

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**PERU**

**COMPREHENSIVE RURAL WATER AND SANITATION PROGRAM (PIASAR)**

**(PE-L1226)**

**LOAN PROPOSAL**

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<b>OPTIONAL</b> <ol style="list-style-type: none"><li>1. <a href="#">Socioeconomic analysis</a></li><li>2. <a href="#">Technical analysis</a></li><li>3. <a href="#">Institutional analysis</a></li><li>4. <a href="#">Financial analysis</a></li><li>5. <a href="#">Social, gender, and intercultural management analysis</a></li><li>6. <a href="#">Lessons learned from the GRT-WS-12127-PE program</a></li><li>7. <a href="#">Analysis of compliance with the Public Utilities Policy</a></li><li>8. <a href="#">Loan proposal for the GRT-WS-12127-PE program</a></li><li>9. <a href="#">Draft Program Operating Manual (POM)</a></li><li>10. <a href="#">Itemized program budget</a></li><li>11. <a href="#">Draft PMR for the program</a></li><li>12. <a href="#">Guide for execution, post execution, payment for PNSR projects executed through the local execution units</a></li><li>13. <a href="#">Environmental and social analysis</a></li><li>14. <a href="#">Environmental and Social Management Framework</a></li></ol>

## **ABBREVIATIONS**

AOM	Administration, Operation, and Maintenance
ATM	Municipal Technical Areas
AWP	Annual work plan
BSU	Basic sanitary unit
DRVCS	Regional Housing, Construction, and Sanitation Departments
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMR	Environmental and Social Management Report
INEI	National Statistics Institute
JASS	Sanitation Services Management Boards
JMP	Joint Monitoring Program
MEP	Multiyear Execution Plan
MVCS	Ministry of Housing, Construction, and Sanitation
PIASAR	Comprehensive Rural Water and Sanitation Program
PMU	Program Management Unit
PNSR	National Rural Sanitation Program
SUNASS	National Superintendency of Sanitation Services
W&S	Water and sanitation

## PROJECT SUMMARY

### PERU COMPREHENSIVE RURAL WATER AND SANITATION PROGRAM (PIASAR) (PE-L1226)

Financial Terms and Conditions				
<b>Borrower:</b> Republic of Peru		<b>Flexible Financing Facility<sup>(a)</sup></b>		
		<b>Amortization period:</b>	15 November 2027	
<b>Executing agency:</b> National Rural Sanitation Program (PNSR) of the Ministry of Housing, Construction, and Sanitation (MVCS)		<b>Disbursement period:</b>	4 years	
		<b>Grace period:</b>	15 November 2026 <sup>(b)</sup>	
		<b>Interest rate:</b>	LIBOR-based	
<b>Source</b>	<b>Amount (US\$)</b>	<b>%</b>	<b>Inspection and supervision fee:</b>	<sup>(c)</sup>
<b>IDB (Ordinary Capital)</b>	US\$100 million	79	<b>Credit fee:</b>	<sup>(c)</sup>
<b>Local</b>	US\$26 million	21	<b>Original weighted average life:</b>	9.77 years <sup>(d)</sup>
<b>Total</b>	US\$126 million	100	<b>Currency of approval:</b>	U.S. dollars from the Ordinary Capital
Project at a Glance				
<p><b>Project objectives/description:</b> The general objective is to improve sanitary and environmental conditions in priority rural areas of the country, by reducing the gap in coverage of water and sanitation (W&amp;S) services.</p> <p>The specific objectives of the program are: (i) to expand the coverage of W&amp;S services in rural communities; (ii) to promote sustainable management of the services by strengthening the Regional Housing, Construction, and Sanitation Departments (DRVCS), the Municipal Technical Areas (ATMs), and the Sanitation Service Management Boards (JASS); (iii) to promote the proper use of services through health and environmental education for beneficiary families; and (iv) to support the MVCS in its regulatory, planning, and technical assistance functions as they relate to water and sanitation.</p> <p><b>Special contractual conditions precedent to the first loan disbursement:</b> In accordance with terms and conditions previously agreed with the Bank, (i) the program Operating Manual (<a href="#">link</a>) will have been approved and put into effect by the executing agency and (ii) the executing agency will have selected the following key personnel for the program's launch: a coordinator and technical, administrative-financial, procurement, institutional, social management, and environmental management specialists (paragraph 3.9).</p> <p><b>Special contractual conditions for execution:</b> Prior to awarding the works, or prior to signing the financing agreements with the local execution units, evidence will be provided that: (i) rights or authorizations have been obtained for use of the lands needed for the respective project works, and that those rights or authorizations have been obtained pursuant to applicable national and local legislation; and (ii) an interagency cooperation agreement has been signed between the municipalities and the MVCS for administration, operation, and maintenance (AOM) of the program's drinking water systems, in accordance with terms and conditions previously agreed with the Bank (paragraph 3.10).</p> <p>See also the special contractual conditions in Annex B of the Environmental and Social Management Report (<a href="#">ESMR</a>).</p>				
<b>Exceptions to Bank policies:</b> None				
Strategic Alignment				
<b>Challenges:<sup>(e)</sup></b>	SI	<input checked="" type="checkbox"/>	PI	<input type="checkbox"/>
<b>Crosscutting themes:<sup>(f)</sup></b>	GD	<input checked="" type="checkbox"/>	CC	<input checked="" type="checkbox"/>
			IC	<input type="checkbox"/>

<sup>(a)</sup> Under the terms of the Flexible Financing Facility (document FN-655-1), the borrower has the option of requesting changes to the amortization schedule as well as currency and interest rate conversions. The Bank will take operational and risk management considerations into account when reviewing such requests.

<sup>(b)</sup> Under the flexible reimbursement option of the Flexible Financing Facility, changes in the grace period are possible provided the original weighted average life (WAL) of the loan and the last date of payment, documented in the loan contract, are not exceeded.

<sup>(c)</sup> The credit fee and the inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with applicable policies.

<sup>(d)</sup> The loan's WAL may be shorter, depending on the contract signature date.

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

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

## I. PROJECT DESCRIPTION AND RESULTS MONITORING

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

- 1.1 **Water and sanitation services in Peru: status and problems.** The estimated population of Peru as of 2016 is 31.4 million, of which 77.2% lives in urban settings, and 22.8% in rural areas.<sup>1</sup> According to data from the Joint Monitoring Program (JMP), water service coverage nationwide is 91%,<sup>2</sup> but when the quality of service is taken into account (continuity, accessibility, and water quality), coverage declines to 50%.<sup>3</sup> As for sanitation, coverage nationwide is 86%,<sup>4</sup> but when environmental considerations are taken into account this coverage drops to 30%.<sup>5</sup> In urban areas, these coverage rates are 96% and 58%, respectively, for drinking water and 92% and 35% for sanitation, while in rural areas<sup>6</sup> they are 74% and 20% for drinking water and 62% and 12% for sanitation. Moreover, 30% of the rural population defecates in the open,<sup>7</sup> posing a high risk to public health and the environment.
- 1.2 The gaps in water and sanitation (W&S) services in rural areas are due primarily to: (i) lack of investment, which has resulted in lower coverage rates;<sup>8</sup> (ii) faulty planning and investment management, reflected in the fact that, between 2011 and 2016, the average execution rate for the three levels of government was only 65%;<sup>9</sup> and (iii) poor management on the part of service providers, which has meant among other things that only 2% of rural water systems have the required quality and only 35% of infrastructure is in good condition.<sup>10</sup> In the case of service providers, the main challenges facing the Sanitation Service Management Boards (JASS) include poor administration, operation, and maintenance (AOM) of water systems, reflecting the shortage of trained personnel,<sup>11</sup> the lack of needed tools, inadequate residential fees (rates),<sup>12</sup> and high billing arrears.<sup>13</sup>
- 1.3 This deficit in water and sanitation services is an indicator of exposure to health risks, and it is most severe in areas where poverty and extreme poverty are most

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<sup>1</sup> National Sanitation Investment Plan 2014-2021 ([link](#)).

<sup>2</sup> JMP, 2017. This coverage is defined as access to an improved source (including piped water, protected wells, protected springs, or tank truck) at a maximum of 30 minutes from the household.

<sup>3</sup> JMP, 2017. This coverage is defined as access to an improved source located on the premises, available when needed and free of fecal and other contaminants.

<sup>4</sup> JMP, 2017. This coverage is defined as access to improved facilities (including sewer systems, septic tanks, latrines, or other individual solutions that prevent human contact with excrement), not shared with other households.

<sup>5</sup> JMP, 2017. This coverage is defined as access to improved facilities not shared with other households, where excrement is adequately disposed of on-site, or transported and treated off-site.

