

Public Disclosure Authorized

OFFICIAL DOCUMENTS

LOAN NUMBER 8899-PE

Loan Agreement

(Modernization of Water Supply and Sanitation Services Project-
*Modernización de la Prestación de los Servicios de Agua Potable y Saneamiento en las EPS
EMAPACOP, SEDACUSCO, SEDAPAR, SEMAPA BARRANCA, EMAPA HUARAL Y
EMAPA HUACHO*)

between

REPUBLIC OF PERU

and

INTERNATIONAL BANK FOR RECONSTRUCTION
AND DEVELOPMENT

LOAN AGREEMENT

AGREEMENT dated as of the Signature Date between the REPUBLIC OF PERU (“Borrower”) and the INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (“Bank”). The Borrower and the Bank hereby agree as follows:

ARTICLE I — GENERAL CONDITIONS; DEFINITIONS

- 1.01. The General Conditions (as defined in the Appendix to this Agreement) apply to and form part of this Agreement.
- 1.02. Unless the context requires otherwise, the capitalized terms used in this Agreement have the meanings ascribed to them in the General Conditions or in the Appendix to this Agreement.

ARTICLE II — LOAN

- 2.01. The Bank agrees to lend to the Borrower the amount of seventy million Dollars (USD 70,000,000), as such amount may be converted from time to time through a Currency Conversion (“Loan”), to assist in financing the project described in Schedule 1 to this Agreement (“Project”).
- 2.02. The Borrower may withdraw the proceeds of the Loan in accordance with Section III of Schedule 2 to this Agreement. The Borrower’s Representative for purposes of taking any action required or permitted to be taken pursuant to this Section is the Borrower’s Minister of Economy and Finance or the Borrower’s Director of Indebtedness and Public Treasury, or any person whom any of them shall designate in writing.
- 2.03. The Front-end Fee is one quarter of one percent (0.25%) of the Loan amount.
- 2.04. The Commitment Charge is one quarter of one percent (0.25%) per annum on the Unwithdrawn Loan Balance.
- 2.05. The interest rate is the Reference Rate plus the Variable Spread or such rate as may apply following a Conversion; subject to Section 3.02(e) of the General Conditions.
- 2.06. The Payment Dates are May 15 and November 15 in each year.
- 2.07. The principal amount of the Loan shall be repaid in accordance with Schedule 3 to this Agreement.

ARTICLE III — PROJECT

- 3.01. The Borrower declares its commitment to the objectives of the Project. To this end, the Borrower shall: (a) carry out Part 2 of the Project through PNSU, under the supervision of OTASS; and (b) cause OTASS to carry out Parts 1 and 3 of the Project, all with the

assistance of the Participating EPSs and in accordance with the provisions of the Cooperation Agreement, Article V of the General Conditions and Schedule 2 to this Agreement.

ARTICLE IV — EFFECTIVENESS; TERMINATION

- 4.01. The Additional Conditions of Effectiveness consist of the following:
- (a) the Cooperation Agreement has been executed by the relevant parties thereto, in form and substance satisfactory to the Bank;
 - (b) the OTASS PIU 2 has been created in form and substance satisfactory to the Bank; and
 - (c) the Operational Manual has been adopted in a form and substance satisfactory to the Bank.
- 4.02. The Effectiveness Deadline is the date ninety (90) days after the Signature Date.

ARTICLE V — REPRESENTATIVE; ADDRESSES

- 5.01. The Borrower's Representative is its Minister of Economy and Finance, provided that the Borrower's Director of Indebtedness and Public Treasury, may, by him or herself represent the Borrower to sign amendments and/or notices to this Agreement which are considered of an administrative and non-financial nature. The signing by such Director of an amendment and/or notice shall constitute a representation by the Borrower that any such amendment and/or notice is considered to be administrative and non-financial in nature.
- 5.02. For purposes of Section 10.01 of the General Conditions: (a) the Borrower's address is:
- Ministry of Economy and Finance
Jr. Junín 319
Cercado de Lima
Lima, Perú
- (b) the Borrower's Electronic Address is:
- Facsimile: +51(1) 626-9921
- 5.03. For purposes of Section 10.01 of the General Conditions: (a) the Bank's address is:
- International Bank for Reconstruction and Development
1818 H Street, N.W.
Washington, D.C. 20433
United States of America; and

(b) the Bank's Electronic Address is:

Telex: 248423(MCI) or 64145(MCI) Facsimile: 1-202-477-6391

AGREED as of the Signature Date.

REPUBLIC OF PERU

By Carlos Oliva
Authorized Representative

Name: CARLOS A. OLIVA NEYRA

Title: MINISTRO DE ECONOMIA Y FINANZAS

Date: 28 ENE 2019

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

By Boris Utria
Authorized Representative

Name: BORIS UTRIA

Title: ACTING DIRECTOR

Date: 28 ENE 2019

HONORARY WITNESS

Javier Piqué
Mr. Javier Piqué
Minister of Housing, Construction
and Sanitation

SCHEDULE 1

Project Description

The objectives of the Project are to increase access to, and quality of, water and sanitation services in selected areas, and develop the Borrower's Sectoral Institutions and Participating EPS's management capacity to provide efficient water and sanitation services.

