

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

DOMINICAN REPUBLIC

UNIVERSAL SANITATION PROGRAM IN COASTAL AND TOURIST CITIES

(DR-L1158)

LOAN PROPOSAL

This document was prepared by the project team consisting of: Sergio Perez, Project Team Leader; Manuela Velásquez, Alternate Project Team Leader; Francisco Gonzalez, Maria Eduarda Gouvea, Amalia Palacios, Corinne Cathala, Leticia Ortega Oropeza, and Diana Carla Champi (INE/WSA); Alfred Grünwaldt and Benoit Jean Marie Lefevre (CSD/CCS); Alejandra Catacoli and Julia Miguez Morais (VPS/ESG); Maria Teresa Villanueva (SCL/GDI); María C. Landazuri-Levey (LEG/SGO); Awilda Margarita Castillo, Miriam Garza, and Romina Emanuela Kirkagacli (VPC/FMP); Jenniffer Elena Marmolejos and Yocauris García (CID/CDR); and Fermín Vivanco and Smeldy Ramirez Rufino (MIF/MSM).

This document is being released to the public and distributed to the Bank's Board of Executive Directors simultaneously. This document has not been approved by the Board. Should the Board approve the document with amendments, a revised version will be made available to the public, thus superseding and replacing the original version.

CONTENTS

PROJECT SUMMARY

I.	DESCRIPTION AND RESULTS MONITORING	1
A.	Background, problem addressed, and rationale	1
B.	Objectives, components, and cost	9
C.	Key results indicators	10
II.	FINANCING STRUCTURE AND MAIN RISKS	10
A.	Financing instruments	10
B.	Environmental and social risks.....	14
C.	Fiduciary risks	15
D.	Other key issues and risks	15
III.	IMPLEMENTATION AND MANAGEMENT PLAN	15
A.	Summary of implementation arrangements	15
B.	Summary of arrangements for monitoring and evaluating results.....	17

ANNEXES	
Annex I	Summary Development Effectiveness Matrix
Annex II	Results Matrix
Annex III	Fiduciary Agreements and Requirements

REQUIRED LINKS	
1	Multiyear execution plan and annual work plan
2	Monitoring and evaluation plan
3	Environmental and social review summary
4	Procurement plan

OPTIONAL LINKS	
1	Socioeconomic analysis
2	Financial and institutional viability analysis
3	Technical viability
4	Analysis of compliance with the Bank's Public Utilities Policy
5	Costs and disbursements table
6	Program Operating Regulations
7	Climate change annex
8	Gender annex
9	Operation monitoring tool
10	Environmental and social impact assessment and environmental and social management plan for the Boca Chica project
11	Environmental and social management framework for the program
12	Safeguard Policy Filter and Safeguard Screening Form

ABBREVIATIONS

CORAA	Water and sewer corporation
CORAABO	Corporación del Acueducto y Alcantarillado de Boca Chica [Water and Sewer Corporation of Boca Chica]
EIRR	Economic internal rate of return
ESAP	Environmental and social action plan
ESMF	Environmental and social management framework
FONPRODE	Fondo para la Promoción del Desarrollo [Development Promotion Fund]
GHG	Greenhouse gas
INAPA	Instituto Nacional de Aguas Potables y Alcantarillados [National Water and Sewer Institute]
KIF	Korea Infrastructure Development Cofinancing Facility for Latin America and the Caribbean
O&M	Operation and maintenance
W&S	Water and sanitation

PROJECT SUMMARY

DOMINICAN REPUBLIC

UNIVERSAL SANITATION PROGRAM IN COASTAL AND TOURIST CITIES
(DR-L1158)

Financial Terms and Conditions					
Borrower:				Korea Infrastructure Development Cofinancing Facility for Latin America and the Caribbean	Flexible Financing Facility ^(a)
Dominican Republic			Amortization period:	25 years	25 years
Executing agency:			Disbursement period:	5 years	5 years
Instituto Nacional de Aguas Potables y Alcantarillados [National Water and Sewer Institute] (INAPA)			Grace period:	7 years	5.5 years ^(b)
Source	Amount (US\$)	%	Interest rate:	1.3%	SOFR-based
IDB (Ordinary Capital):	80,000,000	42.1	Front-end fee:	0.1%	N/A
			Credit fee:	N/A	^(c)
Local counterpart contribution:	50,000,000	26.3	Inspection and supervision fee:	N/A	^(c)
Cofinancing (Korea Infrastructure Development Cofinancing Facility for Latin America and the Caribbean): ^(f)	60,000,000	31.6	Weighted average life:	N/A	15.22 years
Total:	190,000,000	100	Approval currency:	U.S. dollars	
Project at a Glance					
Project objective/description: The general objective of the program is to improve the environmental conditions and health of the inhabitants of the locations benefiting from the program through access to sustainably and safely managed sanitation services. The specific objectives of the program are: (i) to expand sanitation coverage by managing it safely in the locations covered by the program; and (ii) to improve the management of drinking water services in the locations covered by the program and to contribute to strengthening the water and sanitation operators and the National Water and Sewer Institute (INAPA).					
Special contractual conditions precedent to the first disbursement of the loan: The conditions precedent to the first disbursement of the loan are as follows: (a) a subsidiary agreement between the Borrower, represented by the Ministry of Finance, and INAPA has been signed and remains in force, setting the terms of the transfer of resources to INAPA and the parties' other execution-related obligations; (b) the program coordination unit has been set up by appointing or contracting at least: (i) one general coordinator; (ii) one procurement specialist; (iii) one financial specialist; (iv) one environmental specialist; and (v) one social specialist; and (c) the program Operating Regulations have been approved and remain in force under terms previously agreed upon with the Bank, including the environmental and social management plan, the environmental and social management framework, and the environmental and social action plan (paragraph 3.3).					
Special contractual conditions of execution: Prior to disbursement of the funds for the works in the Boca Chica sample, an agreement between INAPA and the Corporación del Acueducto y Alcantarillado de Boca Chica [Water and Sewer Corporation of Boca Chica] (CORAABO) will have been signed and remain in force, establishing how to coordinate the technical design of the works, the related execution, transfer upon completion, and the operation and maintenance obligations, as well as the manner in which technical assistance will be provided to CORAABO. See special environmental and social contractual conditions in Annex B of the program's environmental and social summary (required link 3) (paragraph 3.4).					
Exceptions to Bank policies: None.					

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

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

^(b) Under the flexible repayment options of the Flexible Financing Facility, changes to the grace period are permitted provided that they do not entail any extension of the original weighted average life or the last payment date as documented in the loan contract.

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

^(d) Bank-administered funds under the Korea Infrastructure Development Cofinancing Facility for Latin America and the Caribbean (pursuant to the agreement signed between the Republic of Korea and the Bank on 28 March 2015, as amended on 26 August 2021 to increase the facility's resources).

^(e) SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

^(f) GE (Gender Equality) and DI (Diversity); CC (Climate Change) and ES (Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

I. DESCRIPTION AND RESULTS MONITORING

A. Background, problem addressed, and rationale

- 1.1 **Background.** In the last decade, the Dominican Republic was the third most dynamic economy in Latin America and the Caribbean, growing by an annual average of 6% between 2013 and 2019.¹ The tourism industry was among the leading productive activities driving this growth and placing the Dominican Republic among the countries with the highest inflow of foreign tourists in Latin America and the Caribbean,² with annual foreign exchange income representing 8.4% of GDP and 36.4% of exports of goods and services.³ However, tourism's development and growth have not been accompanied by an increase and improvement in the available infrastructure of basic services or a reduction of poverty levels. The country has a population of 10 million, and more than 6 million tourists annually visit beach areas, cliffs, and tourist destinations spread over the entire country, but particularly along the 1,389 kilometers of coastline.
- 1.2 **The institutional framework of the water and sanitation sector.** The institutional framework of the water and sanitation (W&S) sector in the Dominican Republic involves centralized and decentralized government institutions, various ministries, nongovernmental organizations, and local and international development institutions. The Ministry of Economy, Planning, and Development defines the national development plan within which sector development plans and sector budget allocations are determined. The Ministry of Public Health and Social Assistance is responsible for ensuring equitable access to comprehensive health services. In relation to service delivery, the Instituto Nacional de Aguas Potables y Alcantarillados [National Water and Sewer Institute] (INAPA) is responsible for providing drinking water services (Law 5994/62), thus covering 41% of the country's population and 80% of its territory. Since the 1970s, in a process to decentralize the delivery of services, eight water and sewer corporations (CORAA) have been created by law in the country and operate in 20% of the territory, with the Corporación del Acueducto y Alcantarillado de Santo Domingo [Water and Sewer Corporation of Santo Domingo] being the most important and serving 38% of the country's population. CORAAs were also created in the following provinces: Santiago (Water and Sewer Corporation of Santiago), Puerto Plata (Water and Sewer Corporation of Puerto Plata), Espaillat (Water and Sewer Corporation of Moca), La Vega (Water and Sewer Corporation of La Vega), the municipio of Boca Chica (Water and Sewer Corporation of Boca Chica) (CORAABO), La Romana (Water and Sewer Corporation of La Romana), and Monseñor Nouel (Water and Sewer Corporation of Monseñor Nouel).