<sup>6</sup> Refers to communities with a population of fewer than 2,000 inhabitants.

<sup>7</sup> MVCS. “*Consultoría para apoyar al MVCS en la preparación del nuevo Plan Nacional de Saneamiento (PNS) 2017-2021*,” prepared by AC Pública S.A.C. – APOYO. 2016.

<sup>8</sup> National Sanitation Investment Plan 2014-2021 ([link](#)).

<sup>9</sup> National Sanitation Policy 2017-2021 ([link](#)).

<sup>10</sup> INEI ENAPRES 2016.

<sup>11</sup> Only around 14.3% of communal organizations have at least one person who has received at least one training course on at least one of the topics relating to system operation (medium-term plan of the PNSR 2013-2016).

<sup>12</sup> Average operating margin of -34.4% (MVCS 2011).

<sup>13</sup> Median values between 19% and 21%, according to MVCS estimates (2011).

prevalent.<sup>14</sup> This is important, as there is a positive link between health and access to W&S.<sup>15</sup> In 2016, the prevalence of acute diarrheal diseases in Peru among children under five years was 11.4% in urban areas, and 11.8% in rural zones.<sup>16</sup> In addition, chronic malnutrition affects a greater proportion of children under five in rural areas (26.5%), i.e. 18.6 percentage points more than in cities (7.9%).<sup>17</sup>

- 1.4 Institutional framework of the W&S sector.** The MVCS, through the Vice Ministry of Construction and Sanitation, is the sector's lead agency, responsible for preparing mechanisms of coordination, articulation, and cooperation with regional governments, municipalities, and civil society. The National Rural Sanitation Program (PNSR<sup>18</sup>) of the MVCS was created on 7 January 2012 by Supreme Decree 002-2012-VIVIENDA, for purposes of improving quality, expanding coverage, and promoting sustainable use of W&S services among rural populations. The regulation and supervision of W&S services is the responsibility of the National Superintendency of Sanitation Services (SUNASS<sup>19</sup>), which ensures the provision of W&S services in urban and rural areas. The Ministry of Health sets the quality parameters of water for human consumption and enforces them, while the Ministry of the Environment sets the environmental quality standards for water, as a compulsory benchmark in the design and application of environmental management instruments. The municipalities are responsible for providing services, generally through Sanitation Service Providers (EPS)<sup>20</sup> in urban areas, and by means of the JASSs in rural areas.
- 1.5 Service delivery in rural areas.** District municipalities are responsible for delivering W&S services, either directly or through the JASSs.<sup>21</sup> As rural centers are characterized by small populations, low density, and geographic dispersion,<sup>22</sup> the JASS has become the predominant model for service delivery.<sup>23</sup> The Municipal

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<sup>14</sup> There is a slight correlation between economic capacity and the prevalence of diarrhea, the occurrence rate of which is 12.9% for children under five years in the lowest income quintile, compared to 8.3% in the highest quintile (INEI, 2016 [link](#)).

<sup>15</sup> This has been documented in numerous studies, as summarized by A. Brennenman and M. Kerf, "Infrastructure & Poverty Linkages, A Literature Review." *The 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*, Volume 19, Issue 8, pages 894–905, August 2014. Miguel Kremer and Alix Peterson Zwane (2007), "What Works in Fighting Diarrheal Diseases in Developing Countries? A Critical Review," *CID Working Paper 140*, March 2007.

<sup>16</sup> INEI, 2016 ([link](#)).

<sup>17</sup> INEI, 2016 ([link](#)).

<sup>18</sup> See [link](#).

<sup>19</sup> SUNASS is a decentralized public agency created by Decree Law 25965 attached to the Office of the President of the Council of Ministers, with its own legal status and administrative, functional, technical, economic, and financial autonomy. Its function is to determine, regulate, supervise, and audit the provision of sanitation services and to be impartial and objective in defending the interests of the State, investors, and users.

<sup>20</sup> There are 49 EPSs in the country, in addition to the Water and Sewer Service of Lima (SEDAPAL).

<sup>21</sup> "Communal organizations" are freely elected by the communities for the purpose of administering, operating, and maintaining rural W&S services in one or more population centers.

<sup>22</sup> This represents a sharp constraint in creating management units with economies of scale, as the vast majority of water supply systems for each locality are independent.

<sup>23</sup> IDB, 2014.

Technical Area (ATM) is a municipal line agency responsible for monitoring, supervising, and providing technical assistance to the JASSs, with a view to making W&S services sustainable. The Regional Housing, Construction, and Sanitation Departments (DRVCS) of the regional governments, for their part, supervise and provide technical assistance to the ATMs.

- 1.6 **Rationale and proposed interventions.** Despite Peru's efforts in recent years, major investments<sup>24</sup> are still needed to meet the challenges of achieving universal coverage of W&S services, and for this reason the national government plans to target those investments on places where the gaps are greatest.
- 1.7 This operation will finance interventions to increase the coverage of W&S services, improve their quality through greater efficiency and better operational management of the service providers, support institutional strengthening, and undertake health and environmental education activities. These interventions will improve environmental conditions (reducing pollution through appropriate sanitation solutions) and health conditions (providing access to drinking water and better hygiene conditions in households) for the beneficiary population.
- 1.8 The PNSR of the MVCS has a portfolio of 892 rural W&S projects. To ensure that the program can be implemented quickly and can enhance coverage for the greatest possible number of people, 100 projects have been prioritized as part of this program, based on the following criteria: (i) they have technical files<sup>25</sup> that have been officially approved or are in the process of being approved, and (ii) they have the objective of expanding service to help close the gaps.
- 1.9 The program will also include measures to guarantee planned access to reliable, efficient, and sustainable W&S services, promoting their proper and hygienic use. The program will include institutional strengthening measures that will allow the JASSs to handle system AOM adequately and ensure that the ATM and the DRVCS provide the required support. Lastly, health and environmental education activities will encourage community ownership of the systems and their proper use.
- 1.10 **Evidence of effectiveness.** In the case of Peru, as in similar contexts, there is a positive relationship between W&S accessibility and health.
- 1.11 **Bank knowledge of the sector.** The Bank has wide knowledge of the rural W&S sector in the region and in Peru. In rural areas, it is implementing the Program to Improve and Expand Water and Sanitation Services in Peru (GRT/WS-12127-PE) ([optional electronic link 8](#)) in the amount of US\$320 million, of which US\$72 million is provided by a grant from the Spanish Cooperation Fund for Water and Sanitation in Latin America and the Caribbean, and US\$248 million comes from local resources. As of September 2017, this program has yielded the following results: 201 rural projects completed, 69 works in execution, 63 works to commence by December 2017, and another eight by January 2018. The program is expected to

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<sup>24</sup> According to the National Sanitation Plan 2014-2021 of the MVCS, investments of US\$7 billion will be needed to close the gap in rural areas alone ([link](#)).

<sup>25</sup> Engineering documents ready for tendering.



end in September 2018, with 341 projects providing W&S services to 419 rural communities and approximately 140,000 individuals.<sup>26</sup>

- 1.12 **Lessons learned.** The design of the program took into account the lessons learned from previous Bank experience with the GRT/WS-12127-PE program, such as: (i) the design of basic sanitary units<sup>27</sup> (BSU) can be improved; (ii) the “local execution unit” (*núcleo ejecutor*) approach to execution (paragraph 3.3) is an appropriate model for rural project execution by the beneficiary population that can reduce costs and execution times, and will help create a stronger sense of ownership of infrastructure by the community; (iii) the JASSs and ATMs have limited AOM capacities for managing the systems properly, which limits the technical, financial, and management sustainability thereof; and (iv) the proper use of W&S systems poses a challenge for all beneficiaries. Consequently, the design of this program takes into account: (i) optimizing the design of BSU solutions, while maintaining the quality of infrastructure and the level of service and reducing costs and execution times; (ii) the use of the “local execution unit” execution modality and the strengthening thereof, reinforcing the role of the beneficiary population in the execution of the works and creating incentives for the ownership thereof; (iii) support for the JASSs and ATMs during execution (with the involvement of the contractor for system operation together with the JASS for three months, once the works are completed) and after construction (with the contracting of a company to strengthen AOM of the systems after six months of operation exclusively under the JASS) to promote sustainability of the systems; and (iv) environmental and health education activities to help beneficiaries assert ownership and make proper use of the systems (conservation of the source, payment of rates, proper use of the BSUs, handwashing, etc.) ([optional electronic link 6](#)).
- 1.13 **Technical cooperation operation ATN/MA-16135-PE.** The purpose of this technical cooperation operation is to provide operational and technical support to the MVCS in the preparation and initial execution of this program. These resources will help update and supplement the investment studies and other necessary studies in the context of the Peruvian public investment system “Invierte.pe.”<sup>28</sup> In addition, it will finance measures to strengthen the management of the MVCS and the municipalities, as well as the development of the program’s management instruments.
- 1.14 **Government policy.** The program is aligned with the National Drinking Water and Sanitation Plan 2017-2021,<sup>29</sup> and with the main objective of the country’s National Drinking Water and Sanitation Policy,<sup>30</sup> which seeks to “achieve universal and sustainable coverage through the expansion and improvement of coverage and the efficiency with which water, sanitation, and wastewater treatment services are

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<sup>26</sup> Other recent studies include the preparation of an experimental impact assessment (baseline survey) in small rural communities of Bolivia, dealing with the impact of access to drinking water and sanitation services ([link](#)).