The Project consists of the following parts:

Part 1: Improving Governance of Water Supply and Sanitation Service Providers

1.1: Improving Institutions, Policy and Regulation of Water Supply and Sanitation Services

Provision of support for the implementation of policy instruments and WSS regulations aimed at:

- (i) developing a sector-wide management information system to facilitate both, coordination between WSS sector entities and the regulation of all Service Providers;
- (ii) strengthening the systems and capacity of SUNASS, including reformulating regulatory and tariff setting instruments;
- (iii) developing guidelines or procedures for regulating small EPSs in rural areas, and for improving targeting of subsidies to enhance the financial efficiency of the WSS sector;
- (iv) developing a methodology and supporting aggregation of Service Providers, including defining the minimal scale and size of EPSs and a progressive approach to formally integrate municipal service providers into EPSs;
- (v) preparing multiannual WSS investment plans for the Borrower's regions of Arequipa, Ucayali, Cusco and Lima Region North Provinces that will serve as planning instruments to define WSS service gaps and adequately prioritize the Borrower's targeting of grant funding; and
- (vi) developing instruments, including standard contracts and revised procedures for PPPs in wastewater treatment.

1.2: Strengthening of OTASS and PNSU

Provision of support to OTASS and PNSU to enhance coordination between technical assistance and infrastructure implementation of WSS projects, including *inter alia*:

- (i) provision of technical assistance (including financing of an ISC firm) to support OTASS in Project implementation;
- (ii) development of a policy proposal for remuneration and incentive programs to promote voluntary retirement and human resources development in the Participating EPSs, and the development of a communications strategy for OTASS and Service Providers; and
- (iii) design and implementation of a training program for personnel in PNSU's regional Citizen Service Centers, and supporting organizational improvements to enhance PNSU's response in preparing and executing civil works projects.

1.3: Improving efficiency and sustainability of Participating EPSs

Provision of support to OTASS to improve the performance of the Participating EPSs, including institutional and planning improvements, strategic planning, capacity building, implementation of communication and client orientation programs, operational and commercial improvements, and development and contracting of management contracts, through, *inter alia*, the following activities:

- (i) developing of master plans in SEDAPAR, SEDACUSCO and EMAPACOP;
- (ii) designing and implementing information systems in the Participating EPS;
- (iii) carrying out of tariff and subsidies studies in the Participating EPS;
- (iv) improvement and modernization of current commercial systems in the Participating EPS;
- (v) improvement and modernization of operational and management systems in the Participating EPS; and
- (vi) designing and implementing a management contract for EMAPACOP.

Part 2: Improving and Expanding Water Supply and Sanitation Services in the Participating EPS

Provision of support for the rehabilitation and expansion of WSS infrastructure of Participating EPSs through the carrying out of Infrastructure Subprojects, which include, *inter alia*, the following demand-driven activities:

- (i) rehabilitation and extension of existing water supply and sewerage networks and household connections;
- (ii) rehabilitation and expansion of existing water and sewerage treatment plants, water storage tanks and pumping systems;
- (iii) development of decentralized WSS treatment capacity;
- (iv) expansion of water and sewerage household connections within areas lacking formal WSS services; and
- (v) installation of macro and micro-meters.

Part 3: General Project Administration

Provision of support for Project management, monitoring and implementation, including technical assistance and administrative support for the day-to-day implementation of procurement and financial management activities, environment and social safeguards monitoring, Project monitoring and evaluation, communications campaigns, Training, and Operating Costs.

SCHEDULE 2**Project Execution****Section I. Implementation Arrangements****A. Institutional Arrangements**

1. For purposes of complying with its obligation referred to in Section 3.01 of this Agreement, the Borrower shall promptly transfer the proceeds of the Loan to OTASS through its budgetary mechanisms and in a manner acceptable to the Bank.
2. The Borrower shall:
 - (a) cause OTASS to operate and maintain, throughout Project implementation, a unit ("OTASS PIU 2") within OTASS, with structure, functions and responsibilities acceptable to the Bank, as set forth in the Operational Manual, including *inter alia*, the responsibility to implement Parts 1 and 3 of the Project and monitor and supervise the carry out of all activities under the Project (including its financial, procurement and safeguard aspects);
 - (b) not later than ninety (90) days after the Effective Date, cause OTASS to hire the following OTASS PIU 2 key staff: a coordinator, a financial management specialist and a procurement specialist, all with functions, experience, responsibilities and qualifications acceptable to the Bank, as described in the Operational Manual;
 - (c) operate and maintain, throughout Project implementation, a unit ("PNSU FU") within PNSU, with functions and responsibilities acceptable to the Bank, as set forth in the Operational Manual, including *inter alia*, the responsibility to implement, monitor and supervise the carrying out of Part 2 of the Project (including its financial, procurement and safeguard aspects); and
 - (d) not later than ninety (90) days after the Effective Date, through the PNSU, hire the following PNSU FU staff: a coordinator, a financial management specialist and a procurement specialist, all with functions, experience, responsibilities and qualifications acceptable to the Bank, as described in the Operational Manual.
3. Not later than sixty (60) days after the Effective Date, the Borrower shall create and thereafter maintain until completion of the Project, a committee (the Project Coordinating Committee) to oversee the implementation of the Project. Said committee shall have membership and functions acceptable to the Bank, including representatives from MEF, MVCS, PNSU, OTASS and SUNASS, as further defined in the Operational Manual.