¹ Country strategy with the Dominican Republic 2021–2024.

² According to the [United Nations World Tourism Organization](#) the Dominican Republic is the fifth country with the highest number of tourists per year, ranking behind the United States, Mexico, Canada, and Argentina, with an annual average of six million tourists per year and projecting a record figure of seven million by 2022.

³ Data published by the [Central Bank of the Dominican Republic – January](#), 2021.

- 1.3 Diagnostic assessment of the problem of access to W&S services in the Dominican Republic.** Nationwide, only 35% of inhabitants receive continuous water service for 12 hours per day.⁴ According to the 2020 Joint Monitoring Program, only 19% of the urban population is connected to sanitary sewer networks, and only 5% of wastewater receives some kind of treatment (Sanitation Strategy, International Cooperation Technical Office – Spanish Agency for International Development Cooperation)—values well below the regional average.⁵ Approximately 60% of the wastewater treatment plants built are out of service (out of operation and not repaired, or abandoned due to lack of maintenance and high repair costs).⁶ In all, 71% of urban households in the Dominican Republic use septic tanks, generally without proper sludge treatment, thus affecting health⁷ and limiting tourism development⁸ due to the lack of services and pollution problems that affect the main tourist attractions and natural resources in coastal and tourist cities. In terms of drinking water, levels of coverage and access to service have risen in recent years both in urban and rural areas. Notable among the coastal and tourist areas with very low levels of coverage and poor-quality service are the coastal municipios of Boca Chica and Juan Dolió (east of Santo Domingo), the tourist corridor of La Romana, Bayahibe, and Dominicus, and/or in the northeast in Samaná and Las Terrenas. In these types of areas, the problem of access to services is compounded by the following: (i) accelerated growth of the urban population, stemming from the rapid development and growth of tourism industry in recent years, with limited urban planning and very low levels of service delivery; (ii) variability in demand and consumption of the resident and floating population; (iii) high levels of untreated wastewater discharges with pollution and degradation problems that affect beaches, natural resources, biodiversity, and/or protected areas and consequently impact the growth and development of tourism, which generates employment and income at the local level; (iv) significant participation of the private sector with investments in infrastructure and the provision of specific tourism services (hotels, restaurants, airports, etc.); and (v) different socioeconomic levels of the local resident population and the tourist population, which in turn have different demands and requirements for the delivery and quality of services (and different abilities to pay). Accordingly, coastal and tourist towns present particular challenges that require specific solutions.
- 1.4 Drinking water management issues.** Coupled with the problems of low sewer and wastewater treatment coverage are other factors including, inter alia, the poor reliability of services (continuity, pressure); the existence of infrastructure in poor condition; the efficiency of providers; the financial sustainability of the systems; the lack of systematic consideration of climate resilience criteria in climate change projects; the limited recognition of the opportunities for the W&S

⁴ ENHOGAR [Multipurpose National Household Survey]. 2018.

⁵ In the regional average, 78% of urban households are connected to sewer systems, and 39% of wastewater is treated.

⁶ Foro Centroamericano y República Dominicana de Agua Potable y Saneamiento, 2013.

⁷ Lack of access to sanitation causes 31% of diarrhea-related deaths globally. It is estimated that for every US\$1 invested in sanitation, there is an economic return of US\$7.30 (World Health Organization, 2012).

⁸ Tourism is highly sensitive to perceptions and images (Asian Development Bank, 2014).

sector to reduce greenhouse gas (GHG) emissions and thus support the country's goals under its nationally determined contributions; and the consideration of cultural, gender, and vulnerability issues in the design.⁹ There is also a problem of high water consumption, which leads to oversizing the sanitation infrastructure due to the high returns to the networks. The high levels of water consumption (around 600 liters/inhabitant/day for cities such as Santiago de los Caballeros)¹⁰ are related to factors including population behavior, lack of metering, and, consequently, of consumption-based pricing; and inadequate rates. In terms of pricing, rates are insufficient to cover the systems' operation and maintenance (O&M) costs and are not usually tied to metered consumption.

- 1.5 **Certain factors that explain the gaps in sanitation coverage are as follows:** (i) lack of prioritization of investments in sanitation; (ii) lack of a portfolio of preinvestment projects in sanitation; (iii) difficulties for operators to provide sanitation services in informal settlements or where irregular urban development precludes the technical feasibility of conventional sewer systems; (iv) preference for wastewater treatment plant technologies with high investment and operating costs; and (v) difficulties of access for the most vulnerable population due to technical, financial, and behavioral change-related barriers. As for drinking water, the low quality of services and the difficulties of utilities in ensuring continuity and quality in the delivery of services are associated with: (i) undersized drinking water networks with a lack of macrometering and sectorization; (ii) the difficulties of companies in ensuring the economic and financial sustainability of the services (low collection rates, low billing levels well below the average in the region, and low rates). Unable to cover operating expenses, providers then turn to the national government for subsidies to cover operating costs and investments in infrastructure to ensure service delivery; and (iii) areas with excessive consumption due to lack of micrometering and population habits.
- 1.6 **Technological innovation and digital transformation.** Investments in digitalization and automation, innovation, and the adoption of new technologies improve the efficiency of service provision ([2020 Development in the Americas Report](#)). In the Dominican Republic, medium-sized and small W&S companies (fewer than 50,000 connections) face major challenges because the existing solutions (technical and commercial registry) are not tailored to their technical and financial capacities (e.g. cost of licenses), making it especially important to develop open source solutions¹¹ for matters that require the use of geographic information systems. One of the most recurrent problems in the region is the low connection of users (50% to 70% in some cases) to sanitary sewer networks, especially where families already have an individual solution, due to limited space in homes, high associated service costs, a lack of suitable builders, and other family priorities.

⁹ IDB, 2017.

¹⁰ Strategic Development Plan for the Santiago Drinking Water System. Water and Sewer Corporation of Santiago, 2015.

¹¹ Las ventajas de la apertura. Gonzalez-Barahona.

- 1.7 **Gender, disability, and inclusion.** The gender gap in the country is 70%,¹² and the Gender Inequality Index score is 0.45.¹³ According to the Multipurpose National Household Survey,¹⁴ 46.3% of households in the country receive water service two to three days a week. Overall, 13.5% of households lack access to drinking water and 18.9% have no water inside their home or no acceptable excreta disposal,¹⁵ which forces women to spend more time on domestic and care work. The income of female-headed households is RD\$11,698 (US\$216), while the income of male-headed households is 11% higher (RD\$14,642 or US\$271);¹⁶ accordingly, affirmative action measures need to be applied for women when implementing the project's gender strategies. According to World Bank data,¹⁷ in Latin America and the Caribbean women represent more than 60% of the service sector workforce, but only 19.7% in W&S. INAPA has a Gender Department, but women's participation is below 25%; in CORAABO participation is nearly 35%. The Sistema Único de Beneficiarios [Single Beneficiary System]¹⁸ indicates that people with disabilities make up 2.3% of the country's population (48% men and 52% women). According to the United Nations (2021), there is a higher proportion of people with physical and motor disabilities, followed by visual and cognitive disabilities. In Boca Chica, 10% of the households surveyed include persons with disabilities. Of the total number of persons with disabilities, 51% are women and 49% are men. The most common types of disability found in the surveyed households are visual (50.6%), physical motor (32.9%), and hearing (20.2%)¹⁹.
- 1.8 **Climate change and environmental sustainability.** The Dominican Republic—and particularly the country's coastal tourist towns—are highly vulnerable²⁰ to the impacts of climate change given their socioeconomic, orographic, climatic, and geographic characteristics. The Ministry of Economy, Planning, and Development's 2020–2030 National Infrastructure Plan considers it a concern and a priority to address climate change and the expected effects on the provision of drinking water services, taking into account the potential impacts on public health, particularly in the country's poorest and most vulnerable regions.²¹

¹² World Economic Forum (2020). *Global Gender Gap Report 2020*. Geneva, Switzerland.

¹³ United Nations Development Programme (2020). *Human Development Report 2020: The Next Frontier. Human Development and the Anthropocene*. New York, USA.

¹⁴ [2021 Multipurpose National Household Survey](#).

¹⁵ [Sistema de Indicadores Sociales de la República Dominicana \[System of Social Indicators of the Dominican Republic\], 2019](#).

