Appraisal Environmental and Social Review Summary

Appraisal Stage

(ESRS Appraisal Stage)

Date Prepared/Updated: 06/19/2020 | Report No: ESRSA00912
BASIC INFORMATION

A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Region</th>
<th>Project ID</th>
<th>Parent Project ID (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominican Republic</td>
<td>LATIN AMERICA AND CARIBBEAN</td>
<td>P171778</td>
<td></td>
</tr>
</tbody>
</table>

Project Name
Dominican Republic Wastewater Services Improvement and Water Loss Reduction Project

Practice Area (Lead) Financing Instrument Estimated Appraisal Date Estimated Board Date
Water Investment Project Financing 6/22/2020 12/11/2020

Borrower(s) Implementing Agency(ies)
Dominican Republic, Ministry of Finance Water and Sewerage Corporation of Moca (CORAAMOCA), National Institute for Water Supply and Sewerage

Proposed Development Objective(s)
To increase access to and improve quality and efficiency of water supply and sanitation services in target areas of the Dominican Republic.

Financing (in USD Million) Amount
Total Project Cost 52.00

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?
No

C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]
The Project intends, through its investments in infrastructure and technical assistance to: (i) expand access to wastewater treatment and sewerage, and improve access, quality, and efficiency of water supply in the municipalities of Moca, Gaspar Hernandez, and other targeted localities; (ii) have a local impact on the institutional capacity of
CORAAMOCA to improve efficiency and quality of services and increase the resilience of the utility to climate related risks, natural disasters and pandemics, and (iii) identify reform opportunities at the national level to improve the sector’s efficiency for future operations.

Five components envisaged under the Project include: (i) Infrastructure investments to improve water supply services and efficiency; (ii) Infrastructure investments to improve wastewater collection and treatment; (iii) interventions to (a) improve CORAAMOCA’s efficiency, effectiveness, resilience, and ability to engage consumers and problem-solve, (b) identify national level support for sector reform opportunities; (iv) project management; and (v) contingency emergency response.

D. Environmental and Social Overview

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

The project will be implemented in four municipalities across La Espaillat province, namely Moca, Gaspar Hernandez, Jamao el Norte and San Victor, which are part of the Moca Aqueduct and Sewerage Corporation (Corporacion del Acueducto y Alcantarillado de Moca-CORAAMOCA) service area. The project aims to improve water distribution and wastewater treatment management throughout these municipalities.

The project will support water supply infrastructure improvement, which will include the upgrade of La Dura water treatment plant located in Moca, the rehabilitation of deep wells in Gaspar Hernandez and in Jamao al Norte (one each), the upgrade of the Gaspar Hernandez reservoir (valves and chlorination system), the installation of micro, macro meters and additional valves for the implementation of district metered areas and the rehabilitation and expansion of the water distribution networks in Moca, Gaspar Hernández, and San Victor (only rehabilitation).

Investments in wastewater collection and treatment infrastructure will include the construction of two wastewater treatment plants (WWTP) (one in Moca and one in Gaspar Hernández), along with the rehabilitation and expansion of wastewater collectors and the installation of household connections. At this stage, and pending confirmation of the feasibility studies and engineering designs to be carried out during implementation, the WWTP in Moca will possibly be located within the currently disabled Las Colinas WWTP (built in the 1970s and which ceased functioning in 2004). Adjacent to this facility, there is a solid waste landfill that collects all of Moca’s solid waste. The feasibility study for the WWTP in Moca (to be developed during project implementation) will consider the decommissioning of Las Colinas and will further assess the risks posed by the adjacent solid waste landfill, in case it is decided that Las Colinas is a viable option. The specific location of the WWTP in Gaspar Hernandez will be determined through the preparation of the feasibility studies and engineering designs during project implementation. The Espaillat province contains two legally designated protected areas (see ESS6 below); however, these are located outside the area of influence of the project. The siting of all project activities will be carefully assessed to rule out any areas that may alter or cause degradation of any critical or sensitive natural habitats or areas of biodiversity importance outside these protected areas. Any locations/sub-projects that would require large scale resettlement (above 200 families) will be ruled out.

In addition, Moca is located at the upstream end of the Camu river basin, which drains into the Samana Bay in the adjacent province of Samana. The Samana Bay is located inside the Yuna watershed which is adjacent to the Camu watershed (where the project will take place). The major tributaries to the Yuna are the Camu and Jima Rivers. The Camú River itself has several tributaries: Licey, Cenovi, Jaya, Guiza, and Cuaba. The Moca river (which is the river
within the Moca municipality) drains to the Licey River. As such the municipality of Moca is not a significant polluter to the Samana Bay. Furthermore, the Samana bay is located 150 km away from Moca and there are much more polluting activities downstream such as mining and agriculture that the effect of the treated domestic wastewater of Moca will be insignificant. In addition, the Yuna river has an average flow of 75 m$^3$/s and the design capacity of the WWTP is much smaller (150 L/s). Moca is the largest municipality in La Espaillat Province, accounting for 78% of its urban population. It is also the third-largest municipality in the Camu river basin and is, therefore, a significant source of pollution to downstream users. In Moca, most of the urban dwellers have access to piped water, with some gaps remaining in rural areas. While only 1/3 of the urban population is connected to a sewerage network (2/3 is using on-site sanitation systems that discharge to nearby rivers or leach into subsoil and water bodies), the network is dysfunctional as the collector systems have collapsed and wastewater is disposed into local creeks and the Moca river. Moca lacks a Land-use Zoning Plan; thus, urban development has been spread out and, in some cases, under poor living conditions and without proper natural disaster and environmental considerations. Illegal urban settlements on both margins of the river banks and other water bodies are considered highly vulnerable to natural disaster risks (floods, cyclones, and earthquakes, among others) prevalent in the La Espaillat province.