B. Implementation Agreements

1. To facilitate the implementation of the Project, the Borrower, through PNSU, shall enter into an agreement with OTASS (the Cooperation Agreement) which shall establish the responsibilities of OTASS and PNSU in the carrying out of their respective Part of the

Project and the obligation of OTASS to carry out Parts 1 and 3 of the Project in accordance with the provisions of this Agreement.

2. (a) Prior to the carry out of any Infrastructure Subproject under Part 2 of the Project, the Borrower, through PNSU shall, and shall cause OTASS to, enter into an agreement with each Participating EPS (the Participation Agreement), under terms and conditions acceptable to the Bank, which shall include, *inter alia*, the obligation of:
 - (i) each Participating EPS to:
 - (A) assist the Borrower, through PNSU, in the carrying out and monitoring of the pertinent Infrastructure Subproject in accordance with the pertinent provisions of this Agreement, including technical, financial, administrative, environmental and fiduciary standards acceptable to the Bank;
 - (B) comply with the provisions of the Environmental and Social Management Framework, the EIAs, the Resettlement Policy Framework and any ARAP and the IPPF, in accordance with their terms and those of this Agreement and the Operational Manual;
 - (C) provide the necessary facilities to allow OTASS and the PNSU, and designated auditors, to access the documents and records that allow supervising the activities developed under the Project;
 - (D) launch and implement communication and awareness campaigns and ensure that contractors are in compliance with the applicable Safeguards Documents and procedures set forth in the Operational Manual;
 - (E) meet the agreed actions to improve the performance of the Participating EPS resulting from the carrying out of the activities under Part 1.3 of the Project, all as set forth in each Participating Agreement and in the Operational Manual;
 - (F) meet the targets for the following performance indicators at the Participating EPS level: (I) Non-revenue Water; (II) Working Ratio; (III) Operating Margin; (IV) ROA; (V) ROE; (VI) Customer Satisfaction; and (VII) Metering; as set forth in each Participating Agreement and described in Schedule 4 to this Agreement;
 - (G) meet the targets for the following performance indicators at the Participating Locality levels: (I) Incremental Continuity; (II) Incremental Water Pressure; (III) Incremental Water Quality; (IV) Incremental waste water treatment volume; (V) New water connections; (VI) New installed sewerage connections; (VII) New Metering installed; (VIII) Improved Water Connections; (IX) Improved Sewerage Connections; and (X)

Improved Metering; as set forth in each Participating Agreement and described in Schedule 4 to this Agreement; and

(H) submit to OTASS annual reports on the status of each performance indicator referred to in paragraphs (F) and (G) above.

- (ii) the Borrower, through PNSU, to carry out Part 2 of the Project under the supervision of OTASS; and
 - (iii) the OTASS to: (A) carry out Parts 1 and 3 of the Project; and (B) review the status of the performance indicators included in Schedule 4 to this Agreement and cause the Participating EPS to carry out any corrective actions that may be required.
- (b) The Borrower, through PNSU, shall exercise its rights and carry out its obligations under each Participation Agreement in such manner as to protect the interests of the Borrower and the Bank and to accomplish the purposes of the Loan, and, except as the Bank shall otherwise agree, the Borrower, through PNSU, shall not assign, amend, abrogate, terminate, waive or fail to enforce any Participating Agreement or any provisions thereof.
- (c) The Borrower shall cause OTASS to exercise its rights and carry out its obligations under each Participation Agreement in such manner as to protect the interests of the Borrower and the Bank and to accomplish the purposes of the Loan, and, except as the Bank shall otherwise agree, the Borrower shall cause OTASS not to assign, amend, abrogate, terminate, waive or fail to enforce any Participating Agreement or any provisions thereof.
3. The Borrower shall cause OTASS to ensure compliance with the targets for the performance indicators at the Participating EPS level included in Schedule 4 to this Agreement.
4. (a) To facilitate the carrying out of Part 1.1 of the Project, the Borrower shall cause OTASS to enter into an agreement with SUNASS (the SUNASS Cooperation Agreement) under terms and conditions acceptable to the Bank including, *inter alia*, SUNASS's obligations to:
- (i) carry out the activities of the Project in accordance with the relevant provisions of this Agreement;
 - (ii) determine, at the request of each Participating EPS, the Incremental Tariff to cover operation and maintenance costs resulting from the execution of Infrastructure Subprojects under Part 2 of the Project; and
 - (iii) report the status of the performance indicators included in Schedule 4 to this Agreement.
- (b) The Borrower shall cause OTASS to exercise its rights and carry out its obligations under the SUNASS Cooperation Agreement in such manner as to protect the

