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BELIZE

WATER AND SANITATION PROGRAM FOR RURAL AREAS

(BL-L1045, BL-J0006)

PROJECT PROFILE

This document was prepared by the project team consisting of: Germán Sturzenegger (INE/WSA), Project Team Leader; Manuela Velasquez (INE/WSA) and Francisco Zegarra (SCL/MIG), Alternate Team Leaders; Maria Eduarda Gouvea and Sergio Lee (INE/WSA); Alvaro Sanmartin (LEG/SGO); Alessandro Farinaccio and Heidi Fishpaw (VPS/ESG); Raylando Watson and Christian Lunstedt (VPC/FMP); Hugo Us (SCL/GDI); Alfred Grunwaldt and Luis Mora (CSD/CCS); Cecilia Vidal (SPD/SDV); and Orchel Usher (CID/CBL).

PROJECT PROFILE

BELIZE

I. BASIC DATA

Project Name:	Water and Sanitation Program for Rural Areas	
Project Number:	BL-L1045, BL-J0006	
Project Team:	Germán Sturzenegger (INE/WSA), Team Leader; Manuela Velasquez (INE/WSA) and Francisco Zegarra (SCL/MIG), Alternate Team Leaders; Maria Eduarda Gouvea, Liliana Lopez, and Sergio Lee (INE/WSA); Orchel Usher (CID/CBL); Watson Brodrick and Christian Lunstedt (VPC/FMP); Álvaro Sanmartín Baez (LEG/SGO); Hugo Us (SCL/GDI); and Alessandro Farinaccio and Heidi Fishpaw (VPS/ESG).	
Borrower:	Belize	
Executing Agency:	Belize Social Investment Fund (SIF)	
Financial Plan:	IDB (OC):	US$4,000,000
	IDB (GRF)	US$ 640,000
	Total:	US$4,640,000
Safeguards:	Policies triggered:	ESPS 1; ESPS 2; ESPS 3; ESPS 4; ESPS 6; ESPS 8; ESPS 9; ESPS 10
	Classification:	B

II. GENERAL JUSTIFICATION AND OBJECTIVES

2.1 **Access to water in rural areas.** In Belize, access to improved water services varies significantly between urban (97%) and rural areas (88%), generating a service gap between these two geographic zones. In rural areas, more than 10% of the households still extract water from wells and open sources such as rivers, creeks, or springs. Access to water also fluctuates significantly between geographic regions.[1] In the two largest districts, Belize and Cayo, more than 80% of households have access to this service; but in smaller and poorer districts, such as Toledo or Stan Creek, only 60% have access to piped water services.

2.2 **Service provision in rural areas.** In Belize's rural areas, water services are mostly provided by Village Water Boards (VWB), community-based organizations typically composed by six to seven members (president, treasury, secretary, among others). VWB manage and operate water supply systems in approximately 194 villages, each with less than 4,000 inhabitants, representing about one-third of the country's population.[2] The Ministry of Rural Transformation, Community Development, Labour, and Local Government (MRD) is the government agency responsible for the monitoring of water services in rural areas. The Belize Social

[1] WHO/UNICEF Joint Monitoring Programme (JMP) Database, 2021.

[2] BWSL, the country's main water utility and major provider in urban areas, also provides water services in 44 rural villages that neighbor major urban centers.

Investment Fund (SIF) is the agency responsible for the construction of new water systems in rural areas, in most cases through resources provided by multilateral agencies. VWB are not regulated by the Public Utilities Commission (PUC), an agency established in 1999 to regulate the electricity, water, and sanitation, and telecommunications sectors.

2.3 **Service provision challenges in rural areas.** Water service provision in rural areas faces several challenges such as the lack of water disinfection equipment and/or practices, the low financial sustainability of VWB due to their lack of resources to operate and maintain the infrastructure, and the rapid, and premature infrastructure deterioration due inadequate staff capabilities and standard procedures to properly operate the water systems.

2.4 **Lack of water disinfection.** Information provided by MRD, estimates that only 38% of VWBs are actively disinfecting water, in all cases through a chlorination system based on calcium hypochlorite.[3] The remaining 62% are not. In most cases, the chlorination equipment installed when systems were built stopped working for lack of proper Operation and Maintenance (O&M). A 2021 IDB report on water disinfection in Belize identified that, even when there is an operational chlorination system in place, VWBs typically do not disinfect for two main reasons: (i) fear of using chlorination systems incorrectly; and (ii) concerns raised by consumers about the taste and smell of water (high chlorine smell and taste especially in households close of the water distribution tank).

2.5 **Low financial sustainability.** MRD estimates that O&M costs for rural water systems average about 0.5 to 0.7 cents per gallon and that 44% of the VWBs have collection rates below 60%. According to MRD, VWBs that charge volumetric tariffs, which are the exception, are generally able to cover their O&M costs. In contrast, in villages without household metering, the monthly flat rate is often insufficient to cover O&M. In these villages, water systems frequently fall into disrepair and VWBs call on the Ministry to help rehabilitate them.

2.6 **Access to water services among migrants.**[4] Belize's population is currently growing at a rate of 1.8% a year, driven mostly by migrants from neighboring countries. By 2025, the total population of Belize is expected to reach about 450,000 from today's 428,000 inhabitants. This population growth is putting pressure on service providers to attend an increasing demand for basic services such as water, mainly in peri-urban areas and rural villages where most immigrants tend to locate. In Belize, migrants account for about 15% percent of the total population.[5] According to the International Organization for Migration (IOM), in 2021 Belize had a net migration rate of 1.4 migrants/1,000 people. The IOM also reports that women represent about 50% of all migrants (IOM, 2021). After years

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[3] A 2021 IDB report on water disinfection in Belize identified that some of the reasons for not chlorinating are: (i) the fear of using chlorination system incorrectly; and (ii) concerns raised by consumers about the taste and smell of water (high chlorine smell and taste especially in households close of the water distribution tank). MRD also found that 26 water systems have chlorinators that are not working.

[4] In this context, the project team has explored the possibility of complementing the loan operation with grant resources from IDB's Grant Facility to Support Countries with Large and Sudden Intraregional Migration Inflows. These additional resources would be targeted, under Component 1, at increasing access to safe water in peri-urban and rural areas with a high presence of immigrants. Up to US$640,000 could be leveraged from the Facility.

[5] Abstract of Statistics 2021; Statistical Institute of Belize.

of sustained migration inflows, Belize is currently undergoing a historic amnesty process after which an estimated 40,000 migrants would be regularized by 2023 (Ministry of Immigration, 2022). However, according to IOM, migrant populations in Belize face challenges when it comes to access to health, education, and basic services such as safe water. Most immigrants have located in peri-urban areas or rural villages which often lack quality services. Even though there is an information gap about migrants' access to basic services, surveys conducted by CID-Gallup in 2010, point out that access to water to safe water is about 64%, much lower than the national average.[6]

2.7 **The New River pollution challenge.** In Belize, low sanitation coverage in urban and rural areas[7] is contributing to the pollution of some major freshwater systems. One of those is The New River, one of Belize's most economically and socially important water bodies, providing resources to more than 50,000 people in both rural and urban communities along its watershed. According to the Department of Environment (DOE), in addition to inadequate access to sanitation, small to large scale agricultural and industrial activities, as well as population growth, have played a significant role in the overall deterioration of the New River system. The discoloration and stagnation of the river has been a recurrent phenomenon over the years, which has accentuated due to recent droughts. Tests conducted by the DOE found that the river is affected with eutrophication. In 2019, the combined effects of pollution and severe drought triggered a eutrophic event that led to massive fish kills, crocodile deaths, hydrogen sulfide gas concentration in low areas, and the collapse of local tourism. To tackle this issue, DOE developed a Watershed Management Plan, which identified several causes behind this phenomenon: (i) higher nutrient content concentration (nitrogen and phosphorous) due to agricultural activities (agricultural runoff); (ii) higher than average water temperatures; and (iii) industrial and wastewater effluents along the river's bank, especially around the city of Orange Walk. DOE's Plan also identified potential solutions, including the application of bioremediation technologies, specifically for point sources of pollution.

2.8 **Program amount and structuring.** The total amount of the program will be US$4,640,000, financed with resources from the Bank's Ordinary Capital (OC) for US$4,000,000 and US$640,000 from IDB's Grant Facility to Support Countries with Large and Sudden Intraregional Migration Inflows (GRF). The beneficiary and borrower will be Belize and the Executing Agency (EA) the Belize Social Investment Fund (SIF). The operation will be structured as an Investment Loan under the Multiple Works Program modality, as it will finance technically similar but mutually independent works whose feasibility do not depend on the execution of a particular number of projects and their individual size does not call for the Bank's direct management of the operation. The Multiple Works modality will also apply to GRF's grant resources. A representative sample of potential investments, for at

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6 According to the Joint Monitoring Program, 86% of households in Belize have access to piped water. WHO/UNICEF Joint Monitoring Programme (JMP) Database, 2021.

7 Only 11% of Belize's households have access to sanitation service (wastewater collection and treatment), which is limited mostly to a few urban areas. The cities of Belize City, Belmopan, and San Pedro are the only ones with partial coverage of these services. In urban centers such as Orange Walk, Placencia or Caye Caulker there is no sewer collection or wastewater treatment, and sanitation primarily involves the use of pit-latrines and septic-tanks. In rural areas, sanitation also involves the use of pit latrines and, in some cases, septic tanks.

least
30% of the total loan amount, has been identified and will be analyzed during program preparation (¶2.14). An institutional capacity analysis of SIF has been conducted (¶3.2). The disbursement period will be four years. The threshold to physically start the program's works will be two years after the effective date of the loan contract.

2.9 **Program objectives.** The general objective of this program is to contribute to improve the quality of water services in Belize's rural areas through the following specific objectives: (i) the deployment of innovative water disinfection technologies ; and (ii) the institutional strengthening of Belize's water sector.

2.10 **Component 1. Improved water service quality (IDB-OC: US$3,000,000; IDB-GRF: US$600,000[8]).** 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.

