



**The World Bank**

Dominican Republic Water Sector Modernization Program (P177823)

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## Program Information Documents (PID)

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Appraisal Stage | Date Prepared/Updated: 02-Dec-2022 | Report No: PIDA266577

**BASIC INFORMATION****A. Basic Program Data**

Country Dominican Republic	Project ID P177823	Program Name Dominican Republic Water Sector Modernization Program	Parent Project ID (if any)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date 05-Dec-2022	Estimated Board Date 28-Feb-2023	Practice Area (Lead) Water
Financing Instrument Program-for-Results Financing	Borrower(s) Dominican Republic	Implementing Agency La Vega Water and Sewerage Corporation (CORAAVEGA), Ministry of Economy, Planning, and Development (MEPyD), National Institute for Hydraulic Resources (INDRHI), National Water and Sewerage Institute (INAPA), Santiago Water and Sewerage Corporation (CORAASAN)	

## Proposed Program Development Objective(s)

(i) to improve the planning capacity and operational and commercial efficiency of selected water supply and sanitation institutions; and (ii) to increase access to safely managed water and sanitation services in selected water stressed areas.

**COST & FINANCING****SUMMARY (USD Millions)**

<b>Government program Cost</b>	2,588.00
<b>Total Operation Cost</b>	602.56
Total Program Cost	577.00
IPF Component	25.00
Other Costs	0.56
<b>Total Financing</b>	602.56
<b>Financing Gap</b>	0.00

**FINANCING (USD Millions)**

<b>Total World Bank Group Financing</b>	250.00
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World Bank Lending	250.00
<b>Total Government Contribution</b>	352.56

#### Decision

The review did authorize the team to appraise and negotiate

## B. Introduction and Context

### Country Context

- The Dominican Republic's economic growth remains solid.** The COVID-19 crisis had major economic and social impacts on the Dominican Republic, but the economy strongly recovered in 2021. Gross Domestic Product (GDP) rebounded 12.3 percent in 2021, supported by a solid government response to the pandemic, which included fiscal, macroprudential, and supervisory reforms, along with monetary easing. The Monthly Index of Economic Activity (*Indicador Mensual de Actividad Económica*, IMAE) grew 5.5 percent year on year during the period of January to August 2022, primarily fueled by economic expansion in the service sector. The hotels, bars, and restaurants sector grew 31.2 percent during this period, bolstered by an active government vaccination campaign, resulting in 6.05 million people being fully vaccinated as of October 10, 2022, which corresponds to 56 percent of the total population. An expansionary fiscal policy also contributed to growth, while monetary tightening attenuated inflationary pressures. The economic performance remains solid in 2022 with growth expected to revert to its potential of 5 percent in 2022, driven mainly by remittances and tourism.
- Rising inflation is reducing household disposable incomes, primarily of the more vulnerable population.** The inflation rate of 8.6 percent year on year in September 2022 remains well outside the target range of 4±1 percent. It is driven by the impact of disruptions in international supply chains and increasing commodity prices for food and transport. Annual food inflation rate was 10.2 percent year on year in September 2022, while fuels and related items for transport services increased by 9.0 percent. The cost of the family basket increased by 22.9 percent in September 2022, compared to pre-pandemic levels in the same month, with the poorest quintiles being the most affected. In the second quarter of 2022, when compared to pre-pandemic levels, the employment rate remained 1.1 percent points below and informality remains 2.8 percent points higher. For all these reasons, poverty (defined as living with less than US\$6.85 per day) is expected to remain above pre-pandemic levels in 2022. The vulnerable population is expected to increase while the middle-classes contract.
- Despite the deterioration of the current account, the Dominican Republic's external position remains solid.** The trade deficit deteriorated by US\$3.0 billion in the first half of 2022 compared to the previous year, reaching US\$8.0 billion. This was primarily driven by the imports of food and oil products, which increased by nearly 45 percent year on year in the first quarter, the largest increase in five years. However, the international reserves increased by nearly US\$876.2 million in September 2022 compared to the previous year, which is up to US\$13.8 billion or equivalent to 5.7 months of total goods imports, driven by strong remittance inflows of US\$7.3 billion accumulated between January and September, primarily explained by the economic recovery in the United States.