interests of the Borrower and the Bank and to accomplish the purposes of the Loan. Except as the Bank shall otherwise agree, the Borrower shall cause OTASS not to assign, amend, abrogate, waive, terminate or fail to enforce the SUNASS Cooperation Agreement or any of its provisions.

C. Operational Manual

1. The Borrower shall cause OTASS to, and shall, through PNSU, carry out the respective Parts of the Project in accordance with the provisions of a manual (the Operational Manual), satisfactory to the Bank, which shall include, *inter alia*: (a) the organizational structure of the Project, including the structure and terms of reference of personnel in charge of the implementation of the Project and the composition, functions and responsibilities of the Project Coordinating Committee, the OTASS PIU 2 and the PNSU FU; (b) the procedures for the carrying out, monitoring and evaluation of the Project; (c) the indicators for Project monitoring and evaluation; (d) the Project procurement and financial management requirements and procedures; (e) the Project's chart of accounts and internal controls; (f) the criteria for selecting the Participating EPSs; and (g) the Safeguards Documents.
2. In case of any conflict between the terms of the Operational Manual and those of this Agreement, the terms of this Agreement shall prevail.

D. Safeguards

1. **Environmental and Social Management Framework (ESMF) and Environmental Safeguards Documents**

The Borrower, through PNSU, shall, and shall cause OTASS to: (a) implement the Project in accordance with the ESMF, and, if applicable, the EIAs; (b) comply with the procedures detailed in said ESMF for environmental screening, evaluation, implementation and monitoring of Infrastructure Subprojects, including the procedures for the preparation of environmental and/or social management plans, if applicable; and (c) if applicable, implement and/or cause to be implemented, the pertinent environmental and social management plan, in accordance with its terms and in a manner acceptable to the Bank.

2. **Indigenous Peoples Policy Framework (IPPF)**

The Borrower, through PNSU, shall, and shall cause OTASS to: (a) implement the Project in accordance with the IPPF; (b) adopt the procedures detailed in said IPPF for screening, evaluation, implementation and monitoring of Subproject, including the procedures for the preparation of indigenous peoples development plans, if applicable; and (c) if applicable, implement and/or cause to be implemented, the pertinent indigenous peoples development plan in accordance with its terms and in a manner acceptable to the Bank.

3. **Resettlement Policy Framework (RPF) and Abbreviated Resettlement Action Plan (ARAP)**

The Borrower, through PNSU, shall, and shall cause OTASS to: (a) implement the Project in accordance with the RPF and the ARAP; (b) adopt the procedures detailed in said RPF

for screening, evaluation, implementation and monitoring of Infrastructure Subproject, including the procedures for the preparation of resettlement action plans, if applicable; (c) implement the ARAP; and (d) if applicable, implement and/or cause to be implemented, the pertinent resettlement action plan in accordance with its terms and in a manner acceptable to the Bank.

4. **Technical assistance**

The Borrower, through PNSU shall, and shall cause OTASS to ensure that the terms of reference for any consultancies related to the technical assistance provided under the Project, shall be acceptable to the Bank and, to that end, such terms of reference shall require that the advice conveyed through such technical assistance be consistent with the requirements of the Bank's Safeguard Policies.

5. The Borrower through PNSU shall, and shall cause OTASS to ensure that OTASS and PNSU shall ensure, that all bidding documents and contracts for civil works under the Project include the obligation of the relevant contractors and subcontractors to: (a) comply with the obligations under the relevant Safeguards Documents; (b) adopt and implement measures to assess and manage the risks and impacts of labor influx and workers' camps; and (c) adopt and enforce code of conducts that should be provided to and signed by all workers; all in a manner satisfactory to the Bank and as applicable to such civil works commissioned or carried out pursuant to said contracts.

6. The Borrower through PNSU shall, and shall cause OTASS to maintain, throughout Project implementation, and publicize the availability of a grievance redress mechanism, in form and substance satisfactory to the Bank, to hear and determine fairly and in good faith all complaints raised in relation to the Project, and take all measures necessary to implement the determinations made by such mechanism in a manner satisfactory to the Bank.

Section II. Project Monitoring Reporting and Evaluation

The Borrower shall cause OTASS to furnish to the Bank each Project Report not later than one month after the end of each calendar semester, covering the calendar semester.

