

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**BOLIVIA**

**COMPREHENSIVE WATER MANAGEMENT PROGRAM IN URBAN AREAS**

**(BO-L1192)**

**LOAN PROPOSAL**

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## ABBREVIATIONS

AAPS	Autoridad de Fiscalización y Control Social de Agua Potable y Saneamiento Básico [Water and Sanitation Authority]
AECID	Agencia Española de Cooperación Internacional para el Desarrollo [Spanish Agency for International Development Cooperation]
AWP	Annual work plan
CNVP	Censo Nacional de Población y Vivienda [National Housing and Population Census]
EBITDA	Earnings before interest, tax, depreciation, and amortization
EIRR	Economic internal rate of return
EMAGUA	Entidad Ejecutora de Medio Ambiente y Agua [Environment and Water Executing Agency]
ESA	Environmental and social assessment
ESMF	Environmental and social management framework
ESMP	Environmental and social management plan
ESMR	Environmental and social management report
EU	European Union
FONPRODE	Fondo para la Promoción del Desarrollo [Development Promotion Fund]
ICAS	Institutional capacity assessment system
ICB	International competitive bidding
INE	Instituto Nacional de Estadística de Bolivia [Bolivian National Statistics Institute]
IPAS-IDB	Integrated Project Administration System of the Inter-American Development Bank
LIBOR	London interbank offered rate
MEP	Multiyear execution plan
MMAyA	Ministry of Environment and Water
MMP	Metropolitan master plan
NB-SABS	Normas Básicas del Sistema de Administración de Bienes y Servicios [Basic Standards of the Goods and Services Management System]
NCB	National competitive bidding
O&M	Operation and maintenance
PCU	Program coordination unit
PMR	Progress monitoring report
SELA	Servicio Local de Acueductos y Alcantarillado [water and sanitation service provider in the city of Oruro]
SEMAPA	Servicio Municipal de Agua Potable y Alcantarillado [water and sanitation service provider in the city of Cochabamba]
SICOES	Sistema de Contrataciones Estatales [State Procurement System]
SIGEP	Sistema de gestión pública [Public management system]
VAPSB	Office of the Deputy Minister for Water and Basic Sanitation
WSSP	Water and sanitation service provider

## PROGRAM SUMMARY

### BOLIVIA COMPREHENSIVE WATER MANAGEMENT PROGRAM IN URBAN AREAS (BO-L1192)

Financial Terms and Conditions			
Borrower:	Source	Amount (US\$)	%
Plurinational State of Bolivia	IDB (Regular Ordinary Capital):	85,000,000	56
	IDB (Concessional Ordinary Capital):	15,000,000	10
Executing agency:	IDB total:	100,000,000	66
Program coordination unit in the Ministry of Environment and Water (MMAyA)	FONPRODE: <sup>(f)</sup>	30,000,000	20
	Parallel financing:		
	European Union – nonreimbursable <sup>(g)</sup>	17,000,000	11
	Spanish Agency for International Development Cooperation (AECID) – nonreimbursable <sup>(h)</sup>	3,500,000	2
	Total:	150,500,000	100
	Regular Ordinary Capital (Flexible Financing Facility) <sup>(a)</sup>	Concessional Ordinary Capital	
Amortization period:	18.5 years	40 years	
Disbursement period:	5 years		
Grace period:	14.5 years <sup>(b)</sup>	40 years	
Interest rate:	LIBOR-based	0.25%	
Credit fee:	<sup>(c)</sup>	N/A	
Inspection and supervision fee:	<sup>(c)</sup>	N/A	
Front-end fee:	N/A	N/A	
Weighted average life:	15.25 years	N/A	
Approval currency:	U.S. dollars		
Program at a Glance			
<b>Program objective/description:</b> The objective of the program is to help improve comprehensive management of water resources in urban areas of Bolivia by: (i) expanding and improving access to water services under a comprehensive water management vision, including the works required for wastewater collection and treatment; (ii) supporting an improvement in comprehensive water and sanitation planning and management; and (iii) supporting the development and implementation of strategic actions for water security in the program's beneficiary cities.			
<b>Special contractual conditions precedent to the first disbursement:</b> (i) The program <a href="#">Operating Regulations</a> , to include an environmental and social management framework ( <a href="#">ESMF</a> ) and environmental and social management plan for the sample as an annex, will have been approved and entered into force; and (ii) the executing agency will have selected the minimum key staff needed to begin executing the program, in accordance with the terms and conditions approved by the Bank (paragraph 3.8). See also the terms and conditions in Annex B of the environmental and social management report ( <a href="#">ESMR</a> ).			
<b>Special contractual conditions for execution:</b> Prior to awarding the works for each of the program's projects, the executing agency will present evidence that an intergovernmental agreement between the executing agency, the respective autonomous municipal government, and the respective water and sanitation service provider has been signed and entered into force, setting out, <i>inter alia</i> , the responsibilities of the parties in executing the respective project, including the operation and maintenance of the works, in accordance with the special contractual conditions previously agreed on with the Bank (paragraph 3.9). See also the special contractual conditions in Annex B of the <a href="#">ESMR</a> .			
<b>Exceptions to Bank policy:</b> None.			

Strategic Alignment			
<b>Challenges:<sup>(d)</sup></b>	SI <input checked="" type="checkbox"/>	PI <input checked="" type="checkbox"/>	EI <input type="checkbox"/>
<b>Crosscutting areas:<sup>(e)</sup></b>	GD <input checked="" type="checkbox"/>	CC <input checked="" type="checkbox"/>	IC <input checked="" type="checkbox"/>

<sup>(a)</sup> Under the Flexible Financing Facility (document FN-655-1), the borrower has the option of requesting changes to the amortization schedule, as well as currency and interest rate conversions. The Bank will take operational and risk management considerations, prevailing market conditions, and the loan's level of concessionality into account when reviewing such requests, in accordance with the Bank's applicable policies in effect at the time.

<sup>(b)</sup> Under the flexible repayment options of the Flexible Financing Facility, changes to the grace period are permitted provided 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.

<sup>(c)</sup> 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 the applicable policies.

<sup>(d)</sup> SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

<sup>(e)</sup> GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

<sup>(f)</sup> Development Promotion Fund—a financial instrument of the Spanish Agency for International Development Cooperation, governed by Spain's Law 36/2010 and Royal Decree 597/2015 approving the regulations for FONPRODE. The cofinancing framework agreement between the Inter-American Development Bank and the Kingdom of Spain was signed on 1 April 2017. Pursuant to this framework agreement, the Bank will charge a service fee for program preparation expenditures, which will be distributed to the Bank departments that have provided support in preparing, executing, and monitoring the program (paragraph 1.24).

<sup>(g)</sup> The European Union is expected to contribute a grant of €14,500,000, equivalent to US\$17,000,000 at the exchange rate in effect on 2 August 2018. The final amount in U.S. dollars will depend on the exchange rate in effect on the date on which the Government of Bolivia receives the funds from the donor and converts them to dollars.

<sup>(h)</sup> AECID is expected to contribute a grant of €3,000,000, equivalent to US\$3,500,000 at the exchange rate in effect on 2 August 2018. The final amount in U.S. dollars will depend on the exchange rate in effect on the date on which the Government of Bolivia receives the funds from the donor and converts them to dollars.

## I. DESCRIPTION AND RESULTS MONITORING

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

- 1.1 **Background.** According to the 2012 Census<sup>1</sup> projections for 2017, Bolivia has a population of 11.1 million, 7.6 million of whom reside in urban areas with more than 2,000 residents, and 3.5 million in rural areas. The country is undergoing an accelerated urbanization process, with migration flows that have significantly altered the distribution, composition, and settlement patterns of the Bolivian population, resulting in urban areas that are growing three times faster than the population of rural areas.<sup>2</sup> Owing to the demographic and economic trends of the last 30 years, the country has 35 cities with a population of more than 20,000 where 88% of the urban population lives.<sup>3</sup>
- 1.2 **Sector institutional framework.** The Ministry of Environment and Water (MMAyA) is the governing body of the water and sanitation, water resources and irrigation, and environment sectors, and as such is responsible for strategic planning and policymaking in these sectors. Within the MMAyA, the Office of the Deputy Minister for Water and Basic Sanitation (VAPSB) formulates policy and plans investments for this sector. The Water and Sanitation Authority (AAPS) is responsible for regulating sector services and granting rights to provide water and use and develop water sources for human consumption. Under the Law on the Delivery and Use of Water and Sanitary Sewerage Services, the autonomous municipal governments are in charge of ensuring the delivery of basic sanitation services through, and providing technical assistance to, water and sanitation service providers (WSSPs) approved by the monitoring and oversight authority. The WSSPs are variously organized as State or municipal agencies, public-community partnerships, cooperatives, leagues of municipios, or water and sanitation committees. The program coordination unit (PCU) and the Environment and Water Executing Agency (EMAGUA) are MMAyA agencies tasked with implementing water and sanitation programs in the country.<sup>4</sup>
- 1.3 **Diagnostic assessment of the problem.** According to the [2016-2020 Basic Sanitation Sector Development Plan](#), in 2015 the country had water and sanitation coverage rates of 84.7% and 57.1%, respectively. In terms of geographic distribution, water coverage was 90.3% in towns with more than 20,000 residents, 89% in small villages, and 60.9% in rural communities. Sanitation coverage rates were 62.9%, 32.1%, and 40.1%, respectively. In addition, according to a recent inventory of wastewater treatment plants in Bolivia,<sup>5</sup> among towns with more than 20,000 residents, only 73% (24) had some type of wastewater treatment service. The coverage rate of that service averaged just 47% among the population of these towns and, in some cases, the service did not operate properly. Consequently, 33% of the population in this segment has adequate wastewater

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<sup>1</sup> National Housing and Population Census (CNVP) 2012, Bolivian National Statistics Institute (INE).

<sup>2</sup> Urbanization Study in Bolivia – Diagnostic Assessment, June 2013, World Bank.