<sup>27</sup> BSU refers to an individual solution (either dry or wet) that consists of a toilet, a shower, and a multiuse wash basin and the elements necessary for adequate disposal of wastes generated (wastewater, excreta, or urine).

<sup>28</sup> See [link](#).

<sup>29</sup> See [link](#).

<sup>30</sup> See [link](#).

provided.” In this regard, the Government of Peru has set the goal of achieving universal coverage by 2021 in urban areas, and by 2030 in rural areas.

- 1.15 **Bank strategy with the country and strategic alignment.** The operation is consistent with the IDB Group Country Strategy with Peru (2017-2021) (document GN-2889) by contributing to the strategic objective of improving access to and quality of W&S service, through the indicators of (i) drinking water service coverage in rural areas, and (ii) basic sanitation service coverage in rural areas. The program is consistent with the Update to the Institutional Strategy 2010-2020 (document AB-3008) and is aligned with the development challenge of social inclusion and equity, as it will improve health and environmental conditions in approximately 100 rural population centers, and will help to close the coverage gap between urban and rural areas. The program is also aligned with the crosscutting areas of: (i) gender equality; and (ii) climate change and environmental sustainability, by fostering women’s participation in project execution (“local execution units”) and in the AOM of water systems, and by improving systems for the capture, storage, and distribution of drinking water and the protection of the quality of bodies of water. Approximately 10.37% of funds from the operation will be invested in climate change adaptation activities, using the [joint methodology of the multilateral development banks for estimating climatic finance](#). These resources will contribute to the IDB Group’s target of increasing financing for climate change-related projects to 30% of all operation approvals by the end of 2020. In addition, the program will contribute to the Corporate Results Framework (CRS) 2016-2019 (document GN-2727-6) through the indicators of: (i) households with new or upgraded access to drinking water, and (ii) households with new or upgraded access to sanitation. The program is aligned with the IDB Infrastructure Strategy: Sustainable Infrastructure for Competitiveness and Inclusive Growth (document GN-2710-5), as it will help to: (i) promote access to infrastructure services; and (ii) support construction and maintenance of socially and environmentally sustainable infrastructure. The operation is also consistent with the dimensions for success of the Water and Sanitation Sector Framework (document GN-2781-3) relating to universal access and improved quality of service, efficient and sustainable management, and social and environmental sustainability.
- 1.16 **Compliance with the Public Utilities Policy (document GN-2716-6).** The proposed program and the national sector objectives are consistent with the principles of the Public Utilities Policy (document GN-2716-6), and they satisfy the conditions of financial sustainability and economic evaluation, as the residential user rates included in the technical files of the program’s projects (paragraph 1.30) ensure that the JASSs will generate sufficient funds to meet the operating and maintenance costs of the systems associated with the operation. In addition, the works to be financed under the program are viable from the socioeconomic viewpoint (paragraph 1.29). For the projects outside the sample, the corresponding eligibility criteria are included to ensure compliance with the conditions of that policy (paragraph 3.5) ([optional electronic link 7](#)).
- B. Objectives, components, and cost**
- 1.17 **Objectives.** The general objective of the program is to improve sanitary and environmental conditions in priority rural areas of the country, by reducing the gap in coverage of W&S services. The specific objectives of the program are: (i) to

- expand the coverage of W&S services in rural communities; (ii) to promote sustainable management of the services by strengthening the DRVCS, ATMs, and JASSs; (iii) to promote the proper use of services through health and environmental education for beneficiary families; and (iv) to support the MVCS in its regulatory, planning, and technical assistance functions as they relate to water and sanitation.
- 1.18 **Components.** To achieve its objective, the program will be structured in two components:
- 1.19 **Component 1. Drinking water and sanitation projects (US\$114.5 million).** The objective is to expand the coverage of W&S in rural population centers and generate conditions of sustainability for the systems constructed. It comprises two subcomponents:
- 1.20 **Subcomponent 1.1.** W&S studies and works. This will finance: (i) final studies, (ii) potable water works,<sup>31</sup> (iii) sanitation works,<sup>32</sup> and (iv) works supervision.
- 1.21 **Subcomponent 1.2.** Social intervention and service management. This will finance: (i) regularization and training for the JASSs in AOM; (ii) institutionalizing the ATMs and training them in AOM; (iii) health and environmental education activities for the beneficiary population; (iv) supervision of the social intervention and service management;<sup>33</sup> and (v) establishment and training of local execution units.
- 1.22 This component is expected to equip around 100 rural communities with drinking water supply systems and individual sanitation solutions, thereby benefiting some 10,000 households. The skills and capacities of around 100 JASS and 63 ATMs will be upgraded and strengthened, 20 local execution units will be established and strengthened, and 15,000 people will be trained.
- 1.23 **Component 2. Managing service sustainability and strengthening sector entities (US\$6.3 million).** The objective here is to ensure the sustainability of the systems constructed. To this end, the component will finance the following activities: (i) operational and management outfitting of the JASSs;<sup>34</sup> (ii) strengthening the skills<sup>35</sup> and equipment<sup>36</sup> of the ATMs; (iii) strengthening the skills of the DRVCS<sup>37</sup> and the PNSR;<sup>38</sup> (iv) assistance with technical operation of the water systems<sup>39</sup> and

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<sup>31</sup> Includes training, water purification, conveyance, distribution, storage, and household connections.

<sup>32</sup> Includes construction of basic sanitation units (BSU).

<sup>33</sup> Includes health and environmental education activities with families, and management of the service with the JASSs and ATMs.

<sup>34</sup> Includes procurement of equipment, furnishings, and tools for AOM.

<sup>35</sup> Preparation and implementation of operating manuals (guides, protocols, and regulations) for technical assistance and monitoring of the JASS.

<sup>36</sup> Includes the procurement of equipment and tools for technical assistance and monitoring of the JASSs.

<sup>37</sup> Preparation and implementation of operating manuals (guides, protocols, and regulations) for technical assistance and monitoring of the ATMs.

<sup>38</sup> Includes the design of a dashboard for managing PNSR programs, updating the intervention model in rural areas, and preparing regulations, instruments, and procedures for institutionalizing it, update of a methodology for calculating and applying the household user charge, training for personnel in project management, and systematizing and reporting the baseline for rural systems.

<sup>39</sup> Includes the operation of systems by the works contractor together with the corresponding JASS, for up to three months following provisional acceptance of the works.

monitoring and consolidation of sustainability;<sup>40</sup> and (v) design and implementation of the program's communication plan. As a result, it is expected that approximately 100 population centers will have sustainable W&S service over the medium and long terms.

- 1.24 **Administration, evaluation, and external audit (US\$5.2 million).** This includes the expenses of the program's executing agency, external audit, and midterm and final evaluations.
- 1.25 **Cost and financing.** The total cost of the program is US\$126 million, of which US\$100 million will be financed by the Bank from the Ordinary Capital, and US\$26 million from the local contribution ([optional electronic link 10](#)).

**Table 1.1. Program cost (US\$ million)**

Components	IDB	Local	Total	%
Component 1. W&S projects	94.3	20.2	114.5	90.9
Subcomponent 1.1. W&S studies and works	87.9	18.8	106.8	84.7
Subcomponent 1.2. Social intervention and service management	6.4	1.4	7.8	6.2
Component 2. Managing service sustainability and strengthening sector entities	5.1	1.2	6.3	5.0
Program administration	0.1	4.5	4.6	3.7
Evaluation and external audit	0.5	0.1	0.6	0.5
<b>Program total</b>	<b>100.0</b>	<b>26.0</b>	<b>126.0</b>	<b>100.0</b>

### C. Key results indicators

- 1.26 The main outcomes of the program are associated with reducing gaps in access to W&S in rural areas and promoting the sustainability of services (see Annex II).