2.11 **Component 2. Institutional strengthening of the water sector (IDB-OC: US$550,000; IDB-GRF: US$40,000).** This component will finance training for VWB on Administration, Operation and Maintenance (AO&M) and activities to promote the participation of women in VWB. It will also finance information campaigns at the household level on tariff payment, water conservation and use, and tap water consumption. 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 such as phosphorus, total coliform, and dissolved oxygen.

2.12 **Project Management, Audit and Evaluation (US$0.45 million).** Remaining resources will cover management and supervision costs as well as the operation's external audits and intermediate and final evaluations.

[8] This component will explore financing the improvement in the quality of service to villages with a high presence of migrants.

Table 1. Preliminary Budget Allocation (in US$)*

Component	Ordinary Capital	GRF	Total	%
C1. Improved water service quality	**3,000,000**	**600,000**	**3,600,000**	**77.6%**
1.1. Disinfection equipment	2,000,000	600,000	2,600,000	56.0%
1.2. Rehabilitation	1,000,000	0	1,000,000	21.6%
C2. Institutional strengthening of the water sector	**550,000**	**40,000**	**590,000**	**12.7%**
2.1. Train. and Gender Prom. for VWB	150,000	30,000	180,000	3.9%
2.2. Info. Campaign for households	50,000	10,000	60,000	1.3%
2.3. Innov. Tech Study for New River	350,000	0	350,000	7.5%
Project management, audit & evaluation	**450,000**	**0**	**450,000**	**9.7%**
3.1. Project Management	350,000	0	350,000	7.5%
3.2. Evaluations	60,000	0	60,000	1.3%
3.3. External Audits	40,000	0	40,000	0.9%
TOTAL	**4,000,000**	**640,000**	**4,640,000**	**100%**

*The values in Table 1 are indicative.

2.13 **Beneficiaries.** The program is expected to directly benefit at least 10,000 households with improved access to water distributed in approximately 35 rural villages. The program is also expected to strengthen about 30 VWBs. Specific outcomes and targets will be included in the Results Matrix.

2.14 **Multiple Works Program and Sample Readiness.** A representative sample of, at least, 30% has been defined, which includes 20 rural water systems that benefit 23 villages distributed in all Belize's districts (Belize, Cayo, Corozal, Orange Walk, Stann Creek, and Toledo). Information is being collected for these 23 villages to structure a project profile per water system, identifying the type of disinfection technology to be installed and the types of rehabilitation needed. Total investment (rehabilitation plus disinfection equipment) for these 20 water systems is estimated at US$2,2500,000 (about 48% of total budget). To structure the sample SIF identified water systems with no active disinfection taking place. SIF is in the process of identifying a new set of water systems and villages following the same criterion.

2.15 **Eligibility Criteria.** For financing purposes, the following eligibility criteria have been preliminary defined with SIF: (i) the project must be in rural villages with access to piped water services but without a fully operational water disinfection system; ii) the project must be technical, financial, environmental, and socioeconomically feasible, and (iii) the project must fall under (risk assessment) category B or C . For component 1, one prioritization criterion has been identified: (i) the percentage of immigrants living in the rural village. Eligibility and prioritization criteria will be further defined during the Program design process.

2.16 **Strategic Alignment.** This loan operation is aligned with the Bank's Update to the Institutional Strategy (UIS) (AB-3190-2). Namely, with the development challenge of: (i) Social Inclusion and Equality, by improving the quality of water services in rural areas; (ii) Productivity and Innovation challenge as it will finance the deployment of innovative technologies that will improve the operational

performance of VWB by reducing operational costs and introducing easy-to-operate technologies based on the on-site generation of the disinfectants (replacement of calcium hypochlorite by sodium hypochlorite); and (iii) Institutional Capacity and Rule of Law, by strengthening VWB on issues such as AO&M and provide technical inputs to the sector by financing a study and recommendations on how to improve the environmental conditions of the New River. It is also aligned with the crosscutting topics of: (i) Gender Equality and Diversity, as it will promote the participation of women in VWB. The Program is also consistent with the IDB's Country Strategy with Belize 2022-2025 (GN-3086) as it will finance investments in resilient infrastructure and public goods and services, namely improved water services in rural areas. It will also contribute to the country's sustainable economic growth by improving basic services in rural areas. The operation is also aligned with the Bank's Public Utilities Policy goal of improving the sustainability and efficiency of service providers through the development of financially sustainable schemes that combine cost-efficiency and the most appropriate technological solutions to meet the population's need to access basic services (GN-2716-6).

III. TECHNICAL ISSUES AND SECTOR KNOWLEDGE

3.1 **Executing Agency and implementation capacity.** The Executing Agency (EA) for the program will be SIF. SIF was established in 1996 as a statutory corporation under the Office of the Prime Minister and the Ministry of Finance, Planning, Economic Development, and Investment (MFPEDI) to act as an implementing agency of the Government of Belize (GOB). SIF has executed several development projects in the areas of education, health, water and sanitation, economic infrastructure, and social services, among others. These projects have been mainly funded by external resources, in particular multilateral development organizations including: (a) the Belize Climate Resilient Infrastructure Project (BCRIP) for US$30 million (loan) from the International Bank for Reconstruction and Development (IBRD/World Bank); (b) the Belize Municipal Development Project (BMDP) for US$15 million (loan) from IBRD/World Bank; (c) the Belize Social Investment Fund Loan I (BSIF I) for US$10 million from the Caribbean Development Bank (CDB); (d) the BSIF Loan II (BSIF II) for US$15 million from CDB; (d) the BSIF Loan III (BSIF III) for US$10 million from the CDB; (e) the Basic Needs Trust Fund Ninth Program (BNTF 9) for US$4.7 million (from CDB-grant); (e) the Basic Needs Trust Fund Tenth Program (BNTF 10) for US$5 million (from CDB-grant) (g) previous grant programs from the CDB (BTNF 1-8) for approximately US$25 million; and (h) the Improvement of Community Water Supply Systems for US$0.8 million (grant) from the CARICOM Development Fund (CDF). The GOB has provided national counterpart resources to such loans and technical cooperation development programs under the direct administration of such resources by SIF.

3.2 **Project execution.** Following the results of the Institutional Capacity Assessment System (ICAP), which evaluated SIF's governance, administrative and operating structure and procedures, a Program Execution Unit (PEU) will be created under the Office of the Executive Director. The PEU will be partially funded by the loan's administrative resources and staffed with the following consultants: (i) a General/Technical Coordinator; (ii) a Financial Specialist; (iii) a Procurement Specialist; (iv) an Environmental and Social Management Specialist;

and (v) a Monitoring and Evaluation Officer. Such personnel will coordinate their activities with other SIF staff members. The Program's Operations Manual (POM) will define responsibilities of the PEU and the overall implementation arrangements for the program.

3.3 **Technical aspects for Component 1 (Improved access to water services).** SIF has identified a sample of 20 water systems. A team of consultants collected information at the system level to identify the type of disinfection technology to be installed and the main rehabilitation needs. It also collected data on the VWB's financial performance and the degree of women participation in management positions. A Project Profile at the water system level is being developed. The team also collected some physicochemical and bacteriological parameters such temperature, pH, organic matter content, iron, manganese, and E-coli (most probable count methodology). These 20 projects will be considered as part of the program's sample. SIF is working on the identification of additional villages that could benefit from the program. The average cost per village is expected at US$112,000, including the purchase and installation of disinfection equipment and the deployment of small rehabilitations.

3.4 **Technical aspects for Component 2 (Institutional strengthening of the rural water sector).** For the development of the study to identify innovative technologies that could contribute to improve the environmental conditions of the New River, SIF has been having technical dialogues with a consultancy firm with vast experience in developing these types of studies. The specifics of the study and its scope will be defined during the program design phase. During Program preparation a financial sustainability analysis for each benefited water system will be conducted.

3.5 **Gender and diversity aspects**: A SIF report identifies low participation of women in the O&M of rural water systems (below 20%), and that most decisions within VWBs are taken by men[9]. Information is being collected in the 20 sample villages to confirm the exact level of participation of women in VWB. The program anticipates the implementation of specific trainings at the VWB level to contribute to the reduction of existing gender gaps. The program is also expected to benefit some villages with high presence of Indigenous populations from Mayan descent, particularly in the Toledo District. In these villages, all trainings will be conducted taking into considerations the specific language and sociocultural characteristics of the villages. If needed, an Indigenous Peoples Plan will be prepared (¶4.4).

3.6 **Risks.** The following risks have been preliminary identified: (a) sustainability of the new disinfection equipment due to the lack of financial resources to ensure its proper periodic and preventive maintenance; (b) institutional limitations of VWB to properly operate and maintain the water systems; (c) cost overruns due to overall inflationary factors and limited availability of materials and equipment in remote rural communities; and (d) damages and losses due to exposure and vulnerability of water infrastructure and equipment to natural disasters. These and other risks will be assessed/identified during program preparation, along with an identification of their factors of probability of occurrence, and the preparation of the corresponding risk mitigation plan.

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[9] The Review of Management and Operations of Village Water Boards, SIF, 2017.

3.7 **Bank's Experience in the sector.** The Bank's involvement in Belize's urban and rural water and sanitation sectors includes several loans, technical cooperation, and investment grant operations. In 2010, the Bank, through its Water and Sanitation Division (INE/WSA) approved loan operation BL-L1015 (Integrated Water and Sanitation Program in Placencia) to support the economic development of the Placencia Peninsula by the construction of a new sewerage collection and treatment system. In 2008 and 2016, respectively, the Bank approved loan operations BL-L1006 (Solid Waste Management Project) and BL-L1021 (Solid Waste Management Project II) to support the country's efforts to reduce environmental pollution and enhance the image of Belize in the ecotourism market by improving the management of its municipal solid wastes. The Bank recently approved three technical cooperation operations to support the urban and rural water and sanitation sectors. Namely: BL-T1105 (Innovation in the Solid Waste Management Sector in Belize), which is supporting the executing of loan operation BL-L1021 and piloting recycling projects in tourist destinations; BL-T1125 (Design of Wastewater Treatment Solutions in Coastal Areas), which is financing the design of Caye Caulker's sewerage systems (wastewater collection and treatment); and BL-T1126 (Support to Integrated Water Resources Management) to strengthen water resources management countrywide. In 2022, the Bank approved investment grant BL-G1007 to finance the piloting of new water disinfection technologies in rural areas. This operation will provide useful inputs for Component 1, specifically for the deployment of new water disinfection equipment in prioritized rural villages.

