

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK



**BELIZE**  
**WATER AND SANITATION PROGRAM FOR RURAL AREAS**  
**BL-L1045**

**ENVIRONMENTAL AND SOCIAL REVIEW SUMMARY (ESRS)**  
25/04/2023

ISSUANCE v.1  
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Environmental and Social Review Summary	
Operation Data	
Operation Number	BL-L1045
IDB Sector/Subsector	Water And Sanitation / Water Supply Rural And Peri-Urban
Type of Operation & Modality	LON/GOM
E&S Impact Classification (ESIC)	B
E&S Risk Rating (ESRR)	Moderate
Disaster and Climate Change Risk Classification (DCCRC)	Moderate
Borrower	Belize
Executing Agency	BL-SIF
IDB Loan Amount (and total project cost)	\$4,000,000.00
Applicable ESPS's with requirements	ESPS 1; ESPS 2; ESPS 3; ESPS 4; ESPS 6; ESPS 7; ESPS 8; ESPS 9; ESPS 10
Estimated Gross GHG emissions (tCO <sub>2</sub> e) construction (if applicable)	Less than 25,000 tons of CO <sub>2</sub> equivalent
Estimated Gross GHG emissions (tCO <sub>2</sub> e) operation (annual), if applicable	Less than 25,000 tons of CO <sub>2</sub> equivalent
Executive Summary	
<p>The operation has been classified as Category B for its likely moderate Environmental and Social (E&amp;S) impacts which are expected to be temporary and localized, related principally to the pollution of surface water, soil and air as well as the generation of solid and liquid waste, for which mitigation measures are readily available.</p> <p>Despite financing small interventions such as rehabilitation/replacement of existing structures, the operation has an Environmental and Social Risk Rating (ESRR) of Moderate due to cause and contribution risks regarding potential direct, indirect, and cumulative impacts such as accidents during the installation of new equipment, injury, and disease arising from, associated with or occurring during construction activities, as well as during the operation of the disinfection systems foreseen in the project, since chemical products will be handled, and contextual risks. The operation will not finance the use of non-organic fertilizers or pesticides, however small quantities of hazardous waste may have to be disposed of adequately. Working conditions in the selected sectors may pose risks of exploitation, to health and safety of workers and communities as well as for discrimination and exclusion of vulnerable groups.</p> <p>The Disaster Risk and Climate Change Risk (DRCCR) of the operation has been classified as Moderate related to the risk of hurricanes, earthquakes, drought, riverine, floods, or others, including those caused or exacerbated by climate change, which may moderately impact the project, and/or the project may moderately exacerbate the risk from natural hazards to human life, property, and/or the environment.</p> <p>The sample projects will not take place in any conservation area, however, there are 3 recognized Key Biodiversity Areas (KBA) of Belize, in which part of the rehabilitation work will take place. The operation will not finance any activities that will result in resettlement, physical or economic displacement or land acquisitions as such, and eligibility criteria have been defined to exclude activities that generate these impacts in the projects outside of the sample, including to exclude Category A projects. A Stakeholder Engagement Plan (SEP) for the operation has been published on the Bank's website prior to Analysis Mission and the Executing Agency carried out one round of meaningful, socio-culturally appropriate- which included 16 meetings held corresponding with clusters of villages throughout the</p>	

country, including 10 indigenous communities and 1 afro-descendent community. Since several of the projects will take place within indigenous territory, including in the region of Toledo, a sociocultural analysis was developed which included measures to achieve the socio-culturally appropriate consultation process. No negative sociocultural impacts are detected, nor did the sociocultural analysis detect negative impacts on cultural heritage. There is widespread support for the project and no objection or opposition was raised. A final version of the ESA/ESMP has been disclosed as well as the Consultation Report and the Sociocultural Analysis, and the Environmental and Social Management Framework. All documents can be found at: <https://www.iadb.org/en/project/BL-L1045>.

The Executing Agency has moderate organizational capacity and competency for managing environmental and social issues and will prepare and maintain an Environmental and Social Management System (ESMS).

### Operation Description

The operation will be structured in two components:

**Component 1. Improved the Drinkability Water.** This component will finance the installation of innovative disinfection technologies in rural villages, namely on-site generation (OSG) options with two alternatives depending on water supply conditions: i) OSG sodium hypochlorite, recommended when no quality problems are detected in raw water; and ii) OSG mixed oxidants, recommended when water quality problems are detected in raw water, such as the presence of iron, manganese, or organic matter. This component will also finance small rehabilitations at the system level, including pipe replacement, electromechanical equipment, and storage tanks, which are about 5m x 5m x 3m= 45m<sup>3</sup>, or in one case 8 meters in diameter and 4 meters tall.

**Component 2. Strengthening the Institutional Capacity of the water sector** This component will finance training for VWB on O&M, financial management and water sources' protection, as well as the development and deployment of a financial management system to address the issue of manual bookkeeping. It will also finance training to promote the participation of women and migrants in VWB. It will also finance information campaigns at the household level on tariff payment, water conservation and use, and tap water consumption. In addition, it will support the implementation of a pilot to identify the effect of introducing micro-metering on water consumption and service payment. It will also finance a study to identify the potential of innovative technologies in improving the environmental conditions of the New River, including an analysis on the impact of these technologies in ameliorating certain pollution parameters generated by industrial and wastewater discharges such as phosphorus, total coliform, and dissolved oxygen.

**Project Management, Audit and Evaluation.** Remaining resources will cover management and supervision costs as well as the operation's external audits and intermediate and final evaluations. The project in the sample consists of one disinfection equipment and rehabilitation works per village, and the rehabilitation will be a combination of things: change of pumping/electromechanical equipment, change of some piping (replacing pipes), tank protection fence), are spread over 20 villages throughout the country. (La Democracia, Gales Point, Cristo Rey, San Antonio, El Progreso, Armenia, Hope Creek, Silk Grass, San Narciso, Progreso, August Pine Ridge, Carmelita, Guinea Grass, San Estevan, San Roman Red Bank, Big Falls, Golden Stream, San Jose/Na Luun Ca, San Pedro Columbia) distributed in 6 districts (Belize, Cayo, Corozal, Orange Walk, Stann Creek, Toledo), see Annex A. The sanitation works will take place mostly in rural areas.

The works are distributed throughout the country. It is noteworthy that, according to the E&S Screening, 8 villages that will receive rehabilitation works are located within 3 KBAs, and 12 of the 20 villages are located in the indigenous territory (see tables in Annex C).

### Rationale for Classifications/Rating

<i>E&amp;S Impact Classification</i>	The operation has been classified as Category B for its likely moderate Environmental and Social (E&S) impacts of small-scale interventions across Belize in the water and sanitation sector, which are expected to be temporary and localized, related principally to the pollution of surface water, soil and air as well as the generation of solid and liquid waste, for which mitigation measures are readily available.
<i>E&amp;S Risk Rating</i>	The Environmental and Social Risk Rating (ESRR) has been classified as Moderate, following these factors: Cause: The operation has the potential to cause moderate direct impacts associated with accidents, injury, and disease arising from, associated with, or occurring in the course of work. The operation will generate moderate direct

	impacts generated by solid waste (hazardous and/or non-hazardous). Contribution: The operation has the potential to cause moderate indirect and/or cumulative impacts associated with accidents, injury, and disease arising from, associated with, or occurring in the course of work. The operation will generate moderate indirect and/or cumulative impacts generated by solid waste (hazardous and/or non-hazardous). Context: Several projects will take place in close proximity to protected areas and within indigenous communities, including several that have in the past had conflict with the government which has been addressed through an agreement between indigenous leaders in Toledo and the government to carry out Free Prior and Informed Consent (FPIC) for all projects to take place within their communities, even those that do not cause significant negative impacts. Performance: The Executing Agency has moderate organizational capacity and competence for managing environmental and social issues. Due to the risk factors' cause and contribution, and the context of indigenous communities and key biodiversity areas, the overall rating is moderate.
<i>DCC Risk Classification</i>	The DCC Risk has been classified as Moderate related to the risk of hurricanes, earthquakes, drought, riverine, floods, or others, including those caused or exacerbated by climate change, which may moderate impact the project, and/or the project may moderately exacerbate the risk from natural hazards to human life, property, and/or the environment.
<b>Use of Borrower E&amp;S Framework</b>	No
N/A	
<b>Will the operation be co-financed?</b>	No
The operation will not be co-financed.	
<b>Environmental and Social Performance Standards (ESPSs) that apply to the proposed project</b>	
<b>ESPS-1. Assessment and Management of E&amp;S Risks and Impacts</b>	Yes
<p>To meet the requirements of ESPS 1, the Program Executing Unit - PEU will be responsible for the establishment and management of an Environmental and Social Management System (ESMS) appropriate to the nature and scale of the program components and proportional to the level of its environmental and social risks and impacts. This ESMS being prepared will define the procedures, processes, and policies to be implemented for the different activities and interventions financed. It will be in accordance with the entire Specific Environmental and Social Management Framework, which includes all applicable regulations: national and local legislation, international agreements and commitments, and the Bank's Environmental and Social Policy Framework (ESPF). The environmental and social risk and impact management measures that make up the ESMS must be part of the contracts and other legal documents of the operation, as well as complementary documents, and are therefore obligations of the Borrower. The ESMS should incorporate the following elements:</p> <p><b>a. Specific Environmental and Social Framework.</b> A preliminary comprehensive environmental and social framework was set up as a normative framework for the operation, compatible with the implementation of the ESMS, to support the management of control and impact mitigation programs, licensing processes, and compliance with environmental legislation and IDB standards. It defines objectives, principles, and goals for achieving environmental and social performance, and outlines the management process, structure, and operation. <b>b. Identification of Risks and Impacts.</b> An ESA was prepared that included an evaluation of all the sampled construction sites in the 20 villages, as well as the resulting Environmental and Social Management Plan (ESMP). The socio-environmental risks and impacts of the Water and Sanitation Program for Belize were detailed in the ESA of the sample as well as in an Environmental and Social Management Framework (ESMF) for the projects outside of the sample. The ESMF contains the procedures for the PEU to screen the works against eligibility criteria (which will exclude Category A projects). The eligibility criteria is that the following kinds of projects will not be eligible: Involuntary Resettlement: projects that generate physical resettlement of people. Indigenous Peoples or Ethnic Minorities: projects that cause differentiated negative impacts (direct, indirect, or cumulative) to indigenous populations or their individual or collective rights or property. Irreversible adverse impacts. Critical Natural Habitats: Projects that involve the loss or significant degradation of</p>	

critical or important natural habitats. Significant conversion is defined as the removal or severe decline in the integrity of a critical or natural habitat caused by a long-term radical change in land or water use. Critical Cultural Sites: projects that cause a significant negative impact on critical cultural property or assets, for example, religious, archaeological, paleontological sites, and other sites; and Economic displacement: projects that cause adverse impacts related to impacts on livelihoods or economic activities.

**c. Environmental and Social Management.** Environmental and Social Management Plans were detailed in the ESMP of project samples, and in the Environmental and Social Action Plan (ESAP) that was a result of the Bank's due diligence. The ESMF applied to the out-of-sample projects and their areas of influence were also developed, and describes mitigation and performance improvement measures and actions to address risks and impacts.