Gaspar Hernandez is located in the north coast of the country and is known for its tourism and agricultural production. Gaspar Hernandez is the second most populated municipality in La Espaillat province, with approximately 57,302 inhabitants. This municipality does not have any sewerage networks. Canals that run through the municipality serve as wastewater conduits that are discharged directly to the coastline.

Jamao al Norte has a population of 42,953 inhabitants. Jamao el Norte is located in the northwestern part of the La Espaillat province, and its main economic activities are agriculture and cattle raising. This municipality has a variety of water streams, rivers, and springs, which makes it a popular ecotourism destination and of ecological importance. This municipality faces shortages of water supply and lacks sewerage networks. Only 30% of households in Jamao are connected to an in-site water supply network. Coraamoca supplies Jamao al Norte with the water produce by two wells. Jamao al Norte is one of the municipalities that are significantly impacted by the lack of water supply and sanitation services. Given the proximity to water bodies, the population at Jamao al Norte has the habit of consuming untreated water from rivers, and store water in barrels, which could have potentially negative impacts on their health. Since water companies started to produce bottled water, and river pollution has increased, some people have modified their habits.

San Victor has a population of 79,851 inhabitants. It is located in the southwestern part of the La Espaillat province and is considered an important municipality due to its significant development, size of the population, and economic value due to its commercial and agricultural activities. This municipality also faces substantial shortages of water supply and lacks sewerage networks. In San Victor, 58.7% of the households are connected to an in-site water supply network. It is estimated that Coraamoca supplies water to San Victor every Monday from 7am to 8pm. Due to the lack of water supply, it is a very common practice for the population to store water in barrels. Similar to Jamao al Norte, Gaspar Hernandez, and Moca, the population’s health and safety are in constant risk due to the water supply problems.

D. 2. Borrower’s Institutional Capacity

The project will be implemented by the National Institute of Drinking Water and Sewage (Instituto Nacional de Aguas Potables y Alcantarillado, INAPA), which has a permanent PIU for projects related to the World Bank and the French Agency for International Development (Agence Française de Développement, AFD) and is based in Santo Domingo. This PIU will oversee overall Project coordination and will have a regional office located in Moca. The PIU regional
office will monitor and supervise project activities on the ground and work closely with the utility responsible for Water Supply and Sanitation (WSS) services in the province of La Escaillat, which is CORAAMOCA. INAPA is overseen by the Ministry of Health for budgetary purposes.

INAPA has no previous experience in implementing projects under the World Bank’s ESF. However, it was involved in the preparation of the World Bank Resilient Agriculture and Integrated Water Resources Management Project (P163260) (still pending effectiveness), under which it supported the development of an Environmental and Social Management Framework (ESMF) under the World Bank’s Safeguards Policies. CORAAMOCA does not currently have a unit or department responsible for environmental and social management within its structure. The PIU under INAPA was in charge of the preparation of the E&S instruments of the project and will hire or appoint within 30 days of project effectiveness Environmental and Social (E&S) Specialists (one of each) with qualifications and experience satisfactory to the Bank, who will be in charge of coordinating and implementing E&S related activities under the project in close collaboration with CORAAMOCA. Additional activities to further strengthen the institutional capacity of INAPA and CORAAMOCA for the management of environmental, social, health and safety (ESHS) aspects include training on the application of the ESF for E&S and procurement specialists, engineers, and other government agency officials involved in the project, as well as provision of continued technical support to ensure the application of the ESF. These capacity building measures have been included in an E&S Training Plan prepared for the project, which has been incorporated in the ESMF and ESMP (see below) and reflected in the ESCP. The Bank will continue to provide continuous guidance and support to INAPA, CORAAMOCA, and the PIU, once established, for the completion of the project’s E&S instruments required by the ESF, as well as provide capacity building and support during project implementation.

II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC) Substantial

Environmental Risk Rating Substantial

The environmental risk rating for the project is considered substantial at this stage. From an environmental perspective, the water supply infrastructure investments under Component 1 are considered of moderate risk given that the scope of most of the expected investments is limited to rehabilitation works. While there will be some minor expansion works related to water distribution systems, these are expected to be sited within already existing footprints (such as roads, canals, modified land, etc.). The environmental risk anticipated for the WWTP infrastructure under component 2 is considered substantial, given the potential location of proposed WWTP investments in the proximity of receiving water bodies, the possible need to decommission existing facilities that may entail environmental liabilities and require site remediation, and the general project area susceptibility to seismic and other natural disaster risks. Specific technical details related to infrastructure activities, including the location, type, and collective scale/magnitude of expected investments will be detailed through the development of feasibility and engineering studies during project implementation. The improvement of wastewater collection and treatment in Moca and Gaspar Hernandez will contribute to the environmental sustainability within the Camu river basin and along the coastline by minimizing point source pollution. This will include positive impacts to the conservation of downstream water bodies in the area.
The project is not expected to result in significant effects on the human environment. Substantial risks related to the two WWTPs are possible but not likely, and these will be addressed through the feasibility and engineering studies during project implementation. Key environmental risks and impacts are expected to occur during the construction and operational phases of the proposed WSS infrastructure and are expected to be site-specific, short-term, and effectively avoided, minimized, or mitigated subject to the establishment of proper E&S measures. Some of the key negative potential impacts during the construction and operational phases of the project may include: (i) vegetation and soil loss for the construction of the WWTPs and wastewater systems; (ii) generation of solid waste from residual construction materials; (iii) water availability for the water supply infrastructure; (iv) generation of solid waste and sludge from the operation of the proposed WWTPs; (v) discharging pollutants to water bodies from the operation of WWTPs activities; (vi) nuisance related to dust generation, vibration, noise and odors; (vii) temporary disruptions to local traffic during the construction phase; and (viii) Occupational Health and Safety (OHS) hazards to the workforce. The location and scale of the proposed works will be determined during implementation, and the risk rating may be increased or decreased proportionately if deemed necessary.