**Table 1.2. Key indicators**

Name of the outcome indicator	Unit of measure	Baseline	Outcome target
Households in rural communities with access to safe water	Households	0	10,000
Households in rural communities with access to safe sanitation	Households	0	10,000
JASSs whose operating revenues cover their AOM costs	Percentage	0	90*

\* In the event the JASSs do not cover all the operating costs with operating revenues, the municipalities will agree to adopt the necessary measures, acceptable to the Bank, to ensure the financial sustainability of these operators. This obligation will be included in the respective interagency cooperation agreements (paragraph 3.10).

<sup>40</sup> Includes evaluation and necessary adjustments by a specialized firm to ensure sustainable operation of the systems for up to three months, and again after six months of operation by the JASSs.

- 1.27 The program is expected to benefit 100 rural population centers, representing around 10,000 households with safe access to W&S.
- 1.28 **Technical viability.** The W&S works to be included in the program will be defined on the basis of feasibility studies and final designs that will allow them to be put to tender following approval by the PNSR. All the studies and designs will be done in accordance with current national standards and generally accepted international engineering principles. In each case, the solution adopted will represent the least-cost alternative that is technically viable and that is agreed upon by the local population. The program's Operating Manual will define the procedures to be followed by the execution units. The IDB team reviewed a representative sample of pre-investment projects for W&S systems ([optional electronic link 2](#)). The technical feasibility of the solutions has been adequately demonstrated for the majority of the designs, and agreements have been reached with the counterparties to improve and revise some of the works before they are put to tender.
- 1.29 **Economic viability.** The program will be developed as a multiple works program for drinking water and sanitation. For the drinking water works, a cost-benefit analysis was performed on a representative sample of 44 projects, of which 77% are deemed economically viable with an economic internal rate of return (EIRR) of between 12% and 31%. The projects found not viable will have their technical solutions revised. The user rate charged for the drinking water systems included in the program varies between S/ 1.56 and S/ 12.23 per month (US\$0.50 and US\$3.70) per connection. Based on information from the financial analyses, and average rural incomes in Peru, the rates associated with the systems to be financed under the program represent on average 0.7% of monthly family income, which is deemed acceptable ([optional electronic link 1](#)). For the sanitation projects a cost-effectiveness analysis was performed on a representative sample of 45 projects. At least two alternatives for each BSU project were considered, and they vary according to the materials to be used. The effectiveness indicator used was the number of beneficiaries of the BSU. The costs considered in the water and sanitation projects are the social costs of investment and of AOM. For the sanitation projects that were not evaluated, a cost-effective analysis of the alternatives will be performed, and the most cost-effective one will be selected. Both analyses were supplemented with a sensitivity analysis, confirming that the results are robust ([optional electronic link 1](#)).
- 1.30 **Sustainability of the investments.** The financial viability analysis covered a representative sample of projects that include existing JASSs eligible to receive financing under the program. The financial viability analysis found that the residential rates established in those JASSs will cover the AOM costs of the project's systems. In each case, the monthly billing was found to fall within the ability-to-pay parameters considered by the World Health Organization and the Pan American Health Organization, which set a ceiling for water service payments of between 3% and 5% of family income. It was also confirmed that, in the cases analyzed, meetings have been held with the local population in which the beneficiaries committed to making the monthly payments that will finance the AOM costs of the water and sanitation systems. In addition, program resources (paragraphs 1.21 and 1.23) will finance activities to strengthen the operational and financial sustainability of the JASSs and will allow the ATMs to provide suitable technical assistance to the JASSs ([optional electronic link 4](#)). It will be a condition that the interagency cooperation agreements

- to be signed between the municipalities and the MVCS include a requirement that the operating revenues of the respective JASSs be sufficient to cover their AOM costs and that, if this is not the case, the municipalities will take the necessary measures (acceptable to the Bank) to ensure the financial sustainability of those operators. During the post-construction period, to ensure that the JASSs perform their AOM functions properly, the works contractors are expected to assist with operation for up to three months and perform monitoring and other activities to consolidate sustainability (paragraph 1.23).
- 1.31 The projects in the sample have defined and budgeted for health education activities geared toward the entire beneficiary population. The objective here is to generate conditions for sustainability and proper use of the infrastructure constructed. Those activities represent, on average, 5% of the total infrastructure cost, and will be implemented in the three phases of the project cycle (before, during, and after the works). Before the works begin, activities will be pursued to raise community awareness about the project, to verify the user registry, and to assess the situation of the beneficiary population. During execution of the works, educational sessions will be held on citizen oversight and transparency, functions and responsibilities of the JASSs, and healthy households and surroundings; workshops on payment and establishment of a reserve for the JASS, and a monthly household charge to maintain service sustainability; meetings to approve and sign commitments to contribute to the reserve and pay the monthly household charge; handwashing campaigns and radio and theater skits promoting consumption of safe water consumption and care for the environment; demonstration sessions on operation and maintenance of the basic sanitation units; and home visits regarding storage, treatment, care, and rational use of water in the household. Prior to the definitive delivery of the works, refresher workshops will be held on timely payment of the user fee and reserve contribution; education sessions on rights, obligations, and penalties established in the JASS regulations; information meetings on implementation of the W&S system in the community; and the completion of works execution. Lastly, once the works are executed, meetings, home visits, and education and demonstration sessions will be held to reinforce the issues previously addressed. All these activities will be conducted for both execution modalities (paragraph 3.3) ([optional electronic link 5](#)).
- 1.32 With respect to gender, a sample of 30,595 existing JASSs was analyzed, and it was found that only 45% have at least one woman on their board. This percentage is particularly low in light of the Ministerial Resolution (RM-205-2010 Vivienda) requiring that JASSs have at least two women on their boards. The composition of the 181 existing local execution units was also analyzed, and it was found that 26% of their members are women. To promote women's participation on these decision-making bodies, the social intervention strategy will include workshops on participation and leadership specifically targeting women. In addition, all health education and strengthening activities for the JASSs will have a gender approach, encouraging significant participation by women in training activities.
- 1.33 **Institutional viability.** The expanded ICAS assessment of the executing agency indicates a satisfactory level of development and low risk, a finding that is consistent with its experience and knowledge (paragraph 1.11) of the Bank's fiduciary policies. In projecting its capacities for this program, the PNSR will be strengthened in its structure with a specific execution team for this program (paragraphs 3.1 and 3.2),



which will assume responsibilities for programming, financial, technical, and operational management, monitoring, and evaluation of the program ([optional electronic link 3](#)).

## II. FINANCING STRUCTURE AND MAIN RISKS

### A. Financing instruments

- 2.1 **Modality.** This loan has been designed under the multiple works modality, as the program calls for independent but physically similar projects that can be put into operation on an individual basis, and that will meet eligibility and prioritization criteria. It includes a representative sample for evaluation and execution. The execution period will be four years as of the effective date of the loan contract. The disbursement schedule is shown in the following table.

**Table II.1. Disbursement schedule (US\$ million)**

Source	Year 1	Year 2	Year 3	Year 4	Total
IDB	14.0	30.0	29.0	27.0	100.0
Local contribution	5.0	7.0	8.0	6.0	26.0
Total	19.0	37.0	37.0	33.0	126.0
%	15.1	29.4	29.4	26.1	100.0

- 2.2 **Representative sample.** The representative sample comprises investments in 45 localities, with an estimated value of US\$50 million (or 50% of the total investment). As this is a multiple works program, eligibility and prioritization criteria have been established (paragraph 3.5), applicable to projects in the sample and other projects to be financed under the program.
- 2.3 As there are 45 projects with approved technical files that could be put to tender as soon as the loan contract is signed, the program's execution period has been set at four years. In addition, the executing agency is successfully executing the GRT/WS-12127-PE operation, and this will facilitate the fiduciary and works construction processes.

### B. Environmental and social risks

- 2.4 Pursuant to the Bank's Environment and Safeguards Compliance Policy (Operational Policy OP-703), the program has been classified as a category B operation, as it will generate some localized adverse socioenvironmental impacts for which mitigation measures are readily available. It is expected that the W&S solutions to be financed will enhance the quality of life of residents in rural areas of Peru. An environmental and social analysis has been prepared, including an environmental and social management plan (ESMP), containing mitigation measures for the impacts and risks<sup>41</sup> identified for the projects in the representative sample. In addition, as this is a multiple works loan, an Environmental and Social

<sup>41</sup> All the risks identified are low-level.

Management Framework (ESMF) has been prepared to ensure that the environmental and social management of future projects under the operation will comply with the Bank's environmental and social safeguards. The due diligence work found no need for physical displacement or any impacts relating to the Involuntary Resettlement Policy (Operational Policy OP-710) requiring the preparation of resettlement plans.