**d. Organizational Capability and Competence.** During the Due Diligence, an assessment was conducted to identify the knowledge, skills, and experience required by the PMU for ESMS implementation, including up-to-date knowledge of relevant regulatory obligations and the requirements of applicable Performance Standards 1 to 10. As a result, it was identified that for the socio-environmental issues a specialist should be hired. An area with roles, responsibilities, and authority to coordinate ESMS implementation will be established within the organizational structure of the PMU. Within this structure, environmental and social program experts will be designated with clear and well-defined responsibilities and roles for the implementation of ESMS.

**e. Emergency Preparedness and Response.** The ESA/ESMP for each sample project, as well as the ESMF, will include specific programs, procedures for preparedness and response to accidental and emergency situations associated with the Program's interventions, sufficiently to prevent and mitigate any harm to people and the environment.

**f. Monitoring and review.** The ESMS will include procedures to: (i) systematically monitor the implementation of socio-environmental management programs and measure their effectiveness, as well as monitor compliance with legal and contractual obligations and relevant regulatory requirements; (ii) record and report the results of monitoring and necessary corrective and preventive actions, with the issuance of reports approved by the PEU and submitted to the IDB; and (iii) plan and conduct periodic evaluations of the effectiveness of the ESMS, based on the results of systematic monitoring.

**g. Stakeholder Engagement.** The ESMS will include a Stakeholder Engagement Plan (SEP) to plan and implement an ongoing stakeholder engagement process, which is essential for the successful management of the social and environmental impacts of the program. This process will include the following elements: i) stakeholder analysis (mapping) and related planning; ii) information dissemination and outreach; iii) meaningful consultation and participation, grievance mechanisms, and external communication; and iv) procedure for regular communication of information to those affected by the work and other interested parties. The process should be under the requirements set out in ESPS 2 to 10. The SEP for projects sample was published on 03/21/2023, before the Analysis Mission and public consultations. The specific Grievance Redress Mechanism is in draft form and will be disclosed as soon as finalized, as part of the ESAP. The final Consultation Report and specific Stakeholder Engagement Plan have been disclosed.

## ESPS-2. Labor and Working Conditions

Yes

The operation has the potential to cause moderate direct and indirect and/or accumulate impacts associated with accidents, injury, and disease arising from, associated with, or occurring in the course of work. In this type of project, the risks of work accidents typical of civil works are expected, such as cuts, falls, welding burns, asphyxiation in confined environments, commuting accidents, heatstroke, among other injuries. The risks inherent to the twenty (20) projects of the sample were evaluated in the ESA/ESMP and were considered to be low magnitude. The civil works will use the basic direct construction inputs (cement, sand, bricks, iron, etc.) and other water treatment/disinfection equipment to be installed for the operational phase. The labour risks involved in the production of these inputs are considered low and are already known. During Due Diligence the risks involved in the supply chain were pointed out to the Executing Agency and that their suppliers should be evaluated to rule out child and forced labour, besides being duly licensed and meeting the legal environmental standards in force. Solar panels promote environmental gain in renewable energy generation, however, depending on the suppliers they may be associated with child and forced labour.

The acquisition of solar panels must include an evaluation of suppliers by Executing Agency to rule out to the extent possible, suppliers that use materials from forced labor, in addition to primary suppliers of any material or product

central to the objectives of the Operation. Since the operation might finance solar panels, a due diligence will be conducted for the purchase of the equipment, avoiding manufacturers that use materials associated with forced labor. In this assessment, to avoid risks, it is recommended to consider the possibility of acquiring domestically manufactured equipment. This is in line with "IDB Group Measures to Address Risk of Forced Labor in the Supply Chain or Silicon-based Solar Modules. Revised Version (GN-3062-1). The ESMP for the sample projects and the ESMF for the projects outside the sample presents a Guidelines for the Procurement of Solar Panels, including guidelines for the evaluation of solar panel suppliers, in a protocol with 5 themes: a traceability protocol, Policy Supplier Social Responsibility, origin, independent supplier audit reports, and historical (public information, press, reports, legal process, etc).

The ESMP and ESMF prepared for the operation, includes the procedures for checking the environmental and social compliance of the project suppliers in the construction and operation phases.

The Executing Agency (PEU) will prepare and maintain an Environmental and Social Management System (ESMS) for the operation. The ESA/ESMP of the representative sample includes a "Labor Management Procedure" (LMP) (as part of Program 7 of the ESMP) that is governed by the principles of equality, opportunity and fair treatment and includes labor laws within its regulatory framework regulations on equality and non-discrimination in the workplace. The LMP in accordance with the ESPS2 must also be established in the ESMF for the works outside the sample. In order to adhere to ESPS 2 an Occupational and Community Health and Safety Program was prepared and included in the Project's Environmental and Social Management Plan. The objective of the LMP is to define actions and responsibilities of the different employers in relation to the projects (executing agency, contractors, suppliers, etc.). It applies to workers of the Projects hired directly by the Executing Agency (direct workers), to personnel hired through third parties to carry out work related to core functions of the Program for a considerable time (contracted workers) and to those hired by the main suppliers of the implementing agencies (main supply chain workers). Exceptions are public employees subject to the terms and conditions of their labor agreement or arrangement in force in the public sector. The specific Grievance Redress Mechanism will include a specific complaint mechanism for workers (and their organizations, when they exist) so that they can express their concerns about the workplace, and the channelling of complaints about sexual and gender violence. Child or forced labor will not be allowed and respect for human rights of all workers will be monitored as part of the LMP, including for migrant workers. The Borrower (or its contractors) will not employ children below the age of 15 (as per IDB's ESPF). The LMP specifies the details of this ESPS with regard to child labor such that they are all met, and children over the minimum age will not be employed or engaged in any manner that is economically exploitative or likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development. Children under the age of 18 will not be employed in hazardous work. The specific Grievance Redress Mechanism will establish a specific complaint mechanism for workers (and their organizations, when they exist) so that they can express their concerns about the workplace, and the channelling of complaints about sexual and gender violence, non-payment of wages, inadequate living or working conditions or seizure of identity documents, etc. The ESMF includes guidelines to mitigate these impacts and risks in projects outside of the sample.

### ESPS-3. Resource Efficiency and Pollution Prevention

Yes

In compliance with this Standard, the ESA/ESMP for the projects in the sample establishes the applicable national regulatory framework, considering the environmental, safety, hygiene and occupational health requirements to be met during the execution of the project, and the Environmental and Social Policy Framework of the IDB. Likewise, it details the guidelines of the Environmental and Social Management Plans (ESMP) to address these aspects in the projects to be financed under the Program. With regard to this Standard, during the construction stage of the sample projects under the Program, the following pollution impacts and risks were identified in the ESA: (i) air, due to gaseous emissions and particulate matter; (ii) water, due to accidental spills or due to incorrect disposal or failures in the effluent or solid waste management systems; (iii) handling and storage hazards materials, (iv) soil, due to erosion or sediment runoff during excavation (pipe replacement services) and stockpiling; (v) occupational safety impacts, inherent in construction and maintenance tasks, and (vi) noise and vibrations, due to noise from the operation of

equipment and machinery. In this regard, compliance with the Bank's ESPS and applicable national regulations will be required. In particular, the ESMP for projects include the following programs: 1 - Program for Monitoring and Control of Compliance with Mitigation Measures; 4 – Waste Management; 5 - Effluent Management; 6 – Chemicals Management; 7 - Occupational and Community Health and Safety Program; 9 - Socioenvironmental Training for Personnel, and 10 - Disaster Management and Emergency Response Plan. The ESMF contains framework guidelines to mitigate these impacts and risks in projects outside of the sample. The mains risks related to pollution prevention were assessed during the DD and presented in the ESA, as above indicated. The Bank already estimated the quantities of greenhouse gases emissions resulting from the operation.

Water Supply: Emissions from Purchased Electricity	
<b>Instructions</b> Enter the volume of water that is supplied as a result of this project. An average electricity factor will be applied to this volume to obtain the amount of electricity consumed by the water supply process. This factor is based on several studies in Mexico, India, and the U.S.	
Country:	Belize
1. Choose Units:	<input type="radio"/> Cubic Meters <input checked="" type="radio"/> Gallons
2. Enter the Volume of Water Supplied:	928,728,609 gallons/yr
Default Electricity Factor for Water Supply:	0.002 kwh/gallon
Electricity Consumed:	1,423.0 MWh/yr
Subtotal:	409.8 Metric Tonnes CO2

Total Project Emissions - Simplified Methodology	
GHG Emissions from Construction:	0 Metric Tonnes CO2
Annual GHG Emissions From Operation:	410 Metric Tonnes CO2
see emissions from the construction tab	

#### ESPS-4. Community Health, Safety, and Security

Yes

The risks and impacts on the health and safety of the people affected by the interventions of Water and Sanitation Program for Rural Areas for Belize, were assessed in the ESA for the twenty (20) sample projects and the mitigation measures for the risks and impacts of the implementation and operation phases of the health units were presented in the ESMP. With the purpose of avoiding and mitigating impacts and risks in terms of health, safety and protection of the community, the following Management Programs are included in the ESMP guidelines: 7 - Occupational and Community Health and Safety, 8 – Pest and Vector Control; 9 - Socio-environmental Training for Construction Personnel, 10 - Disaster Management and Emergency Response, and 11 - Community Information and Participation. Regarding exposure to natural hazards, the works to be executed are not expected to exacerbate the risks to human life, property, the environment, or the projects themselves. The ESA found that there are minor direct and indirect and/or cumulative health and safety risks associated with the design of structural elements or components of the operation as operation of small construction sites, use of stationary and mobile power generators, storage of dangerous goods and digging of trenches for pipe replacement services (exceptionally).

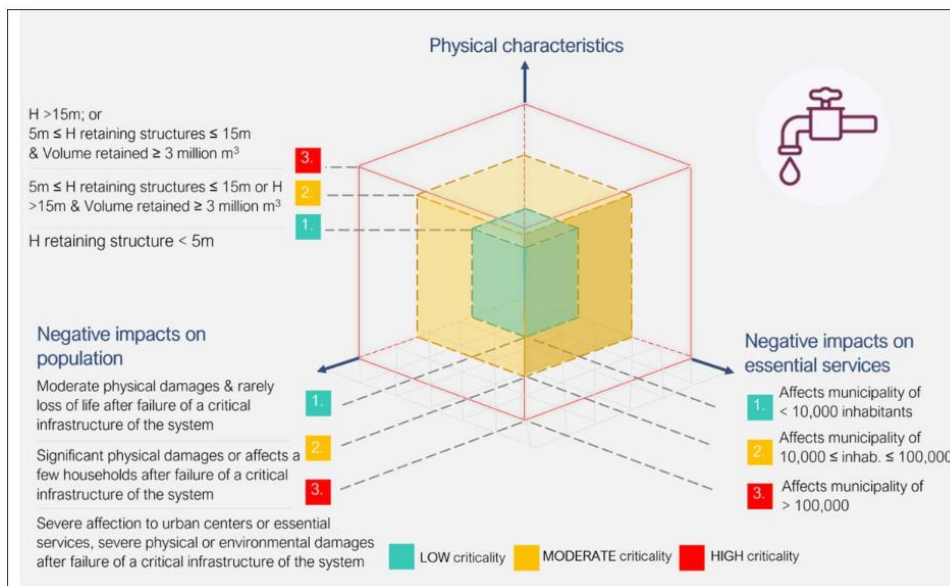
In case of equipment storage areas, all safety precautions and measures described in the ESMP, should be adopted as such as isolation, signalling, fire extinguisher, locking systems, etc., which could result in health and safety impacts to third parties and project-affected people.