**Social Risk Rating**

The Social risk rating is substantial for the following reasons: (i) Lack of access to water is a key source of conflict, strikes, and unrest across the country. The risk of social unrest also exists if the measures to improve water access, billing, and fee collection for water delivery and use are not implemented in a pro-poor manner and communicated effectively to the key stakeholders. Based on the outcome of the assessments, the project will implement a system to monitor short to medium-term impacts of this component and support businesses with the transition through measures to assist with the rationalization of water use, access to social tariffs where appropriate. A social compact strategy will be implemented under component 3 of the project, through which community leaders will be informed about the modernization of WSS networks and will be invited to partner with utility representatives via ongoing two-way dialogue to come up with terms and agreements on potentially thorny issues such as payment collection. Special attention will be given to the identification of vulnerable households and how to better address their particular needs. (ii) Hygiene practices of poorest segments of beneficiaries could be adversely affected if their water use is reduced linked to the new billing and fee collection measures. Providing water access and maintaining and improving hygiene practices have become even more critical due to COVID-19. The CERC has been added to support the government in addressing needs across the country identified during the response, such as for emergency WSS measures, hygiene promotion, equipment, and chemicals for water and wastewater treatment. Furthermore, the social compact strategy, which is a participatory process to jointly define the service standards between service providers and service users, will also include activities to support the COVID-19 response by promoting hygiene practices. (iii) Civil works may require physical or economic displacement leading to loss of income sources or other means of livelihoods, particularly in high-density neighborhoods, businesses, and schools. The communities involved will likely be vulnerable in the sense of weak tenure security and legal titles.

The sub-project locations are currently unknown. The nature and level of land and resettlement related impacts will be determined once the specific sub-project sites are finalized, and the engineering designs are completed. The draft RPF clearly lays out the procedures that the government would need to follow to manage land acquisition and resettlement-related impacts if they occur. (iv) There are social exclusion risks especially for vulnerable stakeholders, including the risk of women or local youth not fully benefiting from available job opportunities created by the project, and community/day/rotating workers, especially Haitian migrant workers, who exist in large numbers across the country, may not have full access to a contract, proper working conditions, health and safety measures in work areas
if targeted measures are not in place. Job opportunities for the local populations have gained additional importance at this Appraisal stage, as the project beneficiaries are likely to increasingly feel the adverse social and economic consequences of the COVID-19 social distancing measures. (v) There are also certain risks associated with the client’s low institutional capacity. INAPA has no track record in conducting and implementing social assessments as well as carrying out resettlement or restoration of livelihood practices. Additional staff will be retained throughout project implementation to monitor and manage the social risks and impacts.

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1. General Assessment

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Overview of the relevance of the Standard for the Project:

The standard is relevant to the project. For water supply investment activities under component 1, given that the exact locations of these will only be defined during project implementation, the Borrower has prepared a draft Environmental and Social Management Framework (ESMF) in line with the Environmental and Social Standards and the World Bank Group (WBG) Environment, Health and Safety (EHS) Guidelines. The ESMF include: (i) identification of applicable national legislation; (ii) an environmental and social characterization of the project area; (iii) an identification and evaluation of positive and negative, direct and indirect impacts environmental and social impacts; (iv) defines appropriate generic E&S mitigation and management measures in accordance to the mitigation hierarchy; (v) describes implementation arrangements (including monitoring, supervision, and reporting) for INAPA and the PIU during the design, construction and operational phases; and (vi) includes budgeting for ESHS activities and measures. The ESMF provides guidance on E&S screening and classification of subprojects and procedures for the development of site-specific Environmental and Social Management Plans (ESMPs), including OHS plans, security procedures linked to project staff and equipment, community health and safety actions (including actions linked to COVID), measures on worker accommodation, and resettlement and livelihood restoration measures, and a site-specific communication and stakeholder engagement activities to be prepared as needed. Given the type of investments to be financed by the project, the ESMF also includes a Chance Finds screening procedure, an environmental liabilities assessment, and a preliminary natural disaster risk assessment. The final version of the ESMF will include a water balance study of the hydrological systems of Moca and Gaspar Hernandez municipalities, which will be finalized within 60 days of project effectiveness. This delay is due to the COVID-19 pandemic situation, which has hindered the elaboration of this study. The final version of the ESMF will also include an assessment of cumulative impacts resulting from the water distribution activities. The draft ESMF has been disclosed both in-country and on the Bank’s website prior to Appraisal. The ESMF and SEP describe the risk mitigation and stakeholder engagement strategies that will be implemented to ensure that metering and billing components will be implemented in a pro-poor manner and the project will make concerted efforts to reach out to the vulnerable households, through social compacts, education campaigns though trusted facilitators, and other measures.

For the upgrade of the La Dura water treatment plant also under Component 1, the Borrower has prepared a draft ESMP. The ESMP was determined to be the right E&S instrument given the limited scope of project investments, which include minor upgrade works and the procurement of equipment for laboratory, water treatment, and health and safety operations. The ESMP is also in line with the World Bank’s ESF and the WBG’s EHS Guidelines. The ESMP includes the identification of applicable national legislation, an E&S characterization of Moca, the identification and
assessment of E&S risks and detailed mitigation measures, including an OHS plan, community health and safety measures, site-specific stakeholder engagement measures, and a Resettlement Action Plan (RAP) if needed, following the guidance laid out in the Resettlement Policy Framework (RPF). The draft ESMP also includes a preliminary natural disaster risk assessment, which will be finalized within 30 days of project effectiveness. The final ESMP will include an environmental liability assessment as well as measures to mitigate and/or remediate the environmental liabilities, potential legacy issues. Given the specific characteristics of the rehabilitation of La Dura water treatment plant, no cumulative impacts are foreseen; however, the updated ESMP will include a cumulative assessment section to verify this. The draft ESMP has also been disclosed both in-country and on the Bank’s website prior to Appraisal.