## Sectoral and Institutional Context

4. **The Dominican Republic faces water quantity and quality challenges to ensure water security for human consumption as well as for important economic sectors such as tourism, mining, and agriculture.** The Dominican Republic uses about 45 percent of its total available freshwater resources (combined surface water and groundwater), which is significantly higher than its Caribbean neighbors and the Latin America regional average of 8 percent. Demand already exceeds supply in the economically important Yaque del Norte basin (home to significant agricultural production and the country's second largest metropolitan area), leading to increasing conflict between water use for human consumption, agriculture, and industry. Rising temperatures are contributing to increasing water scarcity and more frequent droughts, especially in the arid northwest, and annual precipitation could fall by as much as 8.5 percent by 2050.
5. **The legal and institutional framework for water resources management is weak and fragmented, leaving critical basic functions unfulfilled.** The water sector lacks apex policy and planning institutions to adequately manage water resources. The water sector overall is characterized by ambiguous and overlapping roles and gaps in functions among its respective actors. Water resources are publicly owned; however, integrated water resources management is largely missing due to institutional fragmentation, the historically low priority of water management, and conflicting allocation of functions. Water resources management responsibilities are fragmented between the Ministry of Environment (*Ministerio de Medio Ambiente y Recursos Naturales*; MARENA), responsible for water resources quality and groundwater, and the National Institute for Hydraulic Resources (*Instituto Nacional de Recursos Hídricos*; INDRHI), responsible for the management of surface water quantity, both of which face challenges in executing their allocated functions. The policies for withdrawal and discharge permits are established but the processes and procedures are not developed nor implemented, the system for water rights is antiquated and currently not implemented, and a weak and poorly maintained hydrometeorological monitoring network provides limited information on the quantity and quality of water resources.
6. **The country's nine state-owned WSS service providers demonstrate low operational and commercial efficiency, and opportunities to improve corporate governance and transparency.** Financial reporting is incomplete and sporadic, providers' accounting practices are not standardized, and their accounts are not regularly audited. WSS providers do not report on performance indicators and the scant data available show high rates of non-revenue water (60-80 percent), high numbers of staff per 1,000 connections (7-21 staff per 1,000 connections), and low levels of metering (10 percent). Compare this to the Dominican Republic's neighbors in the Caribbean, which have less than 7 staff per 1,000 connections and rates of non-revenue water that range from 25-58 percent. Energy costs vary between providers but for some they constitute as much as 50 percent of total operating costs. The service is characterized by poor quality and inefficiencies due to physical leakages, unauthorized consumption through theft, and low billing (65-95 percent) and collection rates (66-82 percent), which undermines the providers' ability to move toward recovery of operational costs.
7. **The government has made the water sector one of its top public priorities, given the sector suffers from deficiencies in water resource management and poor-quality water supply and sanitation (WSS) services.** In response to institutional constraints to adequately manage water resources and water related services, the government, as part of its overall reform agenda, launched its Water Pact (*Pacto por el Agua 2021-2036*) in 2021. With a 15-year vision, the pact calls for reforms and US\$8.5 billion in investments for WSS and water resource management (WRM) to ensure the country's water security and improve service delivery. The objective of the Water



Pact is to *increase the production of water for human consumption and improve the efficient and sustainable use of water resources*. The water sector is also highlighted as a priority in the government's current Multi-Annual Public Sector Plan (*Plan Nacional Plurianual del Sector Público*, PNPSP 2021-24), which allocates the largest share of public investments to the water sector. The government has undertaken an intensive public consultative process across the country with the Water Pact to solicit feedback on the proposed reforms that include *inter alia*: a general water law (focused on WRM), a WSS law, and a national WSS modernization program to improve service efficiency and resilience to natural disasters and climate change. Through a two-phase Multi-Phase Programmatic Approach (MPA), the World Bank will support 10 years of the government's transformational 15-year program. The first 5-year phase of the MPA Program will be hybrid operation with two components – a US\$225 million Program-for-Results (PforR Program) component and a US\$25 million IPF (IPF Project) component.

