

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**BRAZIL**

**PARÁ SANITATION DEVELOPMENT PROJECT - PRODESAN PARÁ**

**(BR-L1574)**

**LOAN PROPOSAL**

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## ABBREVIATIONS

ANA	National Water and Sanitation Agency
ARBEL	Municipal Regulatory Agency of Belém
ARCON	Public Services Regulation and Oversight Agency of the State of Pará
COSANPA	Companhia de Saneamento do Pará
EIRR	Economic internal rate of return
ESA	Environmental and social analysis
ESMF	Environmental and social management framework
ESMP	Environmental and social management plan
ESMR	Environmental and social management report
ICB	International competitive bidding
IWA	International Water Association
LOA	Lei Anual do Orçamento [Annual Budget Law]
NCB	National competitive bidding
PDSAA	Plano Diretor do Sistema de Abastecimento de Água [Master Plan for the Water Supply System]
PMU	Program management unit
QCBS	Quality- and cost-based selection
RCP	Representative Concentration Pathway
SEFA	Secretaria de Fazenda do Estado do Pará [State of Pará Finance Department]
SEPLAD	Secretaria de Planejamento e Administração do Estado do Pará [State of Pará Planning and Administration Department]
SNIS	Sistema Nacional de Informações sobre Saneamento [National Sanitation Information System]
TCE-PA	Tribunal de Contas do Estado do Pará [Pará State Audit Office]

## PROJECT SUMMARY

### BRAZIL PARÁ SANITATION DEVELOPMENT PROJECT - PRODESAN PARÁ (BR-L1574)

Financial Terms and Conditions				
<b>Guarantor:</b> Federative Republic of Brazil			<b>Flexible Financing Facility<sup>(a)</sup></b>	
<b>Borrower:</b> State of Pará			<b>Amortization period:</b>	25 years
<b>Executing agency:</b> Companhia de Saneamento do Pará (COSANPA)			<b>Disbursement period:</b>	5 years
Source	Amount (US\$)	%	<b>Grace period:</b>	5.5 years <sup>(b)</sup>
			<b>Interest rate:</b>	LIBOR-based <sup>(c)</sup>
<b>IDB (Ordinary Capital):</b>	100,000,000	67	<b>Credit fee:</b>	<sup>(d)</sup>
<b>Local:</b>	25,000,000	33	<b>Inspection and supervision fee:</b>	<sup>(d)</sup>
<b>Total:</b>	125,000,000	100	<b>Weighted average life:</b>	15.25 years
			<b>Currency of approval:</b>	U.S. dollar
Project at a Glance				
<p><b>Project objective/description:</b> The general objective of the project is to improve sanitation conditions for the population of the Metropolitan Region of Belém, with interventions in the municípios of Belém, Ananindeua, and Marituba. This objective will be achieved through the following specific objectives: (i) improve quality and access to water and wastewater collection and treatment services; (ii) improve the operational efficiency of water supply systems under COSANPA's responsibility in the central zone; and (iii) improve COSANPA's business management with a focus on technological innovation.</p>				
<p><b>Special contractual conditions precedent to the first disbursement of the loan:</b> The borrower, through the executing agency, will present evidence to the Bank's satisfaction of the following: (i) the approval and entry into force of the project <a href="#">Operating Regulations</a>, pursuant to the terms previously agreed upon with the Bank; (ii) the creation of the program management unit, attached to COSANPA's Office of the President, and the appointment of its members to work full-time on the project in accordance with the profiles and requirements agreed upon with the Bank; and (iii) the signing and entry into force of a legal instrument signed by the borrower and COSANPA that establishes the terms and conditions for transfer and use of the loan proceeds and the duties of the parties in the area of project execution (paragraph 3.12).</p>				
<p><b>Special contractual conditions for execution:</b> The borrower, through the executing agency, will present evidence to the Bank's satisfaction of the following: (i) prior to issuance of the service order for the first work under the project, contracting of consulting services to support project management, pursuant to the terms of reference previously agreed upon with the Bank; and (ii) prior to issuance of the service order for each work under the project, contracting of consulting services for the technical and environmental supervision of the respective work, pursuant to the terms of reference previously agreed upon with the Bank (paragraph 3.13). In addition, see special contractual conditions in Annex B to the Environmental and Social Management Report (<a href="#">required link 3</a>).</p>				
<b>Exceptions to Bank policies:</b> None.				

Strategic Alignment			
<b>Challenges:</b> <sup>(e)</sup>	SI <input checked="" type="checkbox"/>	PI <input checked="" type="checkbox"/>	EI <input type="checkbox"/>
<b>Crosscutting themes:</b> <sup>(f)</sup>	GE <input checked="" type="checkbox"/> and DI <input type="checkbox"/>	CC <input checked="" type="checkbox"/> and ES <input type="checkbox"/>	IC <input checked="" type="checkbox"/>

- (a) Under the terms of the Flexible Financing Facility (document FN-655-1), the borrower has the option of requesting changes to the amortization schedule, as well as currency, interest rate, and catastrophe protection conversions. The Bank will take operational and risk management considerations into account when reviewing such requests.
- (b) Under the flexible repayment options of the Flexible Financing Facility, changes to the grace period are permitted provided that they do not entail any extension of the original weighted average life of the loan or the last payment date as documented in the loan contract.
- (c) In keeping with document FN-729 (Strategy and Operational Readiness for the Execution of the LIBOR Transition for the IDB Balance Sheet) and document CF-257-1 (Base Rate Replacement for Sovereign Guaranteed LIBOR-based Loans), this loan will be subject to the SOFR-based interest rate, upon notification to the borrower by the Bank or at the borrower's request, pursuant to the provisions of the loan contract.
- (d) The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with applicable policies.
- (e) SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).
- (f) GE (Gender Equity) and DI (Diversity); CC (Climate Change) and ES (Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

## I. DESCRIPTION AND RESULTS MONITORING

### A. Background, problem addressed, and rationale

- 1.1 With 2.5 million inhabitants (IBGE, 2019), the Metropolitan Region of Belém is home to 29% of the population of the State of Pará. Comprising seven municípios, the Metropolitan Region is one of 16 Brazilian regions with a medium-level Municipal Human Development Index. The city of Belém, with 1.5 million inhabitants, is the state capital. In population, it is followed by Ananindeua and Marituba, which have 536,000 and 134,000 inhabitants, respectively. Together, these three cities represent 86% of the total population of the metropolitan region (IBGE, 2019). The project's direct intervention area consists of the urban territory of these three municípios, which are home to 2.17 million people.
- 1.2 **Institutional framework.** The water and sanitation services of 53 of the state's 144 municípios are provided by the state water and sewerage company, Companhia de Saneamento do Pará (COSANPA). This is a mixed-ownership company, in which the State of Pará is the majority shareholder.<sup>1</sup> In the Metropolitan Region of Belém, COSANPA has signed contracts for the provision of water and sanitation services in Belém until 2045 and in Ananindeua and Marituba until 2042. At the federal level, water, sewerage, solid waste, and drainage services are regulated by the National Water and Sanitation Agency (ANA), which sets benchmark standards to make sector-level regulation uniform. At the state level, these services are regulated and supervised by the Public Services Regulation and Oversight Agency of the State of Pará (ARCON); and in the município of Belém they are regulated by the Municipal Regulatory Agency of Belém (ARBEL).
- 1.3 **COSANPA's adaptation to the new legal framework governing Brazil's sanitation sector.** In July 2020, the federal government enacted Law 14.026, which introduces reforms in the sector. These include setting targets for the universalization of services by 2033 under the contracts currently in force between the service providers and the municípios. In addition, Decree 10.710, of May 2021, requires public service providers to demonstrate, by 31 December 2021,<sup>2</sup> the economic and financial feasibility of achieving these targets by 2033. Accordingly, the contracts must be amended by 31 March 2022.<sup>3</sup> An extension of these deadlines is currently being negotiated, because many operators are not in a position to meet them, although COSANPA is developing a strategy to comply with the provisions. If the municípios fail to meet the current deadlines, they would have put the provision of services out to tender, and the private sector could take action to replace COSANPA as service provider. Based on similar experiences in which a water and sanitation service provider was changed in Brazil, the execution and respective contracting of this tender to the private sector would likely require a great deal of time for structuring and consolidation. Moreover, if confirmed, it would probably take place after the execution of the present project has ended. It is also

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<sup>1</sup> COSANPA was created by State Law 4.336 in December 1970, which was amended by State Law 7.060 in November 2007.

<sup>2</sup> A bill to postpone these deadlines is currently under discussion, since the majority of companies may be able to meet them according to schedule.

<sup>3</sup> Ibid.

possible that the municípios will be unable to compensate COSANPA for unamortized investments. Should COSANPA fail to meet the requirements of the new legal framework, it could result in a change in the project executing agency and, consequently, a risk of delay in project execution. For these reasons, there is a good deal of uncertainty surrounding the application of the new framework. Nonetheless, progress in this regard should be monitored.