3.8 **Lessons learned.** Past projects in rural Belize indicate that to ensure successful program implementation, the following variables must be taken into account: (i) timely supervision of the civil works; (ii) need for capacity building within the executing agency (SIF); and (iii) need for implementing an institutional strengthening strategy for VWB to ensure the sustainability of the interventions at the village level.

IV. ENVIRONMENTAL SAFEGUARDS AND FIDUCIARY SCREENING

4.1 In accordance with the Bank's Environmental and Social Framework (MPAS), this 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. Only projects that fall under Category B or C will be financed. Despite financing small interventions such as rehabilitation/replacement of existing structures, the operation has a preliminary Environmental and Social Risk Rating (ESRR) of Moderate driven by cause and contribution risks regarding potential direct, indirect, and cumulative impacts associated with 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. 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.

4.2 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 moderate impact the project, and/or the project may moderately exacerbate the risk from natural hazards to human life, property, and/or the environment.

4.3 The sample projects will not take place in any conservation area, however, there are three 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 will be defined to exclude activities that generate these impacts in the projects outside of the sample. A Stakeholder Engagement Plan (SEP) for the operation will be published on the Bank's website prior to Analysis Mission and the Executing Agency will carry out one round of meaningful, socio-culturally appropriate and gender sensitive public consultations prior to approval and disclose the E&S documentation and plans accordingly. Since several of the projects will take place within indigenous territory, including in the region of Toledo, a sociocultural analysis will be developed which will include measures to achieve the socio-culturally appropriate consultation process. If negative sociocultural impacts are detected, an Indigenous Peoples Plan will be prepared as part of the ESMP.

4.4 Working conditions in the selected sectors may pose risks of exploitation, to health and safety of workers and communities as well as allow for discrimination and exclusion of vulnerable groups. The operation will not finance activities expected to have negative impacts on cultural heritage.

4.5 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). An ESA and an ESMP will also be developed, covering all the works in the sample (1 disinfection 1, Disinfection equipment and Rehabilitation works per village) An Environmental and Social Management Framework (ESMF) will also be developed for the works outside the representative sample. The Executing Agency will prepare and operate a Grievance Redress Mechanism for all workers (direct and contracted).

4.6 For execution purposes, SIF will follow IDB's procurement policies, namely GN-2349-15 and GN-2350-15. A detailed Procurement Plan (PA) which will indicate the procedures to be used for each procurement process, the selection method, the estimated cost of each contract, and the requirement for ex-ante or ex-post review by the Bank, will be developed. To date, no exceptions to the Bank's policies, retroactive financing, or recognition of expenditures are anticipated. The possibility of retroactive financing though will be discussed during the Analysis Mission.

V. RESOURCES AND TIMETABLE

5.1 Distribution of the Proposal for Operation Development (POD) to the Quality and Risk Review (QRR) is expected on March 24, 2023. The Draft Loan Proposal (DLP) approval by the Operations Policy Committee (OPC) is expected on April 26, 2023; and final approval by the Board of Executive Directors is expected on May 24, 2023.

5.2 To support the preparation of this operation, US$52,000 will be needed from the Bank's administrative budget. Annex V provides details of the project preparation steps, milestone dates, and demand of resources for proper project preparation.

CONFIDENTIAL[1]

[1] The information contained in this Annex is deliberative, and therefore confidential, in accordance with the exception regarding “Deliberative Information” referred to in paragraph 4.1 (g) of the Bank's “Access to Information Policy” (Document GN-1831-28).

E&S Screening Filter

Operation Information

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

Operation Details

Organizational Unit	IDB Sector/Subsector
INE/WSA	WATER SUPPLY RURAL AND PERI-URBAN
Type of Operation & Modality	Original IDB Amount
LON / GOM	$4,000,000.00
Executing Agency	Borrower
BL-SIF	BELIZE
ESG Primary Team Member	Team Leader
Alessandro Farinaccio	German Sturzenegger
Toolkit Completion Date	Author
13/02/2023	Alessandro Farinaccio
Applicable ESPSs with requirements	
ESPS 1; ESPS 2; ESPS 3; ESPS 4; ESPS 6; ESPS 7; ESPS 8; ESPS 9; ESPS 10	

Operation E&S Classification Summary

Environmental and Social Impact Categorization (ESIC)	B

Disaster and Climate Change Risk Classification (DCCRC)	Moderate

Environmental and Social Risk Rating (ESRR)	Moderate
Overwritten ESRR Justification	Reduce: Lower risk likely
Overwritten ESRR Comments	
Due to the risk factor's cause and contribution the overall rating is moderate. The type of interventions will be very punctual and of low magnitude.	

Summary of Impacts / Risks and Potential Solutions

There are no contextual risks associated with the project (e.g. political instability, oppression of communities, armed forces in the project area).

The operation will not have direct impacts associated with child labor or forced labor in the workforce.

The operation will not have significant indirect and/or cumulative impacts associated with child labor or forced labor in the workforce.

The Executing Agency or other relevant entity (in relation to the operation) has a proven track record to respect and protect the fundamental principles and rights of workers (including fair treatment, commitment to non-discrimination, equal opportunity, protection of workers including workers in vulnerable situations, work accommodations, migrant workers' rights, collective bargaining and rights of association) and compliance with national employment and labor laws.

The operation will not result in the direct loss of employment (i.e. retrenchment).

The operation will not result in the indirect and/or cumulative loss of employment (i.e. retrenchment).

The Borrower will prepare and operate a Grievance Redress Mechanism for all workers (direct and contracted).

The operation will promote a sustainable use of resources including energy, water and raw materials.

The operation will not have direct negative impacts to the environment and human health and safety due to the production, procurement, use, and disposal of hazardous materials such as PCBs, Radiological Waste, Mercury, CFCs, etc.

The operation will not have indirect and/or cumulative negative impacts to the environment and human health and safety due to the production, procurement, use, and disposal of hazardous materials such as PCBs, Radiological Waste, Mercury, CFCs, etc.

The operation will not have direct negative impacts to the environment and human health and safety due to the production, procurement, use, and disposal of pesticides.

The operation will not have indirect and/or cumulative negative impacts to the environment and human health and safety due to the production, procurement, use, and disposal of pesticides.

The operation is considering alternatives to implement technically and financially feasible and cost-effective options to avoid or minimize project-related GHG emissions during the design and operation of the project.

The operation has no exposure to climate transition risks related with a loss of value of a project driven by the transition to a lower-carbon economy, result from extensive policy, legal, technology, and/or market changes to address climate change.

The project will not directly affect the public (including workers and their families) by exposing them to hazardous materials released by the project, particularly those that may be life threatening.

The project will not indirectly-cumulatively affect the public (including workers and their families) by exposing them to hazardous materials released by the project, particularly those that may be life threatening.

There is no potential for the project or project-related activities (e.g. the influx of temporary or permanent project labor, among others) to directly result in or exacerbate community exposure to water-related (i.e., waterborne, water-based, and vector-borne diseases) and/or communicable diseases (e.g. COVID).

There is no potential for the project or project-related activities (e.g. the influx of temporary or permanent project labor, among others) to indirectly-cumulatively result in or exacerbate community exposure to water-related (i.e., waterborne, water-based, and vector-borne diseases) and/or communicable diseases (e.g. COVID).

The project's direct impacts on priority ecosystem services will not result in adverse health and safety risks and impacts to the project-affected people.

The project's indirect and/or cumulative impacts on priority ecosystem services will not result in adverse health and safety risks and impacts to the project-affected people.

There is no potential for an emergency or unanticipated event to occur in the project area of influence that demands immediate action to prevent or reduce harm to people, property, and/or the environment.

There is no potential direct impacts to workers and project-affected people related to the use or arrangement of security services to safeguard personnel and/or property.

There is no potential indirect and/or cumulative impacts to workers and project-affected people related to the use or arrangement of security services to safeguard personnel and/or property.

The project will not lead to direct impacts related to physical, and/or economic displacement - Impacts include, and are not limited to, relocation; expropriation; loss of shelter; loss of land; loss of assets; restrictions on land and natural resources; loss of income; loss of livelihoods; loss of social safety net.

The project will not lead to indirect and/or cumulative impacts related to physical, and/or economic displacement - Impacts include, and are not limited to, relocation; expropriation; loss of shelter; loss of land; loss of assets; restrictions on land and natural resources; loss of income; loss of livelihoods; loss of social safety net.

Vulnerable people will not be disproportionately affected by direct impacts related to land acquisition - people may be considered vulnerable by virtue of disability, state of health, indigenous status, gender identity, sexual orientation, religion, race, color, ethnicity, age, language, political or other opinion, national or social origin, property, birth, economic disadvantage, or social condition. Other vulnerable people include the elderly, children, single-headed households, refugees, internally displaced persons, natural resource dependent communities.

Vulnerable people will not be disproportionately affected by indirect and/or cumulative impacts related to land acquisition - people may be considered vulnerable by virtue of disability, state of health, indigenous status, gender identity, sexual orientation, religion, race, color, ethnicity, age, language, political or other opinion, national or social origin, property, birth, economic disadvantage, or social condition. Other vulnerable people include the elderly, children, single-headed households, refugees, internally displaced persons, natural resource dependent communities.

The operation doesn't have the direct potential to implement project activities in critical natural habitat.

The operation doesn't have the indirect and/or cumulative potential, including through the supply chain, to implement project activities in critical natural habitat.

The operation is not expected to directly impact a legally protected area or an internationally recognized area.

The operation is not expected, including through the supply chain, to indirectly-cumulatively impact a

legally protected area or an internationally recognized area.

The project will not directly introduce (intentionally or accidentally) alien, or non-native, species of flora and fauna that have the potential for invasive behavior in areas where they are not normally found.

The project will not indirectly-cumulatively, including through the supply chain, introduce (intentionally or accidentally) alien, or non-native, species of flora and fauna that have the potential for invasive behavior in areas where they are not normally found.