<sup>3</sup> CNVP 2012.

<sup>4</sup> The works under this program will be carried out entirely by the PCU; EMAGUA will not have any role in this program.

<sup>5</sup> National Inventory of Wastewater Treatment Plants, 2017, financed by IDB technical cooperation operation ATN/LA-15449-BO.

treatment service coverage, leaving approximately four million people with no wastewater treatment. These figures clearly show that, although Bolivia has made considerable progress in the water and sanitation sector, significant coverage gaps persist in urban areas, where approximately 740,000 residents lack access to drinking water and 2.82 million have no sanitation service. Thus, considerable sector investment will be required. If the coverage targets established in the 2016-2020 Basic Sanitation Sector Development Plan are to be met, it is estimated that an investment of approximately US\$50 million will be needed for preinvestment studies, as significant weaknesses have been identified in key aspects of the preinvestment stage. Consequently, this limits the availability of the quality studies needed to appropriately execute the programmed investment.<sup>6</sup>

- 1.4 In addition to the coverage rates, the sector faces the challenge of service continuity and quality as some areas of the country have discontinuous or rationed service. According to the AAPS,<sup>7</sup> close to 50% of the regulated WSSPs are not able to deliver continuous service or mitigate operational interruptions. This is due not only to an absence of infrastructure but to deficient planning and management ability on the part of the providers. In fact, most WSSPs with poor efficiency and quality indicators, such as efficient resource use<sup>8</sup> or efficient operation index,<sup>9</sup> provide a continuous water supply of less than 24 hours.<sup>10</sup> In addition, some service providers are limited in their ability to properly operate and make the necessary investments,<sup>11</sup> posing major challenges in terms of addressing climate change effects as manifested in extraordinary events such as droughts or floods.
- 1.5 These coverage and quality deficits are an indicator of health risk exposure, which is exacerbated by the fact that it is occurring in rapidly growing periurban areas with the highest levels of poverty and indigence. This is relevant, since there is a positive link between health and access to water and sanitation services.<sup>12</sup> According to 2016 data from Bolivia's INE, the incidence of acute diarrhea among children under 5 was 18.9% in urban areas, and of the total number of cases recorded in the main departments, most were in metropolitan areas.<sup>13</sup>
- 1.6 In addition to the factors affecting the supply of water and sanitation services, the sector's problem is caused by the rise in demand due to rapid growth in major cities (paragraph 1.1), which in many cases have expanded beyond their municipal boundaries. This growth has generally overwhelmed attempts at planning or

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<sup>6</sup> Program to Support Preinvestment for Development, loan 3534/BL-BO.

<sup>7</sup> AAPS Service Indicators Report, 2016.

<sup>8</sup> Efficient resource use = (volume of water billed) / volume extracted from sources x 100.

<sup>9</sup> Efficient operation index = (service operating costs) / (service operating revenue).

<sup>10</sup> For example: Cochabamba 15.04 hours; Potosí 11.64 hours; Sucre 22.64 hours; and Oruro 8.47 hours.

<sup>11</sup> Renovation of old networks, investments in the control of production (macro metering) and consumption (micro metering), elimination of illegal connections, nonvisible leak detection activities, and implementation of programs to reduce nonrevenue water.

<sup>12</sup> Documented in numerous studies, such as the ones summarized by Brennenman, et al. "Infrastructure & Poverty Linkages, A Literature Review." World Bank, 2002. Other studies include: Annette Prüss-Ustün et al. "Burden of disease from inadequate water, sanitation and hygiene in low-and middle-income settings: a retrospective analysis of data from 145 countries." *Tropical Medicine & International Health*, 2014; Kremer, et al. "What Works in Fighting Diarrheal Diseases in Developing Countries? A Critical Review," CID Working Paper 140, 2007.

<sup>13</sup> La Paz-EI Alto 65.8%, Cochabamba 47.5%, Oruro 68.6%, Sucre 43.1%. Acute diarrheal diseases (2016), epidemiological surveillance reports, SINIS-VE, Ministry of Health.



occurred without any planning, making it difficult to deliver basic services or affecting their quality.

- 1.7 Several studies ([optional link 17](#)) show that the average temperature in the tropical Andean Cordillera has risen approximately 0.11°C per decade since 1939. This trend has increased in the last 25 years, reaching up to 0.33°C per decade, which in the long term will markedly change the water balances of the basins that supply the country's major cities and production areas. This, coupled with the existing demographic pressure on water sources, is affecting the systems' ability to ensure a reliable, uninterrupted supply of water to meet the needs of multiple users—a situation that is becoming even more critical in arid and/or semiarid zones due to their already low precipitation cycles. The clearest manifestation of this type of impact is the increasingly frequent and intense droughts, with the poorest areas being the most vulnerable. The crisis caused by the recent drought<sup>14</sup> revealed shortcomings in the WSSPs' ability to efficiently ration water service. These shortcomings are primarily due to the absence of proper management of pressures and measurement of flows, as well as to a lack of hydraulic modeling of systems, drought plans, and alert and control systems for available water at the sources.
- 1.8 **Gender issue.** There is a strong link between women and water and sanitation services in the private family sphere; however, women are insufficiently represented in decision-making processes at the management level.<sup>15</sup> In most countries, women are responsible for domestic tasks and therefore know the problems and needs and can best articulate water and sanitation service needs and requirements. The inclusion of women in consultation, planning, training, and decision-making processes ensures the sustainability of project outcomes. In Latin America, women account for more than 60% of the workforce in the service sector but only 19.7% in the water sector,<sup>16</sup> and they are similarly underrepresented in decision-making posts. Several institutions have sought to obtain the benefits of introducing a gender approach to the delivery and management of water and sanitation services, and at the moment there is a water utility company in the region that has a gender quality committee as well as a strategy and internal and external actions on this issue.<sup>17</sup> In Bolivia, since 2011 AECID has been implementing a plumbing training program for women, which allows them to strengthen nontraditional knowledge and practices, perform sanitary connections, strengthen their leadership abilities, be responsible for their own household installations and/or connection repairs, and have the opportunity to offer services and have a source of income.<sup>18</sup>

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<sup>14</sup> In 2016, many parts of Bolivia suffered a severe and prolonged drought. The low levels of precipitation and the high temperatures recorded in the altiplano and inter-Andean valleys led to a water shortage in rural areas and major population centers, including cities such as La Paz, Sucre, Cochabamba, Potosí, and Oruro, where significant rationing was instituted. This drove the Bolivian government to declare a water emergency in these cities and later nationally, since 7 of the 10 largest cities were experiencing water shortages.

<sup>15</sup> García, 2000.

<sup>16</sup> <https://publications.iadb.org/bitstream/handle/11319/7700/Tiene-genero-el-agua.pdf?sequence=1&isAllowed=y>.

<sup>17</sup> Obras Sanitarias del Estado [State water supply and sanitation company] (OSE), Uruguay. OSE Gender Equity Area, internal report, 2018.

<sup>18</sup> Plumbing Manual for Women, AECID, Senasba, 2017.

- 1.9 **Rationale and proposed interventions.** The program will delineate strategic actions and guidelines to address the above-described supply constraints and coverage deficits, in keeping with the directives of the metropolitan master plans (MMPs). It will also cover comprehensive water management in urban areas, including conveyance and treatment of the effluents that will result as the expansion and improvement of the water systems drives an increase in water supply. In cities where MMPs are being developed<sup>19</sup> or have yet to be created, the program will identify priority interventions aimed at ensuring a supply of drinking water and adequate wastewater management, including actions to enable the WSSPs to mitigate drought events. In addition, plans call for updating the existing MMPs on issues related to supply and demand balance and comprehensive management of water resources, taking the complete water cycle into account, from the sources to the conveyance and adequate treatment of wastewater, under a climate change adaptation approach.
- 1.10 Based on these concepts, the operation will finance interventions to expand and improv water and sanitation services, focusing on interventions designed to mitigate the water supply crises caused by droughts. Furthermore, as part of a long-term adaptation process, the program will help to improve the management of water resource supply and demand on a comprehensive basis by means of actions to boost the operating efficiency and management of the service providers, as well as to enhance the systems' resilience and the proper management of wastewater.
- 1.11 In addition, based on work with the counterpart, the program will include a pilot gender equity program at a WSSP that could be replicated in other WSSPs.<sup>20</sup> This program will contain an internal and external gender strategy and will work on the following short-, medium-, and long-term actions: foster an increase in women's presence in technical and operational decision-making positions; formal and informal training; eliminate barriers for men and women preventing the reporting, prosecution, and conflict resolution of cases of sexual and workplace harassment; infrastructure adaptation and work tools to install men's and women's restrooms, breastfeeding rooms, women's field uniforms; gender sensitivity training for the staff; and an internal and external communication campaign to disseminate the gender strategy and foster appreciation for women's participation in the company. Similarly, the program will create a technical training program for women in the areas of plumbing, sewerage, and electricity, seeking to establish partnerships with technical institutes for the design and implementation of a women technicians initiative that will grant technical certificates recognized by the relevant agencies.
- 1.12 The effectiveness of the proposed interventions is demonstrated in several studies of works carried out in similar contexts.<sup>21</sup> In addition, comprehensive management

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<sup>19</sup> Sucre, Oruro, and Potosí.

<sup>20</sup> For scaling up the pilot to other WSSPs, the program includes an evaluation of its procedures and results.