Section III. Withdrawal of Loan Proceeds

A. General

Without limitation upon the provisions of Article II of the General Conditions and in accordance with the Disbursement and Financial Information Letter, the Borrower may withdraw the proceeds of the Loan to finance Eligible Expenditures, in the amount allocated and, if applicable, up to the percentage set forth against each Category of the following table:

Category	Amount of the Loan Allocated (expressed in USD)	Percentage of Expenditures to be financed (exclusive of Taxes)
(1) Goods, works, non-consulting services, and consulting services for Part 1 of the Project	16,264,309	100%
(2) Goods, works, non-consulting services, and consulting services for Part 2 of the Project	53,033,379	100%
(3) Goods, Consulting services, Training and Operating Costs for Part 3 of the Project	702,312	100%
TOTAL AMOUNT	70,000,000	

B. Withdrawal Conditions; Withdrawal Period.

1. Notwithstanding the provisions of Part A above, no withdrawal shall be made for payments made prior to the Signature Date.
2. The Closing Date is December 31, 2023.

SCHEDULE 3**Customized Amortization Repayment Schedule**

The Borrower shall repay the principal amount of the Loan as follows:

Repayment Date	Installment Share (Expressed as a Percentage)
November 15, 2029	35%
May 15, 2030	35%
November 15, 2030	30%

SCHEDULE 4

Performance Indicators at Participating EPS level

Indicators	SEDAPAR					SEDACUSCO					EMAPACOP				
	Without project	With Project				Without project	With Project				Without project	With Project			
	Baseline (2016)	Year 5 (target)	Year 10	Year 15	Year 20	Baseline (2016)	Year 5 (target)	Year 10	Year 15	Year 20	Baseline (2016)	Year 5 (target)	Year 10	Year 15	Year 20
Non revenue water (%)	34	27	25	25	25	38	32	30	28	26	46	35	33	31	29
Working ratio (%)	77	62	60	60	60	75	65	62	60	60	83	65	65	63	61
Operating margin (%)	2.8	10	12	14	16	16.5	21	23	24	25	-1.9	8	10	12	14
Return on assets (ROA) (%)	1.3	3	4	5	5	2.2	7	8	8	9	0.0	3	4	4	5
Return on equity (ROE) (%)	1.6	4	5	6	6	7.1	8	9	9	10	0.1	4	5	5	6
Customer satisfaction (%)	68	85	89	93	95	78	85	89	93	95	66	75	80	85	90
Metering	80	90	93	95	97	89	94	96	98	99	17	17	17	17	17

Indicators	SEMAPA BARRANCA					EMAPA HUARAL					EMAPA HUACHO				
	Without project	With Project				Without project	With Project				Without project	With Project			
	Baseline (2016)	Year 5 (target)	Year 10	Year 15	Year 20	Baseline (2016)	Year 5 (target)	Year 10	Year 15	Year 20	Baseline (2016)	Year 5 (target)	Year 10	Year 15	Year 20
Non revenue water (%)	60	40	37	34	31	39	32	30	28	26	34	29	27	25	25
Working ratio (%)	127	75	72	70	68	104	75	72	70	68	96	70	68	66	64
Operating margin (%)	4.4	10	12	14	16	0.6	8	10	12	14	5.7	12	14	16	18
Return on assets (ROA) (%)	0.2	3	4	5	5	0.0	3	3	4	5	0.6	4	5	5	6
Return on equity (ROE) (%)	-2.7	2	3	3	4	0.0	4	4	5	6	0.9	5	6	7	7
Customer satisfaction (%)	64	75	80	85	90	67	75	80	85	90	61	75	80	85	90
Metering	15	70	75	80	85	26	70	75	80	85	80	90	93	95	97

Performance Indicators at Participating Locality level

Service Quality Indicators Baseline (2016)

EPS/ Locality	Incremental Continuity at Year 5 (hours per day)	Incremental Water pressure at Year 5 mwc*	Incremental water quality at Year 5 % residual chlorine	Incremental volume of wastewater treated at Year 5 liters/second
SEDAPAR				
Arequipa (Metropolitan)	0.02	0.1	0.0	-
La Joya	0.00	1.0	0.0	3.6
Caraveli	8.59	0.2	0.3	0.6

Chuquibamba	2.49	1.0	0.3	2.2
Camaná	0.39	0.2	0.0	-
Atico	0.93	0.9	0.0	-
Chala	0.64	0.4	0.0	-
Yauca	0.49	0.7	0.0	-
Aplao	0.00	0.3	0.0	-
Chivay	0.00	0.7	0.0	-
El Pedregal	0.15	0.1	0.0	0.2
Mollendo	0.54	0.2	0.0	-
Cocrachacra	0.19	0.3	0.0	0.4
La Curva	0.40	0.6	0.0	-
Matarani	0.00	0.7	1.1	-
Mejía	0.16	0.0	1.6	-
Punta de Bombón	0.70	0.3	1.6	0.9
El Arenal	0.32	0.4	0.0	-
Cotahuasi	0.04	0.5	4.1	-
SEDACUSCO				-
Cusco	0.00	0.4	0.0	0.4
Paucartambo	0.57	0.6	0.0	0.4
SEMAPA BARRANCA				-
Barranca	0.99	0.8	0.1	131.3
Supe	6.53	3.6	0.0	18.0
EMAPA HUARAL				-
Huaral	1.32	3.1	0.0	-
EMAPA HUACHO				-
Huacho	0.70	1.0	2.2	147.0
Végueta	0.88	0.9	0.9	9.0
Sayán	0.00	0.3	0.0	7.0
EMAPACOP		0.0	0.0	-
Pucallpa	0.28	0.0	5.4	0.6