- 1.4 **Organization of service provision in the project's direct intervention area.** The Master Plan for the Water Supply System (PDSAA) in Belém divides the municípios in the metropolitan region into two macrozones: the central zone and the expansion zone. The former corresponds to downtown Belém, while the expansion zone encompasses the areas around the urban center, together with the urbanized areas of the municípios of Ananindeua and Marituba. The central zone is the area to which most of the treated surface water is directed, having been sourced from Lakes Agua Preta and Bolonha. Water treatment is done at the Bolonha, 5th Sector, and São Braz treatment plants, which, together, constitute the "Integrated Supply System." In the expansion zone, water is sourced predominantly from wells, referred to as "isolated systems." Exceptions are specific sectors within the município of Belém that receive water from the Bolonha plant. In the case of sewer service, there are no treatment plants, and the wastewater collected is discharged directly into bodies of water (paragraph 1.8).
- 1.5 **Coverage and quality of the drinking water service.** The drinking water service in the Metropolitan Region of Belém serves just 51.2% of the population, with municipal coverage rates in the project's direct intervention area of 71.5% in Belém, 32.4% in Ananindeua, and 31.2% in Marituba (SNIS, 2019). This shows that the development of service infrastructure has not kept pace with population growth in recent years. In terms of service quality, the main problem in the project area arises from the numerous service outages that occur. According to COSANPA data, between July and December 2019, there were a total of 9,200 hours of outages in 1,025 occurrences,<sup>4</sup> of which 65% lasted longer than five hours. The main cause is insufficient production and reserve to keep the grid pressurized. COSANPA attributed 31% of the outages to maintenance problems and lack of backup equipment, and another 11% to power outages and lack of contingency plans for dealing with them. Lastly, the outages are also the result of deficiencies in the maintenance of the distribution network (part of it is old and uses asbestos pipes that suffer from problems of resistance and frequent breakages).
- 1.6 Another factor is the poor quality of the untreated water that reaches the drinking water treatment plants in the integrated system. Several of relevant parameters display critical values, which are related to its atrophied environment.<sup>5</sup>

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<sup>4</sup> The outages occurred in different sectors of the network, many of them simultaneously.

<sup>5</sup> Water samples collected in the main source of the Metropolitan Region of Belém (Lakes Agua Preta and Bolonha) show changes in pH, color, turbidity, ammoniacal nitrogen, nitrates, nitrites, chlorides, total hardness, alkalinity, and organic matter (Brazilian Journal of Physical Geography vol. 10, No. 1 (2017) 521-534).



Contamination by urban waste and effluents has also been detected in the area of the Agua Preta source.<sup>6</sup>

- 1.7 Access to good quality water is even more important in the context of the COVID-19 pandemic, in which the state has experienced moments of severe crisis involving near-100% occupancy of hospital beds, together with lockdowns and unemployment.<sup>7</sup> In the first quarter of 2021, statewide unemployment was 25% higher than in the same period of 2020.<sup>8</sup> However, with the progress of vaccination throughout 2021, the region has seen a positive recovery.<sup>9</sup>
- 1.8 **Coverage and quality of the sewerage service.** Connection to sewerage services is critical in the Metropolitan Region of Belém, where coverage is just 9.2% overall, with rates of 15.8% in Belém, 2.1% in Ananindeua, and 10.8% in Marituba (SNIS, 2019). Collected wastewater is discharged directly into water bodies, since treatment systems are practically nonexistent. Communities that are not connected, mainly people living near water sources, have improvised precarious individual solutions that do not receive maintenance. In this situation, it is essential to construct adequate sewerage networks and treatment systems, particularly in areas near water sources. This is even more important in the context of climate change, which could result in an increased presence of cyanobacteria in bodies of water (Pearl et al., 2008).
- 1.9 **Operational efficiency of the water services.** The factors that make service provision inefficient relate to water losses and electricity consumption and expenditure. Water losses are estimated at 40%, with 19% real losses and 29% apparent losses representing unauthorized consumption and metering errors. These indicators are approximate, since levels of sectorization and macrometering (16%) and micrometering (30%) are low, which, when added to the shortage of pressure regulators and the outdated cadaster, prevent adequate monitoring of network operation. Compounding this, in 2019 the drinking water service in the project intervention area had an electricity consumption index of 1.45 kilowatt hours per cubic meter of water produced (kWh/m<sup>3</sup>), compared to a national average of 0.69 kWh/m<sup>3</sup> (SNIS, 2019). International experience shows that there is potential to reduce consumption by replacing motors and pumps and upgrading facilities.
- 1.10 **COSANPA's level of management of water and sanitation services.** The key management problems faced by COSANPA are: (i) frequent service outages owing to inadequate management of its assets, including corrective and preventive maintenance; and (ii) insufficient financial resources to cover its costs (revenue covers 72% of total costs and operating expenses), which is associated with low levels of commercial efficiency (collection efficiency at 66%, active connections at 82.5%), as well as a significant regulatory lag, even though COSANPA introduced

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<sup>6</sup> Ladeira, et. al. *Análisis de índices de calidad del agua en la fuente de suministro de la ciudad de Belém-Pa, Lago Agua Preta* (Twenty-eighth Brazilian Congress of Sanitary and Environmental Engineering, 2015, Rio de Janeiro).

<sup>7</sup> [https://pt.wikipedia.org/wiki/Pandemia\\_de\\_COVID-19\\_no\\_Par%C3%A1](https://pt.wikipedia.org/wiki/Pandemia_de_COVID-19_no_Par%C3%A1)

<sup>8</sup> <https://g1.globo.com/pa/para/noticia/2021/07/28/numero-de-desempregados-passa-de-500-mil-no-1o-trimestre-no-para-aponta-ibge.ghtml>

<sup>9</sup> <https://agenciapara.com.br/noticia/30232/>

major rate increases through 2019.<sup>10</sup> In addition, operational management poses major challenges in terms of losses and energy consumption (paragraph 1.9).

- 1.11 **Status of technological innovation.** COSANPA's problems in terms of access level, service quality, operational efficiency, and business management offer opportunities to introduce smart technologies derived from Industry 4.0<sup>11</sup> with respect to water and thus achieve more effective and less costly solutions in less time than those of conventional technologies. Internationally, digitalization initiatives in the sector have generated operational gains of up to 25%, reduced water supply failures by around 30% and the time taken to repair burst pipes by 8%, and increased data reliability to nearly 99%.<sup>12</sup> COSANPA is making very tentative progress in this area because it lacks a strategy to move forward in an orderly fashion and has not applied innovative solutions to overcome its challenges. Nonetheless, within the framework of preparation of the project, COSANPA has made considerable progress in the implementation of AquaRating,<sup>13</sup> which will be used to comprehensively evaluate of the company's management level.
- 1.12 **Diagnostic assessment of gender.** COSANPA has a total of 1,519 employees, of whom 1,260 are men and just 259 are women. The largest gender gap occurs in the technical and operational areas. COSANPA does not have a gender policy to help reduce inequality in employment. However, there is extensive literature that shows that companies with gender policies improve both their management and their relationship with the population, so the company plans to develop one.
- 1.13 Through the Social Programs Advisory Office, COSANPA is pursuing technical-social work to promote the social advancement of people living in the vicinity of the sanitation works. It is carrying out socio-educational activities for the prevention of gender violence and the sexual exploitation of children and adolescents, female empowerment, and fundamental rights, as well as campaigns for the prevention of breast and uterine cancer, sexually transmitted diseases, teen pregnancy, and drug use and activities for the development of business skills and job training with certification. This work is critical, since recent data<sup>14</sup> released by the Office of the Prosecutor for Combating Domestic and Family Violence against Women in the Metropolitan Region of Belém confirm that a large proportion of women victims of domestic violence are economically dependent on their husbands and partners. This is consistent with data from the Gender Observatory of the Economic Commission for Latin America and the Caribbean (ECLAC), which show that, in 2019, 23.3% of women in urban areas had no income of their own

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<sup>10</sup> In the years 2016-2019, COSANPA implemented rate hikes of 20%, 35%, 10%, and 18%, respectively. Most recently, it has requested a 92.7% increase, distributed over four years, pending the regulator's decision.

<sup>11</sup> The fourth industrial revolution relies on enabling technologies such as: the Internet of Things (IoT), machine learning, big data analytics, cyber-physical systems (CPS), machine-to-machine (M2M), and cloud computing.

<sup>12</sup> WaterWorld, *Digital twins for managing water infrastructure*. DOI. 4 January 2020.

<sup>13</sup> AquaRating is an IDB initiative, with collaboration from the International Water Association, to strengthen the transformation processes and improve the management of water and sanitation service providers.

<sup>14</sup> Data provided by COSANPA for the preparation of this operation.

and were thus denied economic autonomy. Moreover, in Brazil, the average wage of female workers in 2018 was 20.5% lower than that of men in similar positions.<sup>15</sup>

- 1.14 **Assessment of climate change.** Regional climate change models applied to northern Brazil,<sup>16</sup> under the RCP 8.5 scenario,<sup>17</sup> predict an increase in both average annual and maximum summer temperatures. Similarly, although with greater uncertainty, the models predict a 5% reduction in average annual precipitation and an increase in the number of dry days per year by the middle of this century. However, the models do not predict significant changes in rainfall intensity. Given that the northern zone, and in particular the Metropolitan Region of Belém, is one of the rainiest parts of the country, with a historical average of around 2,000 mm of rainfall per year, the expected reduction is not very large relative to annual volumes. On the other hand, the gradual rise in temperature caused by climate change could multiply the effect of environmental degradation caused by nutrient pollution in water sources, owing to low sanitation rates in the project's area of influence.
- 1.15 **The Bank's sector knowledge and lessons learned.** The Bank has financed numerous similar operations in Brazil and other countries which, with minor variations, include actions of the same type: implementation of large-scale water and sanitation infrastructure, such as the three stages of the Tiete River Decontamination Program in São Paulo. These demonstrate the need for a comprehensive approach with interventions in infrastructure, operational modernization, and institutional strengthening and innovation. Lessons learned include: (i) having an execution unit to coordinate the entire project and act as sole interlocutor with the Bank; (ii) having support services for the management and supervision of the works given their dispersed nature; (iii) optimizing existing infrastructure and increasing systems resilience; (iv) identifying the use of innovative technologies in the technical solutions; and (v) implementing actions to strengthen the operator's operational and corporate management, with the aim of making the investments sustainable. The preparation of this operation took these lessons learned into consideration, by setting up a program management unit (PMU) to manage all aspects of implementation. Its tasks will include allocating resources for works management and supervision, including actions to rehabilitate existing infrastructure to make services more resilient, incorporating projects with innovative technologies that could be replicated in other areas, and including specific actions to improve the operator's operational and business management.
- 1.16 **The strategy of the government and COSANPA.** The strategy of the State of Pará is to maintain investments in the sector, based on a plan of investment targets included in COSANPA's strategic planning for 2020-2026. This planning

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<sup>15</sup> Brazilian Institute of Geography and Statistics (IBGE).