Potentially the project can generate health risks to the workers and neighbouring populations, due to the creation of ditches, wells or low points along the pipe line or the construction site in which accumulated water, if they occur, become points of generation and proliferation of disease vectors such as mosquitoes that cause commonly known diseases, cause or exacerbate community exposure to water-related diseases (i.e., waterborne, waterborne, and

vector-borne diseases) and/or communicable diseases (e.g., COVID). Risk of impacts on ecosystem services are moderate, mainly related to increased water consumption in the project's operation to serve the population. All these risks were assessed in the ESA scope and mitigation measures were presented in the ESMP.

During the construction phase the project is not expected to directly affect the public (including workers and their families) through exposure to hazardous materials released by the project, particularly those that may be life threatening. Hazardous products (chemicals) used in the operational phase for the treatment and disinfection of water have the potential to affect public health if exposed. The use of security personal is not foreseen. The ESA and ESMP of each sample project as well as the ESMF determine measures aligned with ESPS 4.

The hazards present in the operation area are hurricanes, floods, and extreme temperatures (see Annex A). The risk of hurricanes was considered high for all 20 villages in the sample, as well as for heat waves (this one except Armenia). The riverine flood risk was considered medium-high for the villages of San Narciso, Progreso, La Democracia, Carmelita, Guinea Grass, San Estevan, San Roman, Big Falls and San Pedro Columbia. The criticality and vulnerability of the infrastructure component of the project is classified as Moderate, following the criteria shown in the criticality chart for roads/water, sanitation or drainage/hydroelectric dams/schools/irrigation/neighbourhood improvement/hospitals (see below): (i) For both areas analysing the physical characteristics of the infrastructure (new disinfection equipment's, rehabilitations of systems, pipe replacement, electromechanical equipment, and storage tanks) and the magnitude of the works (significantly less than 10,000 served connections), the criticality is classified as low, (ii) the negative impacts on population is low because the infrastructure considered in the project - in case of failure of the works - would not affect a population greater than 10,000 inhabitants, and (iii) level of significant physical damages or affects a few households after the failure of critical infrastructure of the system is moderate. Therefore, the criticality is rated as Moderate. The new and to-be-refurbished disinfection equipment are not expected to increase the current conditions of natural hazards or of vulnerability to surrounding communities or the environment due to their characteristics of underground works, and small intervention. Considering the hazards levels identified, the criticality and vulnerability estimated for the infrastructure's interventions, and the level of risk exacerbation, the Project is classified as Moderate risk.



It is required as a project preparation criterion that, prior to the start of work, the contractor, as part of the ESMP, develop risk analysis and implementation of mitigation measures, in accordance with the Natural Disaster Management and Emergency Response Program of the ESMP. The Disaster Management and Emergency Response (DMER) is required as a contractual requirement and is included in the ESAP.



In addition to the DMER being prepared, more detailed Disaster and Climate Change Risk Narrative (National Emergency Management Organization-NEMO, 1999) was prepared by Belize Government, for the purposes of responding to extreme events. NEMO is the body responsible for coordinating national responses to disasters and oversees preparation for and response to hurricanes and floods in Belize. This regulation deals with the response to any kind of disaster, being natural or human- induced. In this regard, it is required as a project preparation criterion that, prior to the start of the works, the SIF/contractor, as part of the ESMP/ESMF, develop the Disaster Risk Management Plan that includes mitigation measures, which should be part of the ESMP. Overall, the description has therefore concluded that for this Moderate risk operation there is no need to continue with Step 4 of the qualitative risk assessment under DCCRAM1, as there are no significant gaps. The qualitative assessment included in the ESA/ESMP is appropriate for the scale and scope (including existing studies and hazard assessments) and verifies that the existing and identified measures are sufficient to manage the risk, including design considerations.

**ESPS-5. Land Acquisition and Involuntary Resettlement**

No

The operation will not finance any activities that require land acquisitions, involuntary resettlement, physical or economic displacement, given the fact that no new infrastructure will be installed but only rehabilitated. This has been confirmed during due diligence and should continue to be monitored during implementation.

**ESPS-6. Biodiversity Conservation and Sustainable Management of Living Natural Resources**

Yes

During Due Diligence it was confirmed that of sample projects will not interfere in protected areas, not including works that impact critical natural habitats. However, according to the official bases obtained from the Key Biodiversity Areas (KBA) consultation <https://www.keybiodiversityareas.org/>, 8 works in the sample occur in Key Biodiversity Areas. The Biodiversity Map and KBA (Key Biodiversity Areas) are presented in Annex C. The following table shows the occurrence of villages within KBA areas.

Villages	KBA Name	Description
La Democracia; Guinea Grass	Crooked Tree and associate wetlands	This area is comprised of the Crooked Tree Wildlife Sanctuary which is also a RAMSAR site, Lamanai Archaeological Reserve, Monkey Bay National Park, Monkey Bay – a private reserve, Runaway Creek – a private reserve and the Manatee Forest Reserve. Crooked Tree and the surrounding wetlands make up a complex that was identified as important during the water bird risk assessment.
Gales Point; Hope Creek; Silk Grass; San Roman	Belize Coastal and nearshore islands	This area is comprised of 3 Marine Reserves namely Hol Chan, Caye Caulker and Port Honduras; and seven Forest Reserves: Grants Works, Mango Creek, Swasey-Bladen, Machaca, Caye Caulker, Deep River and Manatee. There are also four Wildlife Sanctuaries: Aguascaliente, Gales Point, Swallow Caye, and Corozal Bay. There are two National Parks: Sarstoon-Temash and Payne’s Creek. The four Bird Sanctuaries are Bird Caye, Monkey Caye, Los Salones and an un-named cay. Altun Ha is the sole Archaeological Reserve and Burdon Canal is the sole Nature Reserve within this IBA.
San Antonio; Armenia	Maya Mountains and southern reserves	This IBA encompasses various large terrestrial protected areas in Belize. It is comprised of the Sibun, Vaca, Chiquibul, Maya Mountain, Sittie River, Columbia River, Manatee, Deep River and Mountain Pine ridge Forest Reserves. It includes the following 7 national parks: Five Blues Lake, St. Herman’s and Blue Hole, Billy Barquedeer, Nojkaaxmeen Eligio Panti, Mayflower Bocawina and Payne’s Creek. Three Archaeological Reserves, Barton Creek, Caves Branch and Caracol, are included. Additional protected areas within this IBA include the Bladen Nature Reserve, Victoria Peak and Thousand Foot Falls Natural Monuments and the Cockscomb Basin Wildlife Sanctuary. There are also three private reserves within this IBA: Golden Stream, Block 127 and Runaway Creek.

The small and punctual interventions required by the operation are not expected to directly affect any of the KBAs. These works take place within intervened properties, representing only a small percentage of the KBA and having minimal impact on the operational area. The impact evaluation presented in the ESA confirms that by the scale and complexity of the works limit impacts on the Direct Area of Influence of the projects in villages in Key Biodiversity Areas. The projects are executed on already impacted sites (elevated tank facilities, pumping facilities), using existing access roads, with the typical footprint of a pumping facility being about 25 m<sup>2</sup> in a fenced or delimited area, and the typical footprint of a tank facility being about 100 m<sup>2</sup> in a fenced or delimited area. Most of the works for both facilities occur inside the fenced area or around it, with limited impacts outside. These areas are zoned for ancillary equipment use and represent a negligible fraction of the overall KBA areas.

Although minor impacts are expected to the flora in villages located in KBAs, additional mitigation measures have been defined. During the construction phase, the ESMP for a Vegetation and Fauna Management Program will be implemented for the projects of the sample and those outside of the sample, including the guidelines that prohibit the use of invasive species in reforestation and revegetation works and their use in the compensation of trees and management of green areas. The Program encourages the use of native species in reforestation and establishes a prohibition on hunting local species. In case of removal of vegetation cover, a compensation program must be included that guarantees zero net loss of biodiversity, typically using a 3:1 compensation ratio.

#### **ESPS-7. Indigenous Peoples**

Yes

Several of the projects take place within indigenous territory, including in Maya communities in Toledo, and in 1 culturally distinct afro-descendent communities. See maps in Annex A and Table. A sociocultural analysis has been carried out and disclosed, including measures for a socio-culturally appropriate consultation with indigenous communities and leaders where projects will take place. No significant negative impacts were detected by the sociocultural analysis. The projects are expected to benefit the indigenous communities in improving their access to safe drinking water without having to buy it in the store. This Operation will not create any of the scenarios of the ESPS7 requiring Free Prior and Informed Consent. Due to an agreement between indigenous communities of Toledo and the government of Belize, projects there will go through an FPIC process but this will be ongoing and in addition to the socio-culturally appropriate consultation process which has been carried out with key actors in the indigenous communities in line with ESPS7.

#### **ESPS-8. Cultural Heritage**

Yes

It is not foreseen that the project in both regions will present any risk of affecting Cultural Heritage. In the ESG Screening, no areas of Cultural Interest or Cultural Heritage recognized by UNESCO have been identified. The Sociocultural Analysis confirmed this and the ESMP establishes a chance finds procedure. If the works result in the discovery of protected heritage (in eventual case of archaeological finds), the Chance Finds Procedure will be implemented.