<sup>21</sup> Investments in water and sanitation systems in Bolivia led to declines in the mortality rates of children under 5 similar in size to those associated with health interventions. ([Newman et al., 2002](#)). For Argentina, there is evidence that expanding the water network in urban settlements reduces the incidence of waterborne diseases (see [Galiani et al., 2002](#)). Moreover, the expanded connections result in water cost (and time) savings, as families are able to replace more expensive water from sources farther from home with water supplied by the network. There is also a significant impact on health and savings among households that were connected to a poor-quality water network. Evidence of the effectiveness of interventions to control nonrevenue water is available in Rizzo et al. (2004): Apparent Loss Control: A Practical Approach.

of water resources has been recognized as one of the best tools for identifying climate change adaptation measures, including the associated risk.<sup>22</sup>

- 1.13 **The Bank's knowledge of the sector.** In Bolivia, the Bank has been supporting the sector with a view to improving access to, and the efficiency of, water and sanitation services through different types of interventions in both urban and periurban areas and in rural areas and small towns. In addition to infrastructure works, these programs also entail preparing and updating master plans and other specific studies, to improve investment planning and the quality of preinvestment, together with actions to improve service management. These measures seek to improve the operators' management indicators and increase systems' resilience to climate change, with emphasis on the demand management approach, greater efficiency, and increased automation for treatment plants, special drought plans, and implementation of tools such as AquaRating<sup>23</sup> and Hydro-BID.<sup>24</sup> Specifically, there are programs in execution targeting rural areas and small towns (1927/BL-BO, 2597/BL-BO and GRT/WS-12956-BO) and periurban areas (GRT/WS-11830-BO and 199/BL-BO at closing and 4413/BL-BO approved in 2017), as well as a multipurpose operation and a comprehensive sanitation operation (3599/BL-BO Multipurpose Water Supply and Irrigation Program for the Municipios of Batallas, Pucarani, and El Alto and 3730/BL-BO Lake Titicaca Cleanup Program), a Program for Comprehensive Solid Waste Management Implementation (2880/BL-BO), two operations under a Reform Program for the Water, Sanitation, and Water Resources Sectors (2771/BL-BO and 3667/BL-BO), and various phases of the Storm Drainage Program for the Cities of La Paz and El Alto (1926/BL-BO, 2440/BL-BO, and 3812/BL-BO). Several technical cooperation operations were also carried out to support the sector in its various aspects. In the urban context, to further the planning of urban water and sanitation systems, operation 2199/BL-BO (and GRT/WS-11830-BO), Water and Sewerage Program in Periurban Areas, Phase I, financed four MMPs<sup>25</sup> in Bolivia's major cities. These plans identified insufficient water supply scenarios and developed actions to mitigate this risk and provide solutions to the gradual impacts driven by increased demand, the expansion of coverage, and the reduced availability of water from sources as a result of climate change. In this context, in November 2017 the Bank's Board of Executive Directors approved the Program for Expansion and Improvement for Sustainable and Resilient Water Supply in Cities for US\$75 million with a view to expanding and improving resilient access to potable water services in urban centers declared in emergency drought in 2016, making the management of water resource supply and demand more efficient. The investments needed to address the problems are estimated at approximately US\$500 million.<sup>26</sup>

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<sup>22</sup> Feroz et al., 2015; Pham Quy Giang et al., 2012.

<sup>23</sup> AquaRating is an initiative created to strengthen processing and improve the management of water and sanitation service providers. [www.aquarating.org](http://www.aquarating.org)

<sup>24</sup> Hydro-BID is a simulation tool created by the IDB to support the Latin American and Caribbean region in water resource planning and management. [www.hydrobidlac.org](http://www.hydrobidlac.org).

<sup>25</sup> MMAyA Ministerial Resolution 604, 16 December 2014 approved the Water and Sanitation Metropolitan Master Plans for La Paz-El Alto, Cochabamba, Santa Cruz, and Tarija ([optional link 17](#)). At present, MMPs are being developed for the cities of Oruro, Sucre, and Potosí with financing from 3091/BL-BO.

<sup>26</sup> National Drought and Water Shortage Emergency Plan, 2017.

- 1.14 **Lessons learned.** Lessons learned from similar operations in Bolivia<sup>27</sup> were taken into account in preparing this operation. These include the need to: (i) improve preinvestment quality and consider the impacts of climate change; (ii) construct water systems in a way that enhances their resilience to severe drought events; (iii) build providers' capacities to make their management of supply and demand more efficient; and (iv) conduct water management studies and develop water management plans based on a comprehensive model for their use, to ensure medium- and long-term supply. Based on this experience, the program includes resources for preparing and/or supplementing the final project designs. These take into account issues related to risk management and climate change adaptation, water system expansion and improvement, collection and treatment of the wastewater resulting from the increased water supply, improvement of supply and demand management, and comprehensive planning of water resources in the affected cities.
- 1.15 **Government strategy.** The diagnostic assessment points to the need to continue the work aimed at fulfilling the constitutional mandate on access to water and sanitation services and achieving the government targets in the 2016-2020 Basic Sanitation Sector Development Plan ([optional link 15](#)). These targets are: 95% water coverage in urban areas and 80% in rural areas, which entails connecting some 1,350,000 residents to the water network over that period. The Bolivian government also implemented the 2016 National Drought and Water Shortage Emergency Plan and developed the new 2017 Contingency Plan for Drought, Water Shortages, and Food Security. This plan focuses primarily on helping the WSSPs identify projects to increase water sources and on developing management plans and policies aimed at closing the gap between supply and demand.
- 1.16 **The Bank's country strategy with Bolivia.** The program is aligned with the IDB Country Strategy with Bolivia 2016-2020 (document GN-2843) through the strategic objectives of reducing vulnerability to natural disasters and climate change, expanding water and sanitation coverage, primarily in periurban and rural areas, and enhancing the effectiveness of public management.
- 1.17 **Strategic alignment.** The program is consistent with the Update to the Institutional Strategy 2010-2020 (document AB-3008) and is aligned with the challenges of: (i) social inclusion and equality, by helping to increase coverage of basic services; and (ii) productivity and innovation, by improving urban planning and infrastructure quality through the delivery of water and sanitation services that will facilitate activities conducive to economic growth. In addition, it is aligned with the crosscutting areas of: (i) gender and diversity, by including a gender equity program for one of the WSSPs and a technical training program for women; (ii) institutional capacity and rule of law, by contributing to the institutional strengthening of water operators in the program's beneficiary cities, which will help improve the service they provide; and (iii) climate change and environmental sustainability, by considering: (i) investments in water and sanitation infrastructure that will help boost the availability and quality of the resource in drought-prone areas; (ii) master plans that include climate change scenarios; and (iii) water security tools and capacity-building. One hundred percent of the operation's resources are invested in activities that contribute to climate change adaptation,

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<sup>27</sup> Particularly loans 3599/BL-BO, 4413/BL-BO, 3091/BL-BO, and 2199/BL-BO.

based on the multilateral development banks' joint methodology for tracking climate finance ([optional link 18](#)). These resources contribute to the IDB Group's goal of increasing financing for climate change-related projects to 30% of all operation approvals by year-end 2020. In addition, the program will contribute to the Corporate Results Framework 2016-2019 (document GN-2727-6) through the indicators "households with new or upgraded access to drinking water" and "households with new or upgraded access to sanitation." The program is also aligned with the IDB Infrastructure Strategy: Sustainable Infrastructure for Competitiveness and Inclusive Growth (document GN-2710-5), specifically the priority area of supporting the construction and maintenance of an environmentally and socially sustainable infrastructure that will help improve quality of life. Lastly, the operation is consistent with the dimensions of success and lines of action in the Water and Sanitation Sector Framework Document (document GN-2781-8) on universal access and improved quality of services and social and environmental sustainability and is included in the Update of Annex III of the 2018 Operational Program Report (document GN-2915-2).

- 1.18 **Compliance with the Public Utilities Policy.** The proposed program and national sector objectives are consistent with the principles of the Public Utilities Policy (document GN-2716-6) and meet its financial sustainability and economic evaluation conditions, since the sample's service providers SELA and SEMAPA cover their O&M costs through rate revenues, thereby showing positive EBITDA<sup>28</sup> margins, and the financial projections indicate that they will be able to maintain these operating margins. The sample's service provider Empresa Misicuni currently covers its operating costs through a combination of rate revenues and national government transfers, which it receives periodically and transparently. However, it is expected to be able to soon cover its operating costs entirely through rate revenues (paragraph 1.30). Furthermore, the cost/benefit analysis of the works in the sample indicates that they are viable from a socioeconomic standpoint (paragraph 1.28). The respective eligibility criteria are included for projects outside the sample, to ensure fulfillment of the conditions set out in the policy ([optional link 6](#)).

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

- 1.19 **Objective.** The objective of the program is to help improve comprehensive management of water resources in urban areas of Bolivia by: (i) expanding and improving access to water services under a comprehensive water management vision, including the works required for wastewater collection and treatment; (ii) supporting an improvement in comprehensive water and sanitation planning and management; and (iii) supporting the development and implementation of strategic actions for water security in the program's beneficiary cities. To achieve this objective, the program will be structured into the following components:
- 1.20 **Component I. Investments in infrastructure works and support for comprehensive management of services (US\$130.4 million).** This component will finance investments to expand coverage and improve management of potable water systems with a view to ensuring efficient use of water resources in the medium and long term. The component will finance the construction, rehabilitation, and expansion of water systems, such as water collection facilities, treatment plants, tanks, pumping stations, and distribution networks, as well as the

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<sup>28</sup> EBITDA: earnings before interest, tax, depreciation, and amortization.



construction, rehabilitation, and expansion of sanitation systems to enable comprehensive management of water resources, in both cases including residential connections as well as supervision, community development actions, and actions that have a quick impact on making the existing systems more efficient, considering potential drought events in the future. The component will also include investments to support comprehensive management of water and sanitation services, including the development of nonrevenue water plans, micro and macro metering plans, management and O&M training in the systems to be built, and commercial and financial system upgrade activities. In addition, the component may finance activities aimed at supporting oversight of the water and sanitation services by the AAPS and governance over these services by the VAPSB. As a result of the various types of interventions, the program is expected to directly benefit approximately 515,000 households with new or upgraded access to drinking water and approximately 16,000 households with access to sanitation.