<sup>16</sup> The regional models consulted include ETA-BEMS and ETA-HadGEM2-ES. The outputs of these models for different scenarios can be consulted on the website of the National Institute for Space Research ([INPE](#)).

<sup>17</sup> Representative Concentration Pathways, as classified by the different scenarios considered by the Intergovernmental Panel on Climate Change (IPCC). The RCP 8.5 scenario foresees an economic development future that is heavily dependent on fossil fuels, with global emissions continuing to increase at the current rate.

- follows the guidelines of the Water and Sewer Master Plans and the Municipal Sanitation Plans that underlie the contracts with the municípios. The project to be financed through this operation is included in these investment plans. It is also part of the actions of the State of Pará Multiyear Program 2020-2023, which has been approved by the state legislature.
- 1.17 COSANPA is implementing two projects that are related to the project actions: (i) rehabilitation and upgrading of the Bolonha plant (scheduled to come into operation in December 2021), which will improve and expand supply through new pipelines and networks to be financed by the project; and (ii) loss reduction works (scheduled for completion in March 2022), which will be complemented by the project actions. These works were evaluated during preparation, and strategies were designed to mitigate the risks that they will add to the project.
- 1.18 **IDB Group's country strategy.** This operation is consistent with the IDB Group's country strategy with Brazil (2019-2022) (document GN-2973), specifically with the priority area of "Improve the business climate and narrow gaps in sustainable infrastructure for enhanced competitiveness," contributing to the results expected from the strategic objective of narrowing infrastructure gaps: "Better access to improved water, solid waste, and sanitation services." It is also consistent with the following crosscutting themes: (i) gender; (ii) environmental sustainability and climate change; and (iii) innovation and digital transformation. The operation is also included in the Update of the Annex III of the 2021 Operational Program Report (document [GN-3034-2](#)).
- 1.19 **Strategic alignment.** The operation is consistent with the Second Update to the Institutional Strategy (document AB-3190-2) and aligns with the following development challenges: (i) Social Inclusion and Equality, given that access to water and sanitation services will be expanded and improved, and environmental pollution will be reduced; and (ii) Productivity and Innovation, through the adoption of measures to reduce inefficiencies in systems management, and implementation of an Innovation and Digital Transformation plan. The project also aligns with the crosscutting themes of: (i) Gender Equality, owing to the adoption of a company-wide gender policy; (ii) Institutional Capacity and the Rule of Law, by improving COSANPA's operational efficiency and business management; and (iii) Climate Change, inasmuch as investments in wastewater treatment and loss reduction will reduce greenhouse gas emissions. According to the joint methodology of the multilateral development banks, it is estimated that 34.44% of Bank loan proceeds are invested in climate change mitigation and adaptation, contributing to the Bank's climate financing target (30% of the annual volume of approvals). The operation will contribute to the Corporate Results Framework 2020-2023 (document GN-2727-12) through the indicator "Households with improved access to water and sanitation." The operation is also aligned with the Bank's Vision 2025 in the following areas: Promoting social progress in a way that fosters access to and quality of public services; Strengthening good governance and institutions, by strengthening COSANPA; and Strengthening gender equality and climate change. Lastly, the project is consistent with: (i) the Water and Sanitation Sector Framework Document (GN-2781-8 and its update), on the basis that "projects and programs are environmentally and socially sustainable and incorporate climate change and environmental and cultural sustainability considerations"; (ii) the Climate Change Sector Framework Document (GN-2835-8)

in relation to dimension 4, “countries advance with the mainstreaming of climate change into sectors”; and (iii) the Gender and Diversity Sector Framework Document (GN-2800-8) related to the provision of quality public services that promote gender equality or women’s empowerment. The operation is related to the fourth thematic area: “Sustainable infrastructure and sustainable cities” of the Amazon Initiative: “Establishment of the Seed/Transitory Ordinary Capital Strategic Development Program for Sustainable Development in the Amazon (AMAZON-SDP)” (document GN-3036-4), as it includes the development of sustainable infrastructure to improve environmental and sanitation conditions in the Metropolitan Region of Belém.

- 1.20 **Operational strategy.** The project strategy is to support COSANPA with investments in infrastructure to move toward the universalization of water and sanitation services in a sustainable manner. To this end, it will seek to improve both accessibility and quality in the provision of water services, placing special emphasis on their potability, availability, and continuity, and eliminating many of the operational bottlenecks. This will involve investments to refurbish and expand the water services infrastructure, and increase the coverage of sanitation services by installing a wastewater collection and treatment system in areas with the highest levels of pollution affecting water supply sources. All works will be studied to ensure that measures are in place for adaptation to climate change impacts, and their potential for reducing greenhouse gas emissions will be evaluated. The goal is also for COSANPA to provide these expanded and improved services as efficiently as possible. To this end, the strategy will focus on reducing water losses and optimizing energy consumption, prioritizing innovative solutions. Lastly, to contribute to the sustainability of the interventions, COSANPA will be strengthened to improve its operational, commercial, and financial, and asset management performance, and a gender policy will be put in place, along with the development and implementation of an innovation and digital transformation strategy. The effectiveness of the proposed interventions has been demonstrated in several studies of works executed in similar contexts elsewhere.<sup>18</sup>
- 1.21 **Gender strategy and actions.** The operation will support COSANPA in: (a) developing and implementing a gender policy and respective plan of action to identify gaps and establish mechanisms to close them, both internally and with the outsourced companies with which COSANPA works; (b) upgrading job skills and promoting entrepreneurship or employability among the women who participate in training events from the social area linked to the project’s intervention zone, through certified training and employment kits containing basic tools; and (c) promoting good gender practices in the outsourced service companies contracted by COSANPA, by giving incentives to those that are most successful in incorporating COSANPA’s gender policy. The rules for implementing this activity will be detailed in the project Operating Regulations. The incentives will be

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<sup>18</sup> [Evidence of the effectiveness of loss control interventions in Brazil can be found in Da Silva, Nilce Regina](#) and in Rizzo, Alex, Pearson, David, Stephenson, Matthew and Harper, Neil; Apparent Loss Control: A Practical Approach; International Water Association (IWA), Water 21, Article No. 7, IWA Task Force, June 2004. There are also numerous studies demonstrating the effectiveness of wastewater treatment for the sanitation of receiving bodies, including Von Sperling M., [Urban wastewater treatment in Brazil](#) and Nolasco N., [Development of CDM projects in wastewater treatment plants](#).

implemented following the guidelines of COSANPA's gender policy, yet to be developed, and a set of rules will be prepared that takes into consideration the Bank's gender and procurement policies,<sup>19</sup> as well as on the eligibility of expenditures.

- 1.22 **Climate change strategy.** The project's investments in wastewater treatment and loss reduction (favoring lower energy consumption) will reduce greenhouse gas emissions into the atmosphere. Investments in tertiary treatment will also make it possible to remove nutrients that would otherwise be discharged into Lakes Agua Preta and Bolonha. In a context of higher temperatures lasting for longer periods during the summer, a heavier concentration of nutrients in these bodies of water would increase the probability of the appearance of cyanobacteria in eutrophication events. Accordingly, nutrient removal through wastewater treatment can be classified as climate change adaptation.
- 1.23 **Technological innovation and digital transformation strategy.** Considering the major challenges faced by COSANPA, the operation will target the company's institutional strengthening on technological innovation and digital transformation. The strategy includes three areas of action: (i) strategic planning for the introduction of technology solutions at all levels, based on the development of an Innovation and Digital Transformation Plan for COSANPA that enables it to move forward in an efficient and orderly manner, prioritizing impacts; (ii) the implementation of innovative technology solutions derived from the Innovation and Digital Transformation Plan; and (iii) measurement of the impacts of technological innovation and digital transformation, for which AquaRating will be used. Complementing this, the project will finance the implementation of a "Loss Reduction Program Using Innovative Technologies," to be implemented in two phases: (i) a pilot project to identify, test, and evaluate a technological solution for reducing water losses in an area within the project zone; and (ii) an expansion project to scale up the pilot ([optional link 10](#)).
- 1.24 **Compliance with the Bank's Public Utilities Policy (document GN-2716-6).** The project satisfies the financial sustainability and economic evaluation conditions of the Bank's Public Utilities Policy and is consistent with its principles. The State of Pará has been keeping its public accounts in balance and reporting fiscal surpluses. COSANPA has reported financial deficits owing to a high water loss rate, payment delinquencies, and difficulty in implementing rate and other adjustments owing to poor commercial management. The loss reduction program and institutional strengthening actions should enable the company to break even ([optional link 5](#)).

## **B. Objectives, components, and cost**

- 1.25 **Objective.** The general objective of the project is to improve sanitation conditions for the population of the Metropolitan Region of Belém, with interventions in the municípios of Belém, Ananindeua, and Marituba. This objective will be achieved through the following specific objectives: (i) improve quality and access to water and wastewater collection and treatment services; (ii) improve the operational

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<sup>19</sup> Improve women's participation in decision-making processes in the water and sanitation sector, as specified in the Update to the Gender Action Plan for Operations 2020-2021 (document GN-2531-19).