* mwc, meters of water column

Local areas	Year 5					
	New water connections	New installed sewerage connections	New Metering installed	Improved water connections	Improved sewerage connections	Improved Metering
SEDAPAR						
Arequipa (Metropolitan)	9,474	9,474	9,474	-	-	-
La Joya	485	984	485	-	-	-
Caravelí	100	140	100	1,011	697	1,011
Chuquibamba	65	120	65	180	467	180
Total SEDAPAR	10,124	10,718	10,124	1,191	1,164	1,191
SEDACUSCO						
Cusco	5,615	-	5,615	7,300	-	7,300
Total SEDACUSCO	5,615	-	5,615	7,300	-	7,300
SEMAPA BARRANCA						
Barranca	800	900	800	1,400	1,400	1,400
Supe	1,100	1,400	1,100	400	300	400

Total SEMAPA BARRANCA	1,900	2,300	1,900	1,800	1,700	1,800
EMAPA HUARAL						
Huaral	1,200	1,500	1,200	1,700	1,600	1,700
Total EMAPA HUARAL	1,200	1,500	1,200	1,700	1,600	1,700
EMAPA HUACHO						
Huacho	4,100	4,100	4,100	2,300	2,400	2,300
Végueta	200	600	200	300	300	300
Sayán	100	200	100	200	200	200
Total EMAPA HUACHO	4,400	4,900	4,400	2,800	2,900	2,800
TOTAL	23,239	19,418	23,239	14,791	7,364	14,791

APPENDIX

Section I. Definitions

1. “Abbreviated RAP or ARAP” means the Borrower’s instrument, acceptable to the Bank, published and available to the public on the website www.sedapar.com.pe on February 15, 2018, and on the Bank’s Operations Portal on April 3, 2018 detailing measures to mitigate, communicate and compensate affected persons for the Infrastructure Subproject to be carried out in *Caraveli*.
2. “Anti-Corruption Guidelines” means, for purposes of paragraph 5 of the Appendix to the General Conditions, the “Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants”, dated October 15, 2006 and revised in January 2011 and as of July 1, 2016.
3. “Bank Safeguards Policies” means the Bank’s operational policies and procedures set forth in the Bank’s Operational Manual under OP/BPs 4.01, 4.04, 4.09, 4.10, 4.11, 4.12, 4.36 and 4.37, as said manual is published under <http://web.worldbank.org>.
4. “Category” means a category set forth in the table in Section III.A of Schedule 2 to this Agreement.
5. “Citizen Service Centers” means *Centros de Atención al Ciudadano*, the MVCS’s decentralized offices that provide, *inter alia*, water and sanitation related technical assistance and capacity building to subnational governments and communities.
6. “Cooperation Agreement” means the agreement to be entered into between OTASS and PNSU, referred to in Section I.B.1 of Schedule 2 to the Loan Agreement.
7. “Customer Satisfaction” means the degree of satisfaction with the services provided by the EPS as measured through a customer satisfaction survey.
8. “Environmental and Social Management Framework or ESMF” means the Borrower’s framework, acceptable to the Bank, published and available to the public on the website www.otass.gob.pe/publicaciones/otras-publicaciones.html on February 20, 2018, and on Bank’s Operations Portal on March 2, 2018, which contains the environmental protection measures in respect of the Project, including, *inter alia*: (a) measures for chance findings of cultural property; (b) the guidelines to be followed to prevent natural habitat conversion or degradation; (c) guidelines for the identification of existing environmental conditions and potential direct and indirect environmental impacts resulting from the carrying out of the Project (including the Infrastructure Subprojects); (d) guidelines for the carrying out of environmental assessments and the preparation of environmental management plans, when applicable; (e) the recommendation of mitigation measures for each negative environmental impact identified; and (f) measures for enhancing each identified positive environmental impact, as said framework may be amended from time to time with the prior agreement of the Bank.
9. “Environmental Impact Assessments or EIAs” means the two assessments prepared by the Borrower for each of the Infrastructure Subprojects to be carried out in *Caraveli* and *Chuquibamba*, which include the environmental health and safety technical forms and

archeological studies containing actions and measures to avoid, minimize, mitigate and/or compensate, as applicable, any environmental, health, safety and social risks and impacts of the Infrastructure Subprojects to be carried out in *Caraveli* and *Chuquibamba*, published and available to the public on the website www.sedapar.com.pe on February 15, 2018, and on the Bank's Operations Portal on April 16, as said documents may be amended from time to time with the prior agreement of the Bank.