Indigenous Peoples are not expected to be adversely impacted by direct project related land-acquisition or access restrictions. Note that all impacts on lands and natural resources subject to traditional ownership or under customary law requires FPIC.

Indigenous Peoples are not expected to be adversely impacted by indirect/cumulative project related land-acquisition or access restrictions. Note that all impacts on lands and natural resources subject to traditional ownership or under customary law requires FPIC.

The project doesn't have the potential to cause adverse direct impacts on Indigenous Peoples who live in isolation and initial contact.

The project doesn’t have the potential to cause adverse indirect and/or cumulative impacts on Indigenous Peoples who live in isolation and initial contact.

The project is not expected to directly damage or negatively impact cultural heritage.

The project is not expected to directly damage or negatively impact critical cultural heritage.

The project will not negatively directly affect people due to their gender, sexual orientation or gender identity.

The project will not negatively indirectly-cumulatively affect people due to their gender, sexual orientation or gender identity.

The project is not expected to lead to direct risks and impacts associated with Sexual and Gender-based Violence.

The project is not expected to lead to indirect and/or cumulative risks and impacts associated with Sexual and Gender-based Violence.

The project will not potentially face direct barriers to equitable gender-based participation.

The project will not potentially face indirect and/or cumulative barriers to equitable gender-based participation.

The project will not deal with a subject matter and/or be implemented in an area where the manipulation, interference, coercion, discrimination, and intimidation of stakeholders has been documented.

ESPS 1 - Assessment and Management of Environmental and Social Risks and Impacts

The Executing Agency will conduct an Environmental and Social Assessment (ESA) or Environmental and Social Impact Assessment (ESIA) process for the project during preparation.

The Executing Agency will prepare and maintain an Environmental and Social Management System (ESMS) for the operation as defined under ESPS 1.

The Borrower/Executing Agency's has moderate organizational capacity and competency for managing environmental and social issues.

ESPS 2 - Labor and Working Conditions

The Executing Agency will prepare and maintain an Environmental and Social Management System (ESMS) for the operation with specific elements related to Labor and Working Conditions under ESPS 2.

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 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.

ESPS 3 - Resource Efficiency and Pollution Prevention

The operation will have minor direct adverse impacts on human health and the environment due to pollution from project activities.

The operation will have minor indirect and/or cumulative adverse impacts on human health and the environment due to pollution from project activities.

The operation will generate moderate direct impacts generated by solid waste (hazardous and/or non-hazardous).

The operation will generate moderate indirect and/or cumulative impacts generated by solid waste (hazardous and/or non-hazardous).

The operation is expected to or currently produce directly GHG emissions (less than 25,000 tons of CO2 equivalent per year).

The operation is expected to or currently produce indirectly-cumulatively GHG emissions (less than 25,000 tons of CO2 equivalent per year).

ESPS 4 - Community Health, Safety, and Security

There are minor direct health and safety risks associated with the design of structural elements or components of the operation (e.g. existing or new buildings, earthworks, bridges, drainage, roadways, power stations, transmission and distribution poles, underground utilities, and dams), and/or road transport activities (e.g. transport of heavy or over-sized equipment) which could result in health and safety impacts to third parties and project-affected people.

There are minor indirect and/or cumulative health and safety risks associated with the design of structural elements or components of the operation (e.g. existing or new buildings, earthworks, bridges, drainage, roadways, power stations, transmission and distribution poles, underground utilities, and dams), and/or road transport activities (e.g. transport of heavy or over-sized equipment) which could result in health and safety impacts to third parties and project-affected people.

Natural hazards, such as earthquakes, droughts, landslides, floods, wildfires, or others, including those

caused or exacerbated by climate change, are likely to occur in the project area, and these 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.

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

The operation has the potential to minorly directly impact modified habitat that include significant biodiversity value.

The operation has the potential, including through the supply chain, to minorly indirectly-cumulatively impact modified habitat that include significant biodiversity value.

The operation has the potential to minorly directly convert or degrade natural habitat.

The operation has the potential, including through the supply chain, to minorly indirectly-cumulatively convert or degrade natural habitat.

The project is likely to adversely directly minorly impact ecosystem services.

The project is likely to adversely indirectly-cumulatively minorly, including through the supply chain, impact ecosystem services.

ESPS 7 - Indigenous Peoples

The project has the potential to cause minor adverse direct impact on Indigenous Peoples. FPIC is required when there will be (i) impacts on lands and natural resources subject to traditional ownership or under customary use; (ii) Relocation of Indigenous Peoples from lands and natural resources subject to traditional ownership or under customary use; or (iii) significant impact on Cultural Heritage.

The project has the potential to cause minor adverse indirect/cumulative impact on Indigenous Peoples.

ESPS 8 - Cultural Heritage

The project has the potential to minorly indirectly-cumulatively damage or negatively impact cultural heritage.

The project has the potential to minorly indirectly-cumulatively damage or negatively impact critical cultural heritage.

ESPS 10 - Stakeholder Engagement and Information Disclosure

The Borrower will prepare a stakeholder engagement framework/plan for the lifetime of the program (including the equal participation of women and men and also take into account Indigenous Peoples, vulnerable groups when relevant).

The Borrower will engage in meaningful consultations and engagement with stakeholders which is free of manipulation, interference, coercion, discrimination, and intimidation.

The Borrower will operate a Grievance Redress Mechanism at the Project level (direct and contracted).

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

BELIZE

WATER AND SANITATION PROGRAM FOR RURAL AREAS

BL-L1045

INITIAL ENVIRONMENTAL AND SOCIAL REVIEW SUMMARY (ESRS)
13/02/2023

ISSUANCE v.1

OCT 2021

This document was prepared by:
Alessandro Farinaccio and Heidi Fishpaw (VPS/ESG)

Initial 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
Initial E&S Impact Classification (ESIC)	B
Initial E&S Risk Rating (ESRR)	Moderate
Initial Disaster and Climate Change Risk Classification (DCCRC)	Moderate
Borrower	Belize
Executing Agency	BL-CEPA
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

Executive Summary

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. Despite financing small interventions such as rehabilitation/replacement of existing structures, the operation has a preliminary Environmental and Social Risk Rating (ESRR) of Moderate driven by cause and contribution risks regarding potential direct, indirect, and cumulative impacts associated with 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. 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.

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 moderate impact the project, and/or the project may moderately exacerbate the risk from natural hazards to human life, property, and/or the environment. r

The sample projects will not take place in any conservation area, however, there are 3 recognized 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 will be defined to exclude activities that generate these impacts in the projects outside of the sample. A Stakeholder Engagement Plan (SEP) for the operation will be published on the Bank's website prior to Analysis Mission and the Executing Agency will carry out one round of meaningful, socio-culturally appropriate and gender sensitive public consultations prior to approval and disclose the

E&S documentation and plans accordingly. Since several of the projects will take place within indigenous territory, including in the region of Toledo, a sociocultural analysis will be developed which will include measures to achieve the socio-culturally appropriate consultation process. If negative sociocultural impacts are detected, an Indigenous Peoples Plan will be prepared as part of the ESMP.

Working conditions in the selected sectors may pose risks of exploitation, to health and safety of workers and communities as well as allow for discrimination and exclusion of vulnerable groups. The operation will not finance activities expected to have negative impacts on cultural heritage.

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). An ESA and an ESMP will also be developed, covering all the works in the sample (1 desinfeccion 1, Disinfection equipment and Rehabilitation works per village) An Environmental and Social Management Framework (ESMF) will also be developed for the works outside the representative sample. The Executing Agency will prepare and operate a Grievance Redress Mechanism for all workers (direct and contracted).

Operation Description

The operation will be structured in two components:

Component 1. Improved access to water services. 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.

Component 2. Improved environmental conditions in the New River. This component will finance training for VWB on Administration, Operation and Maintenance (AO&M) and activities to promote the participation of women in VWB. It will also finance information campaigns at the household level on tariff payment, water conservation and use, and tap water consumption. It will also finance a study to identify the potential of bioremediation technologies in improving the environmental conditions of the New River, including an analysis on the impact of these technologies in improving certain pollution parameters 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 projects in the sample (One disinfection equipment and rehabilitation works per village) The rehabilitation will be a combination of things: change of pumping/electro mechanical equipment, change of some piping, tank protection fence),are spread over 20 villages throughout the country. (La Democracia, Gales Point, Cristo Rey, San Antonio, El Progresso, Armenia, Hope Creek, Silk Grass, San Narciso, Progresso, 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 and are limited to their direct area of influence Due to the geographical distribution of the works, different risk scenarios can be recognized. It is noteworthy that 8 villages that will receive

rehabilitation works are located within 3 KBA's, likewise, 12 of the 20 villages are located in the indigenous territory (see tables in Annex A).	
Rationale for Classifications/Rating	
E&S Impact Classification	The Operation is classified as Category B because it is expected to have moderate negative socioenvironmental impacts, primarily associated with pollution of surface water, soil and air as well as the generation of solid and liquid waste, for which mitigation measures are readily available.
E&S Risk Rating	The Operation has been preliminarily been classified as Moderate risk because direct and indirect impacts are likely to be low to moderate since no new infrastructure will be financed, but this will be verified by the ESA, in case the context of indigenous territories implies additional risks for indigenous communities, for example. This classification is based on: 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: projects will take place within indigenous territories and important biodiversity areas, therefore the context risk is substantial. Performance: The Executing Agency has moderate organizational capacity and competency. However, during due diligence the need to hire an environmental and social specialist to implement the ESMP will be evaluated, and if necessary, the hiring of this professional will be required. Therefore, taking into account the 4 factors of risk the overall risk rating is moderate.
DCC Risk Classification	The DCC risk was classified as Moderate, as the project samples are subject to natural disaster risks such as hurricanes, earthquakes, droughts, riverine flooding, and others, including those caused or exacerbated by climate change. However, due to the dispersed nature of the project samples, the project sites may be subject to one or more natural disaster risks, making the natural disaster risk considered Moderate, and these may have some impact on the project. The planned interventions are one-off and of small magnitude. The project does not present a substantial exacerbation of natural disaster risk to human life, property, and/or the environment.
Is the use of Borrower E&S Framework being considered?	No
The operation does not consider the use of the Borrower's E&S Framework.	
Will the operation be co-financed or is there a possibility of being co-financed?	No
The operation will not be co-financed.	