#### **ESPS-9. Gender Equality**

Yes

No negative gender impacts have been detected nor are expected, and the projects should improve gender equality by reducing the time that is spent by women and girls on fetching water and improving their access to safe drinking water and reduce the amount of money of family budget spent on bottled water. The final version of the Environmental and Social Analysis verifies that there is a low risk of gender violence because of the project, since the number of workers is very low and for few days, and there will be no worker camps. Women played a strong role in the in the consultation process, about a third of the participants being women, many of whom expressed concerns and questions freely. This will continue and continue to be monitored as part of the implementation of ongoing

stakeholder engagement. The final ESMP includes a code of conduct that addresses issues of gender and sexual violence.	
<b>ESPS-10. Stakeholder Engagement and Information Disclosure</b>	Yes
<p>The final version of the Environmental and Social Analysis (ESA), Environmental and Social Management Plan (ESMP), Consultation Report and Sociocultural Analysis have been disclosed. A meaningful consultation, including socio-culturally appropriate consultation with key actors in indigenous villages, was held and documented in the consultation report. The consultation process included 16 meetings throughout the country, corresponding with clusters of villages to benefit from projects, including 10 indigenous villages and 1 afro-descendent village. Also, due to local requirements that the government of Belize has agreed to with indigenous communities in Toledo (south of Belize), a Free Prior and Informed Consent process will be held with the benefiting indigenous communities and will be ongoing. Measures were taken to promote participation of actors from vulnerable groups, such as women, in this process. There is widespread support for the projects and participants of the consultations raised specific questions about where disinfection systems will be installed, observations about their water usage and systems, the hardness or softness of water, water scarcity, and suggestions such as where the best place to install the systems would be. There were also questions related to the safety of the systems for plants and people and the longevity of the infrastructure. No objections or opposition was raised to the projects proposed.</p>	
<b>Information Disclosure requirements (for the IDB)</b>	
<p>The final versions of the ESA, ESMP, ESMF, Public Consultation Report, Stakeholder Engagement Plan and Sociocultural Analysis, have been disclosed by the IDB and can be found at <a href="https://www.iadb.org/pt/project/BL-L1045">https://www.iadb.org/pt/project/BL-L1045</a>.</p>	
<b>Annexes</b>	
<b>Annex A</b>	The Environmental and Social Action Plan (ESAP)
<b>Annex B</b>	E&S Legal Requirements
<b>Annex C</b>	E&S Maps

## Annex A. ESAP

The Environmental and Social Action Plan (ESAP)

Operation Name	Water and Sanitation Program for Rural Areas
Operation Number	BL-L1045

Topic	Action	Evidence	Milestone	Due Date	Cost (estimated)	Responsible Party
<b>ESPS-1. Assessment and Management of E&amp;S Risks and Impacts</b>						
Environmental and Social Management System	Submit an ESMS Implementation Report	ESMS Implementation Report	Prior to operational eligibility		N/A	SIF
Organizational Capacity and Competency	Evidence of hiring of environmental and social professional before First Disbursement.	Signed contract	Prior to operational eligibility		US\$ 62.400 per 4 years	SIF
<b>ESPS-2. Labor and Working Conditions</b>						
<b>ESPS-3. Resource Efficiency and Pollution Prevention</b>						
<b>ESPS-4. Community Health, Safety, and Security</b>						

Disaster Management and Emergency Response Plan	Submit the Disaster Management and Emergency Response Plan (DMER), according to ESPS 4 and ESMP.	DMER disclosed	Prior to the start of works		NA	SIF/Contractor
<b>ESPS-5. Land Acquisition and Involuntary Resettlement</b>						
<b>ESPS-6. Biodiversity Conservation and Sustainable Management of Living Natural Resources</b>						
<b>ESPS-7. Indigenous Peoples</b>						
<b>ESPS-8. Cultural Heritage</b>						
<b>ESPS-9. Gender Equality</b>						
<b>ESPS-10. Stakeholder Engagement and Information Disclosure</b>						
Specific Grievance Redress Mechanism	Disclose specific Grievance Redress Mechanism including for project workers	Final GRM disclosed	Prior to operation eligibility		NA	SIF

## Annex B. The Environmental and Social (E&S) Legal Requirements

**General note:** *The ESG Team Member may propose adjusting or placing clauses according to the operation, country and relevant topics.*

*To meet the requirements of the Bank's Environmental and Social Policy Framework (ESPF), the Borrower, directly or through the Executing Agency, will comply to the satisfaction of the Bank with the E&S contractual terms and conditions set forth in this Annex. Where it has been determined that an Environmental and Social Action Plan (ESAP) is required, this will be legally binding (cross referenced in the loan contract – see para. below). The ESG specialist should ensure that the cross-reference is included in the contract.*

**Special Conditions. “Article XX. Other Documents Governing Program Execution.** (a) *The Parties agree that the Program's execution shall be governed by the provisions of this Contract and those established in the OM and ESAP. If any provision of this Contract should present any inconsistency or contradiction with the OM and ESAP, the relevant provision of this Contract shall prevail. Moreover, the Parties agree it shall be necessary to obtain the Bank's written consent prior to making any change to the., OM, and ESAP*  
*The terms and conditions, as well the ESAP, can only be modified with the prior written consent of the Bank, including clearance by ESG.*

### General Conditions

The General Conditions, specifically Article 6.03 General Provisions for Execution of the Project, Article 6.06 Environmental and Social Management, and Article 7.02 Plans and Reports provide for the legal basis to ensure compliance with the Environmental and Social Performance Standards during operation execution.

#### **“Article 6.06. Environmental and Social Management.**

*(a) The Borrower, directly or through the Executing Agency, agrees to carry out the execution (preparation, construction, and operation) of the activities included in the Project in accordance with the Environmental and Social Policy Framework of the Bank (ESPF), its Environmental and Social Performance Standards, pursuant to the specific provisions on environmental and social considerations included in the Special Conditions.*

*(b) The borrower, directly or through the Executing Agency, agrees to immediately notify the Bank of any breach of the environmental and social commitments established in the Special Provisions.*

*(c) The borrower, directly or through the Executing Agency, agrees to implement a corrective action plan agreed upon with the Bank to mitigate, correct, or compensate for the adverse consequences that may occur due to failure to implement the environmental and social commitments established in the Special Provisions.*

*(d) The Borrower, directly or through the Executing Agency, agrees to allow the Bank, by itself or by contracting consulting services, to carry out supervision activities, including environmental and social audits of the Project, to confirm compliance with environmental and social commitments. established in the Special Provisions.”*

### Definitions to be included in the Loan Contract

**“Environmental and Social Action Plan” or “ESAP” means the environmental and social action plan for the Project/program, agreed on date [**

**“Environmental and Social Performance Standards” or “ESPSs”** refer to the 10 Performance Standards that are part of the Environmental and Social Policy Framework (GN-2965-23).

**“Code of Conduct”:** Formal declaration of principles that establish the standards of behavior for workers in relation to measures for the prevention and management of environmental, labor and social risks of the project/program, including occupational health and safety risks, sexual and gender-based violence, discrimination, and abuse and sexual exploitation of children and other vulnerable people or groups, insofar as this is applicable to the works, other consulting services, consultancies, and goods.

**“Associated facilities”:** new or additional works and/or infrastructure, irrespective of the source of financing, essential for a Bank-financed project/program to function, such as: new new/additional access roads, railways, power lines, pipelines required to be built for the project; new/additional construction camps or permanent housing for project workers; new/ additional power plants required for the project; new/additional project effluent treatment facilities; and new/additional warehouses and marine terminals built to handle project goods.

### Special Conditions

This template presents three categories of conditions:

- A. Clauses to be incorporated in the Special Conditions for all Category A and B operations.
- B. Clauses to be incorporated in the Special Conditions, on a case-by-case basis (based on impact and risk categorization), well justified.
- C. Provision to be included in the Operating Manual (“OM”).

### A. Clauses to be incorporated in the Special Conditions for all Category A and B operations

#### Conditions for First Disbursement

- a) *The Executing Agency has approved the Operating Manual and entered into effect under the terms and conditions previously agreed with the Bank, which must include, among other elements, the environmental and social requirements and includes as Annexes the Environmental and Social Management System, the Environmental and Social Management Plan and the ESAP.*
- b) *As part of the execution structure whose formation is a condition precedent to the first disbursement of financing resources, 01 socioenvironmental specialist will be hired for the environmental and social Management of the Project/program.*

Justification: The ESMS, ESMP, ESAP will orient the operation to continue in compliance with the Environmental and Social Policy Framework of the Bank.

#### Special conditions for execution of the Program

To apply and put into practice Article 6.06 Environmental and Social Management paragraph (a) of the General Conditions, the following provisions must be included in the Special Provisions clause corresponding to Environmental and Social Management for all Category A and B operations.

*Clause XX. Environmental and Social Management*

2. For purposes of Articles 6.06 and 7.02 of the General Conditions, the parties agree that the Project/program execution shall be governed by the following provisions, which have been identified as necessary for compliance with the Environmental and Social Performance Standards:

- a) The Borrower agrees to design, build, operate, maintain, and monitor the Project/program and manage the ESHS risks of the Project/program's Associated Facilities, if any, directly or through the Executing Agency or through every other contractor, operator or any other person performing Project/program related activities in accordance with the Environmental and Social Management System,, The Environmental and Social Management Plan, Environmental and Social Action Plan, Environmental and Social Management Framework and other environmental, social and occupational health and safety plans that may have already been developed and/or will be developed during execution, and the requirements included in the Corrective Action Plan [include relevant additional standards if any].
- b) The Borrower, directly or through the Executing Agency, must ensure that the Project is implemented in accordance with the Environmental and Social Action Plan ("ESAP") dated \_\_\_\_\_), in a manner acceptable to the Bank. For this purpose, the Borrower must ensure that its costs are covered and have the personnel required for its implementation. The ESAP will be modified with the prior written consent of the Bank, as indicated therein.
- c) The Borrower, directly or through the Executing Agency, must: (i) implement participation processes with the affected communities and interested parties for the activities planned in the Project/program; (ii) disclose all environmental and/or social documentation of the Environmental and Social Management System; (iii) establish, publicize, maintain and operate an accessible, effective and efficient grievance mechanism to facilitate support or resolve concerns, in a manner acceptable to the Bank.
- d) The Borrower, directly or through the Executing Agency, will ensure that all bidding documents and contracts to be financed with Loan proceeds include provisions that require applicants, bidders, proponents, contractors, consultants, representatives, staff members, subconsultants, subcontractors, and suppliers of goods and services, their representatives, and supervisory entities, among other aspects, to: (a) comply with the environmental and social instruments of the ESMS, ESAP, ESMP, including provisions and procedures to prevent child labor and forced labor; (b) adopt and enforce the Project/program Code of Conduct, which must be provided and properly communicated to all its workers; and (c) in the case that the Project/program includes the acquisition of solar panels or panel components solar panels, the Borrower directly or through the executing agency will ensure that the respective procurement processes, bidding documents, and contracts include the Bank's specific provisions that prevent any type of child or forced labor.

Justification: The ESMS, ESMP, ESAP will orient the operation to continue in compliance with the Environmental and Social Policy Framework of the Bank

### **Supervision and Evaluation**

*The following clauses must be included for all Category A and B operations in Chapter V "Supervision and Evaluation of the Project":*

1. The Borrower, directly or through the Executing Agency, will:

- a) Prepare and submit, to the Bank's satisfaction, an Environmental and Social Compliance Report, in form and content agreed with the Bank on the implementation of the ESMS and compliance with the ESAP, if any, as part of the semi-annual progress report or within XX days from the end of each respective calendar period and up to two years after the last disbursement.
- b) Adopt all necessary measures to collect, compile, and provide the Bank through regular reports, with the frequency agreed between the Bank and the Executing Agency, or when required by the Bank, including: (i) the information on the status of implementation of the ESMS and compliance with the ESAP, if applicable; (ii) the conditions, if any, that interfere or could interfere with the implementation of the ESMS and/or compliance with the ESAP, if applicable; and (iii) corrective and preventive measures taken or that must be taken to address the conditions indicated in the previous numeral.