- 1.21 **Component II. Metropolitan master plans and preinvestment studies (US\$9 million).** This will include preparing, supplementing, and/or updating the MMPs, as well as conducting the corresponding preinvestment studies for the construction, rehabilitation, and expansion of water and sanitation systems, to ensure sufficient projects for future phases that include climate change considerations regarding the available sources.
- 1.22 **Component III. Tools and capacities for water security (US\$6.5 million).** This component will support the review and updating of water balances at the local level and the development and implementation of long-term water security plans (such as drought management and control plans). It will also support the improvement of systems and networks for monitoring hydroclimatic data for more efficient management of water resources, so as to ensure water supply in the cities targeted by the program. This will include training the beneficiary service providers in the development and use of the required technical means and tools (e.g., hydrology modeling, monitoring and control systems, early warning systems). [Optional link 19](#) shows the diagnostic assessment of technical and institutional strengthening needs conducted during the preparation of this component, as well as the prioritization of the interventions to be financed.
- 1.23 The program will also finance the executing agency's administrative and operational requirements, as well as the program's external audit and evaluation costs.
- 1.24 **Cost and financing.** The total cost of the program is US\$150.5 million, with US\$100 million financed by the Bank with Ordinary Capital resources, and US\$30 million financed by the Spanish government's Development Promotion Fund (FONPRODE)<sup>29</sup> as cofinancing. In addition, the program will receive parallel financing in the form of nonreimbursable resources from the European Union (EU) (approximately US\$17 million) and the Spanish Agency for International Development Cooperation (AECID) (approximately US\$3.5 million). The consolidated budget for each component appears in Table I-1 below. The resources will finance all costs inherent to the program.

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<sup>29</sup> The estimated concessionality of the FONPRODE financing is 27%, which exceeds the level of concessionality associated with the structure for parallel loans for Bolivia in 2017-2018 (25.5%), approved by the Board of Executive Directors (document GN-2442-53).

**Table I-1 – Program cost (US\$)**

Component	IDB	FONPRODE	EU	AECID	TOTAL
Component I: Investments in infrastructure works and support for comprehensive management of services	86,296,328	30,000,000	14,135,186	-	130,431,515
Component II: Metropolitan master plans and preinvestment studies	6,135,186	-	2,864,814	-	9,000,000
Component III: Tools and capacities for water security	3,500,000	-	-	3,000,000	6,500,000
Program administration	3,568,485	-	-	450,000	4,018,485
Monitoring, evaluation, and audit	500,000	-	-	50,000	550,000
<b>Total</b>	<b>100,000,000</b>	<b>30,000,000</b>	<b>17,000,000</b>	<b>3,500,000</b>	<b>150,500,000</b>

1.25 **Coordination with other lenders.** The Bank and the other financial institutions have worked together as well as with the Government of Bolivia and the executing agency in the program preparation stage to achieve consensus on the program's objectives, components, and financing structure. Both the cofinancing and the parallel financing are expected to be approved between late 2018 and the first quarter of 2019. In accordance with the framework agreement signed by FONPRODE and the Bank,<sup>30</sup> the Bank may enter into individual financing agreements with the Kingdom of Spain to establish mechanisms for collaboration, supervision, information sharing, and assistance in coordinating the implementation of their respective loans and for splitting the program preparation fee, in accordance with the applicable Bank policies and procedures. The Bank's financing and the FONPRODE cofinancing will be disbursed *pari passu* as of the date of approval of the latter.

### C. Key results indicators

1.26 The program's key results indicators are associated with improving access to drinking water and sanitation through comprehensive interventions. The key results indicators appear in Table I-2 below (see Annex II).

**Table I-2 – Key indicators**

Outcome indicator	Unit of measurement	Baseline	Target
Households with new or upgraded access to drinking water in the program's areas of intervention	Household	0	211,000
Households with new or upgraded access to sanitation in the program's areas of intervention	Household	0	6,500

1.27 **Technical viability.** A sample was evaluated, consisting of water service expansion and improvement projects in the cities of Oruro and Cochabamba and of sewerage expansion projects in Cochabamba. The evaluated projects follow the guidelines of the master plans or overall studies of the systems targeted for construction of works, and include diagnostic studies, demand projections,

<sup>30</sup> Signed on 1 April 2017.

evaluation of alternatives, selection of the lowest-cost alternative, and interventions in stages. The designs are consistent with the applicable national and international standards. The proposed solutions are technically feasible but may require specific adjustments based on supplementary information ([optional link 1](#)). [Optional link 19](#) shows the diagnostic assessment of technical and institutional strengthening needs conducted during the preparation of Component III of the program, as well as the prioritization of the interventions to be financed.

- 1.28 **Economic viability.** A cost/benefit analysis was conducted for the representative sample of projects (paragraph 2.2). All projects in the sample are economically viable, with economic internal rates of return (EIRR) ranging from 13.7% to 49.1%. A cost/benefit analysis will be conducted for projects that were not evaluated, and only those with an EIRR above 12% would qualify for program financing. Lastly, according to information provided by the operators in Cochabamba and Oruro, payment for water service for an average household in the targeted cities is US\$15.21/month in Cochabamba and US\$8.89/month in Oruro, which is respectively equivalent to 1.89% and 1.13% of monthly household income. For poor households in both cities there is a reduced rate for low-income customers; thus, their monthly payment is approximately US\$8.75 in Cochabamba and US\$4.41 in Oruro, which is respectively equivalent to 2.45% and 1.43% of their average monthly household income. These rate levels are acceptable under international standards ([optional link 2](#)).
- 1.29 **Institutional viability.** The updated evaluation of the executing agency's capacity using the Institutional Capacity Assessment System (ICAS) finds a satisfactory degree of development and low risk, which is consistent with the broad experience and knowledge of the MMAyA's program coordination unit (PCU) regarding the Bank's procurement and financial policies in the programs it executes.<sup>31</sup> Having assessed its capacities for this program, the PCU's structure will be strengthened by adding personnel for the program's scheduling; financial, technical, and operational management; monitoring; and evaluation. Since late 2017 and with the Bank's support, the PCU has analyzed its own main processes, and based on this, has adjusted its organizational structure to more efficiently execute its programs. In the coming months, the PCU will continue to modernize its organizational structure and improve its management processes and procedures (see [optional link 3](#)).
- 1.30 **Sustainability of the investments.** To assess financial viability, an analysis of historical data and projections was conducted for the water and sanitation service providers involved in the sample of projects to be financed: Servicio Local de Acueductos y Alcantarillado (SELA),<sup>32</sup> Servicio Municipal de Agua Potable y Alcantarillado (SEMAPA),<sup>33</sup> and Empresa Misicuni.<sup>34</sup> A financial analysis of SELA and SEMAPA found that both companies have sufficient operating revenues to cover their O&M and administrative costs.<sup>35</sup> Furthermore, financial projections indicate that both companies will continue to have positive operating margins over the next several years. Empresa Misicuni, according to AAPS Regulatory

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<sup>31</sup> 2597/BL-BO; 3091/BL-BO and GRT/WS-12956-BO; 2880/BL-BO; 3730/BL-BO and 3731/OC-BO; 4413/BL-BO and 4414/KI-BO; and GRT-WS-11830-BO.

<sup>32</sup> Decentralized public company that provides water and sanitation services in the city of Oruro.

<sup>33</sup> Decentralized public company that provides water and sanitation services in the city of Cochabamba.

<sup>34</sup> Public company responsible for execution and administration of the Misicuni Multiple Project.

<sup>35</sup> Average EBITDA of SELA 2015-2017: 43.8%; average EBITDA of SEMAPA 2015-2017: 44.3%.



Administrative Resolution 187/2018,<sup>36</sup> will provide services in terms of water collection and conveyance/transport for delivery in the Cochabamba metropolitan area. It currently covers its O&M and administrative costs<sup>37</sup> through a combination of rate revenues from the sale of raw water to SEMAPA and transfers it receives from the national government. However, it is expected to be able to soon cover its O&M and administrative costs entirely through operating revenues arising from a higher volume of sales of both raw and treated water from the Misicuni Multiple Project (see [optional link 4](#)). Resources under Component I will be used to implement actions aimed at consolidating the financial sustainability of the operators of the program's works (paragraph 1.20). The intergovernmental agreements to be executed as well as the program Operating Regulations will include the requirement that the beneficiary WSSPs' operating revenues be sufficient to cover at least their O&M costs.

## II. FINANCING STRUCTURE AND MAIN RISKS

### A. Financing instruments

- 2.1 **Modality.** The program has been designed as an investment loan under the multiple works modality, providing for the financing of independent yet physically similar water and sanitation works based on eligibility criteria, and includes a representative sample for evaluation and execution. The program has a five-year execution and disbursement period, which is consistent with the multiyear execution plan (MEP) ([required link 1](#)). It will address the demands prioritized by the central and municipal governments and will be governed by the program Operating Regulations ([optional link 5](#)). The disbursement schedule is shown in Table II-1 below.

Table II-1 – Disbursement schedule (in US\$)

Source	Year 1	Year 2	Year 3	Year 4	Year 5	Total
IDB	907,394	12,427,610	29,826,519	36,669,395	20,169,081	100,000,000
FONPRODE	-	3,974,373	9,235,098	11,010,169	5,780,361	30,000,000
EU	-	2,667,037	6,907,593	6,119,444	1,305,925	17,000,000
AECID	-	112,500	712,500	1,612,500	1,062,500	3,500,000
<b>Total</b>	<b>907,394</b>	<b>19,181,520</b>	<b>46,681,710</b>	<b>55,411,508</b>	<b>28,317,868</b>	<b>150,500,000</b>

- 2.2 **Representative sample.** To determine the feasibility of the program and streamline execution, a sample of projects representative of the types of works to be executed was analyzed. These include the water and sanitation projects for Recent Urban Settlements in Oruro (APRAUR), for an investment of US\$17.0 million, the works for Conveyance Pipelines 2, 5, and 6 for water delivery to the Cochabamba metropolitan area, for US\$22.8 million, and the sewerage projects for the districts of Arrumani and southern Cochabamba, for US\$14.1 million. Together these projects account for 36% of the program's total cost. The detailed designs are close to completion, save for specific adjustments or supplemental work. The details of the works are described in [optional link 1](#).