### **PforR Program Scope**

8. **The US\$225 million PforR Program will support the implementation of a national WSS modernization program in the Yaque del Norte river basin to improve the commercial and operational efficiency of WSS providers and expand access to safely managed WSS services in an economically important, highly water stressed, and drought-prone basin.** The PforR Program geographic boundary spans five provinces (Monte Cristi<sup>1</sup>, Santiago Rodriguez, Valverde, Santiago, and La Vega) whose water and sanitation services are provided by three WSS operators: the National Water and Sewerage Institute (*Instituto Nacional de Agua Potable y Alcantarillado*, INAPA); the Corporation of Aqueducts and Sewerage of Santiago (*Corporación del Acueducto y Alcantarillado de Santiago*, CORAASAN); and the Corporation of Aqueducts and Sewerage of La Vega (*Corporación de Acueductos y Alcantarillados de la Vega*, CORAAVEGA).<sup>2</sup>
9. **The PforR Program will track results in three Results Areas through 10 disbursement-linked indicators (DLIs) and 13 disbursement-linked results (DLRs).** The PforR Program will primarily support WSS results in urban areas and small towns and will benefit 34,600 households with safely managed water supply and 77,700 households with safely managed sanitation, which is equivalent to 121,000 and 271,900 people respectively.
  - Results Area 1: Increase access to safely managed WSS services in selected water stressed areas (US\$50 million)
  - Results Area 2: Improve planning capacity and operational and commercial efficiency of selected WSS service providers (US\$99.5 million)
  - Results Area 3: Strengthen policies and institutions for WSS services (US\$75.5 million)
10. **The US\$25 million IPF component of the hybrid PforR operation will finance supervision, coordination, monitoring, and evaluation of the entire operation as well as technical assistance related to water supply and sanitation and the water resources management investments.** The IPF Project will build capacity of WSS providers to achieve results under the PforR Program by establishing and strengthening a Program Coordination and Management Unit (PCMU) within Ministry of Economy, Planning and Development (*Ministerio de Economía, Planificación, y Desarrollo*, MEPyD), which will use IPF Project funds to contract technical assistance for the WSS providers to address existing WSS capacity gaps and risks that may otherwise undermine the achievement of PforR Program results. With regard to WRM, the IPF Project will support the national-level legal and institutional reforms; modernize the national water

<sup>1</sup> The municipal district of Santa María in the province of Monte Cristi, which is partly in the transboundary Masacre river basin, is excluded from the Program boundary. Investments in transboundary river basins are ineligible for financing under the operation.

<sup>2</sup> The Provinces of Santiago y La Vega partially are within Yaque del Norte river basin and partially in the Yuna basin. While the Yaque del Norte river basin faces high water stress, the Yuna basin also faces medium to high water stress.



information system, including the creation of a digital water rights registry for water resource management; and build capacity amongst WRM professionals, while also conducting activities in the Yaque del Norte basin to improve the understanding of available water resources, pilot a methodology to formalize water rights, and improve the safety and joint operation of dams.<sup>3</sup>

11. **Role of Development Partners.** The PforR Program provides a good platform for the coordination with other development partners, aligned with the national program for water sector reform. There are various development partners active in the sector, but the French Agency for International Development (*Agence Française de Développement*, AFD) is the only partner that will be actively providing technical assistance to one of the participating implementing entities. Other development partners that are active in the sector outside the PforR Program boundaries include the Inter-American Development Bank (IADB), the Spanish Agency for International Development Cooperation (*Agencia Española de Cooperación Internacional para el Desarrollo*, AECID), the United States Agency for International Development (USAID), the Development Bank of Latin America (CAF), and the European Union, who were consulted to ensure alignment with their programming.