- c) *With respect to the Project/program and its associated facilities, the Borrower/Executing Agency will notify the Bank in writing within ten (10) days of becoming aware of any (1) material non-compliance with environmental and social requirements ; (2) incident or serious accident related to the works of the Project/program that has resulted in fatalities or injuries with permanent disability of workers or third parties, as well as cases of sexual violence associated with a worker contracted by the Project/program and any other that, at the discretion of the executing agency, may generate a significant impact on the environment, the community or workers; (3) regulatory action of an environmental, social and/or occupational health and safety nature that initiates a disciplinary process for serious misconduct; or (4) any newly identified environmental and social risks and impacts that may affect the environmental and social aspects of the Project/program [and its associated facilities]; in each case such notification will include actions taken or proposed with respect to such events.*

Justification: The obligations orient the Executing Agency to comply with relevant requirements of ESPS1.

#### **B. Clauses to be incorporated in the Special Conditions, on a case-by-case basis where justified**

Conditions should be included only for the operations requiring them due to their specificities and should be justified. Note that these should only be items that require very specific attention, in addition to the detail included in the ESAP.

Any additional conditions to be satisfied prior to first or any required for subsequent disbursements must be included in this section.

In the case of specific exclusions (for example for Multiple Works or Financial intermediaries) these can be included here.

#### **Special Conditions of Execution**

*The Borrower, directly or through the Executing Agency, shall not engage in any of the following activities with respect to the Project, and/or Subprojects: Cat A projects and activities that generate physical resettlement of people, projects that cause differentiated negative impacts (direct, indirect, or cumulative) to indigenous populations or their individual or collective rights or property, projects that generate significant, irreversible impacts, projects that involve the loss or significant degradation of critical or important natural habitats, projects that cause a significant negative impact on critical cultural property or assets, for example, religious, archaeological, paleontological sites, and other sites, and projects that cause adverse impacts related to impacts on livelihoods or economic activities.*

Justification: The eligibility criteria exclude projects that generate impacts that do not characterize the projects of the representative sample, in accordance with PR-202.

#### **C. Provision to be incorporated into the Operating Manual**

The following provision should normally be included in the OM:

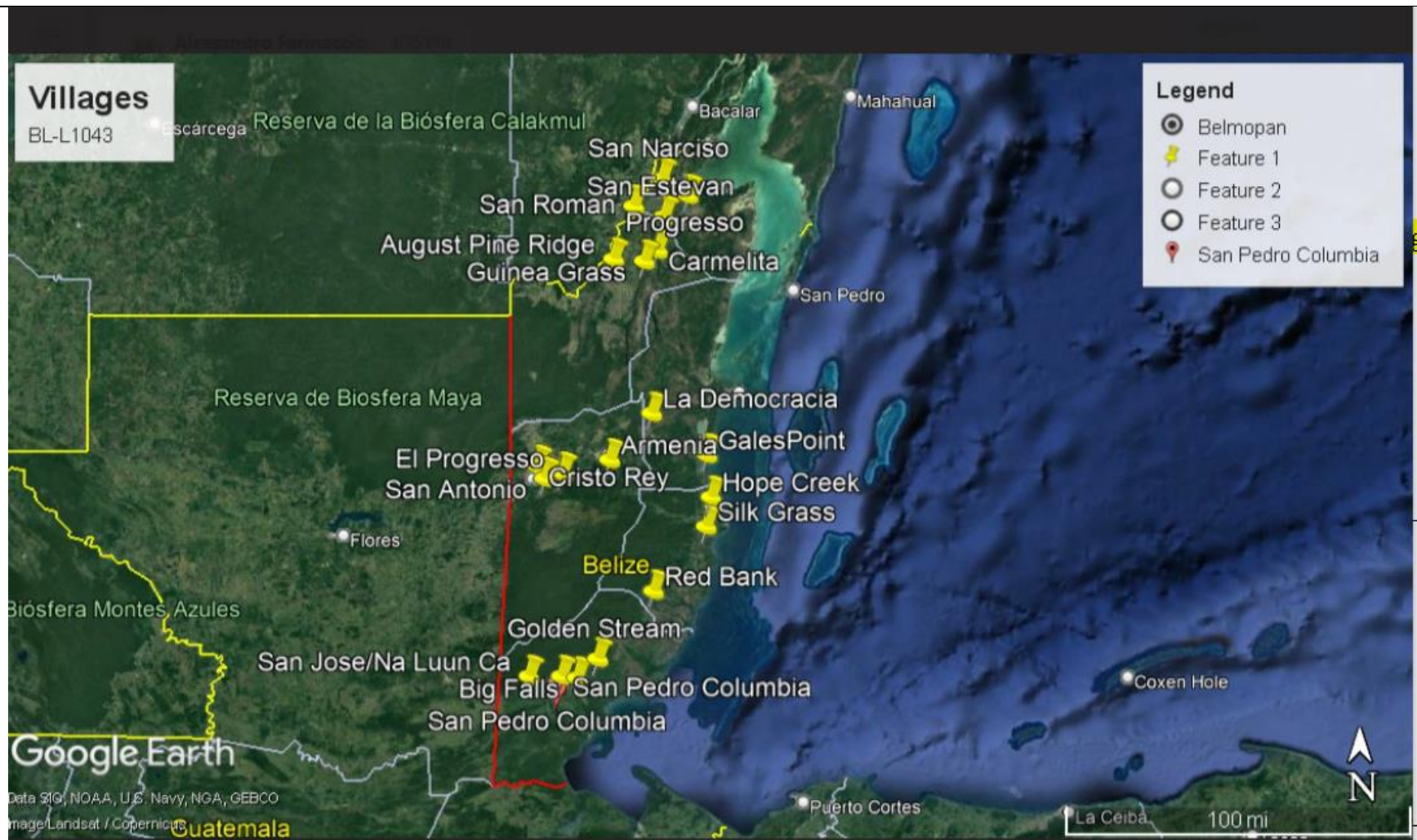
- a) *Any substantive changes to the ESMS, and any ESHS Plans shall be in writing and approved by the Bank in a manner consistent with the Bank's Environmental and Social Performance Standards.*

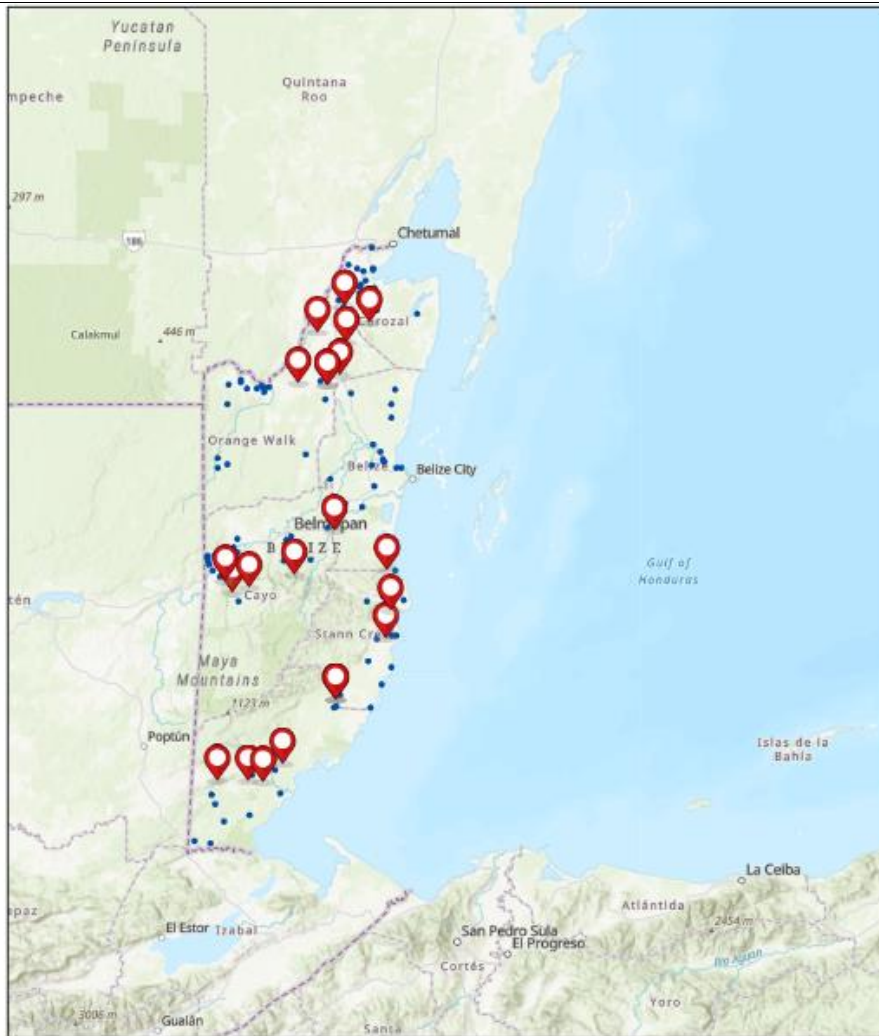
In the absence of an Operating Manual, those conditions should be incorporated in the Special Conditions of the contract.

## Annex C. E&S Maps

Villages	Natural Disasters Risk																	
	Heatwave with Climate Change		Hurricane-Storm Huge		Hurricane Wind Hazards		Drought Hazard with Climate		Drought Hazard		Eartquake		Riverine Flood Hazard		Water Supply Scarcity		Precipitation GFDL-CM3	
	M	H	M	H	M	H	M	H	M	H	M	H	M	H	M	H	M	H
La Democracia																		
Gales Point																		
Cristo Rey																		
San Antonio																		
El Progreso																		
Armenia																		
Hope Creek																		
Silk Grass																		
San Narciso																		
Progreso																		
August Pine Ridge																		
Carmelita																		
Guinea Grass																		
San Estevan																		
San Roman																		
Red Bank																		
Big Falls																		
Golden Stream																		
San Jose/Na LuunCa																		
San Pedro Columbia																		

Villages	Nature and Social		
	Key Biodiversity Areas	Afro descent Territory	Indigenous Territory
La Democracia	Crooked Tree and associate wetlands		
Gales Point	Belize Coastal and nearshore islands	Garifuna Territory	
Cristo Rey			Yucatec
San Antonio	Maya Mountains and southern reserves		Yucatec
El Progreso			
Armenia	Maya Mountains and southern reserves		
Hope Creek	Belize Coastal and nearshore islands	Garifuna Territory	
Silk Grass	Belize Coastal and nearshore islands	Garifuna Territory	
San Narciso			Maya/Itza
Progreso			Maya/Itza
August Pine Ridge			Maya/Itza
Carmelita			Maya/Itza
Guinea Grass	Crooked Tree and associate wetlands		Maya/Itza
San Estevan			Maya/Itza
San Roman	Belize Coastal and nearshore islands		Maya/Itza
Red Bank			
Big Falls			Qeqchi (Kekchi)
Golden Stream			
San Jose/Na LuunCa			Mopan
San Pedro Columbia			Qeqchi (Kekchi)