Environmental and Social Performance Standards (ESPSs) that apply to the proposed project	
ESPS-1. Assessment and Management of E&S Risks and Impacts	Yes

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 shall define the procedures, processes, and policies to be implemented for the different activities and interventions financed. It is in accordance with the entire Specific Environmental and Social Framework, which includes all applicable regulations: national and local legislation, international agreements and commitments, and the Bank's ESMF. 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:

a. Specific Environmental and Social Framework. A preliminary version of a comprehensive environmental and social framework was established as a normative framework for the operation, compatible with the implementation of the ESMS, which will support the management of ESMS control and impact mitigation programs, the monitoring of licensing processes, and compliance with environmental legislation and IDB socio-environmental performance standards. This structure defines the objectives, principles and goals that guide the Program to achieve the desired environmental and social performance and describes the process, structure and overall operation of the management of the environmental and social aspects of the Program;

b. Identification of Risks and Impacts. For each work in the sample, which is a package of interventions in each of the 20 villages to receive financing, for one set of disinfection equipment, change of pumping/electromagnetic system, change of some pipes, fence protecting the tanks. No interventions in the network will be made (in the homes). An Environmental and Social Assessment - ESA of the works will be prepared, 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 must be detailed in each ESA of the sample as well as in an Environmental and Social Management Framework (ESMF) for the projects outside of the sample. The ESMF shall contain the procedures for the PEU to screen the works against eligibility criteria (which will exclude Category A projects), as project that generates involuntary resettlement, land acquisition, losses in livelihood, environment, impacts on critical habitats or/and cultural heritage.

c. Environmental and Social Management. Environmental and Social Management Plans must be detailed in the ESMP of each project of the sample, and in the Environmental and Social Action Plan (ESAP) that comes out of the Bank´s due diligence. The ESMF must be applicable to all projects outside of the sample and their various areas of influence. The ESMF for projects outside of the sample will describe mitigation and performance improvement measures and actions aimed at addressing risks and impacts.

d. Organizational Capability and Competence. During Due Diligence (DD), an assessment was conducted to identify the knowledge, skills, and experience required by the Executing Agency (EA) for ESMS implementation, including up-to-date knowledge of relevant regulatory obligations and the requirements of applicable Performance Standards 1 to 10. During the DD the organizational capacity to implement the ESMP and ESMF will be assessed. As a result, it may be proposed to hire an expert to manage the social and environmental issues of the project. An area with roles, responsibilities, and authority to coordinate ESMS implementation will be established within the organizational structure of the EA. Within this structure, environmental and social program experts will be designated with clear and well-defined responsibilities and roles for the implementation of the 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.

ESPS-2. Labor and Working Conditions	Yes

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 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 Executing Agency (PEU) will prepare and maintain an Environmental and Social Management System (ESMS) for the operation with Labor Management Policies and Procedures (LMP) for each sample project as required by ESPS 2.

The LMP in accordance with the ESPS2 must also be established in the ESMF for the works outside the sample.

Child and Forced Labor Risks. In the Labor and Work Conditions (LWC) of Water Disinfection Program for Belize, the employment of adolescents under 15 years of age will not be allowed, as established in the ESPS 2. In the event of a lack of compatibility between ESPS2 and the National Minimum determinate in Belize national law, the reduction of the risks of child labour should be considered in the LWC, and ESMP and ESMF. In the conflict between ESPS2 and the National Law on the employment of children and adolescents, the more restrictive situation should be observed.

During the Due Diligence process and EAS/ESMP preparation for projects that are part of the sample, the risk of employment of adolescents under 15 years old will be assessed and confirmed. Mitigation programs will be established. Similarly, the ESMF will establish eligibility conditions and mitigation measures for out-of-sample work. Forced labour, which consists of any work or service that is not performed voluntarily or is not required under threat of force or penalty, is also not allowed. Such requirements apply to contracts established with third parties or primary suppliers.

Supply Chain Risks. 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 recognized. However, the due diligence phase will verify that all critical inputs for the program (e.g., solar panels and other dangerous/controlled equipment, etc.) in the construction and operations phase are mapped. The information will be consolidated in the Final ESRS.

Occupational Health and Safety. For the civil works, 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. For the operation, the risks are related to contamination resulting from the handling of mainly chemical and biological products. The risks inherent to the projects in the sample will be evaluated in the ESA/ESMP, as well as in the ESMF for the projects outside the sample. The Program's interventions will ensure a safe and healthy work environment, considering the risks inherent to the project and specific classes of hazards, including physical, chemical, biological, and radiological risks and specific threats to women, people of diverse gender identity or sexual orientation, people with disabilities, children, and migrant workers.

These items shall be contemplated, among others in the Health and Safety Management Plan, to be part of the sample project ESMPs and ESMF.

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 and stockpiling; (v) occupational safety impacts, due to 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 should include the following programs: 1- Program for Monitoring and Control of Compliance with Mitigation Measures; 2- Air Quality, Noise and Vibration; 3 – Waste Management; 4 - Effluent Management; 5- Chemicals Management; 6- Occupational and Community Health and Safety Program; 7- Socio-environmental Training for Personnel, and 8- Natural Disaster Management and Emergency Response Plan.

The ESMF will contain framework guidelines to mitigate these impacts and risks in projects outside of the sample. All the risks related to pollution prevention will be confirmed during the DD.

During Due Diligence, the Bank will estimate the quantities of greenhouse gases emissions related to the operation.

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 will be assessed in the ESA of each sample project and the mitigation measures for the risks and impacts of the implementation and operation phases of the health units will be presented in each ESMP as well as in the ESMF. However, based on the initial risk assessment it can already be anticipated that:

The activities planned for the rehabilitation of the existing systems, including pipe replacement, electromechanical equipment, and storage tanks represents a moderate risk. For these activities, no direct risks to the population around the projects are expected. Care should only be taken with access to eventual construction sites that may be implemented. Also, disinfection systems like the ones being financed imply the use of chemicals which in high levels or concentrations can be toxic, therefore should be managed and storage with caution and care to avoid any risks to nearby community. These precautions will be considered in the ESMP and ESMF to be developed.

If the project will have pipe storage areas, all safety precautions must be taken, such as isolation, securing the pipes from rolling, 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 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. During due diligence, the volumes and sources of water will be assessed for supply capacity.

During the construction phase the project is not expected to directly affect the public through exposure to hazardous materials released by the project, particularly those that may be life threatening. The ESMP should take measures to isolate and properly store this type of material in the project's operational areas. During the Due Diligence, it will be confirmed what types of products will be used in the physical-chemical water treatment processes.

The cumulative impacts of the project are mainly related to the reduction of the natural water availability in the aquifer systems. The project's water source volumes will be evaluated in due diligence. Mitigation measures will be included in the EAS/ESMP of the sample works.

The use of security personal is not foreseen. The ESA and ESMP of each sample project as well as the ESMF and SCA will determine measures aligned with ESPS 4.

The operation is classified Moderate for disaster risk climate change. Belize is exposed to hurricane, earthquake, riverine floods, and risks related to climate change such as drought, precipitation change and water scarcity as well as sea level rise and extreme weather events (see Table and Maps in Annex A). However, due to the dispersed nature of the project samples, the project sites may be subject to one or more natural disaster risks, making the natural disaster risk considered Moderate, and these may have some impact on the project. The planned interventions are one-off and of small magnitude. Although the risks of Hurricane Wind and Heat Wave are high, the type of intervention the characteristics of the interventions (e.g. rehabilitation of equipment) does not present a substantial exacerbation of natural disaster risk to human life, property, and/or the environment. Belize has a National Climate Change Strategy and Action Plan that update Belize's Nationally Determined Contribution (NDC) and includes actions aligned with the operation such as activities to building adaptation and resilience to climate change and reduce disaster risk and promote based nature sustainable activities supporting vulnerable groups and reduce poverty, promotes stakeholder engagement and develops the tourism, blue economy and agricultural sector among others.

The ESMS will include an Emergency and Disaster Preparedness Plan and the ESMF will include specific measures for the works of sample and out-of- sample works for climate change and natural disaster risks. During E&S Due Diligence the above-mentioned plans and activities will be assessed for their alignment with the IDB's Disaster and Climate Change Risk Assessment Methodology. This Plan shall be part of the

ESMP for each site in the sample and the ESMF and shall be consistent in all aspects of disaster risk and climate change of ESPS4.

All the risks indicated here will be confirmed during due diligence.

ESPS-5. Land Acquisition and Involuntary Resettlement	TBD

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. Nonetheless, the absence of risk of land acquisition, resettlement, and displacement will be confirmed during due diligence.

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

According to ESG IDB Screening, the project will not interfere in protected areas, however, 8 works in the sample occur in Key Biodiversity Areas. The Biodiversity Map and KBA (Key Biodiversity Areas) are presented in Annex A. 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 caye. 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, Sittee 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.

Due to the small and punctual interventions required by the operation, it is not expected that any of these areas will be directly affected. During Due Diligence any potential impacts to critical habitat, natural habitat, modified habitat, and ecosystem services, will be analysed according to ESPS-6 criteria, through elaboration of the ESA/ESMP for each sample project. In addition, the ESMF for projects outside of the sample will establish eligibility criteria to avoid such impacts, as well as mitigation measures in case unexpected impacts are generated.