10. "EPS" means the *Empresa Prestadora de Servicios de Saneamiento*, the Borrower's water supply and sanitation public utilities.
11. "General Conditions" means the "International Bank for Reconstruction and Development General Conditions for IBRD Financing, Investment Project Financing", dated July 14, 2017.
12. "Improved Sewerage Connections" means the number of connections to the sewerage network improved as a result of the Project.
13. "Improved Water Connections" means the number of connections to the water supply network improved as a result of the Project.
14. "Incremental Continuity" means the variation in continuity between the baseline and end values.
15. "Incremental Pressure" means the variation in pressure between the baseline and end values.
16. "Incremental Tariff" means the tariff that allows the Participating EPS to cover the incremental operation and maintenance costs resulting from any Infrastructure Subproject under Part 2 of the Project and that should be calculated according to the regulations established by SUNASS to that effect.
17. "Incremental Water Quality" means the water quality variation between the baseline and end values.
18. "Indigenous Peoples Policy Framework or IPPF" means the Borrower's framework, acceptable to the Bank, published and available to the public on the website www.otass.gob.pe/publicaciones/otras-publicaciones.html on March 6, 2018, and on the Bank's Operations Portal on March 1, 2018, detailing measures to mitigate any adverse impact on indigenous peoples as a result of any activity carried out under the Project and to ensure that they benefit from the Project, including procedures for the preparation and implementation of the pertinent indigenous peoples development plans, as said framework may be amended from time to time with the agreement of the Bank.
19. "Infrastructure Subproject" means any investment and supervision related activity under Part 2 of the Project selected in accordance with the criteria and procedures set forth in the Operational Manual.
20. "ISC" means an implementation support consulting firm.

- b. “EMAPA Huaral” means *Empresa Municipal Prestadora de Servicios de Agua Potable y Saneamiento* (“EMAPA Huaral”), with headquarters in *Huaral, Lima*, created by the Borrower’s Law No. 26338 dated July 24, 1994.
- c. “EMAPACOP” means *Empresa Municipal de Agua Potable y Alcantarillado de Coronel Portillo* with headquarters in *Pucallpa, Ucayali*, created by the Borrower’s Law No. 26338 dated July 24, 1994.
- d. “SEDACUSCO” means *Entidad Municipal Prestadora de Servicios de Saneamiento del Cusco S.A.* (“SEDACUSCO”), with headquarters in *Cusco, Cusco*, created by the Borrower’s Law No. 26338 dated July 24, 1994.
- e. “SEDAPAR” means *Empresa de Saneamiento de Arequipa* (“SEDAPAR”), with headquarters in *Arequipa, Arequipa*, created by the Borrower’s Law No. 26338 dated July 24, 1994.
- f. “SEMAPA Barranca” means *Servicio Municipal de Agua Potable y Alcantarillado* (“SEMAPA Barranca”), with headquarters in *Barranca, Lima*, created by the Borrower’s Law No. 26338 dated July 24, 1994.
32. “Participating Locality” any of the Borrower’s locations under the administration of a Participating EPS which will benefit from the Project.
33. “PNSU” means *Programa Nacional de Saneamiento Urbano*, the National Program for Urban Sanitation, created pursuant to Supreme Decree (*Decreto Supremo*) No. 02-2012-Vivienda dated January 6, 2012.
34. “PNSU FU” means the Project functional unit within PNSU referred to in Section I.A.2.(c) of Schedule 2 to this Agreement, or any successor thereto acceptable to the Bank.
35. “PPPs” means public-private partnerships.
36. “Procurement Plan” means the Borrower’s procurement plan for the Project, dated February 27, 2017 and referred to in paragraph 1.18 of the Procurement Guidelines and paragraph 1.25 of the Consultant Guidelines, as the same shall be updated from time to time in accordance with the provisions of said paragraphs.
37. “Procurement Regulations” means, for purposes of paragraph 85 of the Appendix to the General Conditions, the “World Bank Procurement Regulations for IPF Borrowers”, dated July 2016, revised November 2017.
38. “Project Coordinating Committee” or “PCC” means the *Grupo de Trabajo denominado “Comité de Coordinación del Proyecto”* referred to in Section I.A.3 of Schedule 2 to this Agreement, or any successor thereto acceptable to the Bank.
39. “Resettlement” means the impact of: (i) an involuntary taking of land under the Project, which taking causes affected persons to have their: (a) income source or means of livelihood adversely affected (whether or not the affected persons must move to another location); or (b) right, title or interest in any house, land (including premises, agricultural

