must be observed continually are: i) Specialized Service in Safety Engineering and Occupational Health ("SESMT"); ii) Internal Committee on Accident Prevention ("CIPA"); iii) Personal Protective Equipment; iv) Medical and Occupational Health Control Program ("PCMSO"); the Environmental Risks Prevention Program ("PPRA"); as well as other rules that apply to the performance of specific tasks, such as electrical installations or tasks performed at heights.

It is through the development of the Environmental Risks Prevention Program (PPRA) that determinations are made as to the physical exams to be administered to employees upon hiring, periodically during



employment, and upon separation. These are defined according to the nature and risk profile of the occupation in question (via the Medical and Occupational Health Control Program - PCMSO).

Sabesp invests continually in creating awareness and commitment among the teams in terms of OHS. Following are the principal tools and programs developed by Sabesp: i) Preliminary Risks Analysis ("APR"); ii) verification of legislation applied to OHS: iii) environmental evaluation and biological monitoring; iv) skills building and awareness raising; v) communication, participation and consultation with employees; vi) furnishing of uniforms and PPE and PCE; vii) issuance of a form to permit entry and working in areas of risky activities; and viii) emergency preparedness and response; record-keeping for situations of nonconformity and investigation of near-accidents and accidents on the job.

As observed in documents assessed during the ESDD, indices of worker safety and health have trended positively in recent years. The frequency rate<sup>15</sup> in 2020 fell by 20% in relations to 2018. Meanwhile, other indicators, such as accident seriousness, occupational illnesses and deaths also fell significantly.

During the visits to the WWTPs that are scheduled to be expanded under the proposed investment, some opportunities for improvement were observed that could ensure greater employee health and safety. Therefore Sabesp will retain a specialized company to verify adherence to the requirements of the NRs applicable to those WWTPs and for the drafting of an Action Plan to be implemented by the company, considering the prioritization of critical activities to mitigate OHS risks.

The announcements for bidding refer to the same worker protection principles and require that contractor companies employ the same tools as implemented by Sabesp, such as: (i) APR; (ii) training and awareness raising; (iii) communication, participation and consultation of employees; (iv) supply of uniforms, PPE and CPE; etc.

### 4.2.d Workers Engaged by Third Parties

Sabesp does not employ workers engaged by third parties. It only signs services contracts in accordance with the needs of the business.

Companies involved in Tietê Program IV construction, for example, will be evaluated and monitored by Sabesp in order to determine whether they are in compliance with labor laws and OHS requirements, whether they are contributing to the social security system, whether they have a history of labor-related court cases, and so on. The standard EHS requirements are included in the contracts and evidence of adherence to those are the basis for Sabesp release of payments. The internal grievance mechanism may also be used by service providers, either by secure email or telephone contact. In the case of the URQs, a management company will handle the monitoring of the health and safety actions by the contractors and will send reports to Sabesp on a monthly basis.

# 4.3 Resource Efficiency and Pollution Prevention

#### 4.3a Resource Efficiency

In recent years, Sabesp has sought to improve its operations in terms of resource efficiency and has encouraged the adoption and dissemination of new technological solutions. The company has allocated specific budgeted funds to Technological Research, Development, and Innovation (RD&I). The main

<sup>&</sup>lt;sup>15</sup> The frequency rate represents the number of accidents on the job involving injury and absence per millions of man/hours worked, per year.



subject lines for development are: (i) improvement of construction and operation procedures for water and sewer systems; (ii) water and sewer treatment solutions; (iii) assets management and control; (iv) generation of renewable energy; (v) energy efficiency; (vi) technologies for maintaining customer relations; (vii) projects in the circular economy; and (viii) reduction of losses and ways of using wastes.

As part of its Corporate Program on GHG Emissions Management, Sabesp annually determines the volume of emissions associated with Company operations. This program also promotes awareness of climate issues and encourages actions that reduce GHG emissions in operations, which are in line with the responsibilities established in the directive and requirements of the State Policy on Climate Changes. The program is developing studies that will enable setting corporate goals on GHG emissions, hoping to spur the actions already in progress. This mobilization is in line with global directives and with the Climate Plan being carried out by the Government of the State of São Paulo, considering Decree 65.881 dated July 20, 2021, that provides for State of São Paulo to join the *Race to Zero* and *Race to Resilience* campaigns.