<sup>36</sup> [Link](#).

<sup>37</sup> Average EBITDA of Empresa Misicuni 2015-2017: -17.1%.

- 2.3 **Eligibility criteria and prioritization.** Projects (studies and/or works) are eligible if: (i) they are aimed at expanding coverage or improving the continuity and/or quality of water and/or sanitation service, including the construction of water collection, treatment, and conveyance works, and improving the efficiency of service delivery, which will enhance the resilience of operators during drought events; technical options and service levels will be confined to the socioeconomic assessment parameters of the alternative selected; in each case, the adopted solution will be the technically viable alternative with the lowest cost; (ii) they have a distribution system, tanks, and functioning residential connections in areas where demand has been confirmed, or they have institutional agreements and/or arrangements for the execution and operation of the respective supplementary projects; (iii) they are not classified as category “A” operations under the Bank’s environmental and social safeguards policies; (iv) they meet the requirements included in the program’s ESMF; and (v) the operating revenues of the beneficiary WSSPs are sufficient to cover at least their O&M and administrative costs.

**B. Environmental and social risks**

- 2.4 In accordance with the Bank’s Environment and Safeguards Compliance Policy (Operational Policy OP-703), the program was classified as a category “B” operation with a moderate disaster risk. During the due diligence process, the negative environmental and social impacts were confirmed to be mainly local and temporary and to have existing mitigation measures. The investments are expected to have a positive environmental and social impact on the beneficiaries’ quality of life and wellbeing.
- 2.5 The sample (centered on Component I) consists of six projects spanning urban and periurban areas: two sewerage system expansion projects and three conveyance pipeline construction projects in Cochabamba and one water system upgrade and expansion project in Oruro. Each project in the sample has an environmental and social assessment (ESA) that identified the following main impacts during the construction stage: (i) difficult and/or temporarily blocked access to homes, businesses, facilities, and transportation; (ii) noise, gas, and particulate matter emissions and solid and liquid waste; (iii) risks related to occupational safety; (iv) risks of pedestrian accidents; (v) pedestrian and vehicle traffic interruption; (vi) soil pollution due to improper handling of fuels and lubricants; (vii) risk of archaeological finds; and (viii) impact on flora. To manage these impacts, each project has an environmental and social management plan (ESMP).
- 2.6 The program has an environmental and social management framework (ESMF) that is included in the program Operating Regulations to ensure that future projects considered under the program comply with Bank policies. The ESMF includes detailed procedures for assessing social and environmental impacts and significant consultation processes.
- 2.7 Consultations were held on the six projects in the sample in accordance with the requirements of Directive B.6 of Operational Policy OP-703 and Operational Policy OP-765, when appropriate. The program’s ESMF and the six ESAs/ESMPs for the projects in the sample were posted on the Bank’s website prior to the analysis mission. Their final versions, including the respective consultation reports, were posted there as well prior to distribution to the Operations Policy Committee.

## C. Other program risks

**Table II.2 Other medium development risks**

<b>Risk</b>	<b>Mitigation measure</b>
Consolidation of operators' level of coverage of operating costs with rate revenue	Support the systems' operators through management improvement actions and close monitoring of their financial performance
Need to reach and subsequently fulfill an agreement with the population in the area of influence of the works	Provide social monitoring and support in the preinvestment and works execution processes and implement the community relations plan
Increase in program costs during execution	Review the projects prior to the bidding processes
Execution delays associated with technical shortcomings in the projects	Ensure that the preinvestment is carried out in accordance with the regulations in effect, and periodically monitor the performance of the supplementary works required for execution of the projects

## III. IMPLEMENTATION AND MANAGEMENT PLAN

### A. Summary of implementation arrangements

- 3.1 **Execution arrangements.** The borrower will be the Plurinational State of Bolivia. The program's executing agency will be the MMAyA's PCU,<sup>38</sup> which will be reinforced with staff specifically responsible for fulfilling fiduciary and technical obligations under the program ([optional link 3](#)).
- 3.2 The PCU will be responsible for general coordination, resource management, and technical, administrative, and operational execution activities. The PCU will be staffed with a program coordinator and technical, environmental, social, financial, procurement, planning, and monitoring specialists. Profiles for these specialists will be included in the program Operating Regulations, and their hiring will be subject to the Bank's no objection. The executing agency will have the following duties: (i) prepare and periodically update the MEP, the annual work plan (AWP), and the procurement plan; (ii) carry out processes for the selection of works, goods, and consulting services; (iii) perform activities involving the supervision of works, monitoring of execution, and evaluation; and (iv) financial management and submission of any required financial reports to the Bank ([optional link 4](#)).
- 3.3 The program's works will be operated and maintained by the respective WSSPs, which will each have intergovernmental agreements signed with the executing agency, the municipal government, and the respective WSSP; these agreements will establish the conditions for joining the program as well as the commitments regarding proper O&M of the systems to be built.
- 3.4 **Program Operating Regulations.** Program execution will be governed by the program Operating Regulations, including the following: (i) detailed execution plan, including the profiles of key personnel; (ii) eligibility and prioritization criteria established in the loan contract (paragraph 2.3); (iii) institutional roles and responsibilities of the participating entities; (iv) intervention strategy in the different phases of the project cycle; (v) policies and procedures for the selection and

<sup>38</sup> The PCU was created through MMAyA Ministerial Resolution 283 of 3 December 2009. It is a decentralized unit of the MMAyA created to execute, monitor, and evaluate water and sanitation projects.

contracting of works, goods, and services; (vi) administrative and financial management policies and procedures; (vii) social and environmental viability criteria for approval of the projects to be financed under the program, which are to adhere to the provisions of the ESMR/ESMF; (viii) procedures for evaluating the environmental and social impact of the projects to be financed under the program; (ix) ESMF and ESMP for the sample ([optional link 14](#)); and (x) tracking and monitoring procedures ([required link 2](#)).

- 3.5 **Multiyear execution plan.** The activities carried out under the program will follow a schedule set out in the MEP ([required link 1](#)) and its annual revision, which will be included in the respective AWP. The MEP has the same level of detail as the AWP for each year of execution. However, it should be updated annually based on the actual progress made in the program. Annual revisions of the MEP will be forwarded to the Bank.
- 3.6 **Fiduciary agreements and requirements.** The fiduciary agreements and requirements (Annex III) reflect the guidelines for financial management and procurement execution that will apply to program execution. They were developed on the basis of an assessment of the fiduciary context of Bolivia and the executing agency, the institutional analysis of the executing agency, the risk workshop with staff from all participating entities, meetings with executing agency staff, and ongoing meetings with the project team and key personnel of the participating stakeholders.
- 3.7 **Procurement plan.** The procurement plan ([required link 4](#)) contains details on the program's procurement processes, which will be carried out in accordance with the Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document GN-2349-9) and the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (document GN-2350-9), and specifies: (i) the contracts for works, goods, and consulting services required to execute the program; (ii) the proposed methods for the procurement of goods and selection of consultants; and (iii) Bank procedures for reviewing procurement processes. The borrower will update the procurement plan annually, or as required based on program needs. Any proposed revision of the procurement plan will be submitted to the Bank for approval.
- 3.8 **Special contractual conditions precedent to the first disbursement of the loan.** These are: (i) the [program Operating Regulations](#), to include an [ESMF](#) and ESMP for the sample as an annex, will have been approved and entered into force; and (ii) the executing agency will have selected the minimum key staff needed to begin executing the program, in accordance with the terms and conditions approved by the Bank. These conditions are considered essential to ensuring that the borrower will be prepared to begin program execution, with a team that has been properly set up within the executing agency, as well as program Operating Regulations for the executing agency that include detailed guidelines on operational and coordination aspects.
- 3.9 **Special contractual conditions for execution.** Prior to awarding the works for each of the program's projects, the executing agency will present evidence that an intergovernmental agreement between the executing agency, the respective municipal government, and the respective WSSP has been signed and entered into force, setting out, *inter alia*, the responsibilities of the parties during the execution of each project, including O&M, in accordance with the terms and

conditions previously agreed upon with the Bank. This condition is required in order to ensure that the borrower has established a forum for dialogue between the entities participating in the program, which will help facilitate their coordination and participation, as well as to ensure that the municipal government and respective WSSP have clearly specified their roles and obligations with respect to program execution and O&M.

- 3.10 **Audit.** During the loan disbursement period, the program's annual audited financial statements will be submitted to the Bank within 120 days after the close of each fiscal year. The audit will be conducted by independent auditors acceptable to the Bank. Determination of scope and other related issues will be governed by the Financial Management Guidelines for IDB-financed Projects (document OP-273-6) and the guidelines for financial statements and external audits. Auditing costs will be financed with program resources. The PCU will be responsible for contracting the auditing firm.

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

- 3.11 **Monitoring.** The executing agency will prepare reports on the status and results of activities for which it is responsible. The monitoring arrangements will include the procurement plan, the MEP, the AWP, the results matrix, the progress monitoring report, and the risk management plan. The executing agency will submit semiannual reports on progress made and results achieved, and an action plan for the following six months, within 60 days after the end of each six-month period ([required link 2](#)).
- 3.12 **Evaluation.** The PCU will contract the following program evaluations: (i) midterm evaluation, to be submitted 90 days after the date on which 50% of the program resources have been disbursed; and (ii) final evaluation, to be submitted 90 days after the date on which 90% of the program resources have been disbursed. The proposed evaluation methodology will be the before-and-after method and will consist of measuring the project's baseline indicators and results after the interventions have been completed and comparing the measurements against the targets to determine if they were achieved. An ex post economic evaluation will also be conducted, mirroring the methodology for the ex ante evaluation, comparing the costs of investments made with the project's O&M costs and benefits, estimated as described in the monitoring and evaluation plan ([required link 2](#)), together with an evaluation of procedures and the results of the gender equity pilot, to assess its scalability to other WSSPs.