- 2.5 The executing agency has conducted meaningful consultations on all projects in the sample, as required by Bank Operational Policies OP-703 and OP-765, for which there is a social report that spells out the methodology used and includes all of the following annexes: description of the activities and workshops conducted by the consulting firm responsible for studies, attendance lists, minutes of meetings with agreements on the commitments assumed under the PNSR (including benchmarks for the technical option and payment of household user fees) and actions to be pursued in subsequent phases (execution and post-execution). The consultations have been posted on the Bank's website.
- 2.6 The environmental and social analysis, the Environmental and Social Management Plan ([optional electronic link 13](#)) and the Environmental and Social Management Framework ([optional electronic link 14](#)) were posted on the Bank's website prior to the analysis mission. The final versions were published on the Bank's website before distribution to the Bank's Board of Executive Directors.

#### **C. Fiduciary risks**

- 2.7 The fiduciary analysis identified a risk with respect to the timing and quality of accountability reports to the Bank, given the fact that execution is decentralized in the program intervention departments through the local execution units. Another risk was also identified, relating to greater costs and time requirements for implementing the program. To mitigate those risks (which were designated as medium), mitigation measures were established, involving the training of personnel for the local execution units and the preparation of the program Operating Manual, which will include specific guidelines for the local execution units in order to facilitate financial management in program execution. The Bank is also expected to provide assistance and support to the executing agency on fiduciary matters.

#### **D. Other project risks**

- 2.8 Risks with respect to development (high) and public management and governance (medium) were also identified. The development risk is related to inadequate AOM of the systems constructed; proposed mitigation measures include the incorporation of successful experiences with similar programs for reducing arrears in the payment of residential user rates, strengthening the capacities of the JASSs and ATMs, and post-construction support for the sustainability of the systems. The public management and government risks are related to: (i) delays in signing the loan contract, to be mitigated through monitoring and support for preparation of the background documents required by the Government of Peru for signing the loan contract, within the framework of Peru's public investment system; and (ii) delays in the start of execution of program projects, for which mitigation measures include involving the local authorities from the outset of the project cycle, mapping the validity of the agreements on delegation of powers by local governments to the ministry and defining procedures for updating them with the local and regional



governments, implementation of the social intervention strategy at the user level, updating of the works execution manual, and strengthening the ATMs within local governments.

### III. IMPLEMENTATION AND MANAGEMENT PLAN

#### A. Summary of implementation arrangements

- 3.1 **Borrower and executing agency.** The borrower will be the Republic of Peru. The executing agency for the program will be the PNSR of the MVCS, through a Program Management Unit (PIASAR PMU) which will be dedicated exclusively to this program and will have administrative and fiduciary autonomy. The PIASAR PMU will coordinate its activities with technical and administrative staff of the PNSR, including supervision in the field of the program's technical, social, and environmental activities ([optional electronic link 3](#)).
- 3.2 **Execution arrangements.** The executing agency, through the PIASAR PMU, will be responsible for technical, administrative, fiduciary, and operational execution of the program, including overall coordination and resource management. The PIASAR PMU will comprise a general coordinator, and a group of technical, environmental, administrative-financial, procurement, social, and planning specialists. The profiles of these specialists will be spelled out in the program Operating Manual, and their hiring will be subject to the Bank's no objection. The functions of the executing agency, through the PIASAR PMU, will include the following: (i) preparing and periodically updating the multiyear execution plan, the annual work plan, and the procurement plan; (ii) selecting works, goods, and consulting services; (iii) supervising works and monitoring execution and evaluation; (iv) financial management and presentation of the required financial reports to the Bank; and (v) preparation and updating of semiannual program reports and risk matrices ([optional electronic link 3](#)).
- 3.3 Projects under the current program will be executed under the modalities that were successfully used in the GRT/WS-12127-PE program ([optional electronic link 6](#)): (i) by firms contracted for works; and (ii) by the local execution units.<sup>42</sup> Projects for which the benchmark budget is less than 2.5 million soles<sup>43</sup> may be executed under the local execution unit modality,<sup>44</sup> as detailed in the guide for execution, post execution, payment for PNSR projects executed through the local execution units ([optional electronic link 12](#)).
- 3.4 **Program Operating Manual.** Program execution will be governed by the provisions of the program Operating Manual, which includes the following: (i) detailed execution

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<sup>42</sup> Pursuant to Legislative Decree 015-2014-VIVIENA, the local execution units (*núcleos ejecutores*) are collective legal entities comprising persons living in rural communities or in the countryside, poor and extremely poor, included within the area of responsibility of the MVCS and/or its programs, who undertake efforts to improve rural housing, rural sanitation, market facilities, or productive infrastructure. The local execution units represent an organized population, they are temporary in nature, they enjoy legal capacity to contract, to intervene in administrative and judicial proceedings, and in all acts for the development of the respective projects, and they are governed for such purposes by the standards applicable to the private sector.

<sup>43</sup> Approximately US\$764,000.

<sup>44</sup> Law 30533 of 1 January 2017.

arrangements; (ii) institutional roles and responsibilities of the entities involved; (iii) intervention strategy for the various phases of the project cycle; (iv) rules and procedures for selecting and contracting works, goods, services, and consultants; (v) fiduciary processes for financial management and procurement, as well as rules and procedures for administrative and financial management, considering the guidelines on accountability and payment for the PNSR local execution units; (vi) application of mitigation measures for environmental and social risks; (vii) monitoring procedures; (viii) specific environmental and social management plans for the projects; (ix) guidelines for the Environmental and Social Management Analysis and the ESMF; and (x) environmental eligibility criteria for the selection of projects under the program ([optional electronic link 9](#)).

- 3.5 **Eligibility and prioritization criteria.** Eligible projects will meet the following criteria: (i) they will have a legally established JASS; (ii) they will have a document demonstrating acceptance by the community of a residential user fee that will cover the AOM costs of the systems to be constructed; (iii) they will be viable from the socioeconomic, legal, technical, social, environmental, and financial perspectives; (iv) they will benefit rural communities with between 201 and 2,000 inhabitants; and (v) they will not be classified as environmental category “A” operations under the Bank’s Operational Policy OP-703, and they will not include involuntary resettlement. Projects will be prioritized on the basis of shortfalls in coverage and levels of poverty.
- 3.6 **Program execution plan.** Program activities will follow a schedule implemented by means of the multiyear execution plan (MEP), and their annual review will be based on the AWP. The MEP contains details equivalent to the AWP for each year of execution. However, it will be amended each year to reflect the program’s actual progress. The annual reviews of the MEP will be forwarded to the Bank ([required electronic link 1](#)).
- 3.7 **Fiduciary agreements and requirements (see Annex III).** These establish the framework for financial management and planning as well as for supervision and procurement execution for the project. Loan proceeds may be disbursed as advances, as reimbursement of expenditures, and as direct payments to suppliers. In the case of advances, disbursements will be based on projected expenses for up to 240 days, initially, and this term may be shortened later to 180 days if there are no delays in the submission of information relating to prepayments on the part of the local execution units. A new disbursement will only be made when at least 80% of the cumulative total of previous disbursements has been accounted for. The executing agency will present audited annual and final financial statements for the program, respecting the terms and time limits required by Bank policies. The executing agency undertakes to select and contract an independent audit firm acceptable to the Bank, for the duration of the project.
- 3.8 **Procurement plan.** This contains details on program procurement, which will be conducted in accordance with the Policies for the procurement of works and goods 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), and describes: (i) the contracts for works, goods, and consulting services required to carry out the program; (ii) the methods proposed for contracting goods and selecting consultants; and (iii) the procedures applied by the Bank for reviewing contracts. The

executing agency will update the procurement plan annually, or as the program requires. Any proposed amendment to the procurement plan will be submitted to the Bank for its approval ([required electronic link 4](#)).

- 3.9 **Special contractual conditions precedent to the first loan disbursement. In accordance with terms and conditions previously agreed with the Bank, (i) the program Operating Manual will have been approved and put into effect by the executing agency and (ii) the executing agency will have selected the following key personnel for launch of the program: a coordinator and technical, administrative-financial, procurement, institutional, social management, and environmental management specialists.** These conditions are considered fundamental for ensuring that the borrower will be ready to commence program execution with a minimum of staff selected from within the executing agency, and with a program Operating Manual that describes detailed guidelines on operational and coordination considerations.
- 3.10 **Special contractual conditions for execution.** Prior to awarding the works, or prior to signing the financing agreements with the local execution units, evidence will be provided that: (i) rights or authorizations have been obtained for use of the lands needed for the respective project works, and that those rights or authorizations have been obtained pursuant to applicable national and local legislation; and (ii) an interagency cooperation agreement has been signed between the municipalities and the MVCS for the AOM of the program's drinking water systems, in accordance with terms and conditions previously agreed with the Bank. These conditions are included to ensure that the necessary lands are available before the works begin, and that the necessary institutional arrangements are in place between the various entities participating in the program, in order to guarantee proper execution and AOM of the drinking water systems.
- 3.11 **Administration, operation, and maintenance (AOM).** The borrower, through the executing agency, undertakes: (i) to ensure that the works and equipment included in the program are properly maintained in accordance with generally accepted technical standards; and (ii) to present to the Bank, during the five years following completion of the first of the program works, and within the first quarter of each calendar year, a report on the status of those works and equipment, and the annual maintenance plan for that year. If the inspections performed by the Bank, or the reports that it receives, show that maintenance is falling short of the agreed levels, the borrower, through the executing agency, will take the steps necessary to fully correct the shortcomings.