ESPS-7. Indigenous Peoples	Yes
Several of the projects take place within indigenous territory, including in Maya communities in Toledo. See maps in Annex A and Table. The ESA will include a sociocultural analysis, including measures for a socio-culturally appropriate consultation with indigenous communities and leaders where projects will take place. No significant negative impacts have been detected nor are expected but the analysis should verify this based on due diligence.	
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. However, the Sociocultural Analysis should confirm this and the ESMPs and ESMF should establish measures for prior evaluation of the area to be excavated. Thus, prior to the start of works, the associated risks and impacts and the possible allocation of tangible or non-tangible cultural heritage will be identified. If the works result in the discovery of protected heritage (in eventual case of archaeological finds), a Chance Finding Procedure must be implemented.	
ESPS-9. Gender Equality	Yes
No negative gender impacts have been detected nor are expected, but the Environmental and Social Analysis should analyse and verify that, as well as to do a general gender analysis of women and girls' role in water in their communities and consider that in relation to the project. It will be important to take measures to include women in the consultation process, as part of the Stakeholder Engagement Plan.	
ESPS-10. Stakeholder Engagement and Information Disclosure	Yes
The Stakeholder Engagement Plan to be prepared as part of the ESA will include an analysis of key and vulnerable stakeholders and propose communication methods that best include these actors. It will also include the measures from the sociocultural analysis to achieve a socio-culturally appropriate consultation with indigenous leaders and communities.	

IDB Environmental and Social Due Diligence

Strategy for Due Diligence

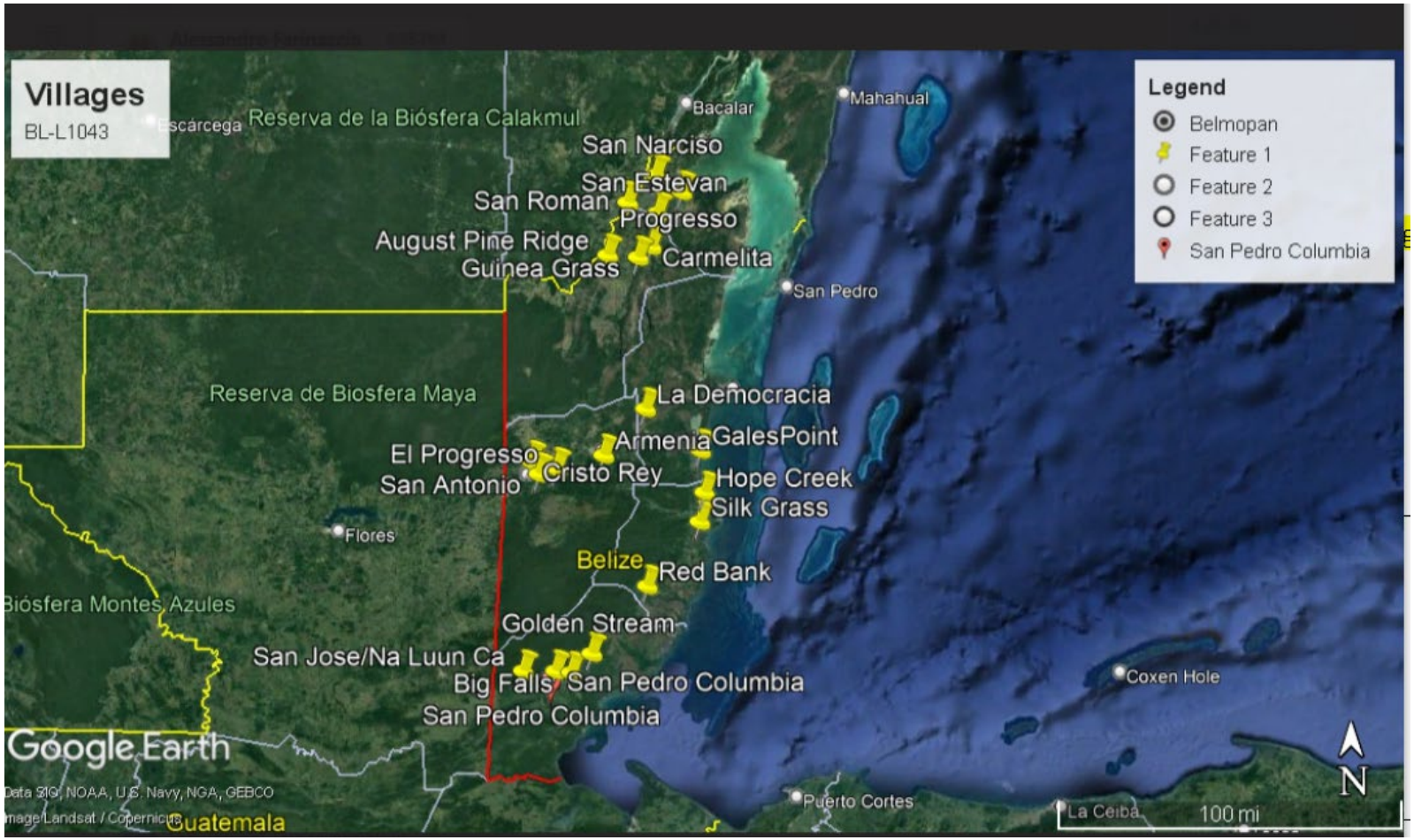
E&S Assessment requirement	Status of development	Estimated resources to finalize (specify Bank or Borrower cost)	Estimated timeline to finalize (inc. consultation)

Environmental and Social Assessments (ESAs), Environmental and Social Management Plan (ESMP) for each project of the representative sample; an Environmental and Social Project Specific Framework for projects outside of the sample; and an ESMS.*)*	Not yet prepared	The ESA and ESMP will be prepared by an IDB Consultancy (Retainer) with IDB/Operation Resources ($30k) paid by transactional resources of INE/WSA. (To be updated by the Executing Agency.)	Delivery of draft documents prior to Analysis Mission, by March 6, 2023. Delivery Final Versions including Consultation Reports, before OPC
Socio-Cultural Analysis (SCA), as part of the ESA for each project of the sample	Not yet prepared	The SCA will be prepared as part of an IDB Consultancy (Retainer) with IDB/Operation Resources ($20k) paid by transactional resources of INE/WSA.	Delivery of draft documents prior to Analysis Mission, by March 6, 2023. Delivery Final Versions, before OPC
Consultation and Stakeholder Engagement Plan	Not yet prepared	Will be prepared by an IDB Consultancy (Retainer) with theparticipation by CEPA. IDB/Operation Resource ($10k) paid by transactional resources of INE/WSA.	Immediate contracting with the submission of the SEP prior to the Analysis Mission. Consultation to take place before the POD
Annexes			
Annex A.	E&S Maps and Tables		

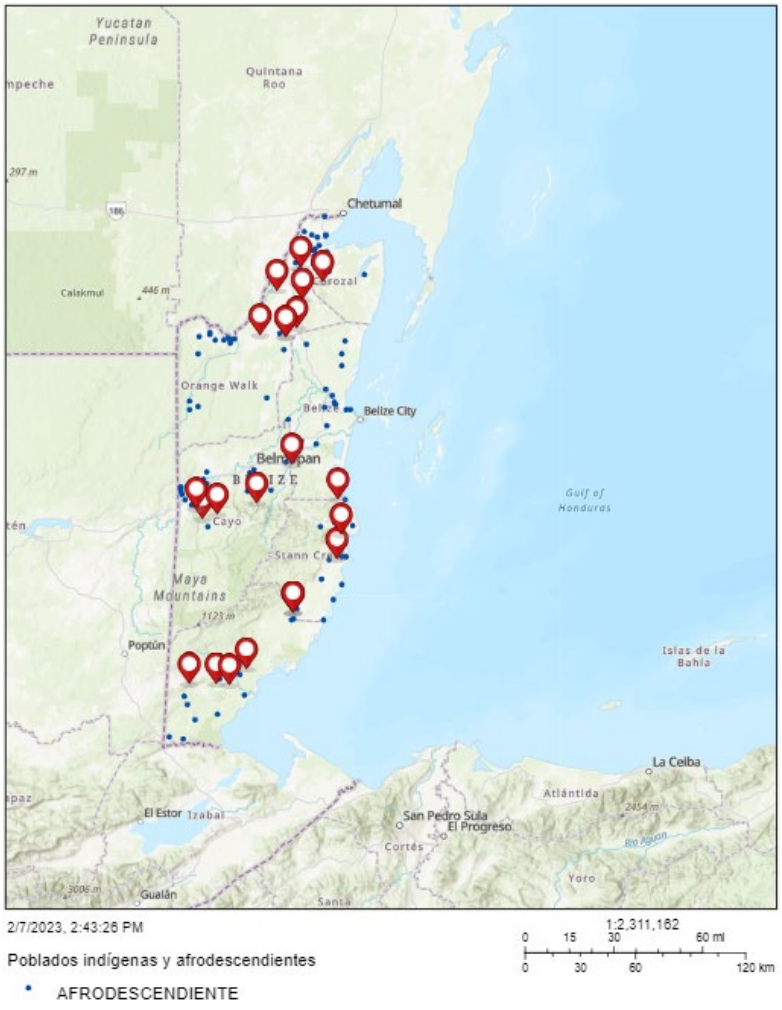
Annex A. E&S Screening Table and Maps

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 Progresso																		
Armenia																		
Hope Creek																		
Silk Grass																		
San Narciso																		
Progresso																		
August Pine Ridge																		
Carmelita																		
Guinea Grass																		
San Estevan																		
San Roman																		
Red Bank																		
Big Falls																		
Golden Stream																		
San Jose/Na LuunCa																		
San Pedro Columbia																		