- efficiency of water supply systems under COSANPA's responsibility in the central zone; and (iii) improve COSANPA's business management with a focus on technological innovation.
- 1.26 **Component 1. Water supply, sewerage, and wastewater treatment works (US\$100.85 million).** Financing will be provided for the following: (i) works to restructure and expand water supply systems, including the rehabilitation of existing wells and the construction of new ones, with water treatment plants, as necessary; the construction of new water tanks and rehabilitation of existing ones; and the construction of transmission and distribution networks and household connections, among other similar activities; and (ii) works to expand the sanitary sewer system, including sewer systems and residential and intra-residential connections, lift stations, and sewer mains, and a wastewater treatment plant and an outfall, among other similar activities. This component will also finance consulting services for the preparation of complementary studies and projects and the supervision of works.
- 1.27 **Component 2. Operational efficiency of the water supply systems under COSANPA's responsibility (US\$17.55 million).** This component will finance: (i) the replacement of water networks and household connections; (ii) the sectorization of networks through the supply and installation of network interconnection valves and pressure-reducing valves; installation of macrometers and other equipment to improve network control and management; (iii) identification and repair of network leaks; (iv) updating of the cadaster of sector networks with telemetry and hydraulic modeling; and (v) electromechanical rehabilitation and automation of water lifting stations, including the procurement and installation of electric power generating equipment and the replacement of inefficient electromechanical equipment. The component will also finance consulting services for the preparation of complementary studies and projects and the supervision of works.
- 1.28 **Component 3. COSANPA institutional strengthening (US\$3.00 million).** This component will finance: (i) the preparation and implementation of programs to improve COSANPA's commercial, operational, and asset management; (ii) the preparation and implementation of an innovation and digital transformation plan for COSANPA; (iii) the preparation and implementation of a gender policy and respective plan of action and monitoring,<sup>20</sup> including programs for production training<sup>21</sup> and education<sup>22</sup> for women in communities in the project's intervention area and COSANPA, and incentives for outsourced companies to adhere to gender policies (paragraph 1.21).

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<sup>20</sup> The action plan will also involve the hiring of two gender specialists to: (a) monitor the results of the training and its impacts (including the follow-up of individual participants based on a registry); (b) evaluate and systemize practices and provide feedback on the activities; and (c) develop updates to employment policies and hiring strategies that promote gender equality and employability.

<sup>21</sup> Including the provision of materials and tools.

<sup>22</sup> On various topics relating to gender and women's empowerment, environment, health, prevention, and others.

- 1.29 **Administration, evaluation, and audit (US\$3.60 million).** The project will also finance the costs related to specialized management support services for the PMU, project monitoring and evaluation, and related external audits.

**C. Key results indicators**

- 1.30 The project's key results relate to improved accessibility, quality, and operational efficiency in the services provided by COSANPA. The key results indicators are shown in Table I-1 below (see also Annex II).

**Table I-1. Key indicators**

Outcome indicator	Unit of measure	Baseline	Target
Households with new access to safe drinking water in the project's direct intervention area	Household	0	55,000
Households with improved access to safe drinking water for at least 16 hours per day, 7 days per week in the project's direct intervention area		0	340,000
Households with effective access to sewage collection in the project's direct intervention area		0	6,400
Annual rate of coverage of COSANPA's total costs and expenditures	%	72	100

- 1.31 **Benefits and beneficiaries.** The project will benefit 401,400 households directly through the provision of new and improved drinking water and sanitation services. It will also benefit individuals participating in the employment, training, and education workshops financed by the project. It will indirectly benefit the 2.5 million inhabitants of the Metropolitan Region of Belém, whose quality of life will be improved by having access to sustainable, better quality basic services. Sustainability will be enhanced by improving COSANPA's institutional performance and by modernizing and increasing its operational efficiency. These results will bring environmental benefits to the area and financial benefits to the company.
- 1.32 **Socioeconomic feasibility.** As this is a multiple works program, a cost-benefit analysis was applied to the representative project sample. All of these projects were found to be economically viable, with the following internal economic rates of return (EIRR) and net present values (using a discount rate of 12%): of 64.4% and US\$3.7 million, respectively, for Novo Horizonte and Ananindeua Centro; 34.9% and US\$6.4 million for Sector 4 of the UN-SUL business unit; 17.7% and US\$180 million for the Augusto Montenegro Pipeline; 43.2% and US\$9.4 million for Sectors 7 and 9 of the UN-SUL and UN-Norte business units; 12.8% and US\$0.4 million for the sewerage networks in Utinga; and 15.6% and US\$3.9 million for the Mártir wastewater treatment plant. For projects that were not evaluated, a benefit-cost analysis will be performed, and only projects with an EIRR above 12% will be eligible for project financing. Lastly, information provided by COSANPA shows that the average household in the intervention area pays US\$21.90 per month for the water and sewerage service, which represents 3.3% of average monthly family income. Poor households are eligible for a discounted rate, which reduces the amount payable to approximately US\$6.20 per month, or 3% of their average monthly family income. These values are acceptable as per international standards ([optional link 2](#)).



## II. FINANCING STRUCTURE AND MAIN RISKS

### A. Financing instruments

- 2.1 **Modality.** The project has been designed as an investment loan under the multiple works modality. It will finance physically similar, but mutually independent, projects, which must satisfy the eligibility criteria established in accordance with the representative sample.
- 2.2 **Cost and financing.** The total project cost is US\$125 million, of which US\$100 million will be financed by a loan from the Bank's Ordinary Capital and US\$25 million by a local contribution. The consolidated budget is itemized by component in Table II-1. The loan will have a five-year disbursement period, consistent with the multiyear execution plan ([required link 1](#)). The disbursement schedule is shown in Table II-2.

Table II-1 - Project cost (US\$)<sup>23</sup>

Categories	Bank	Local contribution	Total
Component 1: Water supply, sewerage, and wastewater treatment works	79,360,462	21,490,865	100,851,327
Reform and expansion of supply sectors in the UN-BR business unit (expansion zone)	646,413	161,603	808,016
Reform and expansion of supply sectors in the UN-SUL business unit (Sector 4)	2,990,870	747,717	3,738,587
Implementation of Augusto Montenegro pipeline (expansion zone)	16,787,950	4,196,988	20,984,938
Implementation of the sewage collection and treatment system near Lakes Agua Preta and Bolonha	25,180,411	6,295,103	31,475,514
Other projects	32,250,818	9,713,455	41,964,272
Social and environmental management	208,000	52,000	260,000
Works supervision	1,296,000	324,000	1,620,000
Component 2: Operational efficiency of the water supply systems under COSANPA's responsibility	14,036,538	3,509,135	17,545,673
Improved operational efficiency – reduced losses in the central zone	4,715,086	1,178,772	5,893,858
Other projects	8,565,452	2,141,363	10,706,815
Works supervision	400,000	100,000	500,000
Loss reduction program using innovative technology in the central area of Ananindeua	356,000	89,000	445,000
Component 3: COSANPA institutional strengthening	3,003,000	-	3,003,000
Administration, evaluation, and audit	3,600,000	-	3,600,000
<b>Total</b>	<b>100,000,000</b>	<b>25,000,000</b>	<b>125,000,000</b>

<sup>23</sup> The amounts specified within each component are indicative.

**Table II-2 - Disbursement schedule (US\$ million)**

Source	Year 1	Year 2	Year 3	Year 4	Year 5	Total
IDB	4.11	14.07	38.70	28.75	14.37	100
Local contribution	0.86	3.16	9.28	6.82	4.88	25
%	4.0	13.8	38.4	28.4	15.4	125

- 2.3 **Representative sample.** To determine the feasibility of the project and to expedite implementation once approved, a sample of projects representative of the type of works to be executed was analyzed involving a total investment of US\$62.6 million, roughly 50% of the total project amount (paragraph 2.14).
- 2.4 **Eligibility criteria.** Each work to be financed under this project must satisfy the following eligibility criteria: (i) it must correspond to projects to restructure and expand drinking water supply services and sanitary sewerage and wastewater treatment systems in the municípios of Belém, Ananindeua, and Marituba in the Metropolitan Area of Belém; (ii) it must correspond to projects related to the operational efficiency of water supply systems; (iii) it must be located in COSANPA's service delivery area; (iv) it must be technically, economically, socially, and environmentally feasible; and (v) it must not be classified as category "A" according to the Bank's operational policy OP-703. Eligible projects will be prioritized according to COSANPA's strategic needs.
- 2.5 **Deadline for the physical start of the works.** The physical execution of the project works must begin no later than three years from the entry into effect of the loan contract.

## **B. Environmental and social risks**

- 2.6 In accordance with the Bank's Environment and Safeguards Compliance Policy (OP-703) and the socioenvironmental assessment of the works to be executed, the project was classified as a category "B" operation, because the negative socioenvironmental impacts will be localized, temporary, and short-term. The impacts identified included the following: (i) reduction of vegetation cover because the construction work will clear land to install infrastructure; (ii) production of dust and elevated concentrations of particulate matter owing to the movement of vehicles and machinery and the storage of dry materials; (iii) increased noise and vibration from cutting and compaction activities, among others; (iv) inconvenience to inhabitants owing to changes in access, new construction sites and movement of workers, interruptions to essential services, and longer travel times; (v) increased sediment in rivers, and erosion or alteration of the landscape due to earthworks or construction and demolition activities; (vi) temporary disturbance of fauna, or losses caused by the passage of machinery and noise; and (vii) impact on commercial activities caused by road closures or new construction sites. Potential socioenvironmental risks were also identified, such as: (i) contamination of soil or water resulting from environmental hazards encountered when opening new construction sites, or from the spillage of hazardous products or materials; and (ii) the risk of cases of violence owing to an increase in the flow of workers. Pursuant to Directive B.9, and in view of the intervention planned in the Utinga State Park, the environmental and social analysis (ESA) evaluated the risk of significant conversion or degradation of natural habitats. This included an analysis

of alternative sites for the Mártir wastewater treatment plant, and an evaluation of negative impacts on the Utinga Protected Area and the Pará Protected Area. The conclusion was that there are no significant negative impacts, and the project would improve the condition of Lakes Agua Preta and Bolonha, which are the reason the areas in question have been declared protected.