For the two WWTPs under component 2 that are not yet identified in terms of siting or technology, the Borrower has prepared a detailed draft of the Terms of Reference (TORs) for the Environmental and Social Impact Assessment (ESIA) studies to be carried during project implementation. The ESIAs for these investments will take place in parallel with the pre-feasibility, feasibility, and engineering design studies to guide the site selection, design, assessment, and ESHS mitigation and monitoring plans as information become available. These TORs include a detailed outline of the E&S minimum requirements that each ESIA should consider related to project characteristics, baseline conditions, national legislation, and overall potential direct, indirect and cumulative E&S risks and impacts, an environmental liabilities assessment, mitigation and/or remediation measures for all risk and impacts identified including any potential legacy issues identified, as well as an alternative analysis for the siting of the project’s infrastructure, a Chance Finds screening procedures and a natural disaster risk assessment. The TORs also include the requirement that the ESIAs will be in line with the ESF, the WBG’s EHS Guidelines and will also follow good practice Sector-Specific Guidelines.

All E&S instruments described above (ESMF for water supply investments, ESMP for La Dura water treatment plant, and two ESIAs for the WWTPs) will need to be finalized in a timely manner to be taken into account in the respective engineering designs and bidding documents to ensure that contractual E&S provisions are considered. Component 3 will include technical assistance (TA) activities to strengthen CORAAMOCA’s institutional capacity to improve the management and delivery of services, including strengthening technical, operational, and commercial capacities, and resilience to climate-related risks; strengthening the social compact and mitigating gender-based violence; and technical assistance to national-level reforms. The requirements set out in paragraphs 14–18 of ESS1 will be applied to the TA activities as relevant and appropriate to the nature of the risks and impacts. The TOR for all TA activities will be reviewed to include E&S aspects as necessary, and related outputs will be reviewed as needed to ensure consistency with the ESF prior to completion. Component 4 is related to project management, and no E&S risks are anticipated from these activities.

For Component 5 (Contingent Emergency Response Component, CERC), the project will adopt a CERC Manual, which will include relevant procedures and requirements to comply with the ESF, as shall be further outlined in an accompanying CERC-specific ESMF, in case the component is activated. This CERC manual and accompanying ESMF are under development currently and are expected to be completed within 30 days of Project Effectiveness.

A Labor Management Procedures (LMP), a Stakeholder Engagement Plan (SEP), and a Resettlement Policy Framework (RPF) were also prepared by the Borrower. The details on the impacts, risks, and mitigation measures can be found in the sections below. In addition to these E&S instruments, the Borrower prepared and disclosed by Appraisal a draft Environmental and Social Commitment Plan (ESCP) including all the measures and actions to ensure compliance with
the ESF and the project’s E&S instruments, as well as related implementation details, including monitoring and reporting activities.

To help mitigate stakeholder risks and help reduce the risk of potential resistance on the metering and billing activities, Sub-Component 3.2 will finance the implementation of a Social Compact Strategy, a citizen engagement process that seeks to jointly define the service standards between the service providers and service users through a set of participatory activities and promotion of community-level partnerships. It is aimed at (i) building trust and confidence between users and CORAAMOCA; (ii) improving payment collection levels; (iii) ensuring efficient use of water; and (iv) improving connections to wastewater collectors. Social Compacts will be signed between CORAAMOCA and communities in specific sectors that make up the distribution networks to reflect agreements reached on the number of hours of water that will be delivered per day, the legalization of clandestine users, payment of water bills by clients, and commitments to connect to wastewater collectors.

ESS10 Stakeholder Engagement and Information Disclosure

INAPA developed a draft Stakeholder Engagement Plan (SEP), which was disclosed by Appraisal. An updated version of the SEP will be ready by Project Board date (December 2020). The SEP outlines; (i) potential key stakeholders, including project affected people, and other interested parties; (ii) the methodologies that will be implemented to engage with them; (iii) a proposed timeframe for engagement throughout the project cycle; (iv) strategy on how disclosure will take place throughout the project; (v) how feedback will be solicited, recorded and monitored; (iv) who will be responsible for this engagement; and (v) estimated budget. This SEP will be implemented for the TORs for the ESIAs for the WWT plants as well. The TORs establish the requirements for the stakeholder engagement. As Project Affected Parties, key stakeholders that will be positively affected by the project include the residents of Moca, Gaspar Hernandez, Jamao al Norte y San Victor since they will have access to continuous water service; CORAAMOCA because of the support it will receive to improve its institutional capacity; and the workers from La Dura, since the facility and health and safety standards will be improved considerably. Key stakeholders that may be negatively impacted include people who reside adjacent to the location of the civil works who may be temporarily affected by the construction works and traffic disruptions, people connected illegally to water connections (including households living under poverty conditions, small business, and farmers); and vulnerable groups including women, young people, people with disabilities, and immigrants, who may face discrimination and be excluded from project benefits due to connectivity, logistical, access and language challenges if targeted measures are not in place to include them. Among other interested parties, the SEP identifies among others; a) Ministry of Labor linked to issues of worker recruitment, worker health, and safety matters, b) the Municipalities (Ayuntamientos) as they have official fiduciary responsibilities including land and resettlement compensation matters, (c) Non-governmental organizations, women’s groups, religious organizations that play a role in spreading information and engaging affected communities in a constructive and culturally appropriate manner. The SEP also describes a project-level GRM which provides several channels to submit grievances, including through mailboxes, telephone, and email. In addition to the stakeholder engagement activities described in SEP, sub-component 3.2 will finance the implementation of a Social Compact Strategy, a citizen engagement process that seeks to jointly define the service standards between the service providers and service users through a set of participatory activities and promotion of community-level partnerships. It is aimed at (i) building trust and confidence between users and CORAAMOCA; (ii) improving payment collection levels; (iii) ensuring efficient use of water; and (iv) improving connections to wastewater collectors. Social Compacts will be signed between CORAAMOCA and communities in specific sectors that make up the distribution
networks to reflect agreements reached on the number of hours of water that will be delivered per day, the legalization of clandestine users, payment of water bills by clients, and commitments to connect to wastewater collectors.