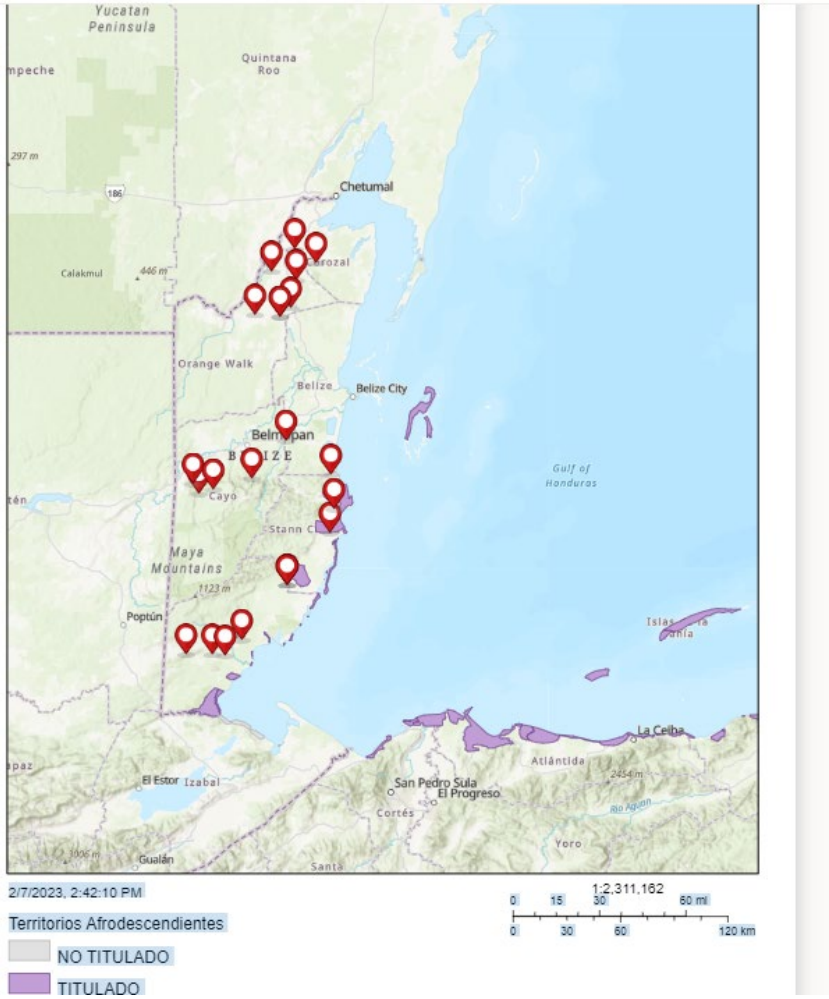
Villages	Nature and Social		
	Key Biodiversity Areas	Afro descent Territory	Indigenous Territory
La Democracia	Crooked Tree and associate wetlands		
Gales Point	Belize Coastal and nearshore islands	Garifuna Territory	
Cristo Rey			Yucatec
San Antonio	Maya Mountains and southern reserves		Yucatec
El Progresso			
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
Progresso			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)



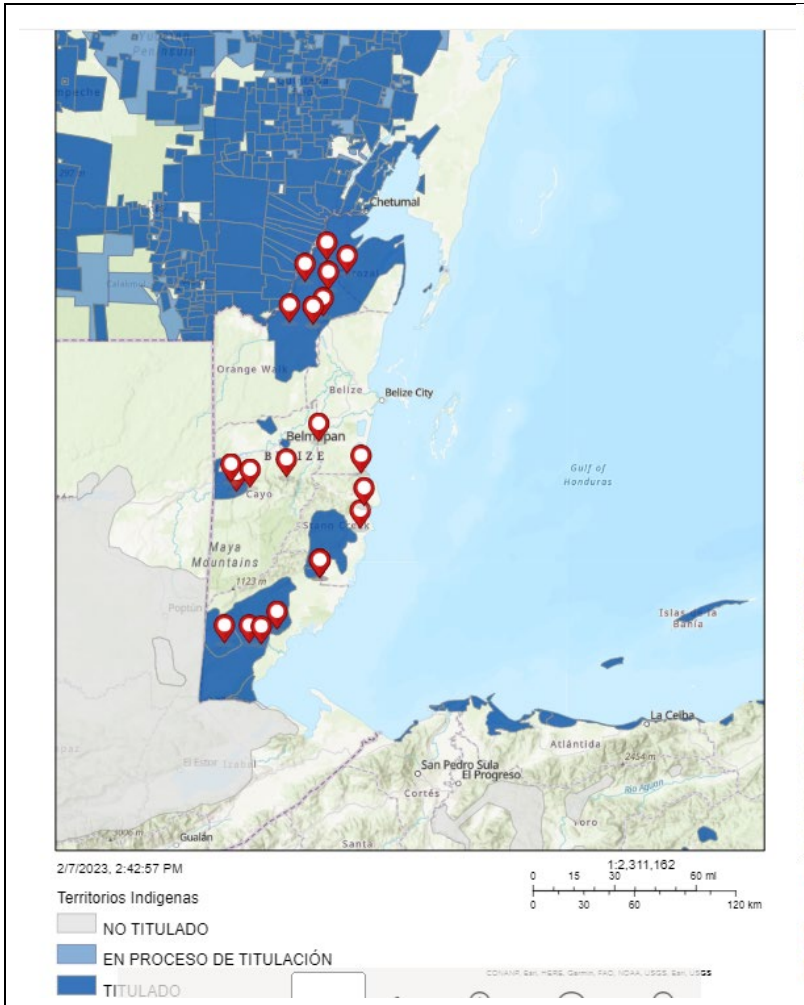
Map 1 – villages in Belize



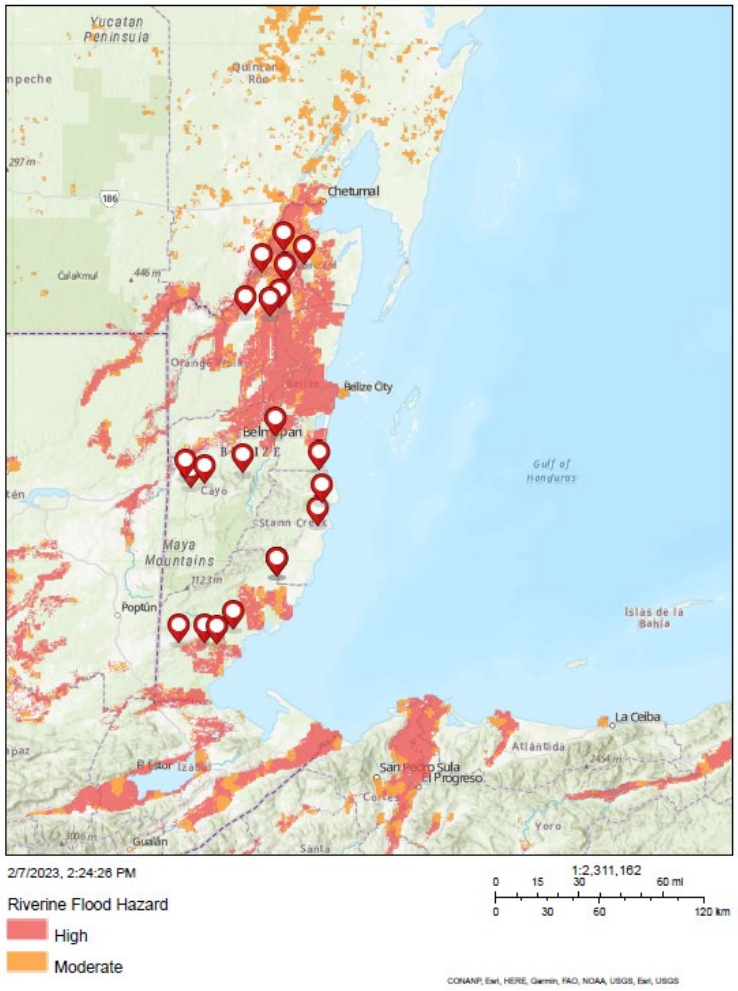
Map 2 – indigenous and afro descendent populations in Belize



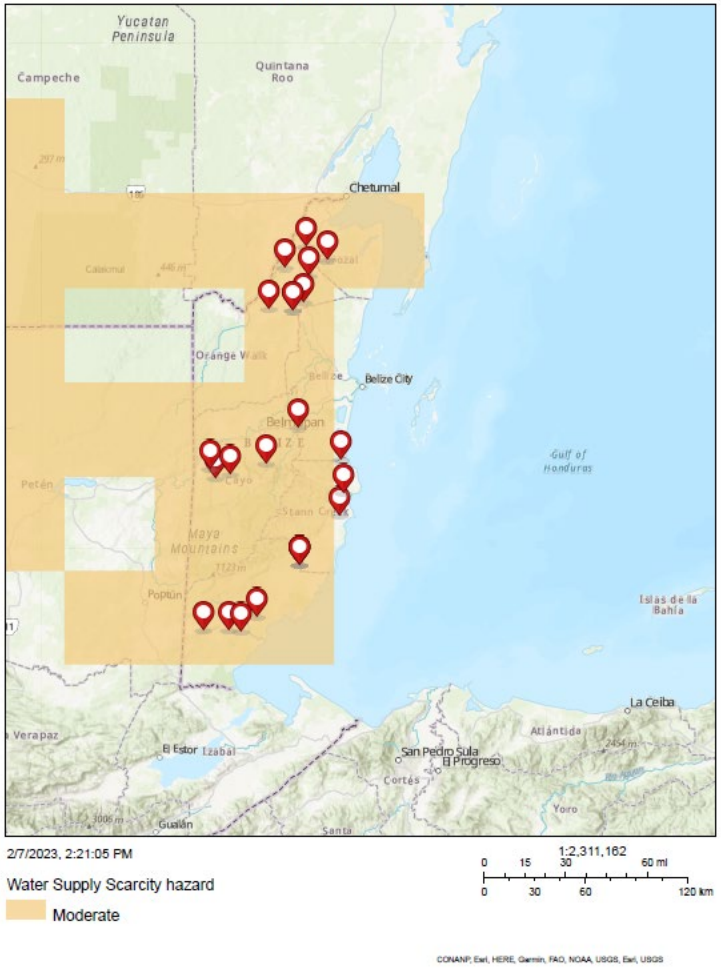
Map 3 – afro descendent territories in Belize