## C. Proposed Program Development Objectives

### Program Development Objectives

12. The PforR Program development objectives are: (i) to improve the planning capacity and operational and commercial efficiency of selected WSS institutions; and (ii) to increase access to safely managed water and sanitation services in selected water stressed areas.
13. The PDO indicators (and/or DLIs) are the following:
  - (i) Strengthened accountability and improved operational planning, (text, DLI 3)
  - (ii) Strengthened WSS performance monitoring, (number, DLI 10)
  - (iii) Reduced non-revenue water, (percentage points, DLI 7)
  - (iv) Households serviced with safely managed water supply,<sup>4</sup> (number, DLI 1)
  - (v) Households serviced with safely managed sanitation.<sup>5</sup> (number, DLI 2)

## D. Environmental and Social Effects

14. **The Environmental and Social Systems Assessment (ESSA) found that, overall, the national regulatory framework and technical capacity for environmental and social management are adequate and that the overall environmental and social risk of the Program is moderate.** The ESSA was prepared based on the overall principles of avoiding, minimizing, and/or mitigating against potential adverse impacts and risks on people and the environment; promoting environmental and social (E&S) sustainability in the design of the PforR Program, as well as the inclusion of vulnerable segments of the population, informed by stakeholder engagement activities; and also promoting informed decision making relating to the PforR Program's E&S aspects.

<sup>3</sup> <https://presidencia.gob.do/noticias/presidente-abinader-rinde-informe-sobre-avances-en-labores-de-ayuda-tras-huracan-fiona>

<sup>4</sup> Safely managed drinking water is here defined as the use of an improved drinking water source that is located on premises, available when needed, and free of fecal and priority chemical contamination.

<sup>5</sup> Safely managed sanitation is here defined as the use of an improved sanitation facility that is not shared with other households and where the excreta is safely disposed in situ or transported to a treatment plant where it is treated to national standards.



15. **The PforR Program activities are expected to bring a number of E&S benefits**, including direct positive impacts on the health of the population in the program's area; increased productivity and improved quality of life for populations; improved security and privacy of women and children; greater economic, environmental, and social sustainability of the water and sanitation service; increased resilience of populations, especially populations vulnerable to crisis events of various kinds; positive impact on governance by strengthening of transparency and active citizen participation.
16. **The PforR Program also involves potential adverse impacts and risks.** The main risks include: i) adverse impacts with respect to the environment, social, health and safety of the communities, including generation and handling of rubble and other solid waste; gas emission due to the use of heavy machinery; possible fuel or lubricant leaks; and increase in the volume of effluents to be treated in the existing wastewater treatment plants, could affect the receiving body and generate hydrological changes with possible modifications of environmental parameters; ii) resistance to PforR Program activities by users, small and medium enterprises, institutions and/or groups that use drinking water for non-domestic purposes; iii) temporary effects on formal and informal economic activities, temporary restriction of access to business entrances during construction, and temporary interruption of pedestrian traffic routes; iv) possible exclusion of vulnerable groups without ability to pay for services and fees; v) community risks associated with labor influx.
17. **The nature and significance of the E&S risks related to the PforR Program activities are expected to be of low to moderate intensity, which is consistent with the core principles and expectations for the level of E&S risk set out in the PforR Policy.** The PforR Program designs and screening processes have excluded actions/activities that would have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment and/or affected people. The environmental and social management systems in the Dominican Republic have adequate capacity to manage the identified risks. The recommended E&S risk management measures for the E&S risks and impacts identified are:
  - a) Ensuring the consistent application of the health, safety and hygiene code at work. Application of national laws on effluents in receiving bodies. Include in the contracting of works supervision, monitoring and management of environmental and social risks and impacts.
  - b) Identifying the interested parties likely to oppose the PforR Program measures, and carry out a solid communication strategy and periodic consultations and other stakeholder engagement activities, and disseminating the mechanisms for dealing with complaints and suggestions
  - c) Considering the adverse impacts on businesses when doing excavations; communicating, signaling, guiding users on alternative routes, and restoring traffic as soon as possible; and applying national laws and practices used by service providers on business impacts as standard practices.
  - d) Implementing social rates and/or service subsidies, particularly when it comes to low-cost connections for vulnerable groups; making use of regulation provisions that allows to include the debts and the costs for unique and standard connections, as part of the benefits of the program.
  - e) Applying labor laws, avoiding child labor, preventing sexual abuse and harassment, setting up mechanisms for worker complaints and referrals to sanctioning bodies, and COVID-19 protocols.
18. **Regarding the adequacy of the legal and regulatory framework applicable to the PforR Program activities, and considering that the environmental and social risks associated with the PforR Program activities are not expected to be particularly significant, the ESSA finds that E&S risks and impacts can be managed with the existing regulatory framework.** In that regard, the recommendations of the ESSA focus on ensuring that there are proper monitoring arrangements in place to ensure that the applicable provisions of the E&S regulatory framework are implemented.