- 2.7 The following potential impacts during operation have been identified: (i) alteration of soil quality owing to inappropriate disposal of sludge from the Mártir wastewater treatment plant; (ii) alteration of water quality in bodies of surface water owing to inappropriate disposal of filter backwash in water treatment plants; and (iii) conflicts with the community owing to odors produced in wastewater lift stations.
- 2.8 No cumulative negative impacts were identified, nor impacts on ethnic groups or indigenous peoples, or cultural sites.
- 2.9 The socioenvironmental assessment process confirmed that the planned interventions and potential impacts can be mitigated using standard measures and socioenvironmental good practices.
- 2.10 The risk from natural disasters is moderate, since both the flood and landslide hazards and the criticality of the exposed infrastructure are moderate, according to the criteria defined for water and sanitation projects in the Bank's Disaster Risk Management Methodology. No additional risk management analyses were required. The environmental and social management plan (ESMP) includes a disaster risk management plan and a contingency plan.
- 2.11 As this is a multiple works operation, (i) an environmental and social analysis ([ESA](#)), an environmental and social management plan ([ESMP](#)), and an environmental and social management framework ([ESMF](#)) have been prepared; and all three were published on the Bank's website prior to the review mission. The public consultation process was conducted in September 2021, according to the consultation plan submitted by COSANPA. In general, the operation has been accepted by the stakeholder groups who participated. The matters raised during the consultations had to do with the execution timelines for the works, in order to avoid impacts, and with the disposal of sludge, among other issues. The results of the consultations were integrated into the final versions of the ESA/ESMP and ESMF that have been published on the Bank's website.

### **C. Fiduciary risks**

- 2.12 The risk workshop held during project preparation identified two medium-high fiduciary risks: (a) potential errors and inconsistencies in COSANPA's accounting records, which could lead to difficulties and/or delays in project reporting. To mitigate this risk, the project management support firm is expected to provide COSANPA with qualified professionals to support: (i) routines for the validation and control of project expense payments; (ii) the recording and account reconciliation of project expenditures; and (iii) the preparation of project disbursement requests and annual financial statements; and (b) systemic bottlenecks in the procurement planning processes, preparation of bidding documents, and other stages of the contracting process, due to overburdening of the procurement team. With this in mind, the PMU team will be strengthened with additional members trained in procurement, and the scale and scope of procurement processes will be managed through procurement planning.

**D. Other key issues and risks**

- 2.13 The following medium-high risk has been identified: (i) Planning, if the Bolonha water treatment plant, which is currently being constructed by COSANPA to supply treated water to part of the project works, is not completed on schedule and with the scope envisaged, some of the works in this project would experience execution delays. This risk will be mitigated by monitoring execution of the wastewater treatment plant works, harmonizing them with the start of the respective project works and potentially replanning the project targets according to the status of the wastewater treatment plant works.
- 2.14 **Technical feasibility.** A representative sample of five water projects was evaluated: two well constructions (Novo Horizonte and Ananindeua Centro); rehabilitation of pumping and storage systems with power generating equipment in areas with power outage problems (sector 4); pipeline construction (Montenegro pipeline) with expansion of supply systems (tanks, pumping, networks, connections) and increased micrometering; reduction of losses in Sectors 7 and 9 (replacement of pipes, installation of metering and control equipment with telemetry, repair of losses, cadaster). In the sewerage segment, the sample included the first phase of the new wastewater collection and treatment system in the Utinga area, which contains networks, collectors, connections, treatment plant (the Mártir wastewater treatment plant) and outfall. The projects are at a finalized or advanced basic level, and detailed designs have been prepared for the operational efficiency improvement project. The projects have been developed following the guidelines and selection of alternatives contained in the water and sanitation master plans. The proposals are technically feasible and appropriate both to the needs identified and to the capacity and quality objectives defined. Nonetheless, they require a number of specific optimizations, as agreed upon in the project Operating Regulations. All studies and designs of infrastructure components will adhere to the standards of the Brazilian Association of Technical Standards, generally accepted international engineering principles, and guidelines to be agreed upon in the project Operating Regulations ([optional link 1](#)).
- 2.15 **Institutional feasibility.** An institutional capacity analysis was performed on COSANPA using the Institutional Capacity Analysis Platform (ICAP), which recommended creation of the PMU, attached directly to COSANPA's Office of the President. The structure, execution mechanism, and profile of the PMU's professional staff will be specified in the project Operating Regulations, taking into account the professional profile of the thematic areas previously approved by the Bank.
- 2.16 **Financial feasibility.** The State of Pará has recorded surpluses and balanced fiscal accounts over the last 10 years, in compliance with the Fiscal Responsibility Law. Projections indicate that the state will continue to report positive fiscal outturns and will be able to meet its debt service and discharge its counterpart obligations. COSANPA has reported losses in recent years, with operating expenditures exceeding revenues. The difficulties that it faces, such as high rates of payment delinquency, technical and commercial losses, and difficulty in ratifying rate hikes, force the shareholder (the State of Pará) to make an annual contribution to cover its financial commitments. Revenues cover approximately 72% of total costs and expenses. A scenario was developed in which financial balance

is achieved (about 100% of costs covered by revenues) in 2026, taking into account project interventions and institutional strengthening actions.

- 2.17 **Sustainability.** The operation includes a program to strengthen COSANPA and enable it to improve its performance and cover 100% of its operating costs. The project will also implement a gender policy for the purpose of improving management. Lastly, a strategy has been included to introduce technological innovation in the company's operations to allow it to provide the service more efficiently. Taken as a whole, these measures will ensure that trained staff and sufficient resources are in place to make the interventions sustainable.

### III. IMPLEMENTATION AND MANAGEMENT PLAN

#### A. Summary of implementation arrangements

- 3.1 **Borrower, executing agency, and guarantor.** The borrower will be the State of Pará, and COSANPA will serve as executing agency. The Federative Republic of Brazil will stand as guarantor of the borrower's financial obligations under the loan contract.
- 3.2 **Execution mechanism.** COSANPA will coordinate and execute the project through a PMU, to be created and attached to its Office of the President. The PMU will be responsible for general coordination of the project and will maintain a structure for project management, including the works and projects related to engineering, planning and monitoring, environmental and social considerations, institutional strengthening, administrative and financial considerations, and procurements and contracts. The structure, functions, and profiles of each of the members of the PMU will be specified in the project Operating Regulations, and they will work exclusively on the project.
- 3.3 The PMU will be tasked with the following duties, among others to be specified in the project Operating Regulations: (i) maintaining formal communication with the Bank; (ii) preparing operational planning documents (multiyear execution plan, financial plan, procurement plan, among others); (iii) submitting progress reports and audited financial statements to the Bank; (iv) carrying out planned bidding and contracting processes through a special bidding committee; (v) submitting disbursement requests to the Bank; and (vi) coordinating works management and supervision.
- 3.4 The consulting services to support project management that will be contracted by the PMU may include specialists for planning and physical-financial oversight, environmental and social aspects, the preparation of progress reports, and support for the implementation of gender actions, in accordance with project needs.
- 3.5 The PMU will be supported by different institutions of the borrower and COSANPA that participate in the actions to be undertaken. The works will be executed, operated, and maintained by COSANPA. The relationship between COSANPA and the different municípios will be defined in signed program contracts that mandate COSANPA to provide water and sanitation services, including works execution, in the different municípios. The latter will thus play an informative, collaborative, and monitoring role in the project. The identification and detailed

duties and/or roles of each area/entity involved in project execution will be specified in the project Operating Regulations ([optional link 4](#)).

- 3.6 COSANPA will create an advisory coordination board for the project consisting of the heads of COSANPA departments and chaired by its President-Director. This board will exercise a nonbinding consultative and strategic planning role, and its functions are described in the project Operating Regulations. A special bidding committee will also be created, exclusively for the project, to conduct the project's bidding processes pursuant to Bank policies and current national legislation, when applicable.
- 3.7 **Project Operating Regulations.** Project execution will be governed by the provisions of the loan contract and project [Operating Regulations](#), addressing the following matters, among others: (i) institutional, administrative, and financial management; (ii) planning, tracking, and monitoring procedures; and (iii) procedures for project identification, evaluation (technical, economic, environmental and social, in the latter case as provided for in the ESMF ([optional link 8](#)), which is part of the project Operating Regulations), project approval, supervision, and implementation.
- 3.8 **Project execution plan and annual work plan.** Project activities will be carried out according to a schedule defined in the [multiyear execution plan](#) and its annual review, which will be reflected in the respective annual work plan ([required link 1](#)). Nonetheless, this should be updated each year to take account of actual project progress. Annual revisions of the annual work plan should be submitted to the Bank by 30 November each year, to include the following year's planning.
- 3.9 **Fiduciary agreements and requirements.** The fiduciary agreements and requirements (Annex III) provide guidelines for the project's financial management and procurement execution. They have been based on the fiduciary context of the country and executing agency, the institutional analysis of the executing agency, the risk workshop held with staff from all participating entities, meetings held with executing agency staff, and continual meetings with the project team and key staff from the participating entities.
- 3.10 **Disbursement management.** Loan disbursements will be made in the form of advances of funds in U.S. dollars. Requests for advances should meet the project's liquidity needs for a period of up to six months, as documented in the financial plan. For each advance (except for the first), at least 80% of the funds previously advanced and not yet justified must be accounted for.
- 3.11 **Procurement plan.** The procurement plan ([required link 4](#)) contains the details of project procurement to be executed according to the Policies for the Procurement of Works and Goods Financed by the Inter-American Development Bank (document GN-2349-15) and the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (document GN-2350-15). The procurement plan gives details of the following: (i) contracts for works, goods, and consulting services as needed to execute the project; (ii) the proposed goods procurement and consultant selection methods; and (iii) the procurement review procedures to be applied by the Bank. The executing agency should update the procurement plan annually, or according to project needs. Any proposed revision of the procurement plan must be submitted to the Bank for approval.