B.2. Specific Risks and Impacts

A brief description of the potential environmental and social risks and impacts relevant to the Project.

ESS2 Labor and Working Conditions

The standard is relevant given that the project will fund civil works, such as the rehabilitation of the water treatment plant (La Dura), and new construction for the two wastewater treatment plants. A draft Labor Management Procedures (LMP) has been prepared, which considers the following type of workers: (i) direct workers (including project coordinator, a specialist in management of drinking water companies, procurement specialist, environment and social specialist, and technical, administrative and support staff according to the project’s demand); (ii) contracted workers (including specialists in management, administration, operation, maintenance of drinking water services; specialist in the design and implementation of leak and water control strategies and plans; specialists in the design of infrastructure for drinking water and wastewater; specialists in user cadaster; among others); and (iii) primary supply workers (for example, personnel of the suppliers responsible for the delivery of material supplied for the subprojects). Community workers are not anticipated. Project implementation will involve various workers, ranging from PIU staff to specialized personnel of consulting and implementation firms as well as unskilled laborers. Civil servants working in connection with the project full-time or part-time will remain subject to the terms and conditions of their existing public sector employment or agreement unless there has been an effective legal transfer of their employment or engagement in the Project, though they remain subject to the ESS2 paragraphs 24-30 on OHS. The TORs prepared for the ESIAs of the WWTPs, include the requirements to update the LMP, with the new information derived from the WWTPs such as contract management (including information on salaries, working hours, training, etc.), number and type of workers.

The draft LMP provides an overview of applicable legislation, expected types of personnel to be hired under the project, and measures to comply with ESS2, measures to prevent child labor and forced labor, minimum salary and work hours as well as draft procedures for worker’s GRM. More details on the worker specific GRM will be provided in the final LMP to be ready by Project Board date (December 2020). The project will not hire people younger than 18 years old, and INAPA will monitor compliance in all subprojects. The LMP will be reviewed and updated throughout project implementation as required, considering the activities to be undertaken in each subproject and as additional project activities unfold entailing additional labor related risks or issues.

To ensure the health and safety of workers during the construction and operational phases of the project investments, the Borrower developed OHS Plans as part of the ESMF and ESMP in line with the WBG’s EHS Guidelines. The OHS Plans include procedures for incident/accident investigation and reporting, recording and reporting of nonconformances, emergency preparedness, response procedures, and continuous training for workers. Furthermore, the TORs prepared for the ESIAs of the WWTPs also include the requirement of developing OHS Plans. Site-specific ESMPs to be developed during project implementation under Component 1 will also require the development of OHS Plans. The final versions of the ESMF and ESMP will include OHS measures for infrastructure activities to address specific risks amid the COVID-19 pandemic.
Bidding documents for all investments will include OHS considerations, adoption and enforcement measures for the Code of Conduct, and labor considerations such as labor influx, no discrimination, equal opportunity, prevention of all forms of forced labor. The Borrower will actively be monitoring these bidding processes throughout the project cycle to ensure adherence to the standard.

Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) risks were screened using a mandatory screening form that has pre-populated section/rating on contextual risks and another section with project-related questions. Based on the answers provided, the SEA/SH risk rating was determined to be Low Risk. Measures will be implemented, commensurate with the Risk rating as described in the Bank Good Practice Note on Addressing Sexual Exploitation and Abuse an Sexual Harassment in Investment Project Financing involving Major Civil Works. The project will (i) determine a methodology for identifying/mapping available GBV service providers in the project areas during project implementation; and (ii) elaborate procedures of referral to service providers if SEA/SH cases arise. To ensure that the project promotes safe workspaces for women, and to avoid that beneficiaries and workers become targets of SEA/SH, the final LMP will include a code of conduct addressing respectful interaction with the community in general and SEA/SH in particular. Both the labor GRM as well as the overall project GRM will include specific procedures and train personnel, to register and refer potential complaints related to SEA/SH.

The number of eventual workers is currently unknown. However, a rough estimate is 60-100 people for the contractor and 20-30 people for the supervision firm in each locality. In another project that the Bank financed with CORAAPLATA i.e. wastewater treatment plant in Puerto Plata and submarine outfall, all manual labor was local and skilled labor (80% of the total workforce for the project) came from the capital city, Santo Domingo. Using this as a reference, the team expects the labor influx ratio to be similar to the Puerto Plata experience. It is anticipated that skilled labor could commute daily from Santiago (20 minutes) and Santa Domingo (2.5 hours). Worker camps are not anticipated. Housing arrangements may be sought in the adjacent municipalities particularly for non-local workers if none are available in the project locations. ESMPs and bidding documents will include the standards of accommodation for workers.

ESS3 Resource Efficiency and Pollution Prevention and Management

The standard is relevant as there are potential sources of pollution from the construction and operation of the project activities under Component 1 and 2. Appropriate mitigation measures have been included in the ESMF, and ESMP developed following the mitigation hierarchy and will be in line with the WBG’s General EHS Guidelines and sectoral EHS Guidelines for Water and Sanitation, as well as national standards, whichever are more stringent in any specific context. All site-specific ESMPs will include these mitigation measures with more specificity as applicable depending on the results of subproject level ESIA analysis, in light of specific works to be carried out and conditions at site. Some of the identified risks and mitigation measures include the following:

Vegetation and soil loss: Localized soil removal, clearance of vegetation, and biodiversity loss may occur from construction activities for the rehabilitation of the water supply networks, wastewater collectors, as well as for the upgrade of the water treatment plant and the new construction of WWTPs. All construction material needed for all rehabilitation and construction activities (sand, stones, timber, etc.) will be obtained from licensed quarries and
certified timber suppliers. Some examples of certification for construction materials include the Dominican Institution for Quality (Instituto Dominicano para la Calidad, INDOCAL) which provides sustainability certifications for construction material such as cement and iron and the PEFC (Program for the Endorsement of Forest Certification) and FSC (Forest Stewardship Council) for sustainable wood, among others.