¹⁶ Survey conducted in Boca Chica for this program.

¹⁷ World Bank (2019). *Women in Water Utilities: Breaking Barriers*. Washington, D.C.

¹⁸ United Nations (2021). *Estudio sobre la situación de las personas con discapacidad en base a los datos del SIUBEN 2018: Informe final*. Santo Domingo: United Nations.

¹⁹ Certain persons with disabilities presented with more than one disability condition. Therefore, when adding up the percentages of disability types found, the result is greater than 100%.

²⁰ According to the [Intergovernmental Panel on Climate Change](#), the inhabitants and cities in coastal areas are most affected by rising temperatures and sea levels, saltwater intrusion, decreasing water quality in aquifers, and/or other extreme weather events (tropical cyclones, hurricanes, etc.).

²¹ The [Plan Nacional de Infraestructura](#) [National Infrastructure Plan] notes the additional public health concern in relation to climate change and the negative impact that freshwater scarcity, droughts, and the occurrence of more intense storms will have on sanitation and hygiene standards.

In addition, the National Climate Change Adaptation Plan of the Dominican Republic (2015-2030) defines climate change adaptation targets and specific actions²² in the W&S sector. As regards its contribution to reducing GHG emissions, the Dominican Republic has ratified the Paris Agreement and, under the nationally determined contribution estimates, has a plan with specific actions relating to climate change and sustainable development. In it, reporting is coordinated by the Ministry of Environment and Natural Resources, with reduction measures to be implemented in the sector by the CORAAs and the Instituto Nacional de Recursos Hidráulicos [National Water Resources Institute]. INAPA is responsible for reporting them to the Environmental Quality Department under the Ministry of Environment.²³

- 1.9 **Program design strategy.** In line with INAPA's action strategy and in response to the sector's challenges, the program is designed to finance infrastructure and nonstructural measures to expand the levels of access to and quality of sanitation services and to strengthen the delivery and quality levels of drinking water services in the country's tourist and coastal cities, given the particular characteristics and challenges that they present. In this regard, it is expected: (i) to narrow infrastructure gaps in sanitation (including wastewater collection and treatment); and (ii) to strengthen the institutional framework and management of drinking water. The program will contribute to expanding sanitation coverage in the Dominican Republic's coastal areas and limiting negative environmental and social externalities by eliminating wastewater discharges to beaches and rivers, thereby fostering tourism development while reducing inequalities in the project's area of influence.
- 1.10 **Bank experience in the sector and the country.** The Bank has extensive experience in the W&S sector. Between 2007 and 2021, it approved more than 170 W&S operations amounting to more than US\$28 billion. In the Dominican Republic, a US\$25.5 million operation was approved in 2012 for the Santiago Water Supply Service Improvement Program (loan [2845/OC-DR](#)), which was executed by the Water and Sewer Corporation of Santiago and aimed to improve the drinking water service in the province's metropolitan area. The outcomes achieved included an increase from 11% to 52% in the number of households with excellent service continuity levels as well as certain operating targets, such as a reduction in the percentage of electricity costs in relation to total operating costs from 29% to 23.7% ([project completion report, 2022](#)). In addition, with 99.2% of the resources disbursed, the INAPA Water and Sanitation Investment

²² The [Plan Nacional de Adaptación al Cambio Climático de República Dominicana \(2015-2030\)](#) [National Climate Change Adaptation Plan in the Dominican Republic (2015-2030)] defines objectives for the sector that take climate change into account and, to that end, set four target areas with specific measures. These measures include: (a) water demand: measures to reduce or manage drinking water demand and to educate the population; (b) water supply: measures to improve/expand water supply and availability in the future; (c) institution-strengthening: measures to improve the legal and institutional framework, technology, research, and training; and (d) water quality and sanitation: measures to improve the quality of water bodies that serve as sources for water supply systems and measures to improve the conditions of sanitation services.

²³ [Sistema Nacional de Monitoreo, Reporte y Verificación para Gases de Efecto Invernadero](#) [National Greenhouse Gas Monitoring, Reporting, and Verification System]. (Waste sector: solid waste and wastewater discharges).

Program (loan [2430/OC-DR](#)) is being executed by INAPA, which has implemented W&S works amounting to US\$70 million.²⁴ The prolonged execution time of this program (loan [2430/OC-DR](#)) can be attributed mainly to the following causes, which have been taken into account when structuring this operation: (i) high fragmentation of the number of towns where infrastructure works were performed; (ii) high number of bidding processes; and (iii) delays in the selection of towns and in the preparation of designs. Nonetheless, this program, which was cofinanced with the Spanish Agency for International Development Cooperation (AECID), anticipates that once the delays caused by COVID-19 in the supplementary works are overcome, it will benefit more than 40,000 households by improving their access to drinking water in urban areas.

- 1.11 **Lessons learned applicable to the program.** The main lessons learned and identified when evaluating similar operations in the Dominican Republic and in the region are as follows: (i) use bidding documents such as design, build, and operate or results-based contracts, as they foster innovation by companies in issues as diverse as gender and the incorporation of new technologies such as microtunneling, and reduce the total number of processes by grouping together various activities in a single contract; (ii) strengthen works supervision capacities to reduce deviations in deadlines and costs, for which the training will be supported for officials in the use of digital tools for monitoring and supervising sanitation works; (iii) ensure adequate O&M of investments, transferring responsibility for training operators to contractors, by including an operation period in the contracts; and (iv) expedite the process of preparing bidding documents and reducing as far as possible the number of total processes, even if this entails working with more complex processes.
- 1.12 **National government's strategy for the sector.** The program is aligned with the National Commitment for the Water Pact (2021-2036),⁸ considering sanitation management as one of the key areas for ensuring 100% coverage by 2036. It envisages an investment plan to replace obsolete networks and new infrastructure, a process of institutional restructuring with service providers, and additional measures to improve service quality. In addition, all of the master plans for the development of the country's tourist cities rank the lack of sanitation as one of the main problems. The priorities of the National Investment Plan (2018) also included the sanitation for tourist and coastal cities.
- 1.13 **The IDB Group country strategy.** The program is framed within the Bank's Country Strategy with the Dominican Republic 2021-2024 (document GN-3084) through the priority area relating to the "strengthening of human capital" and the strategic objective to "boost access to improved water and sewer services." Specifically, it will contribute to the indicator on the percentage of the population using improved sanitation facilities.
- 1.14 **Strategic alignment.** The program is aligned with the second Update to the Institutional Strategy (document AB-3190-2) and aligns with the following development challenges: (i) social inclusion and equality, by expanding sanitation

²⁴ This program has successfully implemented an innovative results-based technical assistance contract that included support for improved management combined with the execution of works and procurement of equipment.

coverage and improving the quality of W&S services in the country's tourist towns and coastal areas with unmet basic needs and low levels of access to quality public services (paragraphs 1.3, 1.4, 1.5, and 1.18); and (ii) productivity and innovation, by using new digital and innovative technologies enabling the development of registries, the supervision of works, and the optimization of processes to improve productivity in the delivery of services and the execution of projects (paragraphs 1.6, 1.17, and 1.18). It is also aligned with the crosscutting themes of: (i) gender equality, by promoting the inclusion of gender requirements in the bidding documents for the entire program (paragraphs 1.7 and 1.16); (ii) diversity, by promoting accessibility both in public spaces and in households through the connectivity program for the most vulnerable population (paragraph 1.7); (iii) institutional capacity and rule of law, by strengthening the capacities of operators and INAPA, including the application of AquaRating in the specific institutional strengthening modules; and (iv) climate change and environmental sustainability, by promoting measures for the adaptation of W&S services that include improvements in management, the reduction of drinking water losses, and technological design alternatives. In addition, the sanitation program investments contribute to avoiding GHG emissions (methane, nitrous oxide, and carbon dioxide) from sanitation projects during operation. In all, 79.15% of the operation's resources are invested in climate change adaptation activities, according to the [joint methodology of the multilateral development banks for tracking climate finance](#). These resources contribute to the IDB Group target of increasing financing for climate-related projects to 30% of approvals by the end of 2022 (paragraphs 1.8 and 1.19).