Development Effectiveness Matrix		
Summary		
<b>I. Corporate and Country Priorities</b>		
<b>1. IDB Development Objectives</b>	<b>Yes</b>	
Development Challenges & Cross-cutting Themes	-Social Inclusion and Equality -Productivity and Innovation -Gender Equality and Diversity -Climate Change and Environmental Sustainability -Institutional Capacity and the Rule of Law	
Country Development Results Indicators	-Micro / small / medium enterprises provided with non-financial support (#)* -Households with new or upgraded access to drinking water (#)*	
<b>2. Country Development Objectives</b>	<b>Yes</b>	
Country Strategy Results Matrix	GN-2843	Reduce vulnerability to natural disasters and climate change, expand water and sanitation coverage, principally in periurban and rural areas, and improve the effectiveness of public governance
Country Program Results Matrix	GN-2915-2	The intervention is included in the 2018 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
<b>II. Development Outcomes - Evaluability</b>		<b>Evaluable</b>
<b>3. Evidence-based Assessment &amp; Solution</b>		<b>10.0</b>
3.1 Program Diagnosis		3.0
3.2 Proposed Interventions or Solutions		4.0
3.3 Results Matrix Quality		3.0
<b>4. Ex ante Economic Analysis</b>		<b>10.0</b>
4.1 Program has an ERR/NPV, or key outcomes identified for CEA		3.0
4.2 Identified and Quantified Benefits and Costs		3.0
4.3 Reasonable Assumptions		1.0
4.4 Sensitivity Analysis		2.0
4.5 Consistency with results matrix		1.0
<b>5. Monitoring and Evaluation</b>		<b>8.5</b>
5.1 Monitoring Mechanisms		2.5
5.2 Evaluation Plan		6.0
<b>III. Risks &amp; Mitigation Monitoring Matrix</b>		
<b>Overall risks rate = magnitude of risks*likelihood</b>		<b>Medium</b>
Identified risks have been rated for magnitude and likelihood		Yes
Mitigation measures have been identified for major risks		Yes
Mitigation measures have indicators for tracking their implementation		Yes
<b>Environmental &amp; social risk classification</b>		<b>B</b>
<b>IV. IDB's Role - Additionality</b>		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury, Accounting and Reporting. Procurement: Information System, Price Comparison, Contracting Individual Consultant.
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	Yes	TC BO-T1301

Note: (\*) Indicates contribution to the corresponding CRF's Country Development Results Indicator.

*The project aims to contribute to the improvement of the integral management of water resources in urban areas of Bolivia through the increase in access to water and sanitation services, the support to improved planning and management of services, and the development and implementation of strategic actions for water security.*

*The project presents a clear diagnosis of the problem, identifying the most relevant factors that contribute to the problem and presenting contextualized evidence of their magnitude. The proposed solutions in the three components of the operation respond to the specified problem. The Results Matrix is consistent with the vertical logic of the project and presents SMART outcome and product indicators. However, the indicators and goals at the level of expected results will need to be updated to account for all the projects financed with the operation. To demonstrate its results, the project will employ a "before and after" analysis of the outcome indicators and an ex post economic evaluation. Since an impact evaluation is not included in the M&E plan, the analysis of attribution will be supported by the vertical logic of the project.*

Results Matrix					
Program objective	The objective of the program is to help improve comprehensive management of water resources in urban areas of Bolivia by: (i) expanding and improving access to water services under a comprehensive water management vision, including the works required for wastewater collection and treatment; (ii) supporting an improvement in comprehensive water and sanitation planning and management; and (iii) supporting the development and implementation of strategic actions for water security in the program's beneficiary cities.				
Outcomes					
Indicator	Unit of measure	Baseline	Baseline year	End of program	Comments/Mean of verification
1.1 Households with new or upgraded access to drinking water in the program's areas of intervention <sup>1</sup>	Households	0	2018	211,000 <sup>2</sup>	Water and Sanitation Authority (AAPS) annual report on performance indicators.  CPR = $(1 - \frac{\sum_{i=1}^n H_i \times C_i}{24 \times \text{Conex}})$ x 24, total hours per user impacted by rationing. Hi: number of hours users are impacted; Ci: number of users impacted; Conex: total connections. This indicator is recorded for each water and sanitation service provider (WSSP).
1.2 Households with new or upgraded access to sanitation in the program's areas of intervention <sup>3</sup>	Households	0	2018	6,500 <sup>4</sup>	Monitoring report prepared by the PCU
1.3 WSSPs' percentage of nonrevenue water <sup>5</sup>					
SELA	%	35	2016	33	AAPS administrative records on annual performance indicators
Other	%	45 <sup>6</sup>	2016	40	AAPS administrative records on annual performance indicators
1.4 Number of WSSPs with a rate revenue/operating, maintenance, and administrative costs indicator >= 1.2	#	2 <sup>7</sup>	2016	5	WSSP annual audited financial statements
1.5 Percentage of WSSPs subject to regulatory monitoring by the AAPS with all evaluation and analysis processes automated	%	0	2017	100	AAPS management reports
1.6 Number of WSSPs subject to regulatory monitoring receiving technical assistance online from the AAPS	#	0	2017	5	AAPS management reports
1.7 Number of WSSPs with water resource management systems in operation	#	0	2017	3	WSSP administrative management records

<sup>1</sup> A household is considered to have access to drinking water when it has service with "continuity through rationing" for more than 20 hours per day.

<sup>2</sup> The number of households is for the projects in the sample. This number will be periodically adjusted as new projects are added to the program.

<sup>3</sup> Considers households actually connected to the sanitary sewerage network.

<sup>4</sup> Considers households actually connected to the sanitary sewerage network.

<sup>5</sup> The baselines and targets for nonrevenue water will be determined during program execution as part of Component I, and the indicator will be measured individually for each service provider.

<sup>6</sup> The baselines and targets for nonrevenue water will be determined during program execution as part of Component I, and the indicator will be measured individually for each service provider.

<sup>7</sup> SEMAPA and SELA (two service providers involved in the sample).



Outputs											
Component I. Investments in infrastructure works and support for comprehensive management of services											
Output	Unit of measure	Associated outcomes	Cost (US\$)	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	End of program	Comments/Mean of verification
1.1 Water systems built, upgraded, or expanded <sup>8</sup> Milestones:	System	1.1	39,855,799	0	0	0	1	3	0	4	Progress monitoring report (PMR)
Storage tanks upgraded or built	Tank			0	0	0	0	6	0	6	
Drinking water and raw water conveyance pipelines and/or networks built or upgraded	Km			0	0	112	155	47	0	314	
Residential connections built	Connection			0	0	940	1,179	235	0	2,354	
Pumping stations rehabilitated or built	Stations			0	0	0	3	1	0	4	
1.2 Sanitary sewerage systems built, upgraded, or expanded <sup>9</sup> Milestones:	System	1.2	14,388,352	0	0	0	0	2	0	2	PMR. Final acceptance of works.
Sanitary sewerage networks built	Km			0	0	0	95	71	0	166	
Residential connections built	Connection			0	0	0	2,500	2,256	0	4,756	
Elevator stations built	Stations			0	0	0	0	1	0	1	
1.3 Other water systems built, upgraded, or expanded	System	1.1	42,411,154	0	0	0	0	0	5	5	PMR. Final acceptance of works.
1.4 Other sanitary sewerage systems built, upgraded, or expanded	System	1.2	18,176,209	0	0	0	0	0	3	3	PMR. Final acceptance of works.
1.5 WSSP management improvement plans designed <sup>10</sup>	Plan	1.1, 1.2, 1.3, and 1.4	2,520,000	0	0	2	2	1	0	5	PMR. Reports of the hired companies. PCU approval report in acceptance reports by the AAPS, the Office of the Deputy Minister of Water and Basic Sanitation (VAPSB), and/or the WSSPs.
1.6 Pilot gender equity program at one WSSP designed and in operation <sup>11</sup>	Program	1.1, 1.2, 1.3, and 1.4	20,000	0	0	0	1	0	0	1	PMR. WSSP management report.
1.7 Women's technical training program associated with management of the pilot WSSP designed and in operation <sup>12</sup>	Program	1.1, 1.2, 1.3, and 1.4	50,000	0	0	0	1	0	0	1	PMR. WSSP management report.

<sup>8</sup> Refers to the projects in the sample (three projects in Cochabamba and one in Oruro).

<sup>9</sup> Refers to the projects in the sample (two projects in Cochabamba).

<sup>10</sup> Actions to reduce nonrevenue water, micro and macro metering plans, improvement of commercial and information systems, training in management, operation, and maintenance of the systems built, connectivity of sewerage services, etc.

<sup>11</sup> Will be considered implemented when at least two of the priority activities under the plan have been implemented by the WSSP.

<sup>12</sup> Includes training women as plumbing, sewerage system, and electricity technicians.