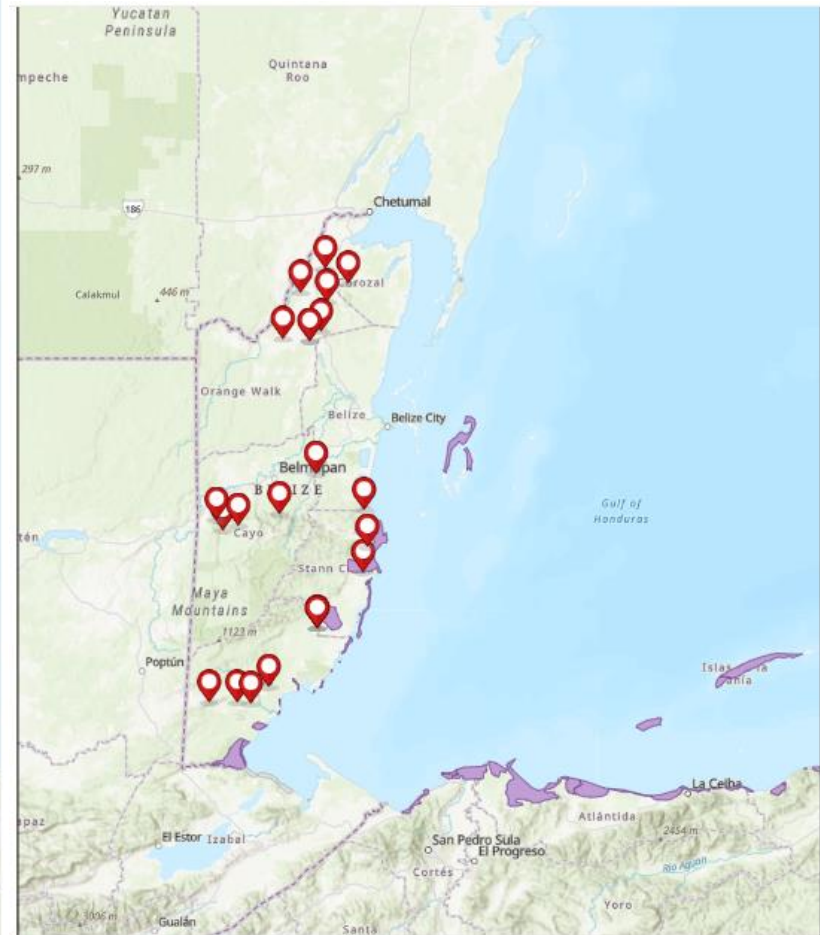


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Poblados indígenas y afrodescendientes

• AFRODESCENDIENTE

Map 2 – indigenous and afro descendent populations in Belize



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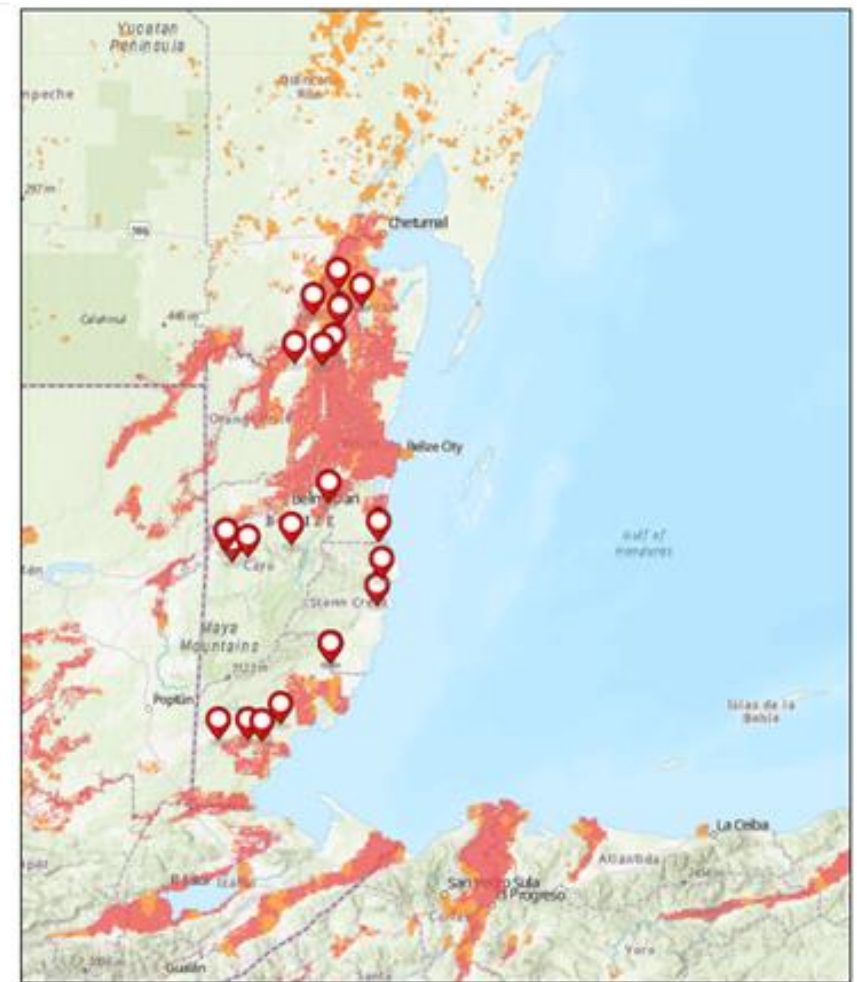
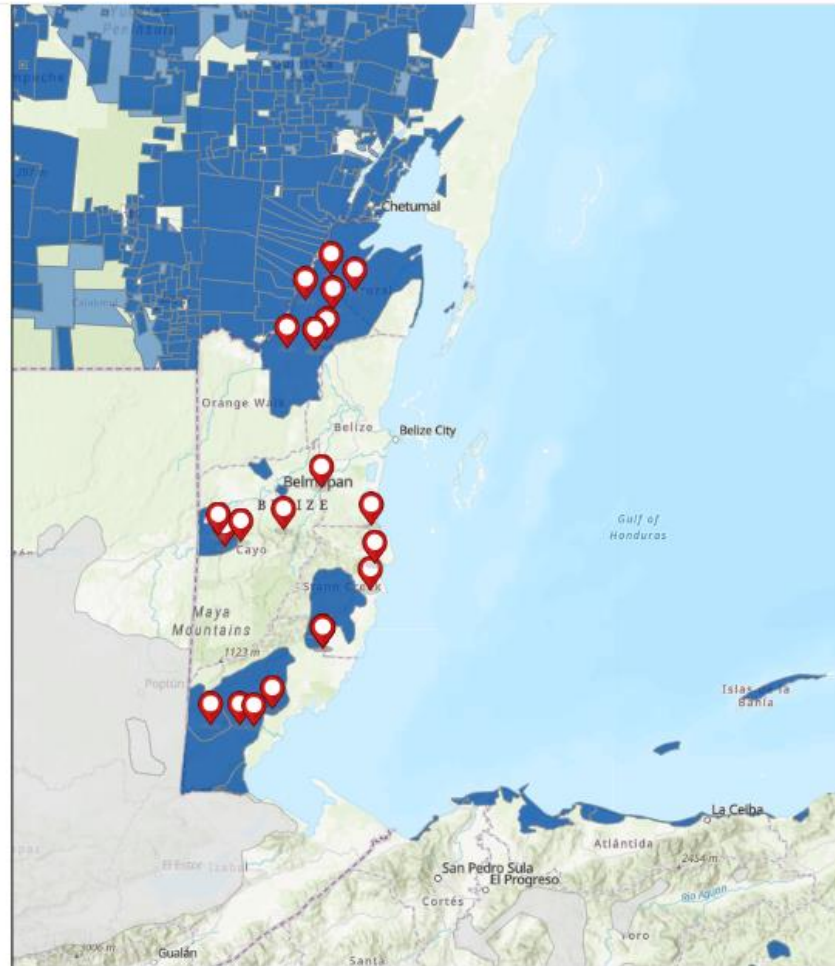
Territorios Afrodescendientes