The results of the assessment have informed relevant actions of the Program Action Plan.

19. **The ESSA was developed iteratively and in a consultative manner, incorporating feedback from relevant stakeholders.** The draft ESSA was consulted with MEPyD, INAPA, CORAASAN, CORAAVEGA, and INDRHI on September 28, 2022, and feedback has been incorporated into the ESSA. The draft version of the ESSA was disclosed on the World Bank's external website on November 1, 2022.
20. **During implementation, the World Bank will provide capacity building support on environmental and social management to the PCMU and to the participating WSS providers.** This will include promotion of mechanisms to share good E&S practices among participating institutions and executors of PforR Program activities; supporting INAPA to modernize its environmental and social management units to support regional offices in the Program area for environmental and social management; supporting CORAASAN to modernize its Environmental and Social Management Units and its Gender Equality Unit; and supporting CORAAVEGA in the creation of its Environmental and Social Management Department and its Gender Equality Unit. The participating WSS providers will take measures to design and implement good international practices to comply with the proper environmental and social management of projects and implement strategies that promote effective citizen participation and improvement of feedback channels, particularly its grievance mechanism, and prioritize the participation of vulnerable groups.

#### Legal Operational Policies

##### Triggered?

Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

#### Summary of Assessment of Environmental and Social Risks and Impacts (With IPF Component for PforR)

21. **The activities to be financed under the IPF component of the operation are expected to result in indirect E&S benefits related to the integrated and sustainable management of water resources which is key to ensure water quality and availability for different E&S needs.** From an environmental perspective, indirect benefits include conservation of biodiversity and ecosystems, improvement of water resource management and services for water users and water-dependent sectors, reduction of water contamination due to the coverage expansion of WSS services, contribution to climate change adaptation and resilience towards natural disaster risks, and improvement of safety of nearby communities due to the increasing capacity to manage watersheds/dams. From a social perspective, the technical assistance activities are expected to have positive impacts, aiming to develop a comprehensive and inclusive institutional framework, strengthening institutional capacities, developing a broad learning WSS agenda, while leveraging the capacity of the government to develop sustainable institutional and organizational platforms. The activities supported by the IPF component will need substantive citizen engagement, a robust communication strategy, and periodic consultations. To avoid the risk of exclusion of vulnerable groups, MEPyD, and all relevant government institutions will ensure that a broad spectrum of stakeholders are included in the preparation and implementation phases, emphasizing engagement with vulnerable groups.



22. The Terms of Reference for each study to be carried out under the IPF component will be reviewed by the World Bank to ensure that all studies are prepared consistent with the Environmental and Social Framework requirements. This will be documented in the Environmental and Social Commitment Plan (ESCP) to be prepared for the IPF component. In addition, the requirements set out in paragraphs 14-18 of Environmental and Social Standard 1 (assessment and management of environmental and social risks and impacts), as well as in the Advisory Note Technical Assistance and the Environmental and Social Framework will be applied to all technical assistance activities as relevant and appropriate to the nature of the potential risks and impacts.

#### E. Financing

##### Operation Financing

Sources	Amount (USD Million)	% of Total
<b>Counterpart Funding</b>	<b>352.56</b>	<b>58.51</b>
Borrower/Recipient	352.56	58.51
<b>International Bank for Reconstruction and Development (IBRD)</b>	<b>250.00</b>	<b>41.49</b>
<b>Total Operation Financing</b>	<b>602.56</b>	

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##### Borrower/Client/Recipient

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