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

- 3.12 **Monitoring.** The executing agency will prepare reports on progress and outcomes of the activities under its responsibility. The monitoring arrangements will include: (i) the procurement plan, (ii) the multiyear execution plan, (iii) annual work plans, (iv) annual verification that the targets established in the Results Matrix have been met, and (v) semiannual reports containing: (a) activities performed, progress with their execution, problems encountered, and solutions adopted; (b) evaluation of the results matrix, procurement plan, annual work plan, and risks matrix; and (c) analysis of project monitoring reports, including an evaluation of fulfillment of the indicator targets and planning for the following six months ([required electronic link 2](#)).

- 3.13 **Evaluation.** The following program evaluations will be contracted: (i) a midterm evaluation, which will be presented within 90 days after the date on which 50% of the funds has been disbursed, or after 30 months of execution, whichever occurs first; and (ii) a final evaluation, within 90 days after the date on which 90% of the loan proceeds has been disbursed. The proposed evaluation methodology will be “before and after,” with measurement of the project’s baseline outcome indicators following implementation of the interventions in each municipio, and a comparison of measurements to determine the achievement of the targets. In addition, an ex post economic evaluation will be performed, taking into account the model developed on an ex ante basis, but with possible adjustments as detailed in the Monitoring and Evaluation Plan ([required electronic link 2](#)). The evaluation report will be part of the Project Completion Report.

Development Effectiveness Matrix		
Summary		
I. Corporate and Country Priorities		
1. IDB Development Objectives	Yes	
Development Challenges & Cross-cutting Themes	-Social Inclusion and Equality -Gender Equality and Diversity -Climate Change and Environmental Sustainability	
Country Development Results Indicators	-Households with new or upgraded access to drinking water (#)* -Households with new or upgraded access to sanitation (#)*	
2. Country Development Objectives	Yes	
Country Strategy Results Matrix	GN-2889	Improve access to and quality of water and sanitation service.
Country Program Results Matrix		The intervention is not included in the 2017 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
II. Development Outcomes - Evaluability		
3. Evidence-based Assessment & Solution	Evaluable	
3.1 Program Diagnosis	8.3	
3.2 Proposed Interventions or Solutions	3.0	
3.3 Results Matrix Quality	4.0	
3.3 Results Matrix Quality	1.3	
4. Ex ante Economic Analysis	10.0	
4.1 The program has an ERR/NPV, a Cost-Effectiveness Analysis or a General Economic Analysis	4.0	
4.2 Identified and Quantified Benefits	1.5	
4.3 Identified and Quantified Costs	1.5	
4.4 Reasonable Assumptions	1.5	
4.5 Sensitivity Analysis	1.5	
5. Monitoring and Evaluation	6.4	
5.1 Monitoring Mechanisms	2.5	
5.2 Evaluation Plan	3.9	
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood	Medium	
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	
Environmental & social risk classification	B	
IV. IDB's Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury, Accounting and Reporting, External Control, Internal Audit.  Procurement: Information System, Price Comparison, National Public Bidding.
Non-Fiduciary		
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Gender Equality		
Labor		
Environment		
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	Technical Cooperation ATN/MA-16135-PE has the objective to provide operational and technical support for the preparation and initial execution of the program.
The ex-post impact evaluation of the project will produce evidence to close knowledge gaps in the sector that were identified in the project document and/or in the evaluation plan		

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

The objective of the Comprehensive Rural Water and Sanitation Program -PIASAR- is to improve the health and environmental conditions of prioritized rural areas in the country, by reducing the coverage gap of water and sanitation services. The program finances the construction or improvement of drinking water systems, construction of latrines, preparation of studies of water and sanitation projects, and training and capacity building activities.

The project presents a cost-benefit analysis that supports the economic viability of the proposed activities in a sample of projects. The vertical logic presented in the loan proposal is consistent with the indicators presented in the results matrix, and includes indicators for the main outputs and intermediate outcomes. Output indicators meet SMART criteria and include baseline values and targets, as well as the sources and means of verification that will be used to measure them. Although no final impact indicators are proposed, the program monitors intermediate outcomes related to access and use of water and sanitation systems.

The Executing Agency will be responsible for carrying out the evaluation activities agreed in the Evaluation Plan, including data collection, processing and analysis, as well as progress reporting. The program does not include an impact evaluation to measure the causal effects of the program. The final evaluation will include an ex-post cost-benefit analysis.

## RESULTS MATRIX

Project Objective	The general objective is to improve sanitary and environmental conditions in priority rural areas of the country, by reducing the gap in coverage of water and sanitation (W&S) services.									
OUTCOMES										
Outcome 1. Greater access to safe water in rural communities										
Expected outcomes	Unit of measure	Base-line	Baseline year	Year 1	Year 2	Year 3	Year 4	Target	Means of verification	Observations
Households in rural communities with access to safe water <sup>1</sup>	Households	0	2017	0	0	5,000	5,000	10,000	Consultant's report for strengthening sustainability, based on surveys of the JASSs <sup>2</sup>	Includes only households in the program communities
Outcome 2. Greater access to safe sanitation in rural communities										
Expected outcomes	Unit of measure	Base-line	Baseline year	Year 1	Year 2	Year 3	Year 4	Target	Means of verification	Observations
Households in rural communities with access to safe sanitation <sup>3</sup>	Households	0	2017	0	0	5,000	5,000	10,000	Consultant's report for strengthening sustainability, based on surveys of the JASSs	Includes only households in the program communities
Households in rural communities using BSU constructed by the program	Percentage	0	2017	0	0	0	80	80	Consultant's report for strengthening sustainability, based on surveys of a sample of the beneficiary population	Includes only households in the program communities

<sup>1</sup> According to the [Sustainable Development Goals](#), "safely managed" drinking water services include improved sources located on the premises, available when needed, and free of fecal and other contaminants.

<sup>2</sup> The consulting firm will perform the strengthening work six months after delivery of the systems to 80 JASSs. For the remaining systems (20) not included in the consultant's sustainability strengthening work at the end of the program, the consultant will conduct an information survey to compile the data needed for the report on outcome indicators and necessary outputs.

<sup>3</sup> According to the [Sustainable Development Goals](#), "safely managed" sanitation systems include improved facilities, not shared with other households, where excrement is adequately disposed of on-site, or transported and treated off-site.

Outcome 3. W&S service providers and institutions strengthened for sustainable management of W&S systems										
Expected outcomes	Unit of measure	Base-line	Baseline year	Year 1	Year 2	Year 3	Year 4	Target	Means of verification	Observations
Water systems functioning in accordance with technical design specifications <sup>4</sup>	Percentage	0	2017	0	0	90	90	90	Consultant's report for strengthening sustainability, based on the report of the JASS operations	Includes only program systems
JASSs whose operating revenues cover AOM costs	Percentage	0	2017	0	0	0	90	90	Financial reports of the JASSs	On all the JASSs in the program
Rural systems constructed by the program with annual monitoring of service indicators by the MVCS	Percentage	0	2017	0	0	80	80	80	Questionnaire on rural W&S supply and final report of the MVCS	
JASSs with at least two women on their boards <sup>5</sup>	Percentage	0	2017	0	0	100	100	100	Documents establishing the JASSs	On all the JASSs in the program
Local execution units) with at least one woman in their organizational structure <sup>6</sup>	Percentage	0	2017	0	100	100	0	100	Documents establishing the local execution units	On all the local execution units in the program

<sup>4</sup> Water Quality Regulation DS031-2010-SA-DIGESA, technological guidelines for water supply for human consumption in rural areas RM173-2016-Vivienda.

<sup>5</sup> According to RM205-2010-Vivienda.

<sup>6</sup> Law 50533.