- 1.15 In addition, the operation is aligned with the institutional priorities of Vision 2025: Reinvest in the Americas, specifically with the Tier 1 priorities to: (i) reactivate the productive sector, by promoting better quality investment and digital connectivity; (ii) promote social progress, by improving the quality of W&S services; (iii) strengthen good governance and institutions, by strengthening operators and INAPA with technical assistance and training; and (iv) reinforce gender equality, diversity, and climate change, by including the various activities and proposals set out in the document. In addition, it will contribute to the Corporate Results Framework 2020-2023 (document GN-2727-12) through the development outcomes "households with improved access to W&S" and "institutions with strengthened managerial and digital technology capacities" and is aligned with the Sustainable Infrastructure Strategy for Competitiveness and Inclusive Growth (document GN-2710-5), particularly with the priority area to "support the construction and maintenance of an environmentally and socially sustainable infrastructure, thus enhancing quality of life." Lastly, the program is consistent with: (i) the Water and Sanitation Sector Framework Document (document GN-2781-13), with the premise that "projects and programs are environmentally and socially sustainable and incorporate climate change considerations and environmental and cultural sustainability"; (ii) the Climate Change Sector Framework Document (document GN-2835-8) with the premise relating to the fourth dimension of success that "countries make progress on mainstreaming climate change considerations across sectors"; and (iii) the Gender and Diversity Sector Framework Document (document GN-2800-8) related to the provision of "quality public services that promote gender equality or women's empowerment" as well as projects that support the social inclusion of people with disabilities.

Lastly, the program contributes to the 2030 Agenda targets—directly to Sustainable Development Goals 6, 9, 10, 11, 12, and 13 and indirectly to Sustainable Development Goals 1 and 3.

- 1.16 **Strategy for gender and diversity inclusion.** Taking into account the diagnostic assessment, the program proposes a two-pronged strategy: (1) Strategies to be implemented at the executing agencies (INAPA and CORAABO): (i) gender diagnostic assessment using AquaRating's G&D Module; (ii) awareness-building and training workshops on issues relating to gender and people with disabilities; (iii) inclusion in the bidding documents of wording that considers a gender perspective and persons with disabilities; (iv) proposal of a code of ethics and workplace conduct; (v) dissemination and promotion plan for the code; (vi) preparation of a policy for inclusion of persons with disabilities; and (vii) inclusion of a gender and disability perspective in the design of CORAABO facilities. (2) Strategies to be implemented at community level: Technical training plan for women in jobs relating to the construction and installation of sanitation networks and connections, with emphasis on the participation of women heads of household. This training plan will help enhance women's skills and promote their employability.
- 1.17 **Strategy for incorporating innovations in W&S management services.** The digital transformation of INAPA and the CORAAs is being supported through the digitalization of both the technical and drinking water customer registries and the full project execution cycle (design, evaluation of bids, and execution of works) made possible by technical cooperation funding. Digitalization of the project cycle commenced with the development of the designs using the [SaniBID](#) platform, which works with an open-source geographic information system (QGIS)²⁵ to be completed by developing a specific works supervision module. In order to achieve high levels of sewer connection and ensure that the most irregular urban areas are not excluded, results-based contracts will be used that include household connections and the possibility of using condominial sanitation areas where required.
- 1.18 **Collaboration with IDB Lab to promote connectivity in sanitation projects.** In parallel to preparation of the program, work is being carried out with IDB Lab on a pilot project to incorporate technological solutions to connect 200 households to the San Pedro de Macorís sewer system, including access for persons with disabilities. The initiative will seek to structure partnerships with various actors that can finance and secure sustainability of the pilot's expansion within the framework of this program. The pilot will rely on the Source of Innovation alliance²⁶ to raise funds for innovative solutions so that quality access to water and sanitation services are within reach. As part of this pilot, a results-based payment mechanism will be implemented, possibly in combination with microfinancing, so that

²⁵ <https://www.qgis.org>.

²⁶ Together with Switzerland through its State Secretariat for Economic Affairs, the FEMSA Foundation, and the support of the Government of Israel, the IDB Group seeks to promote the development and adoption of innovative solutions in the water, sanitation, and solid waste sector to achieve smart, inclusive, and sustainable services, with a focus on service providers in Latin America and the Caribbean.

beneficiary families can undertake the home renovations and toilet configuration necessary to connect to the sanitation network.

- 1.19 **Strategy for incorporating climate change considerations.** In line with national objectives (national adaptation plan of the Dominican Republic, the infrastructure plan, and the national GHG monitoring and reporting system for the sector), the program envisages actions and measures to improve climate change resilience,²⁷ thereby ensuring the provision of services with reduced losses and improved operational efficiency and monitoring measures to ensure water quality and availability. In addition, measures for the design of the infrastructure and for the execution of the works (e.g., microtunneling) have been considered in the program's design, which will minimize emissions from the projects. These measures are also aligned with the objectives and strategy to reduce social and environmental impacts.
- 1.20 **Compliance with the Public Utilities Policy (document GN-2716-6).** The proposed program and country sector objectives are consistent with the principles of the Public Utilities Policy (document GN-2716-6) and meet conditions of financial sustainability and economic evaluation. The financial evaluation conducted showed that the operator in the sample has the financial capacity to meet the commitments arising from the investments proposed in this program, based on the implementation of the management improvement actions identified.

B. Objectives, components, and cost

- 1.21 The general objective of the program is to improve the environmental conditions and health of the inhabitants of the locations benefiting from the program through access to sustainably and safely managed sanitation services. The specific objectives of the program are: (i) to expand sanitation coverage by managing it safely in the locations covered by the program; and (ii) to improve the management of drinking water services in the locations covered by the program and to contribute to strengthening the water and sanitation operators and INAPA.
- 1.22 **Component 1. Expansion and optimization of sanitation infrastructure (US\$166 million).** Financing will be provided to build interceptors and collectors and to expand, renovate, and optimize wastewater treatment plants and marine outfalls in the municipios of the coastal and tourist areas selected during program execution, as well as intrahousehold connections. In selecting treatment technologies, those that contribute to the climate change targets will be given priority, and those with lower costs and operational complexities will be selected (paragraph 2.4).
- 1.23 **Component 2. Institution-strengthening and efficiency improvements in the sector (US\$18.5 million).** The program will strengthen INAPA and the W&S providers in the municipios covered by the program. Activities to be financed include an analysis of the rate structure, proposed cost recovery mechanisms, awareness-raising campaigns, training programs, wastewater management plans, and asset management. In addition, management programs will be

²⁷ The program is expected to finance aquifer and flood studies with a climate change perspective.

financed, including modernization of the technical and commercial registry, sectorization, micrometering, digitalization, energy efficiency improvement, and rapid impact projects. The design and implementation of gender and diversity strategies in the various sector institutions will be financed (including, for example, the construction of the CORABOO office building following a gender and disability approach). Training will also be financed to quantify the GHG emissions reduced during operation of the W&S systems and to use technologies with lower emissions. Behavioral change campaigns will be conducted in relation to rate payments to promote sustainable consumption and expand connectivity to sewer systems through the technical assistance contract. Innovative tools such as AquaRating will be used to make an improvement plan available for the companies, which will be implemented through the technical assistance contract.

- 1.24 **Administration, audit, monitoring, and evaluation (US\$5.5 million).** Financing will be provided for external audit, works supervision, midterm and final evaluations, administration, and other program-related operations.²⁸

C. Key results indicators

- 1.25 The program will benefit approximately 56,000 households with access to safe sanitation services. In addition, both INAPA and the W&S operators will be strengthened in key areas of W&S service management.

Table 1. Key Results Indicators

Outcome indicator	Unit of measure	Baseline	Target
Households with new access to safely managed sanitation in the program intervention areas	Households	0	56,000
Percentage of customers billed in the program intervention areas	%	31	100

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing instruments

- 2.1 **Financing structure and modality.** The operation will be executed as an investment loan structured as a multiple works program, as it will finance technically similar but mutually independent works, the feasibility of which does not depend on the execution of a particular number of projects and the individual size of which does not call for the Bank's direct management of the operation. The execution and disbursement period will be five years. The deadline to physically commence program works will be two years as of the effective date of the loan contract.
- 2.2 **Cost and financing.** The total cost of the program is US\$190 million, financed with US\$80 million from the Bank's Ordinary Capital and US\$60 million from the Korea Infrastructure Development Cofinancing Facility for Latin America and the

²⁸ Operating costs include expenses for stationery, offices, furniture, etc. See [optional link 5](#) – Costs and Disbursement Table.

Caribbean (KIF).²⁹ There will be a local contribution of US\$50 million, which may come from the Fondo para la Promoción del Desarrollo [Development Promotion Fund] (FONPRODE) or another source of financing.