Water: The project will overall improve current baseline conditions related to water quality. For the WWTP investments, the ESIA TOR will identify and assess all potential localized risks and impacts in receiving waterbodies, and mitigation measures will be outlined to ensure an appropriate management measures are in place (including through design and site choices as part of the analysis of alternatives). The construction and operation of the two WWTPs is expected to contribute to water quality in the near-by rivers and water bodies in the Espaillat province. Thus, a baseline study for receiving water bodies and quality monitoring parameters is included in the ESIA TORs, and these will be a requirement to report upon during project implementation. Water quality modeling will be part of the feasibility studies of the WWTPs to ensure compliance with national water quality requirements. As part of the ESIA activities to be carried out, this water quality modeling will be reviewed and validated. If the ESIA determines that the water quality models need to be further revised, the ESIA will cover all potential adjustments.

One of the project’s objectives is to improve the quality of potable water services; as such, water quality standards will be central in subproject designs and will follow WHO drinking water guidelines and national standards, whichever are higher. In addition, the proposed implementation of household metering and progressive water tariffs is expected to result in an incentive for the rational use of water. Furthermore, for Component 1 the final ESMF will include a water balance study (to be finalized within 60 days of project effectiveness) covering the subbasins of “Rio Yuna Parte Alta,” “Rio Joba Arriba” and “Arroyo Cigua,” which are the existing subbasins of the municipalities of Moca and Gaspar Hernandez (where expansion activities of the water distribution networks are expected to take place). Waste Management: Construction waste will include mostly waste from excavated soil and debris and hazardous waste such as hydrocarbon oils from construction machinery and vehicles. Any waste generated by construction activities will be disposed according to national regulations and international best practices. Waste management will also include potential decommissioning of existing facilities and requirements for site remediation (including of soils, if applicable). The ESMF and ESMP include specific measures for the management of dangerous materials as a result of the potential decommissioning activities, as well as for all the rehabilitation and construction of all civil works envisioned as part of the project. This is also applicable to the ESIA TORs for the two WWTPs, which will also include measures to address and manage sludge from the wastewater treatment according to the technology that will be decided upon as part of the feasibility and engineering studies during project implementation.

Hazardous chemicals: The operation of water treatment plants typically uses chemicals such as chlorine and potentially other hazardous materials. To ensure proper storage, handling, and use of such chemicals, the ESMP and ESMF include management measures and good practices to address these issues accordingly. The ESIA TORs for the two WWTPs also include considerations for the proper use of chemicals, which may be required to be included depending on the type of technology to be decided for the WWTPs.

Air emissions and noise: These may be generated during the construction phase of project investments from the use of heavy vehicles, machinery, and other construction activities. The ESMP and ESMF included mitigation measures to address these issues, which include dust suppression and vehicle maintenance to minimize the impact of air emissions and to minimize and manage the noise levels, such as applying standard restrictions to hours of site work.
The ESIA TORs for the WWTPs also include the requirement of including air emissions and noise considerations as part of the ESIs to be developed. In addition, the type of technology to be chosen will be a determining factor in the amount of generated odor vapors; therefore, the ESIA TORs for the WWTPs also consider the requirement for odor control mitigation and control measures.

GHG emissions: As part of the project preparation, a GHG emissions accounting was carried out using the applicable WB GHG accounting methodologies. Based on the available data, over the economic lifetime of the project (25 years), the interventions under Component 1 and 2 will increase emissions by 11,248 tCO2-eq/year. This is mainly driven by the construction of the wastewater treatment plant in Moca (responsible for 90 percent of the increase). The total gross emissions are 351,908 tCO2-eq, which is a conservative analysis because it does not consider the incorporation of a methane capture and flaring system. Such possibility will be assessed through the feasibility studies of the proposed investments, and it could lower the total gross emission of the project by up to 70 percent (100,528 tCO2-eq). For the purposes of the GHG accounting estimation, the project was divided in four main activities, which resulted in the following gross GHG emissions results: (i) Wastewater treatment in Moca: 29,676 tCO2eq; (ii) Wastewater treatment in Gaspar Hernandez: 30,149 tCO2eq; (iii) Water supply in Moca: 19,521 tCO2eq; and Water supply in Gaspar Hernandez: 5,477 tCO2eq. During project implementation and once more information on the specific technologies to be applied to each project investment becomes available, the environmental specialist of the PIU with support of the Bank will revise and update the GHG estimation accordingly.

Efficiency measures: Energy efficiency measures such as efficient lighting, cooling, heating, and other energy efficiency equipment will be considered in the project, where applicable, during the construction phase of the rehabilitation and construction of the WSS investments. Regarding water efficiency, the core objective of the project is to enhance the efficiency of water supply and treatment systems.

ESS4 Community Health and Safety

This standard is relevant given that project investments may expose communities to health and safety risks, especially if there are communities adjacent to the construction sites and activities. The presence of near-by communities will be confirmed during project implementation once the exact locations of project investments are known. Some impacts from water supply and wastewater infrastructure activities may cause inconvenience to local communities which may include air emissions and odors, disposal of effluent water, hazardous materials, closure of roads, traffic disruptions, and others. The ESMF and ESMP for component 1 activities identify and lay out generic measures to minimize community risks from these and other issues. Site-specific ESMPs to be developed during implementation will also include community risks and impacts to ensure adherence to this standard.

Careful siting of WWTPs to avoid their proximity to known seismic fault zones in the Espaillat province will be considered during the design phase. Specific considerations addressing these, as well as other natural disaster risks common in the La Espalliat province, are included in the TORs for the ESIA of the WWTPs. Likewise, the final versions of the ESMF and ESMP will include full Natural Disaster Risk Assessments to inform project investments contemplated under Component 1.