Outputs											
Component I. Investments in infrastructure works and comprehensive management of services											
Output	Unit of measure	Associated outcomes	Cost (US\$)	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	End of program	Comments/Mean of verification
1.8 WSSP management improvement plans implemented <sup>13</sup>	Plan	1.1, 1.2, 1.3, and 1.4	12,410,000	0	0	0	0	0	5	5	PMR. WSSP management reports.
1.9 VAPSB institutional strengthening plan implemented <sup>14</sup>	Plan	1.5 and 1.6	200,000	0	0	1	0	0	0	1	PMR.
1.10 AAPS computer system for monitoring, automation, and standardization of the operational plan for oversight, supervision, control, and evaluation of planning documents of WSSPs subject to regulatory monitoring implemented	System	1.5	150,000	0	0	0	1	0	0	1	Consultancy progress reports. PMR.
1.11 Nationwide WSSP regularization plan for the AAPS developed	Plan	1.6	100,000	0	0	1	0	0	0	1	Consultancy progress reports. PMR.
1.12 AAPS communication and information plan to provide online support to the WSSPs designed and implemented	Plan	1.5 and 1.6	150,000	0	0	0	0	1	0	1	Consultancy progress reports. PMR.
Component II. Metropolitan plans and preinvestment studies											
2.1 Designs for water and/or sanitation works prepared	Design	1.1 and 1.2	4,200,000	0	0	0	0	0	5	5	PMR. Final report by hired firm, including the designs of works. PCU approval report and acceptance report by the VAPSB.
2.2 Metropolitan master plans updated and/or developed	Plan	1.1 and 1.2	4,800,000	4	0	0	0	0	5	9	PMR. Final report by hired firm, including the designs of works. PCU approval report and acceptance report by the VAPSB.
Component III. Tools and capacities for water security											
3.1 Drought and/or flood plans developed	Plan	1.7	500,000	1	0	1	2	0	0	4	PMR. Final report by hired firm. PCU approval report and acceptance reports by the VAPSB and/or the WSSPs.
3.2 Drought and/or flood plans implemented <sup>15</sup>	Plan	1.7	500,000	0	0	0	0	1	2	3	PMR. WSSP management report.
3.3 Hydroclimatic data monitoring networks designed	Network	1.7	500,000	0	0	1	2	0	0	3	PMR. WSSP management report.

<sup>13</sup> Will be considered implemented when at least two of the priority activities under the improvement plans have been implemented by each WSSP.

<sup>14</sup> Will be considered implemented when at least two of the priority activities under the MMAyA-VAPSB institutional strengthening plan have been implemented under the program.

<sup>15</sup> Drought and flood management plans designed for each service provider installed at their respective facilities (including procurement and installation of the required software and hardware), with technical personnel trained in their daily use in an independent fashion.

Outputs											
Component III. Tools and capacities for water security											
3.4 Hydroclimatic data monitoring networks installed	Network	1.7	1,000,000	0	0	0	1	1	1	3	PMR. WSSP management report.
3.5 Hydrological and/or hydraulic models, water balances, <sup>16</sup> water resource modeling and/or management tools developed or updated	Model	1.7	3,500,000	0	0	1	1	1	2	5	PMR. WSSP management report.
3.6 Workshops for technical training in hydroclimate information systems, drought management, and water resource modeling and management held	Workshops	1.7	500,000	0	0	0	5	5	5	15	PMR. WSSP management report.

<sup>16</sup> Two hydrogeological models, three hydrological models, and five water balances.

## FIDUCIARY AGREEMENTS AND REQUIREMENTS

**Country:** Plurinational State of Bolivia

**Project number:** BO-L1192: Comprehensive Water Management Program in Urban Areas

**Executing agency:** Ministry of Environment and Water through the PCU

**Prepared by:** Patricia Toriz Monroy and Shirley Foronda (FMP/CBO)

### I. EXECUTIVE SUMMARY

- 1.1 The Ministry of Environment and Water (MMAyA) will be responsible for executing the program through the Periurban Water and Sewerage Program Coordination Unit (PCU). This PCU currently manages six Bank-financed operations.<sup>1</sup>
- 1.2 The institutional capacity assessment of the MMAyA's PCU was conducted using the Institutional Capacity Assessment System (ICAS) methodology.
- 1.3 The ICAS found that the MMAyA's PCU has a satisfactory level of institutional capacity development, which is associated with a low level of risk for executing the program and performing fiduciary management. The assessment recommends strengthening the program by recruiting full-time staff with training and experience in procurement and finance. It also suggests including the mechanisms for program coordination, procurement and financial management policies and procedures, as well as process flowcharts, in the program Operating Regulations.
- 1.4 Financial management will be performed using the country's Public Management System (SIGEP), which includes accounting, cash management, and budget modules. The IDB's project management system (IPAS-IDB)<sup>2</sup> will be used for all financial reports required by the Bank, including disbursement requests. The single treasury account system, which is national in scope and handles both local and foreign currencies without distinction, may also be used.
- 1.5 The IDB's standard bidding documents and documents agreed upon with the Office of the Deputy Minister of Public Investment and External Financing (VIPFE) will be used without modifications on an exclusive basis for procurement processes.
- 1.6 Advertising for international competitive bidding (ICB) and selection of international consultants (e.g. calls for bids, requests for expressions of interest, clarification documents, amendments, and results of the processes) will be publicized on the United Nations Development Business (UNDB) website. These processes and any

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<sup>1</sup> GRT/WS-11830-BO; 3091/BL-BO; 2880/BL-BO; GRT/WS-12956-BO; GRT/WS-12956-BO-1; GRT/WS-12956-BO-2; 3730/BL-BO, 3731/OC-BO; and 4413/BL-BO, 4414/KI-BO.

<sup>2</sup> IPAS-IDB: Integrated Project Administration System of the Inter-American Development Bank.

others may also be publicized on Bolivia's State Procurement System (SICOES) website and in national newspapers.

- 1.7 The agreement on partial use of Bolivia's country procurement system will be applicable to this program depending on fulfillment of the current implementation activities. Thus, the program will adopt the Basic Standards of the Goods and Services Management System (NB-SABS) for contracting individual consultants and for shopping. The loan contract will include provisions for the use of this subsystem.

## II. THE EXECUTING AGENCY'S FIDUCIARY CONTEXT

- 2.1 Law 1178 on Government Administration and Control of 20 July 1990, known as the SAFCO Act, regulates the systems that manage and control government resources and their linkage with the country planning and public investment systems, and establishes planning subsystems (e.g. operations programming, administrative organization, and budget), execution subsystems (e.g. treasury and public credit, integrated government accounting, personnel management, and administration of goods and services), and government control subsystems (e.g. internal and external control). This law is mandatory for the MMAyA. Although the systems contribute to the transparent, comprehensive execution of public finances, there are certain areas that require further strengthening:
- 2.2 **Administration of goods and services (procurement).** Except as provided in paragraph 1.7, use of the NB-SABS will not be acceptable for procurement processes that are fully or partially financed with Bank resources. In accordance with paragraph 1.3, the executing agency must have the fiduciary capacity to carry out the activities related to the execution component for which it is responsible.
- 2.3 **Budget.** In Bolivia, there is no multiyear budget system, which means the program budget must be recorded annually (external funds and treasury resources).
- 2.4 **Government accounting.** SIGEP offers secure, reliable access to budget execution information. However, it does not provide data in foreign currency, or on the basis of the program's investment categories. The IDB is currently supporting an initiative of the Ministry of Economy and Public Finance to implement a project accounting module within SIGEP. This new module will facilitate the preparation of reports that are acceptable to the Bank. The program is expected to use the new accounting module once it is in production.
- 2.5 **Government oversight** is the responsibility of the Office of the Comptroller General (CGE), which for the time being has technical and staff limitations that prevent it from conducting ongoing and timely reviews of projects financed with external resources. An independent audit firm must therefore be hired to review the program's financial statements.

### III. FIDUCIARY RISK EVALUATION AND MITIGATION MEASURES

- 3.1 The institutional capacity assessment and risks workshop determined that the MMAyA, through the PCU, has a low level of risk, due to its experience in technical and fiduciary areas related to the execution of IDB-financed projects and its satisfactory performance executing such projects.
- 3.2 The PCU's project portfolio has grown in terms of both the volume of operations and their amount, and this new operation entails an additional workload. This could cause delays in the program's implementation schedule. However, the evaluated impact of this risk is medium, and it has a low likelihood of occurring (low risk), since the PCU plans to roll out a new organizational structure as a result of a retooling process. Consequently, a specific mitigation measure does not need to be included in the risk mitigation plan.
- 3.3 SIGEP will be used for financial management. It is able to administer the program funds, which are managed in the single treasury account through accounts in local currency ("libretas"). This system provides a sufficient basis for external auditors to issue opinions on the accounts. However, it does not generate reports on financial execution that reflect the investment status of the loan (e.g. investment category, currency, and accounting basis), so a complementary system will be used, namely the IPAS-IDB, which can record expenses and generate reports acceptable to the Bank. Once the SIGEP project accounting module goes into effect, the program's accounting will be done entirely in SIGEP.

### IV. CONSIDERATIONS FOR THE SPECIAL CONDITIONS OF THE CONTRACT

- 4.1 **Program Operating Regulations.** The program Operating Regulations will include the execution arrangements, information flows, and procedures previously agreed upon with the Bank.
- 4.2 **Exchange rate agreed upon for accounting purposes.** The exchange rate in effect in the country on the date that funds in foreign currency are converted into local currency in the executing agency's account will be used (Art. 4.10 (b)(i) of the General Provisions).
- 4.3 **Financial statements and other audited reports.** Within 120 days following the close of each financial year during the loan disbursement period, the executing agency will submit the program's audited financial statements to the Bank. The last of these will be submitted within 120 days after the date stipulated for the last disbursement. The contracting procedures, scope, and presentation of the aforementioned audits will comply with the Financial Management Guidelines for IDB-financed Projects (document OP-273-6).
- 4.4 **Terms of reference and technical specifications.** Reviews of the selection criteria for shortlists, terms of reference, technical specifications, and bidder or consultant qualification requirements needed to evaluate proposals will be approved in advance for the executing agency by the sector specialist in his/her capacity as Project Team Leader, regardless of the procurement review method (ex ante/ex post).