Table 2. Estimated program costs³⁰ (US\$ thousands)

Components	IDB	Local contribution ³¹	KIF	Total	%
Component 1. Expansion and optimization of sanitation infrastructure	62,000	47,000	57,000	166,000	87.37
1.1 Boca Chica sanitation	18,000	32,000	30,000	80,000	42.11
1.2 Sanitation systems 2 and 3 (including connectivity)	44,000	15,000	27,000	86,000	45.26
Component 2. Institution-strengthening and efficiency improvements in the sector	12,500	3,000	3,000	18,500	9.74
2.1 Rapid impact measures for improved water management in Boca Chica	8,000	0	0	8,000	4.21
2.2 Other Component II activities	4,500	3,000	3,000	10,500	5.53
Administration or other contingent expenses	5,000	0	0	5,000	2.63
Audit, monitoring, and evaluation	500	0	0	500	0.26
Total	80,000	50,000	60,000	190,000	100

2.3 Disbursement schedule. The disbursement schedule is presented in the following table.

Table 3. Disbursement Schedule (US\$ thousands)

Component	Year 1	Year 2	Year 3	Year 4	Year 5	Total	%
IDB	5,726	21,429	25,194	13,820	13,831	80,000	42
Local contribution	8,000	16,000	8,000	7,500	10,500	50,000	26
KIF	7,800	26,700	24,600	900	0	60,000	32
Total	21,526	64,129	57,794	22,220	24,331	190,000	100

2.4 Sample. A representative sample was analyzed as part of the program design. The entire Boca Chica sanitation project was analyzed for a total amount of US\$80 million, equivalent to 42% of the total amount of the program. The sample

²⁹ The funds were approved on 8 September 2022.

³⁰ The distribution by component may be changed by written agreement between the parties provided that the program objectives remain the same.

³¹ The local contribution may include resources from the Development Promotion Fund (FONPRODE) of the Kingdom of Spain or another source of resources.

project provides for the construction of the sewer system for the Boca Chica district (Boca Chica and Andrés), including 7,000 new connections to secondary networks, 18 kilometers of collectors (open trench and microtunneling), five pump stations, and one feed line leading to a treatment plant with discharge to a marine outfall measuring 588.5 meters at Punta Caucedo. The designs for the second sewer system are at an advanced stage and, accordingly, the bidding documents for the first and second systems (US\$134 million) will be available by December 2022.

- 2.5 **Eligibility criteria for works and prioritization of projects.** Works to be financed with program resources will meet the following requirements: (i) they will be feasible from a technical, institutional, legal, financial, environmental and social, and socioeconomic perspective (works are socioeconomically feasible if they have an economic internal rate of return (EIRR) greater than 12% under a cost-benefit analysis or if the most cost-efficient alternative was selected using a cost-effectiveness analysis following IDB guidelines and the considerations defined in the program Operating Regulations); (ii) they are not classified as Category A operations under the environmental and social classification of the Bank's Environmental and Social Policy Framework and the guidelines set out in the program's environmental and social management framework (ESMF); (iii) there is an agreement in force between INAPA and the CORAA to operate and maintain such works; and (iv) INAPA and the CORAA hold the necessary rights over the property where the works in question will be performed. Projects will be prioritized on the basis of the following criteria, which are detailed in the program Operating Regulations: (i) in areas with low sewer and wastewater treatment coverage; (ii) in the country's coastal and tourist provinces; and (iii) based on the poverty index.
- 2.6 **Technical viability.** The evaluation of the technical files in the preliminary draft for the sample project ([optional link 3](#)) concluded that it adequately responds to the needs identified and objectives defined for the program. The designs are based on a medium- to long-term vision, following widely accepted engineering principles. The prioritized solutions drew from an analysis of appropriate alternatives, with advanced studies and designs for potential bidding. The program Operating Regulations will detail the eligibility and prioritization criteria to be taken into account for the rest of the projects to be financed under the program.
- 2.7 **Socioeconomic viability.** A socioeconomic analysis of the sample works was conducted as part of the program's viability analysis. To determine the return, a cost-benefit analysis of the Boca Chica works was conducted. Benefits were quantified through the population's willingness to pay for sewer and wastewater treatment services. The costs used were investment costs and incremental O&M costs at subsidized prices. Using a discount rate of 12%, the project is viable with an EIRR of 14.5% and a net present value of US\$10,329,896 as presented in the socioeconomic annex. A sensitivity analysis was performed to determine the changes in the project's return in response to changes in the main assumptions of the economic evaluation.

- 2.8 For projects that were not evaluated (because they lack final designs), a cost-benefit analysis will be carried out, and only projects with an EIRR above 12% may be financed by the program.
- 2.9 In addition, interventions to strengthen CORAABO's management were analyzed in terms of micrometering, sectorization, and the registry that contribute to reducing nonrevenue water. Its socioeconomic return was determined through a cost-benefit analysis. The benefits correspond to savings in production costs through reduced physical losses, as more water will be incorporated into the system. The costs used were investment costs. Using a discount rate of 12%, the nonrevenue water project is viable with an EIRR of 99% and a net present value of US\$45.6 million. Lastly, in order to analyze program viability, an aggregate cost-benefit analysis was carried out. The benefits and costs of the sanitation project in Boca Chica and the drinking water interventions at CORAABO were grouped together. The program is viable with an EIRR of 21% and a net present value of US\$47.3 million.
- 2.10 **Institutional viability.** The results of the institutional capacity assessment carried out through the application of the Institutional Capacity Assessment Platform methodology lead to a satisfactory verification of INAPA's execution conditions, because: (i) INAPA has executed projects with financing from the Spanish Cooperation Fund for Water and Sanitation in Latin America and the Caribbean, the European Union, and country funds. It is currently executing projects with IDB (in the process of closing) and World Bank financing; (ii) it has personnel available to perform general program coordination; and (iii) it has experience in procurement processes and the procedures adopted have been those of the lender, demonstrating adequate performance. Certain measures are recommended to contribute to timely and quality execution, such as: (i) purchasing MS Project licenses to monitor program execution; (ii) including in program administration costs the following items: office, computers, printers, vehicles for works supervision, design and monitoring software licenses, internet service, and mobile phones; (iii) hiring the technical personnel required for the program in design; (iv) analyzing the institutional agreements that will be required to minimize the risk of budget constraints to finance the program's O&M expenses; (v) reviewing the timing of procurement processes and developing process flow charts as annexes to the program Operating Regulations; (vi) including in the program's multiyear execution plan the review and update of technical specifications before bidding; and (vii) contracting nongovernmental organizations for the program's social and environmental management with the support of INAPA specialists. In the last three years INAPA has strengthened the team, resulting in: (i) higher execution of own and international resources (four times more funds have been executed than in the past); (ii) increased efficiency in the development of decision-making processes; and (iii) greater institutional and political strength.
- 2.11 **Financial viability.** The diagnostic assessment of CORAABO's financial analysis verified that, if its current conditions remain in place, transfers from the central government are necessary to sustain the services. Revenue fails to cover operating costs (around 50%). Some of the identified causes of the company's problem are: (i) high level of water loss (55.6%); (ii) low level of micrometering: 80% of customers not metered; (iii) 70% of customers not billed (inactive);

(iv) low level of withdrawal by [ACEA](#); (v) need to build personnel capacities; and (vi) the accounting records do not reflect the situation of the services. Financial projections for the next 15 years that include the implementation of institutional strengthening actions show positive EBITDA in 2029.

B. Environmental and social risks

- 2.12 Under the Bank's Environmental and Social Policy Framework, the program is classified as a Category B operation since the negative impacts generated by the works are expected to be moderate, localized, and short-term in nature. During the construction of interceptors, collectors, pump stations, and the treatment plant for the Boca Chica project, impacts on air quality, noise and vibrations, the risk of occupational and traffic accidents, community dissatisfaction due to temporary road closures, and obstruction of access to homes and/or businesses are expected, with possible temporary economic impacts on businesses located in the targeted streets. As for the marine outfall, during construction certain minor and temporary effects on marine fauna could arise. No alterations to water quality are expected during the operation. The project will not give rise to physical or economic displacement, affect cultural heritage, or have an impact on indigenous peoples. As a multiple works operation, and in compliance with the requirements of the Environmental and Social Policy Framework and its 10 Environmental and Social Performance Standards, an environmental and social impact assessment and environmental and social management plan have been drawn up for the Boca Chica project; an ESMF has been prepared for future projects outside the sample; and the program's environmental and social management system has been prepared. The operation's environmental and social risk is classified as substantial due to INAPA's limited experience in applying the Bank's new Environmental and Social Policy Framework. To mitigate this risk, the environmental and social management system establishes measures for institutional strengthening, including training INAPA's socioenvironmental team and the operators, and developing socioenvironmental management procedures and instruments in line with the Environmental and Social Policy Framework. The main natural hazards in the Boca Chica area are earthquakes, hurricane, tsunamis, and sea level rise. According to the Bank's disaster risk management methodology, the criterion relating to physical characteristics is low, the loss of essential services in case of failure is moderate, and the interaction with the anthropogenic and natural environment is low. Accordingly, the program has a moderate disaster risk rating.
- 2.13 A meaningful stakeholder consultation on the Boca Chica project was held on 22 July 2022. The consultation was held in hybrid format, with an in-person event in which 203 people participated, along with a simultaneous virtual broadcast via INAPA's Facebook and YouTube pages. Questions from participants focused on the program's technical considerations. In order to strengthen the discussion of the environmental and social impacts and proposed mitigation measures, a new consultation will be held prior to bidding on the works, as indicated in the environmental and social action plan (ESAP). The environmental and social action plan also includes the requirement to develop a business impact compensation plan if impacts on businesses located on the streets undergoing work are identified during construction and to update the disaster risk management plan for the Boca Chica project prior to bidding on the works. The

Boca Chica environmental and social impact assessment and environmental and social management plan, including the consultation report, and the program's ESMF are available on the Bank's website.