OUTPUTS											
Component I: Drinking water and sanitation projects											
Outputs	Estimated cost (US\$)	Outcome to which it contributes	Unit of measure	Base-line	Year 1	Year 2	Year 3	Year 4	Final target	Means of verification	Observations
Final studies of W&S projects prepared	1,596,808	1, 2	Studies	0	100	0	0	0	100	Approval of the study by the execution unit	
Drinking water systems constructed or improved in rural communities	43,204,618	1	Systems	0	0	20	60	19	99	Certificate of acceptance of the works	
Basic Sanitary Units (BSU) constructed in rural communities	61,932,087	2	BSU	0	0	2,000	6,000	2,000	10,000	Certificate of acceptance of the works	
JASSs trained to administer, operate, and maintain the W&S services	2,835,487	3	JASS	0	0	20	60	20	100	Final report of the social management consultant, based on proceedings of the training workshops with the JASSs	
<i>Milestone. Training workshops held for the JASSs on AOM and legal considerations</i>		3	Workshops	0	0	100	300	100	500	Final report of the social management consultant, based on proceedings of the training workshops with the JASSs	There will be five workshops per JASS
<i>Milestone. Workshops held for women on leadership and participation</i>		3	Workshops	0	0	20	60	20	100	Final report of the social management consultant, based on proceedings of the training workshops with the JASSs	There will be one workshop per JASS
ATMs trained to provide technical assistance to JASSs	1,665,286	3	ATM	0	0	20	42	0	62	Final report of the social management consultant, based on proceedings of the training workshops with the ATMs	



Outputs	Estimated cost (US\$)	Outcome to which it contributes	Unit of measure	Base-line	Year 1	Year 2	Year 3	Year 4	Final target	Means of verification	Observations
Persons trained in health education and use of W&S services <sup>7</sup>	2,793,291	3	Persons	0	0	3,000	9,000	3,000	15,000	Final report of the social management consultant, based on attendance at courses and workshops	1.5 persons per household on average are expected to be trained
Local execution units <sup>8</sup> trained in project management and administration	455,801	3	Local execution units	0	15	17	0	0	32	Final report of the social management consultant, based on proceedings of the training workshops with the local execution units	-
<b>Component II: Managing service sustainability and strengthening sector entities</b>											
Outputs	Estimated cost (US\$)	Outcome to which it contributes	Unit of measure	Base-line	Year 1	Year 2	Year 3	Year 4	Final target	Means of verification	Observations
JASSs equipped for proper AOM <sup>9</sup>	492,691	3	JASS	0	0	20	60	20	100	Deed transferring the equipment	
ATMs strengthened <sup>10</sup> to provide technical assistance to the JASSs	1,454,300	3	ATM	0	0	20	42	0	62	Report of the sustainability consultant and deed of transfer of the equipment by the executing agency	

<sup>7</sup> Health education and use of services includes care for the source, expanded water cycle including payment culture, and placing proper value on services.

<sup>8</sup> Representatives of the local execution units: President, Treasurer, Secretary, and Auditor.

<sup>9</sup> Includes procurement of equipment, furnishings, and tools for the AOM.

<sup>10</sup> ATMs are deemed strengthened when they are equipped with computers, motorcycles, chlorine measurement instruments, and operating manuals for technical assistance and monitoring of the JASSs.

Outputs	Estimated cost (US\$)	Outcome to which it contributes	Unit of measure	Base-line	Year 1	Year 2	Year 3	Year 4	Final target	Means of verification	Observations
DRVCS strengthened <sup>11</sup> to provide technical assistance to the ATMs	350,859	3	Institution	0	0		5	4	9	Consultant's report following development of the operating manuals	
PNSR strengthened <sup>12</sup> to provide technical assistance to the DRVCS and ATMs.	303,146	3	Institution	0	0	0	0	1	1	Consultant's report following development of the management instruments	
PNSR staff trained to provide technical assistance to the ATMs and the DRVCS	540,353	3	Persons	0	0	25	25	35	85	Certificate of training for PNSR staff	
Drinking water systems with technically assisted operation <sup>13</sup>	788,319	1	Systems	0	0	20	60	20	100	Certificate of acceptance of the works	
Drinking water systems with reinforced post-construction AOM <sup>14</sup>	2,000,000	1	Systems	0	0	0	40	40	80	Consultant's report based on evaluation documents for the adjustment and reinforcement systems and plans	
Design and implementation of the program communication plan	345,076	3	Plan	0	0	0	0	1	1	Semiannual report of the executing agency following development of the communication plan	

<sup>11</sup> DRVCS are deemed strengthened when they have operating manuals for technical assistance and monitoring of the ATMs.

<sup>12</sup> The PNSR is considered strengthened when it has management instruments (dashboard, intervention model, regulations, methodology for calculating the household user charge, and the baseline for the water systems).

<sup>13</sup> Includes operation of the systems by the works contractor, jointly with the corresponding JASS, following final acceptance of the works, for a period of up to three months.

<sup>14</sup> Consists of the evaluation and implementation of an adjustment and strengthening plan for the AOM of the systems in the post-construction phase.

## **FIDUCIARY AGREEMENTS AND REQUIREMENTS**

**Country:** Peru

**Project number:** PE-L1226

**Name:** Comprehensive Rural Water and Sanitation Program (PIASAR)

**Executing agency:** National Rural Sanitation Program (PNSR) of the Ministry of Housing, Construction, and Sanitation (MVCS)

**Prepared by:** Andrés Suárez, Gabriele del Monte (FMP/CPE)

### **I. EXECUTIVE SUMMARY**

- 1.1 The fiduciary situation and institutional capacity of the PNSR were reviewed through meetings held with key personnel of the entities and with the project team. A risk was identified with respect to the timing and quality of the submission of accountability reports to the Bank, due to the modality of decentralized execution through the local execution units, as well as the risk relating to higher costs and time requirements for implementing the project, due to incipient capacity for fiduciary management in accordance with Bank policies.

### **II. THE COUNTRY'S FIDUCIARY CONTEXT**

- 2.1 The country's financial management systems are adequate and reliable. With regard to the national procurement system, the online reverse auction and price list subsystems under framework agreements of the Peruvian public procurement system, approved through document GN-2538-11 (Acceptance of Partial Use of Country Procurement Systems in Argentina, Bolivia, Costa Rica, El Salvador, Jamaica, Panama, Paraguay, and Peru), are currently being used.

### **III. FIDUCIARY CONTEXT OF THE EXECUTION UNIT AND THE ADMINISTRATIVE EXECUTING AGENCY OF THE PROJECT BENEFICIARIES**

- 3.1 The executing agency will be the PNSR of the MVCS. The Program Management Unit (PIASAR PMU) will serve as the project's management body; it will have administrative and financial autonomy and be responsible for management functions (specifically related to the areas of budget, programming, accounting, treasury and, in particular, procurement, applying Bank rules and procedures, as well as country standards). It will also fulfill economic and financial functions and will coordinate technical aspects, as well as project planning, execution, monitoring, and evaluation.

- 3.2 The PMU will be created by resolution of the Director of the PNSR, and its functions and responsibilities will be established with due regard to the loan contract with the IDB. It will report directly to the Executive Director of the PNSR. The PMU's organizational structure will comprise individual consultants, working full-time, exclusively for the project. In addition, there will be the local execution units established in the execution framework of MVCS projects, with procurement and financial management mechanisms implemented to this end and established in the program Operating Manual.
- 3.3 The Electronic Government Procurement System (SEACE) will be used to record the Procurement Plan for the dissemination of procurement processes.
- 3.4 The PNSR uses the Integrated Financial Management System (SIAF) as an operational financial management system for the accounting records of program operations. PNSR staff have no experience with or knowledge of the Bank's fiduciary procedures.

#### **IV. FIDUCIARY RISK EVALUATION AND MITIGATION ACTIONS**

- 4.1 The risk assessment exercise conducted at the program design stage identified a fiduciary risk with respect to the timing and quality of accountability reports to the Bank, due to the modality of decentralized program execution in the departments through the local execution units, as well as the risk relating to greater costs and time requirements for implementing the project, due to incipient capacity for fiduciary management in accordance with Bank policies. To mitigate the fiduciary risks, rated as medium, various actions have been identified: training on fiduciary policies and procedures for key PMU staff and the administrative assistants of the local execution units, assistance and support through periodic meetings between the PNSR/PIASAR PMU and the IDB, approval of the program Operating Manual, making the Bank's justification period flexible, improving the profile and extending until project closure the period for contracting the administrative assistants of the local execution units, optimizing the number of program liquidators, and selecting qualified key personnel with experience in projects financed by multilateral agencies.