- 3.12 **Special contractual conditions precedent to the first disbursement of the loan.** The borrower, through the executing agency, will present evidence to the Bank's satisfaction of the following: (i) the approval and entry into force of the project [Operating Regulations](#), pursuant to the terms previously agreed upon with the Bank; (ii) the creation of the program management unit, attached to COSANPA's Office of the President, and the appointment of its members to work full-time on the project in accordance with the profiles and requirements agreed upon with the Bank; and (iii) the signing and entry into force of a legal instrument signed by the borrower and COSANPA that establishes the terms and conditions for transfer and use of the loan proceeds and the duties of the parties in the area of project execution. Condition (i) is necessary since the project Operating Regulations will define the operational aspects and harmonize the procedures to be followed during project execution; condition (ii) is necessary to ensure that COSANPA is prepared and adequately equipped for project execution; and condition (iii) is necessary since it will formalize COSANPA's commitment to project execution and ensure the loan proceeds are transferred and soundly managed and executed, in accordance with the loan contract and the Bank's policies and procedures as applicable.
- 3.13 **Special contractual conditions for execution.** The borrower, through the executing agency, will present evidence to the Bank's satisfaction of the following: (i) prior to issuance of the service order for the first work under the project, contracting of consulting services to support project management, pursuant to the terms of reference previously agreed upon with the Bank; and (ii) prior to issuance of the service order for each work under the project, contracting of consulting services for the technical and environmental supervision of the respective work, pursuant to the terms of reference previously agreed upon with the Bank. This condition is considered essential to provide COSANPA with the support needed to strengthen its capacity to execute the project.
- 3.14 **Operation and maintenance.** The borrower, through COSANPA, will: (i) ensure that the project works and equipment are maintained properly, in accordance with generally accepted technical standards; and (ii) submit to the Bank, starting from the year following conclusion of the first project work and up to two years after completion of the last, within the first quarter of each calendar year, a report on the condition of such works and equipment and the annual maintenance plan for that year, identifying the personnel and resources needed for its execution. If the Bank's inspections or the reports it receives show that maintenance is below the agreed standards, the borrower, through COSANPA, shall take the steps needed to ensure that the deficiencies are fully corrected.
- 3.15 **Audit.** During the loan disbursement period, the project's annual audited financial statements will be submitted to the Bank within 120 days following the fiscal year-end. The final audited financial statements will be submitted no later than 120 days after the expiry of the original disbursement period and any extensions. The audit will be performed by the Pará State Audit Office (TCE-PA), or else by a firm of independent auditors acceptable to the Bank. The scope and other related aspects will be determined by the Financial Management Guidelines for IDB-financed Projects (OP-273-6).

**B. Summary of arrangements for monitoring results**

- 3.16 **Monitoring.** The executing agency will prepare reports on the status and results achieved in the activities for which it is responsible. The monitoring plan will include the procurement plan, the multiyear execution plan, the annual work plan, the Results Matrix, the progress monitoring report, and the risk management plan. Within 60 days after the end of each six-month period, the executing agency will submit semiannual reports to the Bank on the progress achieved and results obtained, including a plan of action for the ensuing six-month period ([required link 2](#)).
- 3.17 **Evaluation.** The executing agency will commission: (i) a midterm evaluation, if the Bank deems necessary; and (ii) a final evaluation, in accordance with the agreed upon monitoring and evaluation plan ([required link 2](#)). A before-and-after evaluation methodology is proposed, which will entail measuring the outcome indicators post-intervention and comparing the measurements to check that the targets have been attained. As part of the final evaluation, an ex post economic review will be conducted, using the methodology described in the monitoring and evaluation plan ([required link 2](#)).



Development Effectiveness Matrix		
Summary		BR-L1574
I. Corporate and Country Priorities		
Section 1. IDB Group Strategic Priorities and CRF Indicators		
Development Challenges & Cross-cutting Issues	-Social Inclusion and Equality -Productivity and Innovation -Gender Equality and Diversity -Climate Change -Institutional Capacity and the Rule of Law	
CRF Level 2 Indicators: IDB Group Contributions to Development Results	-Households with improved access to water and sanitation (#)	
2. Country Development Objectives		
Country Strategy Results Matrix	GN-2973	Reduce infrastructure gaps
Country Program Results Matrix	GN-3034-2	The intervention is included in the 2021 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
II. Development Outcomes - Evaluability		Evaluable
3. Evidence-based Assessment & Solution	9.5	
3.1 Program Diagnosis	2.5	
3.2 Proposed Interventions or Solutions	3.5	
3.3 Results Matrix Quality	3.5	
4. Ex ante Economic Analysis	10.0	
4.1 Program has an ERR/NPV, or key outcomes identified for CEA	1.5	
4.2 Identified and Quantified Benefits and Costs	3.0	
4.3 Reasonable Assumptions	2.5	
4.4 Sensitivity Analysis	2.0	
4.5 Consistency with results matrix	1.0	
5. Monitoring and Evaluation	8.4	
5.1 Monitoring Mechanisms	2.8	
5.2 Evaluation Plan	5.5	
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood	Medium Low	
Environmental & social risk classification	B	
IV. IDB's Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)		
Non-Fiduciary		
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project		

**Evaluability Note:** The general objective of the project is to improve the health conditions of the population of the Metropolitan Region of Belén (MRB), with interventions in the municipalities of Belén, Ananindeua and Marituba. This objective will be achieved through the following specific objectives: (i) improve access and quality of water services and wastewater collection and treatment; (ii) improve the operational efficiency of the water supply systems run by COSANPA in the central zone; and (iii) improve COSANPA's business management with a focus on technological innovation.

The operation presents a solid diagnosis: substantial gaps in sewerage service coverage are identified (Belén 15.8%, Ananindeua 2.1% and Marituba 10.8%) including non-existent wastewater treatment, and low coverage in drinking water service provision (Belén 71.5%; Ananindeua 32.4%; and Marituba 31.2%); a high number of water service interruptions are identified (1,025 interruptions for a total of 9,200 hours in 2019), as well as poor quality of the raw water that reaches the treatment plants of the isolated systems; and in terms of operational and management efficiency, it is estimated that there are 40% water losses, high levels of inefficiency in the energy used to produce a cubic meter of water, and insufficient financial resources to cover costs by COSANPA.

To mitigate these challenges, the project will implement three components: 1) Water supply, sewerage and wastewater treatment works; 2) Operational efficiency of the water supply systems run by COSANPA; and 3) Institutional strengthening of COSANPA. The results matrix (RM) reflects the Specific Objectives of the project and shows a solid vertical logic. The RM includes output and result indicators with their respective baseline values, targets, and means to collect the information. For the most part, the RM indicators meet the criteria for being SMART.

Since it is a multiple works operation, a set of cost-benefit analysis was carried out for a representative sample of works of about 50% of the total amount of the project, which includes the analyzes of four water works and two for sanitation. The assumptions made are reasonable. The results show that the operation is viable with Internal Rates of Economic Return (IRER) higher than 12% for all works individually. Sensitivity analyzes are performed for all works under alternative scenarios that modify variables that may affect costs and benefits. These modifications do not present significant alterations in the IREER.

The monitoring and evaluation plan proposes a reflexive evaluation, which is complemented by an ex-post cost-benefit analysis. Given the inclusion of innovative elements in the operation, such as the Loss Reduction Program Using Innovative Technologies, which will include a pilot project before scaling up, it seems worth considering the inclusion of a prospective impact evaluation.

The risks identified in the risk matrix seem reasonable and are classified as Low (5), Medium-Low (15), and Medium-High (3) risks. All risks classified as Medium-High include a risk management strategy, activity, responsible party, and date or trigger.

## RESULTS MATRIX

<b>Project objective:</b>	The specific objectives for this operation will be to: (i) improve quality and access to water and wastewater collection and treatment services; (ii) improve the operational efficiency of water supply systems under COSANPA's responsibility in the central zone; and (iii) improve COSANPA's business management with a focus on technological innovation. Achieving these objectives will contribute to the general objective of improving sanitation conditions for the population of the Metropolitan Region of Belém, with interventions in the municípios of Belém, Ananindeua, and Marituba.
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### GENERAL DEVELOPMENT OBJECTIVE

Indicators	Unit of measure	Baseline value	Baseline year	Year 1	Year 2	Year 3	Year 4	Year 5	End of project	Means of verification / comments
<b>Specific development objective 1: To improve quality and access to water and wastewater collection and treatment services</b>										
1. Households with new access to safe drinking water in the project's direct intervention area.	Household	0	2021					55,000	55,000	Means of verification: Management Information Report (Advisory Office on Planning, attached to the Office of the President of COSANPA).
2. Households with access to safe drinking water for at least 16 hours per day, 7 days per week in the project's direct intervention area.								340,000	340,000	Means of verification: Idem above.
3. Households with effective access to wastewater collection in the project's direct intervention area.								6,400	6,400	Means of verification: Idem above.
4. Households with wastewater treated in the project's direct intervention area.								6,400	6,400	
5. Water supply outages lasting longer than 6 hours in the project's direct intervention area.	Average number of outages per month	480	2020					192	192	

Indicators	Unit of measure	Baseline value	Baseline year	Year 1	Year 2	Year 3	Year 4	Year 5	End of project	Means of verification / comments
<b>Specific development objective 2: To improve the operational efficiency of water supply systems under COSANPA's responsibility in the central zone</b>										
6. Reduction in the distribution loss ratio in the central zone.	%	0	2021					5%	5%	Means of verification: Idem above. Distribution Loss Ratio = $\frac{((\text{Volume produced} + \text{Volume imported} - \text{Service Volume}) - \text{Volume consumed}))}{(\text{Volume produced} + \text{Volume imported} - \text{Service volume}))} \times 100$ .
7. Energy consumption per cubic meter of water produced in the central zone.	kWh/m3	0.76	2020					0.72	0.72	Means of verification: Idem above. Annual energy consumed/volume of water produced.
<b>Specific development objective 3: To improve COSANPA's business management with a focus on technological innovation</b>										
8. Annual rate of coverage of COSANPA's total costs and expenditures.	%	72%	2021					100%	100%	Annual income statement (COSANPA Accounts Department). Total annual revenues / Total annual costs and expenditures (excluding debt financing costs).
9. Annual rate of collection efficiency at COSANPA.	%	66%	2021					81%	81%	Management Information Report (Advisory Office on Planning, attached to the office of the President of COSANPA). Total annual revenue collected / Total annual billing.
10. Innovative management technologies proposed under the digital transformation plan and used by COSANPA.	Number	0	2021					1	1	Means of verification: Idem above.