C. Fiduciary risks

- 2.14 Since the executing agency has extensive knowledge and experience in implementing Bank-financed projects, no major fiduciary risks are expected to arise. Three design, build, and operate contracts are identified which, due to their complexity, could present risks in terms of the timing of the bidding processes and the execution of these works. The measures envisaged to mitigate this risk are identified in Annex III. With regard to financial management, the executing agency has the experience and knowledge to support the program's financial execution. Potential financing with FONPRODE funds is envisaged, for which the Bank could provide certain services under the framework agreement signed between the Bank and the Kingdom of Spain. Based on these considerations, the fiduciary risk is medium-low.

D. Other key issues and risks

- 2.15 **Other risks.** A medium-high level risk has been identified as the potential delay in the approval of projects and bidding on the works planned under the infrastructure component (associated with the complexity of the works) and, consequently, the preparation of bidding documents and/or the appropriate evaluation of bids (root cause), which could lead to underexecution and therefore delays in the fulfillment of the program's objectives. As a mitigation measure for this risk, technical support is being provided to INAPA through technical assistance funds to ensure the appropriate preparation of bidding documents and timely bidding of the final projects with a view to preventing delays and ensuring proper program execution.
- 2.16 **Sustainability.** In order to ensure the sustainability of the works to be financed under the program, several instruments have been identified: (i) an agreement entered into by INAPA and the water utilities in which a commitment will be made in relation to technical support and the O&M of the works (paragraph 3.4); (ii) rapid impact interventions to improve drinking water service, boost the utilities' revenues, and make operating expenses more efficient (paragraph 1.14); and (iii) use of nonreimbursable Bank instruments that support technological, operational, and social innovation to contribute to greater community involvement in the sustainability of services (paragraphs 1.16 and 1.17).

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

- 3.1 **Implementation-related considerations.** The borrower will be the Dominican Republic, and the executing agency will be INAPA, which will be responsible for administration of the loan proceeds and the fulfillment of the operation's objectives. INAPA will be responsible for coordinating all the program's technical and operational activities, including accounting records and compliance with the program Operating Regulations. The CORAAs will participate in program execution in the area for which they provide the service. Wherever the program is

developed in an area operated by a CORAA, the transfer of the operation of the systems from INAPA will be facilitated by adding an operation phase in the construction contracts for the more complex works such as pump stations or wastewater treatment plants. A coordination board will be set up with the participation of other donors as well as the Dominican government through INAPA.

- 3.2 **Program Operating Regulations.** The program will be governed by the executing agency's program Operating Regulations ([optional link 6](#)), defining the needs and specifications established for the program. The program Operating Regulations detail the project cycle, institutional coordination mechanisms and instruments, and technical, environmental and social, fiduciary, and other criteria and specifications.
- 3.3 **Special contractual conditions precedent to the first disbursement of the loan.** The conditions precedent to the first disbursement of the loan will be as follows: (a) a subsidiary agreement between the Borrower, represented by the Ministry of Finance, and INAPA has been signed and remains in force, setting the terms of the transfer of resources to INAPA and the parties' other execution-related obligations; (b) the program coordinating unit has been set up by appointing or contracting at least: (i) one general coordinator; (ii) one procurement specialist; (iii) one financial specialist; (iv) one environmental specialist; and (v) one social specialist; and (c) the [program Operating Regulations](#) have been approved and remain in force under terms previously agreed upon with the Bank, including the environmental and social management plan, the ESMF, and the ESAP. Ensuring cross-sector and institutional coordination, these conditions will also ensure that INAPA has allocated the minimum personnel necessary for proper program execution.
- 3.4 **Special contractual conditions for execution:** Prior to disbursement of the funds for the works in the Boca Chica sample, an agreement between INAPA and CORAABO will have been signed and remain in force, establishing how to coordinate the technical design of the works, the related execution, transfer upon completion, and the operation and maintenance obligations, as well as the manner in which technical assistance will be provided to CORAABO. See special environmental and social contractual conditions in Annex B of the program's environmental and social summary ([required link 3](#)). In order for works to be eligible for program financing, an agreement will be entered into by INAPA and the CORAA in question (see eligibility criteria). This will set out the manner of coordination of the technical design of such works, the related execution, transfer once completed, and O&M obligations.
- 3.5 **Procurement and audits.** Procurement financed in whole or in part with loan proceeds will be undertaken in accordance with the Policies for the Procurement of Goods and Works Financed by the IDB (document GN-2349-15) and the Policies for the Selection and Contracting of Consultants Financed by the IDB (document GN-2350-15). Any advanced country system (including the subsystems for national competitive bidding, shopping, framework agreement, reverse auction, and individual consultants) that has been approved by the Bank's Board of Executive Directors (document GN-2538-22 of 2017) will be

used in accordance with the scope provided for in the respective approval and as set forth in Annex III hereof.

B. Summary of arrangements for monitoring and evaluating results

- 3.6 **Monitoring.** The executing agency will prepare reports on the progress and achievement of outcomes relating to the activities under its responsibility. The monitoring structure will include the procurement plan, the program execution plan, the annual work plan, the results matrix, the progress monitoring report, and the risk management plan. The executing agency will submit to the Bank semiannual reports on the progress made and outcomes achieved as well as an action plan for the following six-month period within 60 days of the end of each six-month period ([required link 2](#)).
- 3.7 **Evaluation.** The executing agency will contract for: (i) a midterm evaluation, which will be submitted 90 days after the date on which 50% of the program resources have been disbursed and (ii) a final evaluation, which will be submitted 90 days after the date of the final disbursement of program resources ([required link 2](#)). The proposed evaluation methodology will use a before and after comparison, which will consist of measuring the outcome indicators after the interventions have been implemented and comparing the measurements to verify achievement of the targets. As part of the final evaluation, an ex post economic evaluation will be conducted, the methodology of which is detailed in the monitoring and evaluation plan ([required link 2](#)).
- 3.8 **Operation and maintenance.** Through the executing agency, the borrower will agree to take the necessary measures to ensure that the program's works and assets are properly maintained in accordance with generally accepted technical standards. During the disbursement period and as part of the semiannual progress reports, the borrower will submit a report on the status of such works and goods through the executing agency. If Bank inspections or reports received by the Bank determine that maintenance is being performed below the agreed upon levels, the borrower, through the executing agency, will adopt the necessary measures to fully remedy the deficiencies.

Development Effectiveness Matrix		
Summary		DR-L1158
I. Corporate and Country Priorities		
Section 1. IDB Group Strategic Priorities and CRF Indicators		
Development Challenges & Cross-cutting Issues	-Social Inclusion and Equality -Productivity and Innovation -Gender Equality and Diversity -Climate Change -Institutional Capacity and the Rule of Law	
CRF Level 2 Indicators: IDB Group Contributions to Development Results	-Households with improved access to water and sanitation (#)	
2. Country Development Objectives		
Country Strategy Results Matrix	GN-3084-1	Increase access to improved sources of drinking water and sewage
Country Program Results Matrix	GN-3087	The intervention is included in the 2022 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		Párrafo 1.16
II. Development Outcomes - Evaluability		Evaluable
3. Evidence-based Assessment & Solution		9.7
3.1 Program Diagnosis		2.5
3.2 Proposed Interventions or Solutions		3.2
3.3 Results Matrix Quality		4.0
4. Ex ante Economic Analysis		10.0
4.1 Program has an ERR/NPV, or key outcomes identified for CEA		1.5
4.2 Identified and Quantified Benefits and Costs		3.0
4.3 Reasonable Assumptions		2.5
4.4 Sensitivity Analysis		2.0
4.5 Consistency with results matrix		1.0
5. Monitoring and Evaluation		9.5
5.1 Monitoring Mechanisms		4.0
5.2 Evaluation Plan		5.5
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood		Medium Low
Environmental & social risk classification		B
IV. IDB's Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury, Accounting and Reporting. Procurement: Information System, Price Comparison.
Non-Fiduciary		
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project		

The general objective of the operation is to improve the environmental and health conditions of the population through access to sustainable and safely managed sanitation services. The specific objectives are: (i) increase the coverage of safely managed sanitation in the localities affected by the program; and (ii) improve the operation of drinking water services in the localities affected by the program and contribute to the strengthening of water and sanitation operators and INAPA.