Direct and indirect emissions by the Company as a result of the effluent treatment, shipping, electricity and fuel consumption total approximately 2,574,564.52 tons of CO<sub>2</sub> per year. The activities of collection and treatment of sewage are the biggest sources of GHG emissions by Sabesp, which is approximately 92% of the total. Electricity contributes about 7% of the emissions

In an effort to curbs such emissions, Sabesp has sought to encourage a reduction in emissions by company activities with a series of actions and provided for in the Corporate Program on Management of Greenhouse Gases Emissions. The effort includes actions on the following fronts: i) optimization of operations at the sewage treatment stations, including refining the use of the stations' sub-products for auto-generation of clean energy; ii) expansion of the use of biogas and the sludge; iii) expansion of the use of sources of renewable energy and alternative fuels; iv) offset of GHG emissions through intensification of forests conservation and recompositing.

For example, it is noteworthy that in 2020, Sabesp started to implement a Distributed Generation—Photovoltaic Energy Program<sup>16</sup>. It has a total power of 60 MW, or 4.5% of all the electrical energy consumed at the Company thus contributing to the reduction in GHG emissions via electricity consumption.

With respect to the WWTPs that are the subject of this transaction, they will include aerobic treatment of wastewaters that generate diffuse emissions of  $CO_2$  and sludge. Sludge will be dehydrated and scattered on sanitary landfills, thus preventing continued anaerobic digestion of organic material and, consequently, generation of methane gas. Furthermore, Sabesp is studying the possibility of using the biogas that, in part, is generated by stations for various uses, including optimization of energy efficiency at the WWTPs.

Sabesp will develop specific inventories of GHG for the WWTPs that are the subject of the proposed transaction and will incorporate those emissions in its annual report.

#### 4.3.b Pollution Prevention

In general, Sabesp uses recognized technologies for water and sanitary effluent treatment, making it possible to satisfy treatment standards. The Tietê Program IV contemplates expansion of the WWTPs that are already installed and operating in a densely populated heterogenous urban scenario. This expansion is intended to reduce the pollutant loads resulting from the sewage that is transported by flows of water from informal settlements, thereby contributing to achievement of levels of concentration of biochemical

<sup>&</sup>lt;sup>16</sup> This program is being financed by IDB Invest and is under implementation.



oxygen demand (BOD) and dissolved oxygen (DO) that are compatible with the environmental class and required quality of the hydrographic basin.

To that end, Sabesp has contracted a Sewage Treatment Modernization Plan ("PLAMTE") for the SPMR. The plan calls for evaluation of the existing system, a study of alternatives, an operational description of the new technologies, and a multi-criteria analysis and classification of the alternatives that were studied.

In the case of the Barueri WWTP, in addition to expansion of the solid phase to a capacity of 16 m³/s, currently in progress, a contract has been signed for the drafting of a concept study, basic project and technical package for expansion of a Final Lifting and Preliminary Treatment Station. These studies will assist the process of competitive bidding for execution of the work of expanding treatment capacity to the projected end-of-plan flow rate (23 m³/s) and of the electromechanical equipment to the 2030 projected flow rate (22 m³/s).

Expansion of the Parque Novo Mundo WWTP to 5.3 m<sup>3</sup>/s is planned to be achieved in two phases: the first phase, for which the technical package for contracting is being prepared, calls for modernization and recovery of existing units in order to achieve a treatment capacity of 4.2 m<sup>3</sup>/s. The second phase will increase treatment capacity to 5.3 m<sup>3</sup>/s.

Expansion of the São Miguel WWTP to 4.5 m³/s is also planned to occur in two phases: the first phase, for which the technical package for contracting is being prepared, will cover the updating of existing structures and the implantation of new units that would achieve a treatment capacity of 2.7 m³/s. The second phase of expansion will increase treatment capacity to 4.5 m³/s.