NO TITULADO

TITULADO

Map 3 – afro descendent territories in Belize



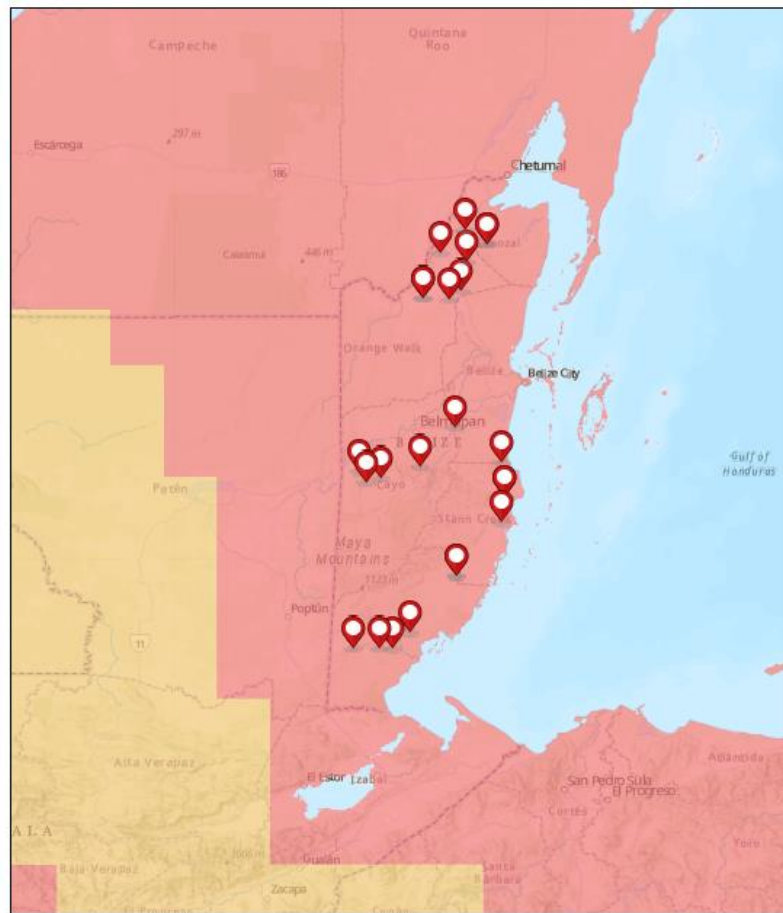




Map 6-Water Supply Scarcity Hazard



Map 7- Precipitation



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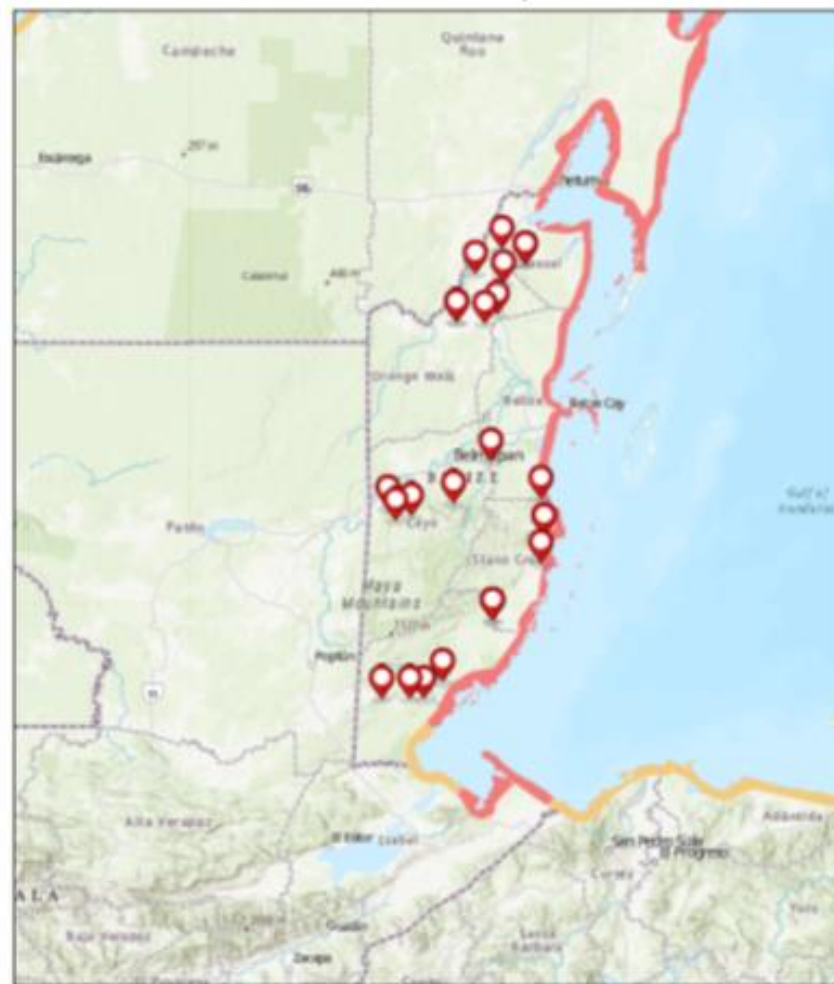
Hurricane \_ Wind hazard

Moderate

High

0 15 30 60 120 km

CORANP, Esri, HERE, Garmin, FAO, NOAA, USGS, Esri, USGS



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Hurricane \_ Storm surge hazard

Moderate

High

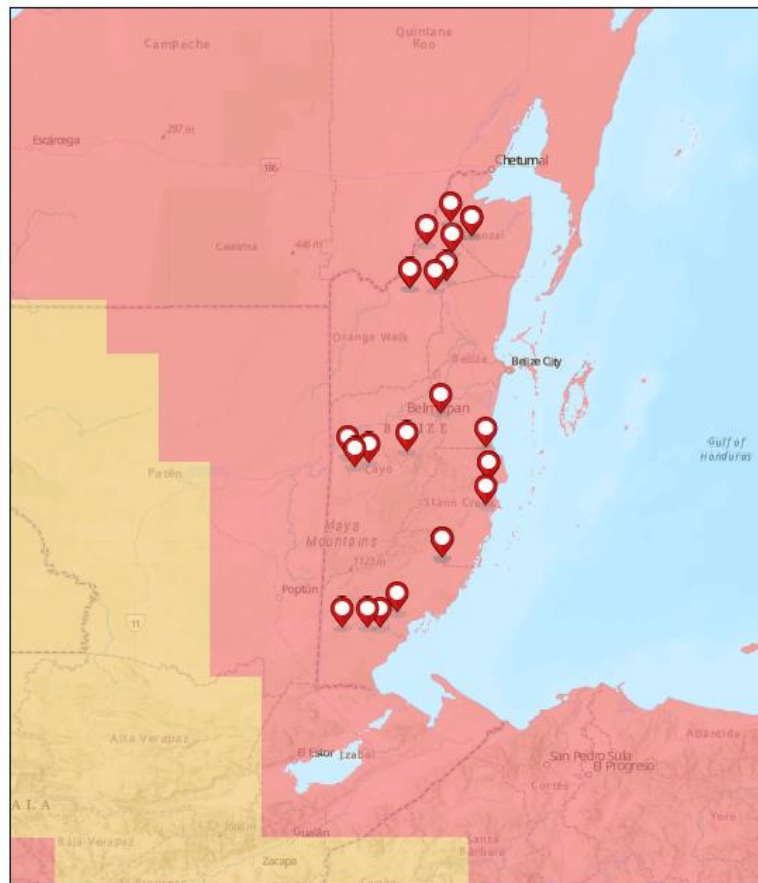
0 15 30 60 120 km

CORANP, Esri, HERE, Garmin, FAO, NOAA, USGS, Esri, USGS

Map 8-Hurricane Wind Hazard

Map 7- Hurricane Storm Surge Hazard





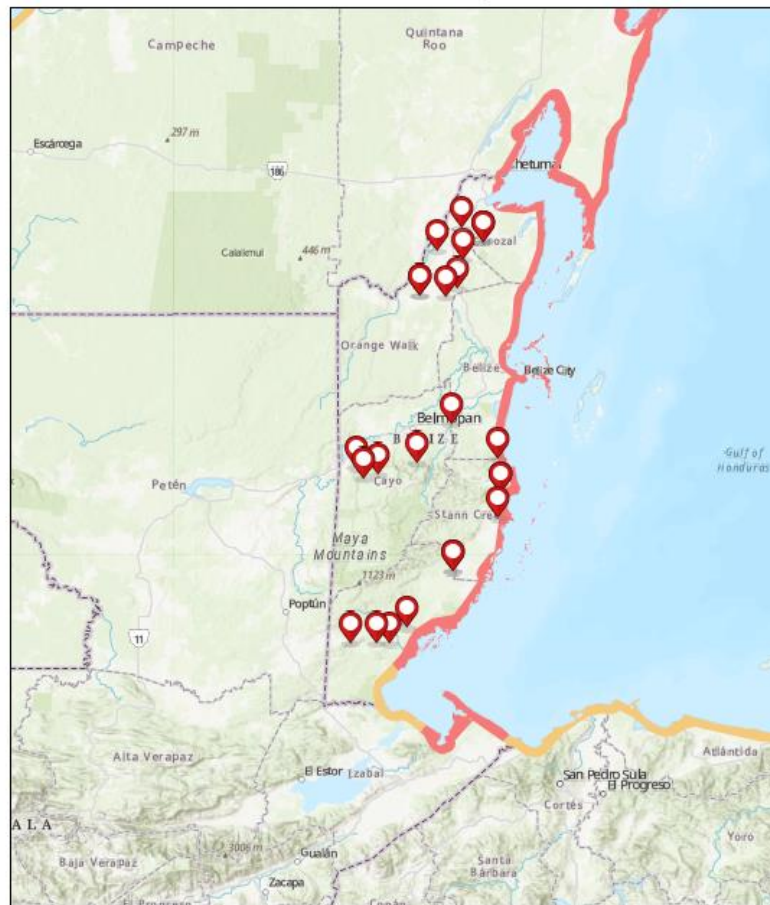
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Hurricane \_ Wind hazard

Moderate

High

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Hurricane \_ Storm surge hazard

Moderate

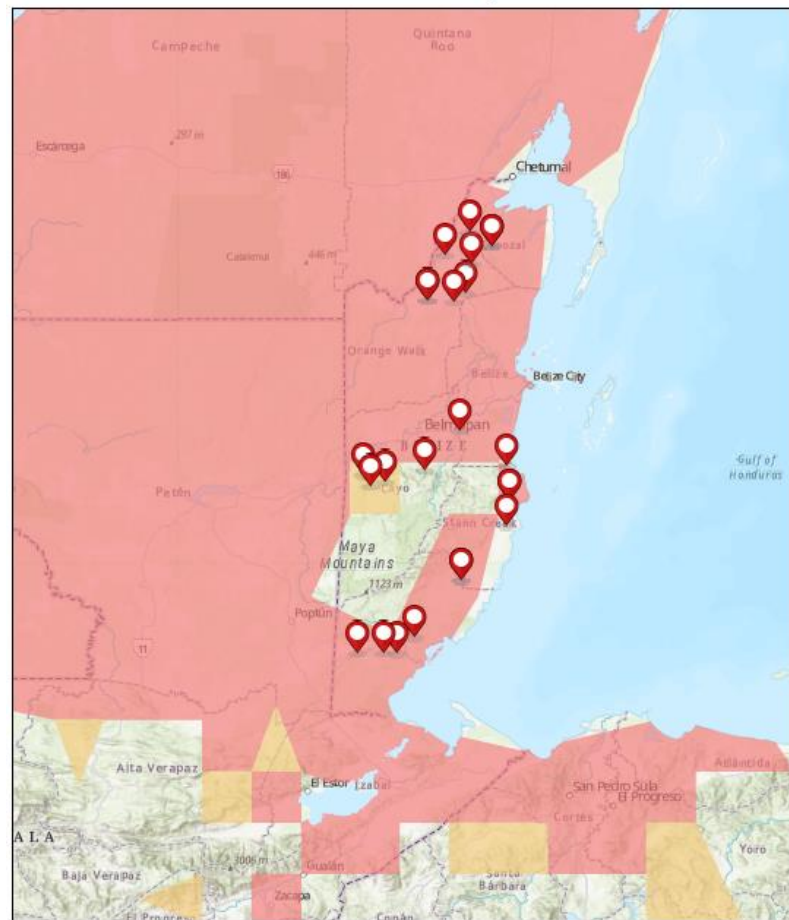
High

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Map 8-Hurricane Wind Hazard

Map 9- Hurricane Storm Surge Hazard



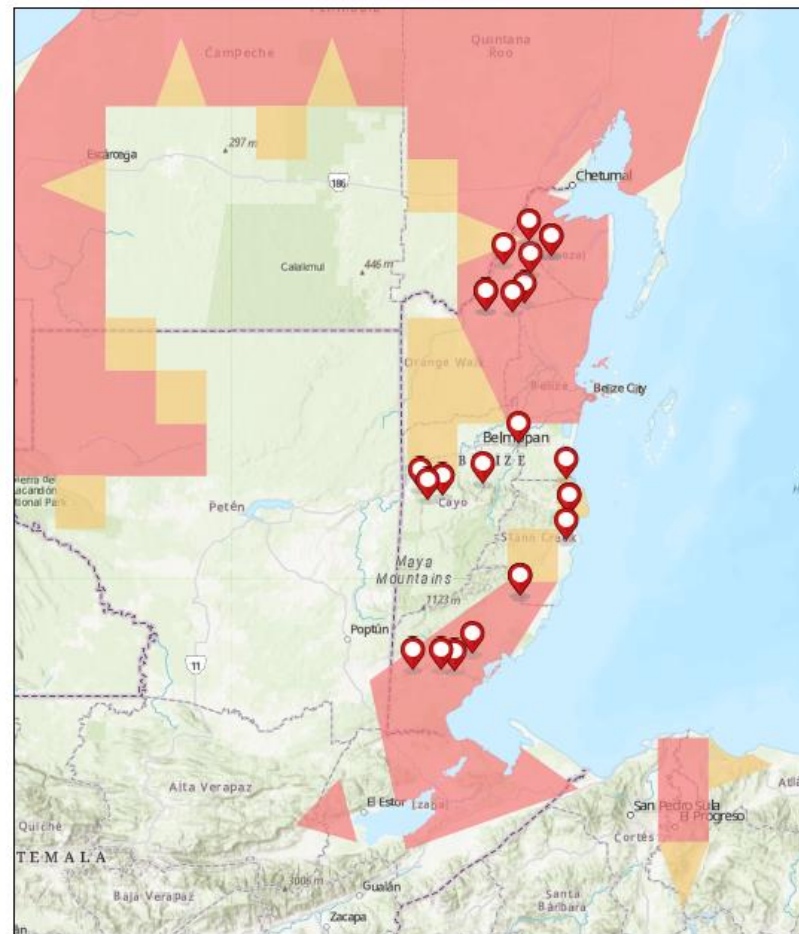


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Heatwave hazard with Climate change \_ RCP85