The loan proposal presents a clear diagnosis of the problem related to the low coverage and quality of sanitation services and to the deficiencies in the operation of drinking water services. Among the factors that explain the gaps in sanitation coverage are the lack of investments prioritization, as well as technical, financial, and behavioral barriers among the most vulnerable populations. For drinking water, problem determinants include lack of macro and micro metering, sectorization and the difficulty to ensure the financial sustainability of services, among others. To address these factors, the project will implement interventions grouped into two components: I) Expansion and optimization of sanitation infrastructure; and II) Institutional strengthening and efficiency improvements in the sector.

The results matrix (MR) is consistent with the diagnosis and the proposed solutions and adequately reflects the vertical logic of the project. The output and result indicators have their respective baseline values, targets and corresponding means of verification.

The economic analysis uses a cost-benefit analysis (CBA) of the sewerage expansion project in the municipality of Boca Chica (42% of total amount of the project) in which the benefits were estimated based on the willingness to pay for improved services. Additionally, a CBA was carried out for the interventions that aim to improve the operation of water systems in Boca Chica. Based on the aggregate analysis of both components, the project is economically viable with a rate of return of 21.4% (using a discount rate of 12%).

The monitoring and evaluation plan proposes a retrospective evaluation based on a "before and after" analysis of the result indicators in the RM, as well as an ex-post cost-benefit analysis. Additionally, complementary evaluations with attribution are contemplated to measure the effect of innovative behavior change interventions aimed at incentivizing sewerage connectivity and reducing water consumption. M&E arrangements have a properly identified budget.

RESULTS MATRIX

Project objective	<p>The general objective of the program is to improve the environmental conditions and health of the inhabitants of the locations benefiting from the program through access to sustainably and safely managed sanitation services.</p> <p>The specific objectives of the program are: (i) to expand sanitation coverage by managing it safely in the locations covered by the program; and (ii) to improve the management of drinking water services in the locations covered by the program and to contribute to strengthening the W&S operators and INAPA.</p>
--------------------------	---

SPECIFIC DEVELOPMENT GOALS

Indicators	Unit of measure	Baseline value	Baseline year	Year 1	Year 2	Year 3	Year 4	Year 5	End of project	Means of verification/Comments
Specific development objective 1: Expand coverage of safely managed sanitation in the targeted program locations.										
1.1 Households with new access to safely managed sanitation in the targeted program locations.	Households	0	2022					56,000	56,000	Means of verification: Report of updated companies and user registry. Safe sanitation includes wastewater treatment, according to target 6.2 of the Sustainable Development Goals.
1.2 Sewer connection rate in the targeted program locations.	%	3.3	2022					80	80	Means of verification: Households connected to sewer systems/Customer households according to water registry. The baseline corresponds to households connected to untreated (unsafe) sewer systems.
Specific development objective 2: Improve the management of drinking water services in the locations covered by the program and to contribute to strengthening the water and sanitation operators and the National Water and Sewer Institute (INAPA).										
2.1 Micrometering rate in targeted program locations.	%	25	2022	25	25	50	60	60	60	Micrometered customers / Total active customers.
2.2 Percentage of customers billed in targeted program locations.	%	31.3	2022	31.3	31.3	41.2	76.5	100	100	Means of verification: Issuance of invoices based on the commercial system and connections in the registry. Customers billed/customers registered in the water network.

OUTPUTS

Output	Unit of measure	Associated specific development objective	Cost (US\$)	Base-line	Year 1	Year 2	Year 3	Year 4	Year 5	Final	Comments/means of verification
Component 1: Expansion and optimization of sanitation infrastructure											
1.1 Boca Chica sanitation system built	system	1	80,258,000	-	-	-	1	-	-	1	<u>MV</u> : Final acceptance certificate, including household connection certification <u>Responsible entity</u> : Program execution unit
1.2 Sanitation system 2 built outside of the program sample	system	1	54,121,000	-	-	-	1	-	-	1	<u>MV</u> : Final acceptance certificate, including household connection certification <u>Responsible entity</u> : Program execution unit
1.3 Sanitation system 3 built outside of the program sample	system	1	30,121,000	-	-	-	-	-	1	1	<u>MV</u> : Final acceptance certificate, including household connection certification <u>Responsible entity</u> : Program execution unit
1.4 Household connections of vulnerable population ¹ built	connection	1	2,000,000	-	-	-			1,000	1,000	<u>MV</u> : Final acceptance certificate <u>Responsible entity</u> : Program execution unit
Component 2: Institution-strengthening and efficiency improvements in the sector											
2.1 CORAABO commercial and operational assistance contract executed.	contract	2	3,000,000	-					1	1	<u>MV</u> : Final consulting report <u>Responsible entity</u> : Program execution unit This contract will cover considerations relating to innovation and digital transformation, as well as the implementation of behavioral change campaigns to reduce consumption and connectivity.
2.2 CORABOO office building built following a gender and disability approach	building	2	1,000,000	-	-	-	1	-	-	1	<u>MV</u> : Final acceptance certificate <u>Responsible entity</u> : Program execution unit
2.3 Improved Boca Chica drinking water system (including sectorization, macrometering, and micrometering)	system	2	8,000,000	-	-	-	-	-	1	1	<u>MV</u> : Final acceptance certificate <u>Responsible entity</u> : Program execution unit

¹ Vulnerable population is considered to be those below the poverty line.

Output	Unit of measure	Associated specific development objective	Cost (US\$)	Base-line	Year 1	Year 2	Year 3	Year 4	Year 5	Final	Comments/means of verification
2.4 Improved drinking water system in other program cities (including sectorization, macrometering, and micrometering)	system	2	6,000,000	-	-	-	-	1	1	2	<u>MV</u> : Final acceptance certificate <u>Responsible entity</u> : Program execution unit
2.5 Gender and inclusion strategy in targeted program locations designed and under implementation.	strategy	2	500,000	-	-	-	1	-	2	3	<u>MV</u> : This outcome is deemed to be in met when: (i) the strategy has been designed and (ii) when 60% of the activities have been implemented and the remaining 40% are planned. <u>Responsible entity</u> : Program execution unit

Country: Dominican Republic

Division: WSA

Operation number: DR-L1158

Year: 2022

FIDUCIARY AGREEMENTS AND REQUIREMENTS

Executing agency: Instituto Nacional de Aguas Potables y Alcantarillados [National Water and Sewer Institute] INAPA

Operation name: Universal Sanitation Program in Coastal and Tourist Cities

I. Fiduciary Context of the Executing Agency

1. Use of country system in the operation (any system or subsystem that is subsequently approved may be applicable to the operation, in accordance with the terms of the Bank's validation).

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

2. Fiduciary execution mechanism

<input checked="" type="checkbox"/>	Cofinancing	Potential cofinancing from the Korea Infrastructure Development Cofinancing Facility for Latin America and the Caribbean (KIF) is envisaged. In addition, the Bank may provide certain services in related to the financing from FONPRODE to the Dominican Republic, under the terms of the framework agreements signed between the Bank and the Kingdom of Spain.
-------------------------------------	-------------	--

3. Fiduciary capacity

Fiduciary capacity of the executing agency	<p>The executing agency's institutional capacity was assessed by applying the Institutional Capacity Assessment Platform methodology. The assessment of the executing agency's fiduciary capacity is satisfactory.</p> <p>Since the executing agency has extensive knowledge and experience in implementing Bank-financed projects, no major fiduciary risks are expected. However, a need has been identified to strengthen the program coordination unit with additional personnel, including technical coordinators for each component and professionals in different areas, including procurement and financial management.</p>
--	---

4. Fiduciary risks and risk response

Risk taxonomy	Risk	Level of risk	Risk response
Governance systems	Financial management and procurement	Medium-low	1. Actions relating to the ongoing strengthening of the executing agency through training, assistance, and supervision in fiduciary matters by the Bank's fiduciary team.

Risk taxonomy	Risk	Level of risk	Risk response
			2. Strengthen the project team with support consultants so that the team's workload can be properly distributed, financial formalities can be completed on time, and requirements for the bidding process design and management can be met.
Bidding for major works	Procurement	Medium-low	<p>1. Detailed planning of bidding and setting up a system for monitoring achievement of the milestones planned for each process.</p> <p>2. Technical assistance from the IDB to prepare the bidding documents and provide advisory support throughout the bidding process.</p>

II. Considerations for the special provisions of the loan contract

Special conditions precedent to the first disbursement:
Exchange rate: For purposes of Article 4.10 of the General Conditions, the parties agree that the applicable exchange rate will be the rate indicated in section (b) (ii) of such article. For such purposes, the agreed exchange rate will be the exchange rate on the date on which the borrower, executing agency, or any other individual or legal entity to which the authority to incur expenses is delegated effectively makes the respective payments to the contractor, supplier, or beneficiary.
Type of audit: Annually, the program's audited financial statements will be submitted no later than 120 days after closing of each fiscal year. At project closing, the program's final audited financial statements will be submitted no later than 120 days after the date of the last disbursement.