Indicators	Unit of measure	Baseline value	Baseline year	Year 1	Year 2	Year 3	Year 4	Year 5	End of project	Means of verification / comments
11. Gender policy approved by the COSANPA Board of Directors.	Policy	0	2021		1				1	Means of verification: Idem above.
12. Rate of implementation of the Gender Action Plan.	%	0	2021					30%	30%	Means of verification: Idem above. (Number of gender actions implemented by COSANPA / Total number of actions in the Gender Action Plan) x100.
13. Proportion of women who graduate from employment workshops financed by the project.	%	0						70%	70%	Means of verification: Idem above. (Number of women completing workshops or courses / Number of women participating in workshops or courses) x100.
14. Proportion of women graduating from job training who start businesses or find a job.	%	0						30%	30%	Means of verification: Idem above. (Number of women completing the workshops or courses who start a business or find a job / Number of women completing the workshops or courses) x100.

OUTPUTS

Output	Unit of measure	Associated outcomes	Cost (US\$)	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final	Comments / Means of verification
<b>Component 1. Water supply, sewerage, and wastewater treatment works</b>											
<b>1.1 Drinking water system for the UN-BR business unit, constructed</b>	<b>System</b>	1, 2, and 5	<b>823,221</b>	-	-	-	1	-	-	1	<b>Means of verification:</b> Works certificate validated by the program management unit (PMU) <b>Responsible entity:</b> PMU
<b><u>Milestone:</u></b> Deep wells constructed	Well		457,226	-	-	3	2	-	-	5	
<b><u>Milestone:</u></b> Pumping station built	Station		365,996	-	-	3	2	-	-	5	
<b>1.2 Drinking water system for the UN-SUL business unit, rehabilitated and expanded</b>	<b>System</b>	1, 2, and 5	<b>3,809,092</b>	-	-	-	1	-	-	1	
<b><u>Milestone:</u></b> Elevated metal storage tanks constructed	Tank		1,303,721	-	-	2	-	-	-	2	
<b><u>Milestone:</u></b> Elevated concrete storage tank rehabilitated			562,890	-	1	-	-	-	-	1	
<b><u>Milestone:</u></b> Drinking water treatment plant rehabilitated	Plant		1,942,481	-	-	-	1	-	-	1	
<b>1.3 Augusto Montenegro pipeline system, constructed</b>	<b>System</b>	1, 2, and 5	<b>21,378,911</b>	-	-	-	-	1	-	1	
<b><u>Milestone:</u></b> Treated water pipeline constructed	Km		10,554,653	-	-	1.97	3.94	3.94	-	9.85	
<b><u>Milestone:</u></b> Supported tank constructed	Tank		1,542,827	-	-	-	1	1	-	2	
<b><u>Milestone:</u></b> Elevated tank constructed			1,082,530	-	-	-	1	1	-	2	

Output	Unit of measure	Associated outcomes	Cost (US\$)	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final	Comments / Means of verification
<b><u>Milestone:</u></b> Pumping station built	Station		1,064,869	-	-	-	1	3	-	4	<b>Means of verification:</b> Works certificate validated by the PMU <b>Responsible entity:</b> PMU
<b><u>Milestone:</u></b> Treated water distribution networks constructed	Km		4,310,391	-	-	14.6	30.3	28.24	-	73.14	
<b><u>Milestone:</u></b> New household connections built	Connection		1,767,327	-	-	1,275	1,910	3,183	-	6,368	
<b><u>Milestone:</u></b> Household micrometering systems installed or replaced.	System		1,056,314	-	-	2,878	4,318	7,196	-	14,392	
<b>1.4 Sanitation system near Lakes Agua Preta and Bolonha, constructed</b>	<b>System</b>	3 and 4	<b>32,066,613</b>	-	-	-	-	-	1	1	
<b><u>Milestone:</u></b> Sanitary sewage networks built	Km		4,558,106	-	-	-	8.5	2.4	-	21.3	
<b><u>Milestone:</u></b> Collector trunk built			666,775	-	-	0.89	-	-	-	0.89	
<b><u>Milestone:</u></b> Discharge pipeline constructed			1,102,232	-	-	-	0.6	0.6	1.7	2.9	
<b><u>Milestone:</u></b> Final outfall constructed			3,027,836	-	-	-	1.5	2.4	-	3.90	
<b><u>Milestone:</u></b> Household connections constructed	Connection		1,126,574	-	-	-	-	1,695	2,543	4,238	
<b><u>Milestone:</u></b> Intra-household connections constructed			1,690,861	-	-	-	-	1,695	2,543	4,238	
<b><u>Milestone:</u></b> Wastewater treatment plant built	Plant		16744,667	-	-	-	-	1	-	1	
<b><u>Milestone:</u></b> Wastewater pumping stations	Station		3,149,562	-	-	-	1	2	-	3	

Output	Unit of measure	Associated outcomes	Cost (US\$)	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final	Comments / Means of verification
Out-of-sample drinking water projects in the Metropolitan Region of Belém, constructed or expanded.	Project	1, 2, and 5	39,016,010	-	-	-	-	1	2	3	Means of verification: Works certificate validated by the PMU Responsible entity: PMU
Out-of-sample sanitary sewerage projects in the Metropolitan Region of Belém, constructed or expanded	Project	3 and 4	3,758,480	-	-	-	-	-	1	1	
Component 2: Operational efficiency of water supply systems under COSANPA's responsibility											
Package of equipment to improve COSANPA's operational efficiency, installed <sup>1</sup>	Package	6 and 7	2,990,636	-	-	1	-	-	-	1	Means of verification: Equipment receipt report. Responsible entity: PMU
Cadaster with telemetry and hydraulic modeling, updated	Report	6 and 7	295,440	-	1	-	-	-	-	1	Means of verification: Final consulting report. Responsible entity: PMU
Distribution network, constructed using nondestructive methods	Km	6 and 7	1,763,756	-	-	-	6,393	6,393	-	12,785	Means of verification: Works certificate validated by the PMU. Responsible entity: PMU
Visible and invisible water loss points, repaired	Unit	6 and 7	941,955	-	-	14,390	-	-	-	14,390	
Out-of-sample loss reduction projects, constructed or expanded	Project	6 and 7	11,108,887	-	-	-	-	-	1	1	
Loss reduction program using innovative technology, implemented	Program	6, 7, and 10	445,000	-	-	-	-	-	1	1	Means of verification: Final consulting report. Responsible entity: PMU

<sup>1</sup> The following equipment will be procured: controller (7); data logger (7); macrometer (6); pressure-reducing valve and connections (7); installation of pressure-reducing valve and special parts (7); network interconnection (36); and network capping (70).

Output	Unit of measure	Associated outcomes	Cost (US\$)	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Final	Comments / Means of verification
<b>Component 3: COSANPA institutional strengthening</b>											
Commercial management strengthening program, implemented	Program	8 and 9	600,000	-	-	-	-	-	1	1	<b>Means of verification:</b> Final consulting report. <b>Responsible entity:</b> PMU
Operational management strengthening program, implemented		2, 5, 6, 7, 8, and 9	900,000	-	-	-	-	-	1	1	
Asset management strengthening program, implemented		2, 5, 6, 7, 8, and 9	1,200,000	-	-	-	-	-	1	1	
Gender policy and action plan, developed	Policy and action plan	11, 12, 13, and 14	20,000	-	1	-	-	-	-	1	<b>Means of verification:</b> Gender policy and action plan approved by the CONSANPA board of directors. <b>Responsible entity:</b> PMU
Training and education program, for the external population, on various topics relating to gender, environment, health, and prevention, implemented	Program	13 and 14	30,000	-	-	-	-	-	1	1	<b>Means of verification:</b> Final consulting report. <b>Responsible entity:</b> PMU
Program of productive training and provision of materials for women, implemented		13 and 14	150,000	-	-	-	-	-	1	1	
Awards to outsourced service companies that make outstanding progress on gender inclusion, granted	Award	13 and 14	3,000	-	-	1	1	1	1	4	
Digital transformation plan, developed	Plan	10	100,000	-	-	-	-	-	1	1	



Country: Brazil

Division: WSA

Project number: BR-L1574

Year: 2021

## FIDUCIARY AGREEMENTS AND REQUIREMENTS

Executing agency: COMPANHIA DE SANEAMENTO DO PARÁ (COSANPA)

Name of the operation: PARÁ SANITATION DEVELOPMENT PROJECT - PRODESAN PARÁ

### I. FIDUCIARY CONTEXT OF THE EXECUTING AGENCY

1. Use of country systems in the operation (any system or subsystem that is subsequently approved could be applicable to the operation, depending on the terms of the Bank's validation.)