Moderate  
High

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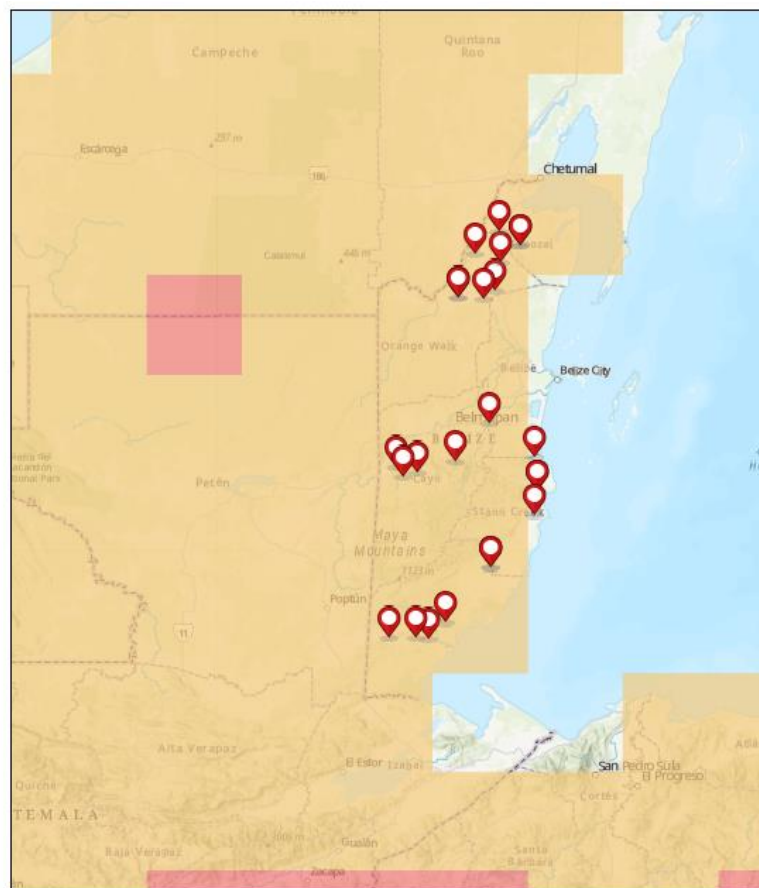
Hurricane Storm Surge Hazard-RCP 45

Moderate  
High

CONANP, Esri, HERE, Garmin, FAO, NOAA, USGS, Esri, USGS

Map 10-Heatwave hazard with Climate Change -RCP 85

Map 11- Hurricane Storm Surge Hazard-RCP 45



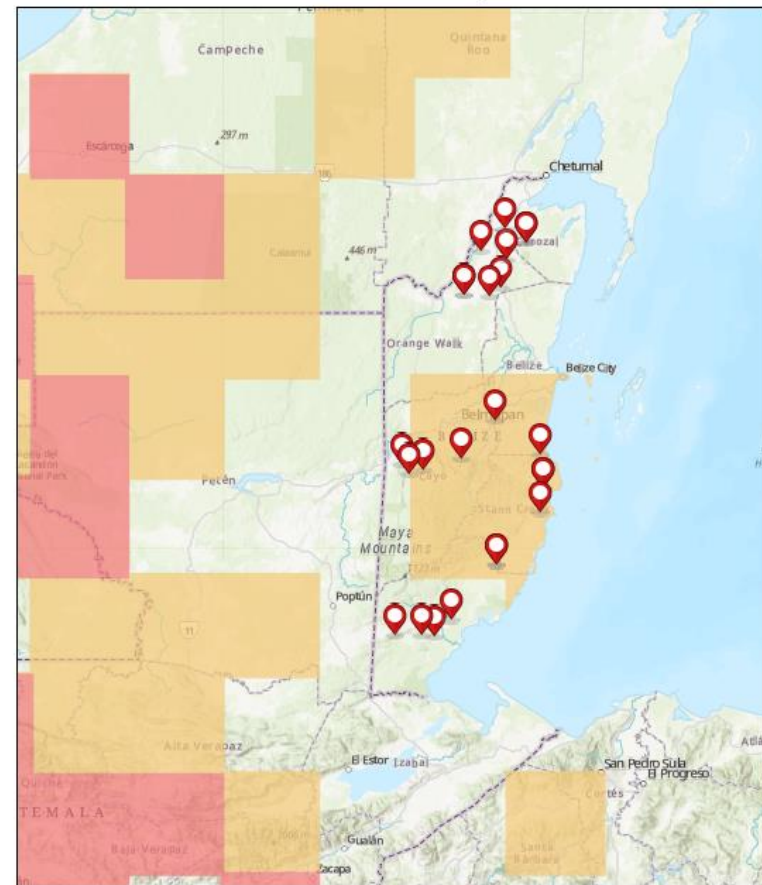
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Drought hazard with Climate Change

Moderate  
High

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Map 12-Drought Hazard with Climate Change



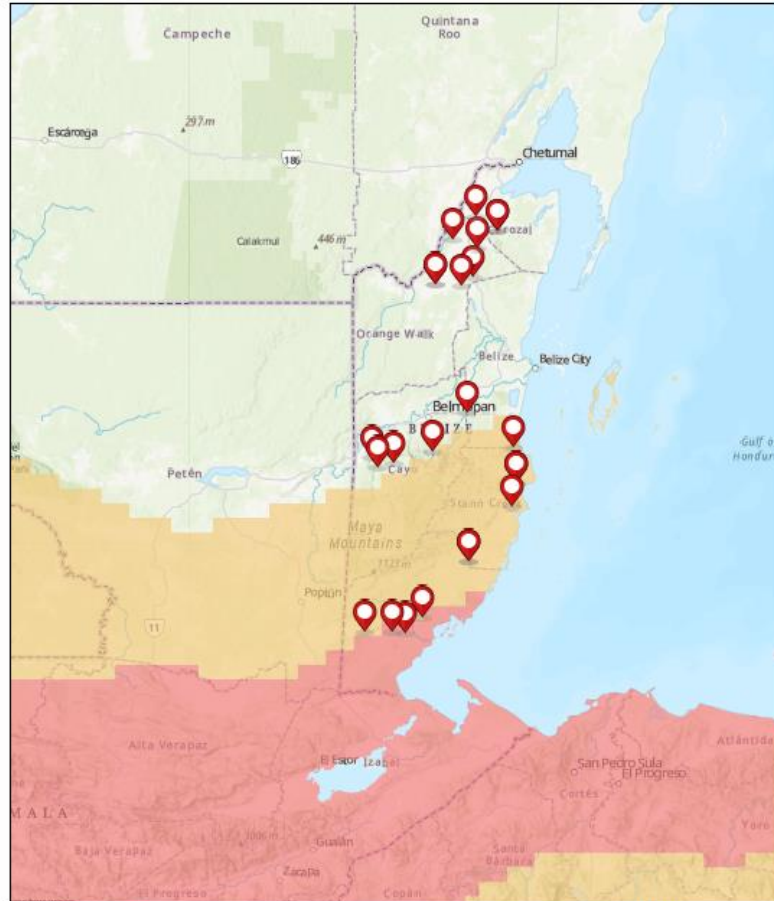
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Drought hazard

Moderate  
High

CONANP, Esri, HERE, Garmin, FAO, NOAA, USGS, Esri, USGS

Map 13- Drought Hazard



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Earthquake hazard

Moderate

High

CONANP, Ewt, HERE, Garmin, FAO, NOAA, USGS, Ewt, USGS

Map 14-Eartquake hazard



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Villas - 2

Sea Level Rise

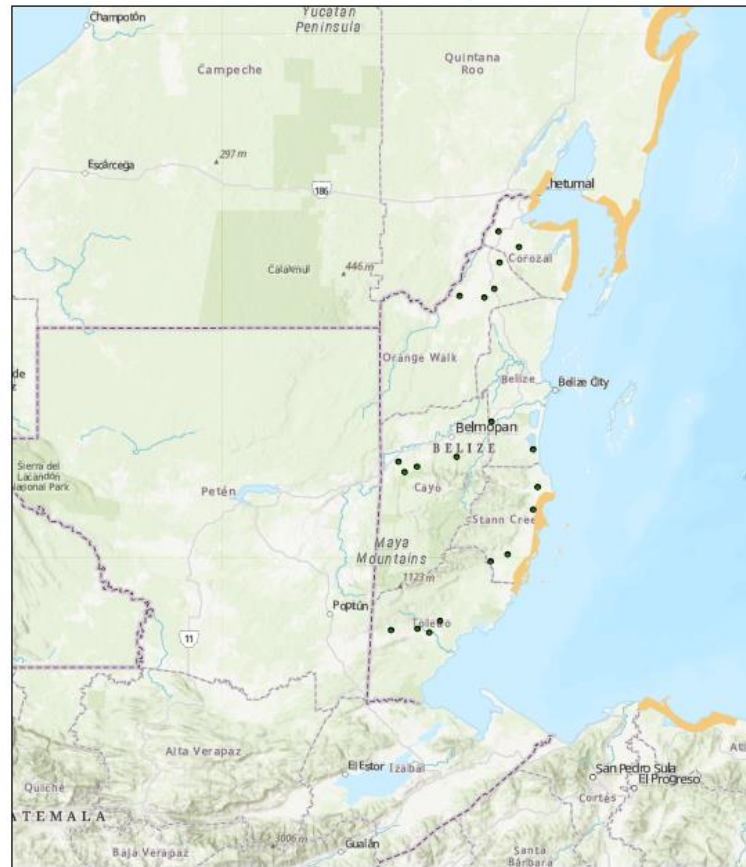
Moderate

High

CONANP, Ewt, HERE, Garmin, FAO, NOAA, USGS, Ewt, USGS

Map 15- Sea Level Rise





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- Villas - 2
- Tsunami hazard
- Moderate

CORANP, Esri, HERE, Garmin, FAO, NOAA, USGS, Esri, USGS

Map 16-Tsunami Hazard



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- Key Biodiversity Areas

CORANP, Esri, HERE, Garmin, FAO, NOAA, USGS, Esri, USGS

Map 17- KBA-Key Biodiversity Areas