With respect to security risks, The ESMF includes procedures to carry out due diligence in each subproject area and include the respective security arrangements in the ESMP. The ESMP (La Dura) identifies and lay out generic
measures to minimize security risks in potential areas of intervention. The TORs for the ESIA for the WWT plants includes a section that requires an analysis of the situation of crime and violence in the areas where the plants will be built. Citizen security challenges and theft concerns could be on the rise in the DR in light of COVID-19 and the economic distress caused by the social distancing measures. It is important that the project team closely monitors citizen security/theft concerns in the project areas and their impact on project investments, personnel, and property.

The use of security workers is not expected based on the information available at this stage of project preparation. However, the need for security personnel will be confirmed at the subproject planning stage. The need for fences and security systems around project sites, as well as placement of construction equipment in secured storages during the construction period, will also be assessed and considered in site-specific ESMPs. As relevant, appropriate security measures will be included in bidding documents for contractors. The ESMF also specifies that site-specific ESMPs should consider impacts to household hygiene and health that may be caused by temporary suspension of water services during construction, and include recommendations to address these issues, such as minimizing water supply disruptions and community outreach promoting hygiene practices.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

The standard is relevant given that the project will finance (i) infrastructure investments in water supply to improve its efficiency and resilience in the municipalities of Moca, San Víctor, Gaspar Hernández, and Jamao al Norte; (ii) infrastructure investments in wastewater collection and treatment in the towns of Moca and Gaspar Hernández, to reduce environmental pollution and health hazards.

Because the exact sub-projects and resulting resettlement impacts are unknown at this stage, INAPA developed and disclosed by Appraisal a draft Resettlement Policy Framework (RPF). A final version of the RPF will be ready by project Board date (December 2020). The draft RPF focuses particularly on the governing principles to carry land acquisition for the Project in accordance with ESS5, and the process by which the land acquisition and resettlement actions will take place, any key gaps between local practices and ESS5 and ways to address them, including, among other things, eligibility criteria for defining various categories of displaced persons, and methods for valuing affected assets. The RPF establishes milestones and responsibilities of the actors involved, it identifies the actors that will prepare, approve, and implement the Resettlement Action Plans (RAPs). It also entails an annotated outline of what will be included in each RAP. The TORs for the ESIA for the WWT specifies that the RAPs will be prepared in accordance with the RPF guidelines. RAPs need to be approved before bidding and fully implemented before construction can start. Gaspar Hernandez has a history of land donations from private individuals to the government. Although land donation for this project has not been confirmed yet, the RPF and the ESCP include the guidelines that would need to be implemented in line with the ESS5, in case land donation is needed.

Once the location of subprojects is determined, and before any civil works start, Resettlement Plans will be prepared and disclosed for those subprojects causing impacts covered under ESS5 and in line with the RPF. It is also noted that INAPA has no experience in resettlement, which creates an additional risk if resettlement would be needed. INAPA has some experience in providing temporary shelters at the national level when there are natural disasters. Any new sites that would require large scale resettlement (above 200 families) will be excluded from the project. The
RPF and ESMF include an E &S screening form to be used to screen sub-projects that contain questions on resettlement, including legacy issues.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

The Espaillat province is an area of importance for biodiversity, containing one Scientific Reserve (La Salcedoa) under the category of Strictly Protected Areas, and one Ecological Corridor (Autopista Duarte), under the category of Protected Landscape, categories I.a and VI.c respectively under the national classification system.

Project activities under Component 1 are not expected to have a negative impact on biodiversity, as these will not be located within or in the proximity of these protected areas and their buffer zones. Most of the infrastructure works under this Component will take place in urban areas within already existing infrastructure, while some activities may occur in rural areas in locations to be determined during project implementation. The ESMF prepared for this Component provides guidance on biodiversity screening and mitigation measures to ensure that project activities do not alter or cause destruction or degradation of any critical or sensitive natural habitats, especially forests and wetlands outside these legally designated protected areas. In the case of the rehabilitation of La Dura water treatment plant, no significant impacts on biodiversity and ecosystems are expected given that all project activities will take place in already existing infrastructure.

For the WWTPs investments in Moca and Gaspar Hernandez (Component 2), the TORs for the ESIAis will include specific considerations to identify potential negative impacts to biodiversity, and if deemed necessary, site-specific ESMPs will include Biodiversity Management Plans for those activities that may pose a risk to natural habitats and living natural resources. Currently, raw wastewater discharges into the canals and streams that run throughout the town are contributing to point source pollution. Therefore, the WWTP investments will have a positive environmental impact on the conservation of downstream ecosystems, as it will reduce the inflow of contaminants discharged into water bodies that could affect species composition and overall ecological integrity.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

This standard is not relevant, given that there are no identified indigenous communities neither in Moca or Gaspar Hernandez.

ESS8 Cultural Heritage

This standard is relevant since some of the construction activities may involve soil excavations. The ESMF and ESMP for La Dura under component 1 include provisions for sub-project screening procedures of any known sites of cultural or historic importance, as well as appropriate measures to avoid, minimize or mitigate impacts as necessary. Site-specific ESMPs will furthermore include Chance Finds Procedures for civil works to be carried out under the project. All construction contracts will also include a Chance Finds clause which will require contractors to take protective measures in case cultural heritage sites are discovered during construction. The ESIA TOR for the two WWTPs also includes provisions for the inclusion of Chance Finds Procedures for civil works to be carried out under Component 2.
If the ESMP identifies the need to develop a Cultural Heritage Management Plan (CHMP), this will be developed based on the requirements of this ESS.

ESS9 Financial Intermediaries

The standard is not relevant. FI’s are not part of this project.

B.3 Other Relevant Project Risks

A contextual risk that would also impact the project is the evolving COVID-19 situation in the Dominican Republic and continuing health and social distancing ramifications. This could affect field missions/supervision and stakeholder and community engagement aspects of the project in the following months.

C. Legal Operational Policies that Apply

**OP 7.50 Projects on International Waterways**

The project does not take place on international waterways.