21. “MEF” means *Ministerio de Economía y Finanzas*, the Borrower’s Ministry of Economy and Finance, or any successor thereto acceptable to the Bank.
22. “Metering” means the percentage of water connections with micro-meters installed, properly working and read.
23. “MVCS” means *Ministerio de Vivienda, Construcción y Saneamiento*, the Borrower’s Ministry of Housing, Construction and Sanitation, or any successor thereto acceptable to the Bank.
24. “Non-Revenue Water” means the difference between system input water volume and billed authorized consumption, expressed as a percentage of system input water volume.
25. “Operating Costs” means the reasonable incremental operational costs (which would not have been incurred absent the Project) incurred by OTASS and PNSU in connection with the daily operation of the Project, including, rental and maintenance of equipment and vehicles, rental of office facilities, office utilities, supplies and materials, domestic travel and *per diem* of OTASS and PNSU staff.
26. “Operating Margin” means the margin calculated by dividing the operating income (net revenues – all operating expenses) by the net revenues during a specific period.
27. “Operational Manual” means the manual referred to in Section I.D.1 of Schedule 2 to this Agreement, as said manual may be amended from time to time with the agreement of the Bank.
28. “OTASS” means *Organismo Técnico de la Administración de los Servicios de Saneamiento*, the Borrower’s Technical Organization for the Administration of Water and Sanitation Services, created by the Borrower’s Law No. 30045 dated June 18, 2013 to execute the policies of the water and sanitation sector in the areas of management and administration of WSS services and regulated by the Borrowers’s Legislative Decree No. 1280 dated December 28, 2016.
29. “OTASS PIU 2” means the Project Implementation Unit within OTASS referred to in Section I.A.2.(a) of Schedule 2 to this Agreement, or any successor thereto acceptable to the Bank.
30. “Participating Agreement” means the agreement referred to in Section I.B.2 of Schedule 2 to this Agreement.
31. “Participating EPS” means any and all of the following EPSs that were selected to participate in the Project according to the eligibility criteria and procedures set forth in the Operational Manual:
 - a. “EMAPA Huacho” means *Aguas de Lima Norte*, formerly *Empresa Municipal Prestadora de Servicios de Agua Potable y Saneamiento* (“EMAPA Huacho”), with headquarters in *Huacho, Lima*, created by the Borrower’s Law No. 26338 dated July 24, 1994.

and grazing land) or any other fixed or movable asset acquired or possessed, temporarily or permanently; or (c) access to productive assets adversely affected, temporarily or permanently; or (d) business, occupation, work or place of residence or habitat adversely affected, temporarily or permanently; or (ii) an involuntary restriction of access to natural resources in legally designated parks and protected areas (including reserves) which causes an adverse impact on the livelihoods of the affected persons.

40. "ROA" means return on assets.
41. "ROE" means return on equity.
42. "RPF" means Resettlement Policy Framework means the Borrower's plan, acceptable to the Bank, published and available to the public on the website www.otass.gob.pe/publicaciones/otras-publicaciones.html on March 6, 2018, and on Bank's Operations Portal on March 2, 2018, detailing measures to mitigate any adverse impact on temporary or permanent Resettlement as a result of any activity carried out under the Project and to ensure that they benefit from the Project, including procedures for the preparation and implementation of the pertinent abbreviated resettlement action plans.
43. "Safeguard Documents" means the ESMF, the EIAs, the IPPF, the RPF, and the ARAP.
44. "Sectoral Institutions" means MVCS, OTASS, PNSU and SUNASS.
45. "Service Provider" means: (i) a public water utility which provides WSS services in the Borrower's territory; (ii) a municipal department in charge of provision of WSS services within its municipal boundaries; (iii) a rural water boards (*Junta administradora de servicios de saneamiento*); and (iv) rural water associations (*asociación de usuarios*) that is legally recognized to provide WSS services in rural areas.
46. "Signature Date" means the later of the two dates on which the Borrower and the Bank signed this Agreement and such definition applies to all references to "the date of the Loan Agreement" in the General Conditions.
47. "SUNASS" means *Superintendencia Nacional de Servicios de Saneamiento*, the National Superintendence of Water and Sanitation Services created by the Borrower's Legislative Decree No. 25965 dated December 19, 1992 and regulated by the Borrowers's Legislative Decree No. 1280 dated December 28, 2016 and the Borrower's Law 27332 dated July 29, 2000.
48. "SUNASS Cooperation Agreement" means the agreement to be entered into between the OTASS and SUNASS, referred to in Section 1.B.3 of Schedule 2 to this Agreement.
49. "Training" means the non-consulting expenditures incurred by OTASS in connection with training activities, workshops and study tours under the Project, including the rental of facilities, training materials and international and domestic travel, lodging and *per diem* of trainers and trainees.
50. "Working Ratio" means the ratio calculated between operational expenses (personnel costs, energy, chemicals, goods and services), without depreciation, and operational

income (water and sewerage revenues, other technical services revenues and accounts receivable).

51. "WSS" means water supply and sanitation.