WWTP operations generate significant quantities of solid wastes, mainly sludge and graded material. At present, the sludge generated are sent to licensed sanitary landfills situated in the RMSP. Under the proposed investment, Sabesp expects to install a pipeline for sludge (the "sludgepipe") that would run between the PNM WWTP and Barueri WWTP. This would favor the former both by freeing up surface areas and simplifying the operation and in relation to the elimination of the recycling of the solid phase, which would cease to exist. If the density of the area around the station is considered, then removal of the solid phase also constitutes a reduction of the environmental impacts caused by that WWTP.

# 4.4 Community Health and Safety

#### 4.4.a Community health and safety

The Tietê Program IV will have positive effects on community health and safety during the operational phase. During the construction phase, potential risks and impacts on the communities<sup>17</sup> will be mitigated by the environmental and social programs that comprise the PGAS, to be developed and implemented by the contractors. During nighttime hours, when construction is suspended, the perimeter of the worksite will be appropriately isolated and provided with signage to prevent members of the community or transients from tripping or falling in.

<sup>&</sup>lt;sup>17</sup> The main risks and impacts identified and associated with both projects are: i) vegetation removal: ii) change in quality of the waters; iii) improvement in quality of the aquatic biota; iv) annoyances due to noise, dust, and changes in the road infrastructure; and v) Improvement in the environmental quality and health of the population with the minimization of disease proliferation and unhealthful environments; etc. Further details may be found in the studies made available on the IDB Invest webpage. https://www.idbinvest.or/es/projects.



The main linear construction work, which are situated in urban areas and involving more interface with the communities, require a Road Safety Plan that maps the affected areas, the existing uses and equipment, as well as the impacts on traffic and any interruption in circulation that could occur. Measures to mitigate the impacts, monitoring of the application of actions in the field, as well as checking the results will be elements in the Plan.

The bulk of the labor contracted for the Tietê Program IV works will be comprised of local RMSP workers. Therefore, neither case will require additional lodging or will disturb local communities. Furthermore, the expansion and improvement of basic sanitation obtained through the project will reduce the risk of exposure and disease among the members of the beneficiary population.

In order to prevent incidents of gender-based violence in the community during construction and operation of the facilities under the Tietê IV Program, Sabesp will produce specific educational materials and ask that contracted companies to conduct informative campaigns addressed to the workforce that is assigned to the projects.

### 4.4.b Security Personnel

Armed guards will not be employed at the WWTPs or at the construction sites associated with the Tietê Program IV. The security teams will be focused on controlling access and responding to potential emergencies.

# 4.5 Land Acquisition and Involuntary Resettlement

The project will not cause physical or economic displacement of the population. The lands needed for expansion of the WWTP are already owned by Sabesp and are within pre-existing operational areas. Most of the linear works will be carried out on public roads, where no legal action regarding ownership would be needed. With respect to eventual temporary impacts associated with restriction of access to commercial addresses, Sabesp has a Program for Control of Temporary Economic Impacts and Services that is being implemented in the context of the PGAS of the Tietê Program IV.

# 4.6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

Since the Project will be implemented in thickly settled urban territories, there will be no negative impacts of importance on biodiversity or living natural resources. Furthermore, the Project will not involve critical habitats or areas that are biologically or ecologically sensitive. It should be emphasized that within the context of predicted impacts there occurs an improvement in the aquatic biota because of the expansion in treatment of effluents.

# 4.7 Indigenous Peoples

This project will not intercept indigenous areas or territories or directly impact any indigenous peoples.

# 4.8 Cultural Heritage

Since the sites of project implementation are urban or semiurban lands that are heavily impacted by human presence, the possibility that the project would have impacts on the cultural heritage is extremely



remote. At any rate, Sabesp will contact the Historic and Artistic National Heritage Institute ("IPHAN") in the event there are any archaeological findings in the areas of construction intervention, in which case appropriate procedures will be followed as required by Brazilian law.

# 5. Local Access to Project Documentation

Documentation related to the project may be accessed at the IDB Invest webpage, (<a href="https://idbinvest.org/es/projects/">https://idbinvest.org/es/projects/</a>) and more information about the Company may be obtained at www.sabesp.com.br.