## V. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

- 5.1 **Procurement execution.** Procurement processes for the program will be set out in the procurement plan approved by the Bank and will be carried out in accordance with the Policies for the Procurement of Goods and Works Financed by the IDB (document GN-2349-9) and the Policies for the Selection and Contracting of Consultants Financed by the IDB (document GN-2350-9). The only exception to the use of these policies is the agreement on partial use of NB-SABS mentioned in paragraph 1.7.
- 5.2 **Procurement of works, goods, and nonconsulting services.** Procurement processes for works, goods, and nonconsulting services will use the Bank's standard bidding documents without any modification, considering the following:
- a. Procurement processes subject to ICB will use the current standard bidding documents issued by the Bank and made available on its official website.
  - b. Procurement processes for amounts below the ICB threshold established by the Bank will use the national competitive bidding (NCB) documents agreed upon with the country and made available through SICOES.<sup>3</sup>
  - c. Procurement processes for simple works and off-the-shelf goods for amounts below the ICB threshold, which may be procured through the shopping method if authorized by the Bank, will use the documents agreed upon with the country and made available through SICOES.
  - d. Procurement processes through the shopping method in amounts within the official thresholds established for the country will apply the national standard under the agreement on partial use of the country system, using the documents agreed upon with the country and made available through SICOES.
- 5.3 **Selection and contracting of consultants.** Procedures for the selection of consultants will use the standard public documents without any modification, considering the following:
- a. Selection of consulting firms subject to international procedures will be carried out using the current standard request for proposals issued by the Bank and made available on the Bank's official website.
  - b. The shortlist of consulting firms may consist solely of national firms<sup>4</sup> for contracts below the international shortlist threshold established by the Bank for Bolivia, using the NCB documents agreed upon with the country and made available through SICOES.
  - c. For the selection of individual consultants, the NB-SABS will be applicable under the agreement on partial use of the country system, using the documents agreed upon with the country and made available through SICOES.

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<sup>3</sup> State Procurement System. Package of bidding documents authorized by the Bank for use in processes below the ICB thresholds.

<sup>4</sup> Foreign firms are eligible to participate.

- 5.4 **Operating costs.** The recurring and maintenance costs required to implement the program during its useful life cover items such as the leasing of offices; utilities; radio, print, or televised communications; procurement notices; translations; bank fees; office supplies; photocopies; postage; and fuel, as agreed upon with the Bank. They will be financed by the program as part of the annual budget approved by the Bank and will be included in the program's annual procurement plans based on the executing agency's administrative procedures, as set out in the program Operating Regulations. The Bank may refuse to finance these expenses if it determines that they violate the principles of competition, efficiency, and economy.
- 5.5 **Procurement planning.** The executing agency will publish a procurement plan with a minimum horizon of 18 months in the Procurement Plan Execution System (SEPA) and will update it as necessary, but at least once a year. A procurement process may begin provided it is listed in the procurement plan previously approved by the Bank.
- 5.6 **Domestic preference.** The use of domestic preference is not anticipated in any procurement process.

**Table 1. Threshold amounts (US\$)**

ICB		NCB*		Shopping		International shortlist	National shortlist
Works	Goods	Works	Goods	Works	Goods	Consultants	Consultants
Over 3,000,000	Over 200,000	>250,000 to 3,000,000	>50,000 to 200,000	Up to 250,000	Up to 50,000	Over 200,000	Up to 200,000

\* Simple works and off-the-shelf goods for amounts within the NCB threshold range may be procured through the shopping method, using the documents agreed upon with the country for this procurement method.

#### A. Main procurement planning

- 5.7 This plan shows the combined resources to be executed by the PCU and FONPRODE, since they will use the Bank's policies to carry out their procurement processes.

**Table 2. Main procurements**

Description	Selection method	Estimated amount (US\$000)
<b>Works</b>		
Potable water APRAUR II in Oruro	ICB	15,403.1
Conveyance pipeline 2: QUENAMARI – EXISTING TANK TACKO LOMA in Cochabamba	ICB	9,698.0
Conveyance pipeline 5: JOVE RANCHO - CHOJÑACOLLO in Cochabamba	ICB	1,957.6
Conveyance pipeline 6: CHOJÑACOLLO – VINTO – SIPE SIPE in Cochabamba	ICB	8,031.0
<b>Consulting firms</b>		
Supervision of works for APRAUR in Oruro	QCBS	645.4
Supervision of works for QUENAMARI in Cochabamba	QCBS	993.7
Community development activities for potable waterworks	QCBS	1,686.2
Environmental and social mitigation for the potable waterworks	QCBS	1,440.8

Description	Selection method	Estimated amount (US\$000)
Community development activities for sanitation works	QCBS	718.0
Environmental and social mitigation for the sanitation works	CQS	482.5
Development of service providers' improvement plans: SELA, SEMAPA, MISICUNI, and others (various)	QCBS	2,520.0
Actions in support of the AAPS and VAPSB (various)	CQS	600.0
Update of the Cochabamba, La Paz – El Alto, Tarija, Santa Cruz, and other metropolitan master plans (various)	QCBS	4,800.0
Preinvestment studies (various)	QCBS	1,335.2
Drought and/or flood plans developed (various)	CQS	500.0
Hydroclimatic data monitoring networks designed (various)	CQS	500.0
Accounting audit	CQS	250.0
<b>Individual consultants</b>		
Financial, procurement, environmental, planning and monitoring, legal, social, institutional, and water resource specialists	NICQ	1,208.4
3 PCU civil engineers and three junior engineers	NICQ	858.6
Operational-administrative management consultant and messenger	NICQ	111.6
Specialized consultancies (various)	NICQ	100.0
<b>Operating costs</b>		
PCU	Op. cost	1,421.4

\* For the procurement plan for the first 18 months, click [here](#).

- 5.8 **Procurement supervision.** The project will use ex ante reviews of all international processes and exceptions, such as direct contracting, single-source selection, and procurement methods outside the established thresholds.
- 5.9 **Ex post review.** An external audit firm will conduct an ex post review of procurement processes at least once a year as determined by the Bank.
- 5.10 **Other reviews.** The Bank may conduct periodic visits to update the level of procurement management capacity and the fiduciary risk level associated with execution of the operation.
- 5.11 **Records and files.** The executing agency will be responsible for establishing the necessary controls for safeguarding and ensuring the integrity of the documentation generated by program execution. The Bank may at any time verify the standards used to organize and control the files and ensure their security.

## VI. FINANCIAL MANAGEMENT AGREEMENTS AND REQUIREMENTS

- 6.1 **Programming and budget.** The PCU will ensure that the sources of financing and resources for the program are recorded and individually identified. It will also be responsible for programming and planning program activities based on the approved works agreed upon with the Bank and included in the annual work plan. Budget formulation, approval, execution, monitoring, evaluation, and reformulation will follow the guidelines set out in the specific regulations of the MMAYA's budget system.



- 6.2 **Accounting and information systems.** The PCU will record program transactions in SIGEP, which integrates the program's budget, asset, and treasury records, using the cash-based accounting method, and in accordance with international accounting standards and government standards in parallel, since execution in SIGEP is governed by the latter. The IPAS-IDB will be used for generating the reports required by the Bank, including disbursement requests. A chart of accounts will be prepared which identifies management costs, matching investment categories with the respective budget items and accounts.
- 6.3 **Disbursements and cash flow.** The loan will be disbursed using the advance of funds modality, with the frequency of advances determined on the basis of financial programming, which will be periodically updated by the PCU. The loan proceeds will be deposited into the Banco Central de Bolivia's single treasury account and subsequently transferred to an operating account in local currency ("libreta"). The Bank will make a new advance of funds when at least 80% of the total amount previously disbursed has been justified. The direct payment modality may be used on an exceptional basis, subject to the Bank's no objection.
- 6.4 **Internal control and internal audit.** The MMAyA has an internal control system that includes before-and-after control tools. These are incorporated into its organizational chart, rules of operation, and procedures manuals. It also has an internal audit unit that reports directly to the highest-level executive authority and is responsible for conducting independent reviews to determine the degree of compliance and efficiency of the management systems and internal control instruments incorporated into the entity. The reports resulting from this review contain recommendations to be implemented by management and cover the programs managed by the PCU. The program will be included in reviews of this kind, and these reports will be used for planning the external auditor's work.
- 6.5 **External control and reports.** The MMAyA, through the PCU, will be responsible for the timely contracting of the audit firm. The contract will be multiyear in order to: (i) avoid transaction costs; (ii) provide continuity for the auditors' work; and (iii) ensure preliminary reviews, if appropriate. The audited financial statements will be delivered to the Bank within 120 days following the close of each financial year during the original loan disbursement period or extensions thereof, and within 120 days after the last disbursement date in the case of closing audited financial statements. The program Operating Regulations will specify the scope of the audit, which will cover IDB and FONPRODE funds. The program will finance the full cost of the audit.
- 6.6 **Financial supervision plan.** Financial supervision will be performed on an ex post basis. Supervision plans will include the following activities carried out at least once a year: (i) one comprehensive visit (procurement and financial) by the Bank; (ii) one onsite visit to the projects that received financial investments; and (iii) one desk review of the program's external audit.
- 6.7 **Execution mechanisms.** The PCU will be strengthened by adding financial accounting management staff so that it can assume the additional fiduciary responsibilities required to execute this operation. In addition, the respective program Operating Regulations will regulate activities such as contracting of the audit firm, financial management of the resources executed for the program, overall

financial programming, and the flow of information among the stakeholders involved in the operation.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/18

Bolivia. Loan \_\_\_\_/BL-BO to the Plurinational State of Bolivia  
Comprehensive Water Management Program in Urban Areas

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 Plurinational State of Bolivia, as Borrower, for the purpose of granting it a financing to cooperate in the execution of the Comprehensive Water Management Program in Urban Areas. Such financing will be chargeable to the Bank's Ordinary Capital (OC) resources in the following manner: (i) up to the amount of US\$15,000,000, subject to concessional financial terms and conditions ("Concessional OC"); and (ii) up to the amount of US\$85,000,000, subject to financial terms and conditions applicable to loan operations financed from the Bank's regular program of OC resources ("Regular OC"), as indicated in the Project Summary of the Loan Proposal, and subject to the Special Contractual Conditions of said Project Summary.

(Adopted on \_\_\_\_ 2018)