**OP 7.60 Projects in Disputed Areas**

The project is not in disputed areas.

### III. BORROWER’S ENVIRONMENTAL AND SOCIAL COMMITMENT PLAN (ESCP)

<table>
<thead>
<tr>
<th>DELIVERABLES against MEASURES AND ACTIONs IDENTIFIED</th>
<th>TIMELINE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ESS 1 Assessment and Management of Environmental and Social Risks and Impacts</strong></td>
<td></td>
</tr>
<tr>
<td>ORGANIZATIONAL STRUCTURE: Establish and maintain an organizational structure with qualified and experienced staff and resources to support the management of environmental and social risks within 30 days of project effectiveness.</td>
<td>02/2021</td>
</tr>
<tr>
<td>ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK: Prepare, adopt and implement an Environmental and Social Management Framework (ESMF) for water supply investments, which will include an Environmental and Social Assessment (ESA) for the Project, in a manner acceptable to the Bank.</td>
<td>03/2021</td>
</tr>
<tr>
<td>ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN: Prepare, adopt and implement an Environmental and Social Management Framework (ESMP) for La Dura water treatment plant, which will include an Environmental and Social Assessment (ESA) for the Project, in a manner acceptable to the Bank.</td>
<td>03/2021</td>
</tr>
<tr>
<td>TERMS OF REFERENCE FOR ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT: Prepare, adopt, and implement the TORs for the development of the Environmental and Social Impact Assessment of each WWTP.</td>
<td>12/2021</td>
</tr>
<tr>
<td>ESS 10 Stakeholder Engagement and Information Disclosure</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>STAKEHOLDER ENGAGEMENT PLAN PREPARATION AND IMPLEMENTATION: Stakeholder Engagement Plan (SEP). Present an updated version by board date.</td>
<td>12/2020</td>
</tr>
<tr>
<td>GRIEVANCE REDRESS MECHANISM (GRM). Prepare and implement a GRM during the project cycle. Present quarterly reports to the WB.</td>
<td>04/2021</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ESS 2 Labor and Working Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>LABOR MANAGEMENT PROCEDURES (LMP): Prepare, adopt and implement an LMP with its GRM.</td>
</tr>
<tr>
<td>OCCUPATIONAL HEALTH AND SAFETY (OHS): Prepare and implement OHS measures, including measures towards emergencies, as part of the implementation of the ESMPs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ESS 3 Resource Efficiency and Pollution Prevention and Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESOURCE EFFICIENCY AND POLLUTION PREVENTION AND MANAGEMENT: Resource (including energy and water) efficiency and pollution prevention and management measures will be developed. These measures will be a part of the ESMPs.</td>
</tr>
<tr>
<td>WASTE AND HAZARDOUS MATERIALS: Waste management measures will be developed and thereafter implemented, including training, for contractors. These will be a part of the ESMPs to be prepared.</td>
</tr>
<tr>
<td>WATER BALANCE: Carry out a water balance assessment for the ESMF of the water supply investments.</td>
</tr>
<tr>
<td>WATER QUALITY: Review and validate the water quality modeling for the ESIAs to be prepared as part of the engineering studies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ESS 4 Community Health and Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRAFFIC AND ROAD SAFETY: Adopt and implement measures and actions to assess and manage traffic and road safety risks as required in the ESMP.</td>
</tr>
<tr>
<td>COMMUNITY HEALTH AND SAFETY: Prepare, adopt, and implement measures and actions to assess and manage risks and impacts to the community including in relation to the behavior of Project workers, as well as for construction activities.</td>
</tr>
</tbody>
</table>
SECURITY STAFF. Adopt and implement measures to evaluate and manage risks towards human security of the affected communities by the project, that could arise because of the use of security staff. 02/2022

ESS 5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

RESETTLEMENT POLICY FRAMEWORK (RPF): Prepare, adopt, and implement an RPF. 12/2020

RESETTLEMENT PLAN (RP): Prepare, adopt, and implement the necessarily RPs based on the RPF guidelines. 05/2021

ESS 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

BIODIVERSITY RISKS AND IMPACTS: Measures to avoid or address negative impacts on biodiversity and natural resources as a result of infrastructure activities will be included in project-specific ESMPs. 02/2022

ESS 7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

ESS 8 Cultural Heritage

CHANCE FINDS: As part of the ESMF, develop a generic chance finds procedure. 02/2022

CHANCE FINDS: As part of the ESMPs, and when it is relevant, develop chance finds procedures as necessary. 02/2022

ESS 9 Financial Intermediaries

B.3. Reliance on Borrower’s policy, legal and institutional framework, relevant to the Project risks and impacts

**Is this project being prepared for use of Borrower Framework?**

No

**Areas where “Use of Borrower Framework” is being considered:**

None

**IV. CONTACT POINTS**

**World Bank**

Contact: Craig Kullmann  
Title: Senior Water Supply and Sanitation Specialist

Telephone No: +1-202-458-2083  
Email: ckullmann@worldbank.org
Contact: Victor Vazquez Alvarez  Title: Senior Water Supply and Sanitation Specialist

Telephone No: 5260+3708 / 54-11-43169708  Email: vvazquez@worldbank.org

Borrower/Client/Recipient
Borrower: Dominican Republic
Borrower: Ministry of Finance

Implementing Agency(ies)
Implementing Agency: Water and Sewerage Corporation of Moca (CORAAMOCA)
Implementing Agency: National Institute for Water Supply and Sewage

V. FOR MORE INFORMATION CONTACT
The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: http://www.worldbank.org/projects

VI. APPROVAL
Task Team Leader(s): Craig Kullmann, Victor Vazquez Alvarez
Practice Manager (ENR/Social) Valerie Hickey Cleared on 18-Jun-2020 at 12:29:55 EDT
Safeguards Advisor ESSA Maria Do Socorro Alves Da Cunha (SAESSA) Concurred on 19-Jun-2020 at 17:18:9 EDT