III. Agreements and requirements for procurement execution

<input checked="" type="checkbox"/>	Bidding documents	For the procurement of works, goods, and nonconsulting services executed in accordance with the procurement policies (document GN-2349-15), subject to international competitive bidding, the Bank's standard bidding documents or those agreed between the executing agency and the Bank for the procurement in question will be used. Likewise, consulting services will be selected and procured in accordance with the policies for the selection of consultants (document GN-2350-15), and the standard request for proposals issued by the Bank or agreed between the executing agency and the Bank for the selection in question will be used. For design, build, and operate bidding, the relevant International Federation of Consulting Engineers contract will be used. The project's sector specialist is responsible for reviewing the technical specifications and terms of reference for procurement during preparation of the selection processes. This technical review may be ex ante and is independent of the procurement review method. A margin of domestic preference is envisaged for the works.
<input checked="" type="checkbox"/>	Recurring expenses	Any recurring financed expenses required to implement the program that are approved by the Program Team Leader will be incurred following the executing agency's administrative procedures. Such procedures will be reviewed and accepted by the Bank, provided that they do not violate the principles of economy, efficiency, and competition (see Guidelines for the Treatment of Recurring Expenses and Expense Eligibility Policy (document GN-2331-5 and updates thereof)).

<input checked="" type="checkbox"/>	Procurement supervision	The supervision method will be ex post, except where ex ante supervision is warranted. Where procurement is executed through the country system, supervision will be carried out through the country supervision system. The monitoring method ((i) ex ante, (ii) ex post, or (iii) country system) will be determined for each selection process and will be identified in the procurement plan based on the level of complexity of the process. Ex post reviews will be conducted every six months in accordance with the project supervision plan, subject to change during execution. Ex post review reports will include at least one physical inspection visit selected from the procurement processes subject to ex post review.
<input checked="" type="checkbox"/>	Records and files	The executing agency will keep records and files of all procurement processes contained in the procurement plan.

Main procurement items

Description of the procurement	Selection method	New procedures/ tools	Estimated date	Estimated amount (US\$)
Works				
Works contract to build operator offices in other cities outside the sample following a gender and disability approach	International competitive bidding		7/11/23	6,000,000
Works contract to implement rapid impact measures to improve management of the drinking water network, including sectorization, macrometering, and micrometering.	International competitive bidding		7/11/23	8,000,000
Works contract to design, build, and operate the large-scale Boca Chica sanitation system	International competitive bidding		7/11/23	80,000,000
Works contract to design, build, and operate a sanitation system in another city (1) outside the program sample	International competitive bidding		9/12/23	54,000,000
Works contract to design, build, and operate a sanitation system in another city (2) outside the program sample	International competitive bidding		7/11/23	40,000,000
Firms				
Contracting of a consulting firm to improve CORAABO's commercial and operating management	Quality- and cost-based selection		6/6/23	3,000,000

To access the 18-month procurement plan, click [here](#).

IV. Financial Management Agreements and Requirements

<input checked="" type="checkbox"/>	Programming and budget	The annual budget is prepared by the Ministry of Finance, through the General Budget Department, in coordination with the Ministry of Economy, Planning, and Development, as well as with the other government entities involved in the process. The executing agency will be responsible for managing program planning and budgeting and will use planning tools, including the Bank's own tools (project execution plan, annual work plan, procurement plan, and financial plan).
<input checked="" type="checkbox"/>	Treasury and disbursements	<ul style="list-style-type: none"> • The program's cash flow programming will be consistent with the annual work plan and the procurement plan that have received the Bank's no objection and will cover a period of at least 12 months. • The program will use a special bank account opened in the name of the program in U.S. dollars at the Central Bank and managed through a subaccount in the national treasury single account. • The currency to manage the operation is U.S. dollars. • The exchange rate to be used in the operation will be the exchange rate effective on the date of payment of the expenditure in the local currency – option (b)(ii) of Article 4.10 of the General Conditions of the loan contract. • Advances and reimbursement of funds will be used as the modes of disbursement recommended to manage this operation. As regards the advance of funds, the financial plan will be considered for a period of 6 months, and up to 12 months may be considered if the program so requires. The operation is expected to justify 80% of the funds to be used in accounting for the cumulative balances pending justification.
<input checked="" type="checkbox"/>	Accounting, information systems, and report generation	<p>The specific accounting standards to be followed are the International Public Sector Accounting Standards. Operation accounting will use the project execution units with external financing integrated financial management module of the country's integrated financial management system as the technology platform, and cash accounting will be used. All key project financial reports, including disbursement requests, will be generated directly from this system.</p> <p>As a complement to the policies and guidelines applicable to the operation, the program Operating Regulations will be used with the documented definition of workflows and internal controls.</p>
<input checked="" type="checkbox"/>	Internal control and internal auditing	The government's internal audit function is performed by the Office of the Comptroller General of the Dominican Republic. To perform this function, the Office of the Comptroller General is assisted by internal audit units in each unit of the Dominican Republic's public administration apparatus.
<input checked="" type="checkbox"/>	External control and financial reporting	<p>The Borrower and/or executing agency will select and procure the external audit services in accordance with the terms of reference previously agreed upon by the executing agency and the Bank, which will set out the type, timing, and scope of the review. The external auditor selected and the audit standards to be applied will be acceptable to the Bank. The program's financial statements will be audited by a Bank-eligible firm. The type of audit and level of eligibility required for auditors may be adjusted over the project's lifetime depending on the findings of the Bank's supervision.</p> <p>The program's required audited financial statements are:</p> <ul style="list-style-type: none"> – Annually: Audited financial statements to be submitted to the Bank no later than 120 days after the end of each fiscal year (31 December). – At project closing: Audited financial statements to be submitted to the Bank no later than 120 days after the date of the last disbursement.

<input checked="" type="checkbox"/>	Financial supervision of the operation	<p>Supervision will be conducted through the annual financial audits.</p> <p>On-site and desk reviews and support will also be performed on a regular basis (at least once a year), subject to adjustments during execution. Supervision will consist of monitoring the implementation status of recommended activities to improve the unit's capacity, the status of fiduciary agreements, ex post reviews, inspection visits, and ongoing dialogue and communication with the executing agency.</p>
-------------------------------------	--	---

UNIVERSAL SANITATION PROGRAM IN COASTAL AND TOURIST CITIES**DR-L1158****CERTIFICATION**

The Grants and Co-Financing Management Unit (ORP/GCM) certifies that the referenced operation will be financed through:

Fuente de Financiamiento	Código del Fondo	Moneda	Monto hasta
Korea Infrastructure Development Co-Financing Facility for Latin America and the Caribbean	KIF	USD	60,000,000

For operations financed by funds where the Inter-American Development Bank (IDB) does not control liquidity, the availability of resources is contingent upon the request and the receipt of the resources from the donors. Additionally, in case of operations financed by funds that require a post-approval agreement with the donor, the availability of resources is contingent upon the signature of the agreement between the Donor and the IDB. (i.e.: Project Specific Grants (PSG), Financial Intermediary Funds (FIF), and single donor trust funds).

Certified by:

(Original signed)

October 14, 2022

Maria Fernanda Garcia
Chief
Grants and Co-Financing Management Unit
ORP/GCM

Date

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/22

Dominican Republic. Loan ____/OC-DR to the Dominican Republic.
Universal Sanitation Program in Coastal and Tourist Cities

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 Dominican Republic, as borrower, for the purpose of granting it a financing aimed at cooperating in the execution of the Universal Sanitation Program in Coastal and Tourist Cities. Such financing will be for the amount of up to US\$80,000,000, 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 _____ 2022)

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/22

Dominican Republic. Loan ____/KI-DR to the Dominican Republic
Universal Sanitation Program in Coastal and Tourist Cities

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, acting as the Administrator of the Korea Infrastructure Development Co-financing Facility for Latin America and the Caribbean ("the Facility"), to enter into such contract or contracts as may be necessary with the Dominican Republic, as Borrower, for the purpose of granting it a financing to cooperate in the execution of the Universal Sanitation Program in Coastal and Tourist Cities. Such financing will be for an amount of up to US\$60,000,000 from the resources of the Facility, 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 ____ 2022)