#### **V. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF THE LOAN CONTRACT**

- 5.1 The executing agency/PMU will submit audited annual and final financial statements for the project, under specific Terms of Reference (ToR) acceptable to the Bank, within 120 days following the borrower's fiscal year-end, throughout the original disbursement period or extensions thereof. The final audit report will be submitted within 120 days following the end of the original disbursement period or extensions thereof.
- 5.2 For accounting and expense justification purposes, an eligible expense incurred in the local currency of the borrower's country will be converted into the currency in which disbursements are made or the currency of approval using the effective exchange rate prevailing on the date of conversion from the currency of approval or disbursement to the local currency of the borrower's country (Article 4.10(b)(i) of the General Provisions of the loan contract). To convert expenses incurred in

local currency, either charged against the local contribution or to reimburse expenses charged against the loan, the exchange rate agreed upon will be that prevailing on the date on which the borrower, the executing agency, or any other individual or legal entity delegated authority to incur expenses, makes the respective payments to the contractor, supplier, or beneficiary.

## **VI. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION**

- 6.1 **Procurement execution.** Procurement will abide by the Policies for the procurement of works and goods financed by the Inter-American Development Bank (document GN-2349-9) of March 2011 and the Policies for the selection and contracting of consultants financed by the Inter-American Development Bank (document GN-2350-9) of April 2011. Procurement by public entities financed by this project will be executed in accordance with these policies. The threshold for the use of international competitive bidding (ICB) will be made available to the borrower, through the executing agency, at [www.iadb.org/procurement](http://www.iadb.org/procurement). Below that threshold, the selection method will depend on the complexity and characteristics of the procurement or contracting, which should be reflected in the procurement plan approved by the Bank.
- 6.2 **Procurement of works, goods, and nonconsulting services.** Contracts for works, goods, and nonconsulting services<sup>1</sup> arising under the project and subject to ICB will be executed using the standard bidding documents issued by the Bank. Procurement subject to national competitive bidding will use documents agreed upon with the Bank (or satisfactory to the Bank if none have yet been agreed). The project team leader is responsible for reviewing technical specifications.
- 6.3 **Selection and contracting of consultants (consulting firms).** Consulting service contracts will be executed using the standard request for proposals issued by or agreed upon with the Bank, regardless of the contract amount (or satisfactory to the Bank if none have yet been agreed). The project team leader is responsible for reviewing terms of reference.
- 6.4 **Selection of individual consultants.** Individual consultants will be selected in accordance with document GN-2350-9.
- 6.5 **Ex ante procurement review.** The Bank will review selection, contracting, and procurement processes, as specified in the procurement plan. At any time during project execution, the Bank may change the review modality for such processes, providing the borrower or executing agency advance notice thereof. Changes approved by the Bank should be reflected in the procurement plan.
- 6.6 **National preference.** No margins of national preference will apply.
- 6.7 **Use of the country procurement system.** As the Board of Executive Directors has approved the use of subsystems for electronic reverse auction procedures and electronic price lists under framework agreements in Peru, these subsystems will be used after completion of the actions described in the Agreement for the Partial Use of the National Procurement System of the Republic of Peru and of the conditions described therein, in addition to the resulting amendment of the

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<sup>1</sup> Under the Bank's procurement policies, nonconsulting services are treated as goods.

- procurement plan. Peru's National Public Procurement System may be used in operations financed by the Bank and executed by the agencies included in said system, when the Bank's Board of Executive Directors has approved it and its implementation, subject to any recommendations.
- 6.8 **Initial procurement plan.** See the itemized procurement plan for the first 18 months. The executing agency will publish the procurement plan in the SEPA, and will update it at least every six months or as required by the Bank.
- 6.9 **Procurement supervision.** The Bank's ex post supervision will cover a sample of the contracts based on technical-professional criteria and will be performed by consultants or external auditors. Once the use of the national procurement system has been implemented, arrangements may be updated on the basis of fiduciary risk.<sup>2</sup>
- 6.10 **Records and files.** The files will be kept in the executing agency's offices under conditions that ensure the documentation's integrity and security.
- 6.11 **Retroactive financing and recognition of expenditures.** Not applicable to this program.

## VII. AGREEMENTS AND REQUIREMENTS FOR FINANCIAL MANAGEMENT

- 7.1 **Programming and budget.** Expenses related to project activities will have been assessed for viability within the framework of the regulations issued by the Ministry of Economy and Finance (MEF). At present, the National Multiyear Programming and Investment Management System (Invierte.pe) is in effect to streamline the approval of investment projects and make their execution more flexible at all three levels of government. The annual programming and budget will be prepared on the basis of guidelines issued by the MEF's General Public Budget Directorate.
- 7.2 The budget of the PNSR comprises ordinary resources from the MEF intended to finance a portion of a specific program. The project calls for the local contribution to finance the General Sales Tax (IGV) costs and part of the administrative costs of the program.
- 7.3 The Multiyear Project Execution Plan will be prepared and used to formulate the annual budget, taking account of the project disbursement schedule. The budget allocated to the project will be approved by the MEF and the Congress of the Republic and reported annually to the Bank. The budget will be administered through the SIAF.
- 7.4 **Accounting and information systems.** The SIAF's Project Execution Module, which provides transparency and specific controls in budget execution, will be used for project accounting and reporting. This module can issue financial reports, including disbursement requests, exchange rate control, audited financial statements for the project, and other reports as required by the Bank. Accounting will be done on a cash basis and will meet international accounting standards, while also adhering to the directives of the National Public Accounting Directorate.

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<sup>2</sup> Once the reverse auction and framework agreement systems have been implemented in the operations, as part of the strategy for using the country system, all procurement undertaken will be systemically monitored and supervised by tracking and verifying the stability of the Peruvian country system.

- 7.5 **Disbursements and cash flow.** The country's treasury system will be used following the directives issued by the National Debt and Treasury Department. Expenditure is subject to the budgetary and financial execution process, with data being recorded in MEP-SIAF as the expense is formally processed under the regulatory framework applicable to each of its stages: commitment, accrual, authorization, and payment. The PMU will maintain a specific Bank account in United States dollars and another in soles (monetization) to manage the loan proceeds. The possibility of using the Single Treasury Account for loan programs is being analyzed with the MEF. Current discussions with this entity suggest that this option could be implemented in the short term.
- 7.6 Disbursements will be made according to the project's actual liquidity needs (financial planning). The PMU will submit the disbursement request to the Bank, together with a financial plan that will initially project expenditure for up to 240 days, and this term may be subsequently shortened to 180 days if there are no delays in submission of information relating to prepayments by the local execution units. A new disbursement will only be made when at least 80% of the cumulative total of previous disbursements has been accounted for, using the Bank's forms.
- 7.7 The records and documentation supporting the activities and transactions undertaken will be subject to ex post review by the external auditors. All documents and records will be kept for at least three years from the date of the last disbursement. Expenses that are not eligible for the Bank will be reimbursed out of the local contribution.
- 7.8 **Internal control and internal audit.** The control environment, oversight, communication, and information activities, and the monitoring of executing agency/PMU activities are governed by the country's rules, which are based on the Law governing the National Control System and the Comptroller General's Office (CGR).
- 7.9 With the PNSR's new organizational structure, approved in January 2017, the Institutional Control Office was created to perform internal and external control of the PNSR pursuant to the Law governing the National Control System and the CGR. This office will receive a copy of the external audit reports through the Government Audit System, designed by the CGR, with which it can perform inspection actions.
- 7.10 **External control and reporting.** Within the role of the CGR (lead agency for the National Control System) and its regulations; external audits of projects are outsourced to independent audit firms eligible for the Bank. These firms are periodically evaluated by the Bank. The CGR authorizes the executing agency/PMU to select and contract the independent audit firm, pursuant to Bank policies, for the entire project execution period, including any extensions of the final disbursement period. Selection of an eligibility tier I or II external audit firm will be required.
- 7.11 The project financial statements include: Cash Flow Statement, Cumulative Investment Statement, notes to the financial statements, and Project Management Statement (executing agency/PMU). The audit report will include an assessment of the internal control system. External audits will be covered using the loan

proceeds: a cost of US\$230,000 has been estimated for the planned four years of loan execution.

- 7.12 **Financial supervision plan.** This may be adjusted according to project execution and external audit reports.

**Table 1. Supervision Plan**

Activities	Nature/Scope	Frequency
Financial	Portfolio review with executing agency and MEF	2 per year
	Financial audit and submission of financial statements	Annual and final
	Review of disbursement requests and attached reports	4-5 per year
	Inspection visit/review of project progress/analysis of control environment in the executing agency	Annual



DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/17

Peru. Loan \_\_\_\_/OC-PE to the Republic of Peru  
Comprehensive Rural Water and Sanitation  
Program (PIASAR)

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 Republic of Peru, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a comprehensive rural water and sanitation program (PIASAR). Such financing will be for the amount of up to US\$100,000,000 from the resources of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

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