<input checked="" type="checkbox"/> Budget	<input type="checkbox"/> Reports	<input checked="" type="checkbox"/> Information system	<input type="checkbox"/> National competitive bidding (NCB)
<input checked="" type="checkbox"/> Treasury	<input type="checkbox"/> Internal audit	<input checked="" type="checkbox"/> Shopping	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Accounting	<input checked="" type="checkbox"/> External control	<input type="checkbox"/> Individual consultants	<input type="checkbox"/> Other

### 2. Fiduciary execution mechanism

<input checked="" type="checkbox"/>	Specifics of fiduciary execution	<p>COSANPA will coordinate and execute the project through a PMU, to be created and attached to its Office of the President. The PMU will be responsible for general coordination of the project and will maintain a structure for project management, including the works and projects related to engineering, planning and monitoring, environmental and social considerations, institutional strengthening, administrative and financial considerations, and procurements and contracts. In addition, the PMU will contract specialized consulting services to support project management.</p> <p>COSANPA will create an advisory coordination board for the project consisting of the heads of its departments involved in project execution and chaired by its President Director. This board will exercise a nonbinding consultative and strategic planning role, and its functions are described in the project Operating Regulations. A special bidding committee will also be created to conduct the project's bidding processes pursuant to Bank policies and current national legislation, when applicable.</p>
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### 3. Fiduciary capacity

Fiduciary capacity of the executing agency	The institutional evaluation for the project's fiduciary management was based on: (i) the country's current fiduciary context; (ii) the results of the evaluation of the main fiduciary risks; (iii) the institutional analysis; and (iv) working meetings held with the Bank's project team, the executing agency, and other state authorities. As a result, the executing agency's fiduciary capacity is rated "medium."
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4. Fiduciary risks and risk response

Risk taxonomy	Risk	Risk level	Mitigating response
Execution	Errors or inconsistencies in COSANPA's accounting records that could cause difficulties and/or delays in the project's accounting processes.	Medium/high	Among the activities of the project management support firm, its professional staff will support the Finance Department in the routines involved in validating and controlling project expenditure payment flows, and also in routines related to the recording and accounting reconciliation of these expenses. The project management support firm will also support the PMU in preparing disbursement requests for the Bank and the project's annual financial statements.
Execution	Systemic bottlenecks in the procurement planning process, development of bidding documents, and other stages of the procurement process, owing to overburdening of the procurement team.	Medium/high	Strengthening of the team with additional members trained in procurement and the correct scaling of procurement planning processes.

5. Policies and guidelines applicable to the operation: Documents GN-2349-15 and GN-2350-15.

6. Exceptions to policies and guidelines: None.

**II. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF THE LOAN CONTRACT**

Special conditions precedent to the first disbursement: No fiduciary conditions are anticipated.
The exchange rate agreed upon with the executing agency to be used when accounting for loan advances will be the internalization rate. To determine the equivalence of reimbursement of expenditures charged against the loan, or of expenditures incurred in domestic currency charged to the local counterpart, the agreed-upon exchange rate will be the buying rate set by the Central Bank of Brazil on the day prior to the effective date on which the reimbursement request or expenditure justification is submitted to the Bank.
During project execution, the project's annual audited financial statements will be submitted to the Bank no later than 120 days after each fiscal year-end. The project's external audit will be performed by the Pará State Audit Office (TCE-PA), or else by a firm of independent auditors acceptable to the Bank. The project's final annual audited financial statements will be submitted no later than 120 days after the expiry of the original disbursement period and any extensions.

### III. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

<input checked="" type="checkbox"/>	Bidding documents	Works, goods, and nonconsulting services procured pursuant to the Bank's procurement policies (document GN-2349-15), subject to international competitive bidding (ICB), will use the Bank's standard bidding documents or others agreed upon between the executing agency and the Bank for the procurement in question. Similarly, consulting services will be selected and contracted in accordance with the Bank's consultant selection policies (document GN-2350-15), either using the standard request for proposals issued by the Bank, or else as agreed upon between the executing agency and the Bank for the selection in question. The technical specifications and terms of reference for procurement will be reviewed by the project sector specialist during the preparation of selection processes. This technical review may be performed ex ante and is independent of the procurement review method.		
<input checked="" type="checkbox"/>	Use of country systems	The online reverse auction ( <i>pregão eletrônico</i> ) will be used to procure goods and nonconsulting services for amounts below US\$5 million, as approved by the Bank's Board of Executive Directors. The operation's procurement plan will identify the procurements to be executed through the country system within the scope approved for this. Should the Board widen the scope of approval for use of the country system, this will be applicable to the operation.		
<input checked="" type="checkbox"/>	Procurement supervision	Supervision will be performed ex post, except in cases where ex ante supervision is justified. Procurements processed through the country system will also be supervised through that system. The supervision method to be used ((i) ex ante, (ii) ex post, or (iii) country system) will be determined for each selection process. Ex post reviews will be performed every 12 months in accordance with the project supervision plan, which may be altered during execution. Ex post review reports will include at least one physical inspection visit (inspection verifies the existence of the procurement, while issues relating to quality and compliance with specifications are left for the sector specialist to check), selected from procurement processes that are subject to ex post review [at least 10%]. The threshold amounts for ex post review are as follows:		
		Works	Goods/services	Consulting services
		US\$25 million	US\$5 million	US\$1 million (firms)
<input checked="" type="checkbox"/>	Records and files	The PMU will be responsible for the documentation process and the safekeeping of files for supervision and audit purposes.		

**Main procurement items**

Description of the procurement	Selection method	New procedures / tools	Estimated date	Estimated amount (US\$)
Goods				
Procurement of equipment (macrometers, pressure-reducing valves, and dataloggers)	ICB	Not applicable	I - 2024	9,376.00
Works				
Implementation of lift station JP II (2,500 m³/h) - Pump motor + electrical systems + automation system	NCB		I - 2024	7,200.00
Implementation of the João Paulo II single segment treated water pipeline				11,900.00
Implantation of 1 sewerage station			I -2023	17.800.00
Implementation of Augusto Montenegro single segment treated water pipeline		Not applicable	I - 2022	10,300.00
Consulting firms				
Support for works management and supervision	QCBS	Not applicable	I -2022	7,500.00

The 18-month procurement plan can be accessed [here](#).

**IV. FINANCIAL MANAGEMENT AGREEMENTS AND REQUIREMENTS**

<input checked="" type="checkbox"/>	Programming and budget	The PMU will prepare the project's annual programming and budget, in coordination with COSANPA's Financial Department and the State of Pará Planning and Administration Department (SEPLAD). The annual budget proposed for the project will be incorporated in the State's Annual Budget Law (LOA). The LOA will include the funds needed for the timely execution of both the loan proceeds and the local counterpart.
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☒	Cash and disbursement management	<p>Loan disbursements will be made in the form of advances of funds in U.S. dollars. The amount of the advances will be based on a projection of funding needs for up to 180 days. For advances subsequent to the first one, at least 80% of the total amount of the funds previously advanced must be accounted for.</p> <p>The funds advanced by the Bank will be internalized through a specific account for the project, controlled the State of Pará Finance Department (SEFA). Subsequently, SEFA, in coordination with SEPLAD, will transfer these funds to COSANPA upon request to enable it to pay project expenses.</p>
☒	Accounting, information systems, and reporting	<p>COSANPA currently uses two financial management systems that are not mutually integrated at any level: one system for budget and financial execution, and another for accounting. This lack of integration can result in inconsistencies and errors in information, mainly as a result of data being entered into the systems manually.</p> <p>To mitigate this risk, the Bank will use professional staff from the project management support firm to support the Finance Department in the routines involved in validating and controlling project expenditure payment flows, and also in those related to the recording and accounting reconciliation of such expenses.</p> <p>In terms of reporting, COSANPA will either develop or purchase a technology solution that will enable it to manage project accounting in U.S. dollars and generate the financial reports required by the Bank.</p>
☒	Internal control and internal audit	<p>COSANPA's Internal Control Unit (ICU), which reports to the office of the president of the company, is tasked with monitoring compliance with internal standards and controls within the company.</p> <p>The execution of the project works and activities will be supervised internally through the ICU's main lines of action, namely: (1) continuous supervision of processes relating to the execution and payment of expenses; (2) annual inspections of financial, property, administrative, and inventory processes established by the company; (3) issuance of compliance reports; (4) follow-up of findings and recommendations; (5) coordination of requests for information on bidding processes from the State Auditor General's Office (AGE); (6) coordination of accountability processes before the Pará State Audit Office (TCE-PA); and (7) corporate training and awareness-raising on compliance and good governance issues.</p>
☒	External control and financial reporting	<p>The project's external audit will be performed either by TCE-PA, or else by an external audit firm acceptable to the Bank. During the project execution period, audited financial statements will be submitted annually, no later than 120 days after each fiscal year-end. The project's final audited financial statements will be submitted no later than 120 days after the date of the final disbursement.</p>

<input checked="" type="checkbox"/>	Financial supervision of the operation	The operation requires ex post financial monitoring of disbursements, the inputs for which will come mainly from the audited financial statements. In addition, desk reviews will be performed continuously, through the analysis of disbursement requests submitted by the executing agency. In addition, virtual and/or face-to-face fiduciary supervision meetings will be held annually.
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DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/21

Brazil. Loan \_\_\_/OC-BR to the State of Pará. Pará Sanitation  
Development Project – PRODESAN Pará

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the State of Pará, as borrower, and with the Federal Republic of Brazil, as guarantor, for the purpose of granting the former a financing aimed at cooperating in the execution of the Pará Sanitation Development Project – PRODESAN Pará. Such financing will be in the amount of up to US\$100,000,000 from the resources of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on \_\_\_ 2021)