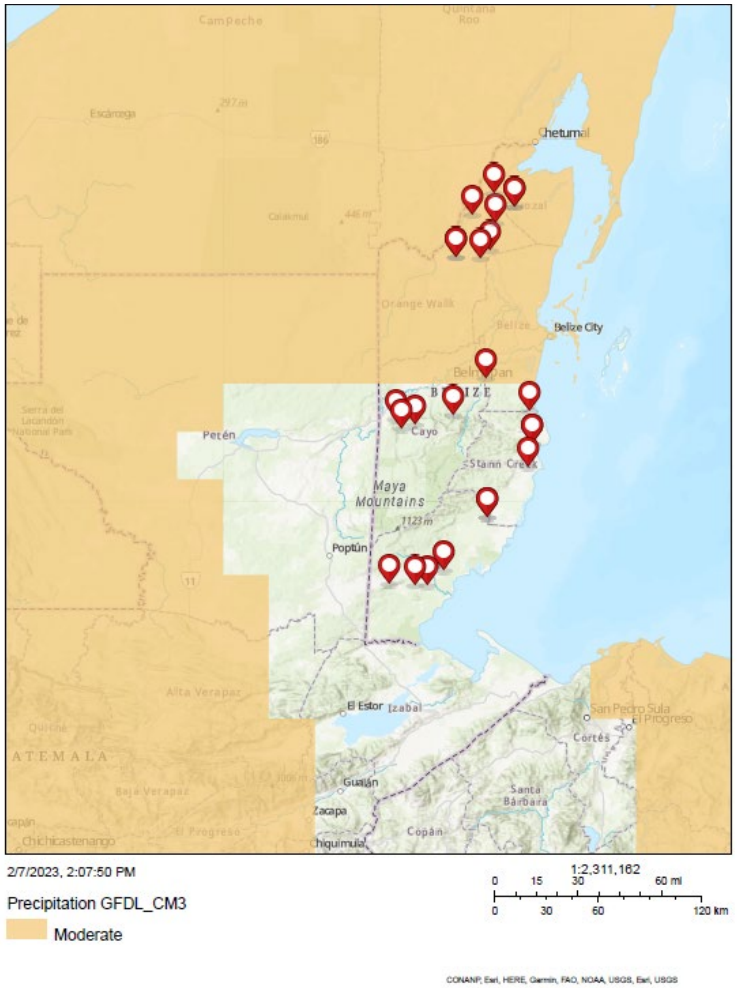
Map 4 – indigenous territory in Belize



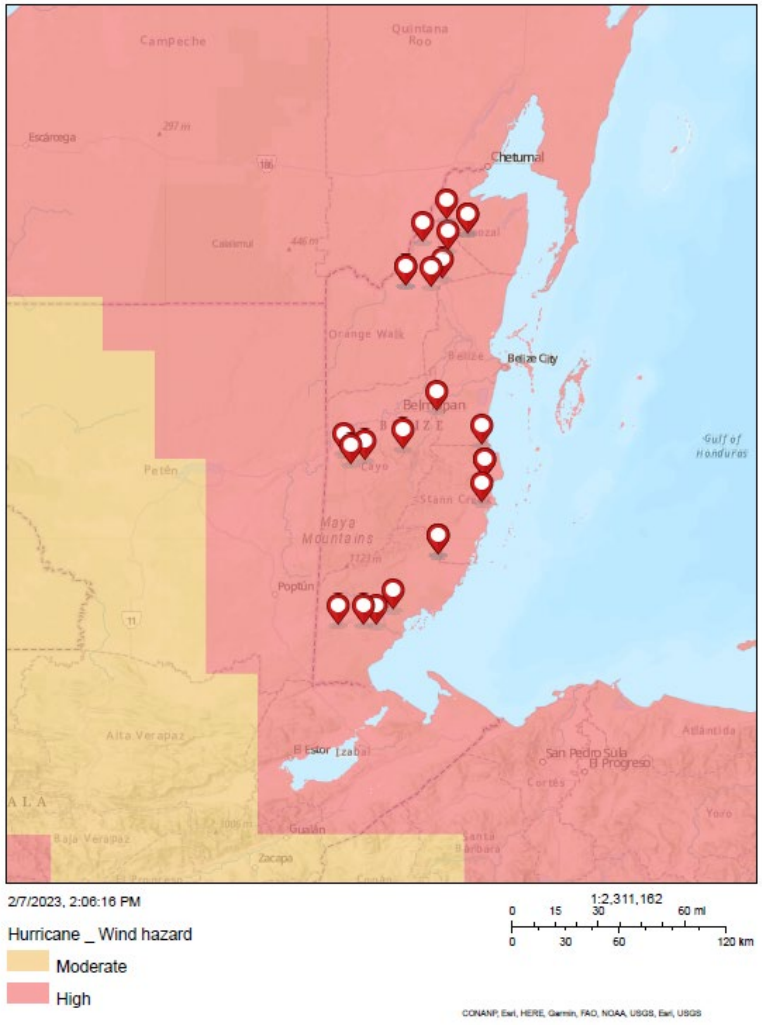
Map 5-Riverine Flood Hazard



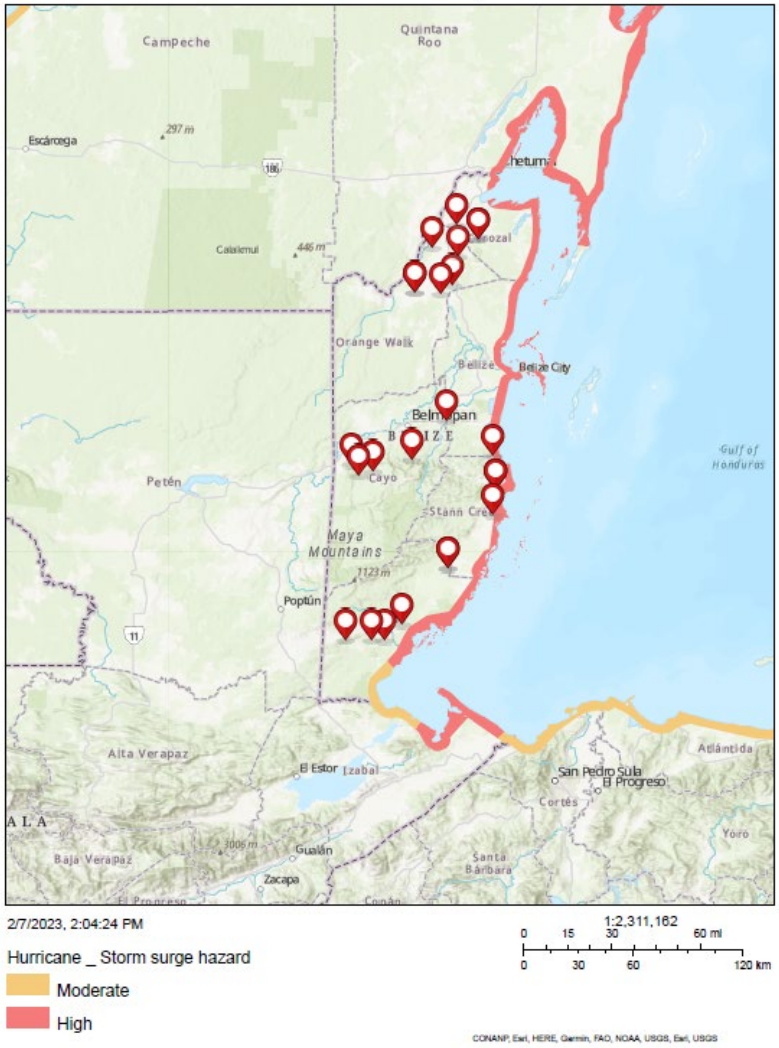
Map 6-Water Supply Scarcity Hazard



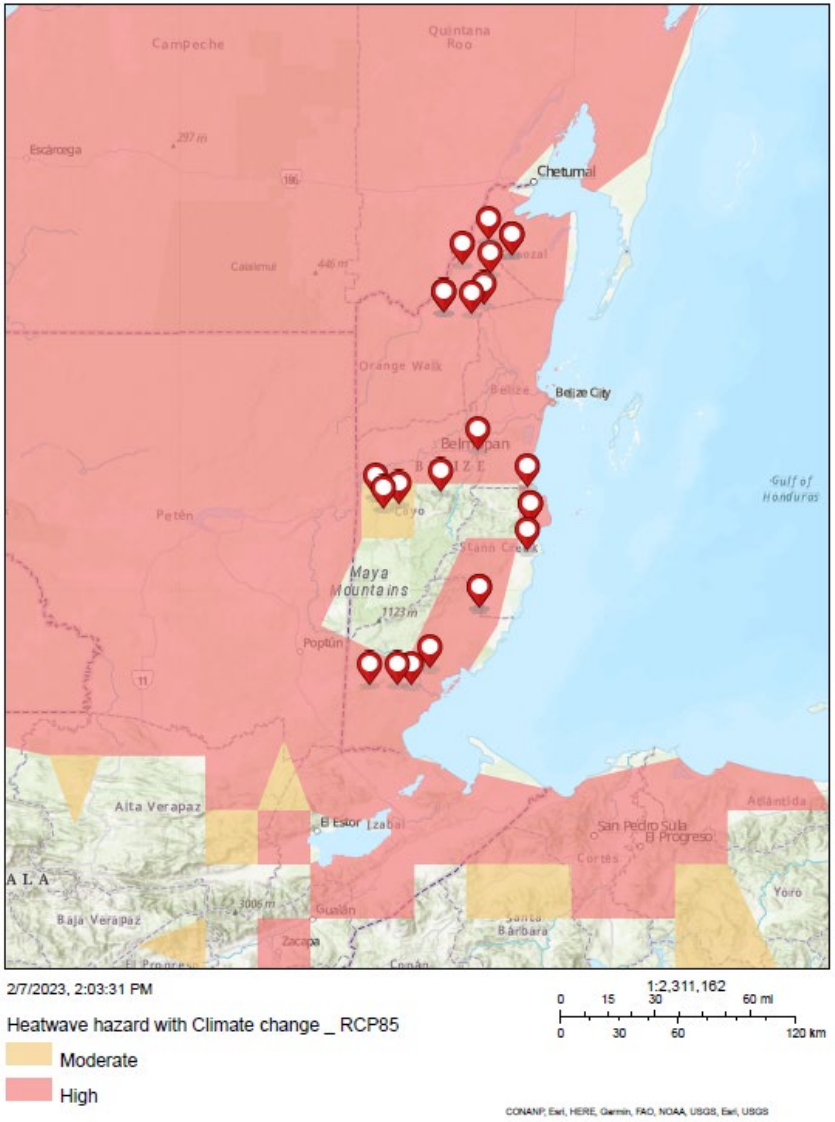
Map 7- Precipitation



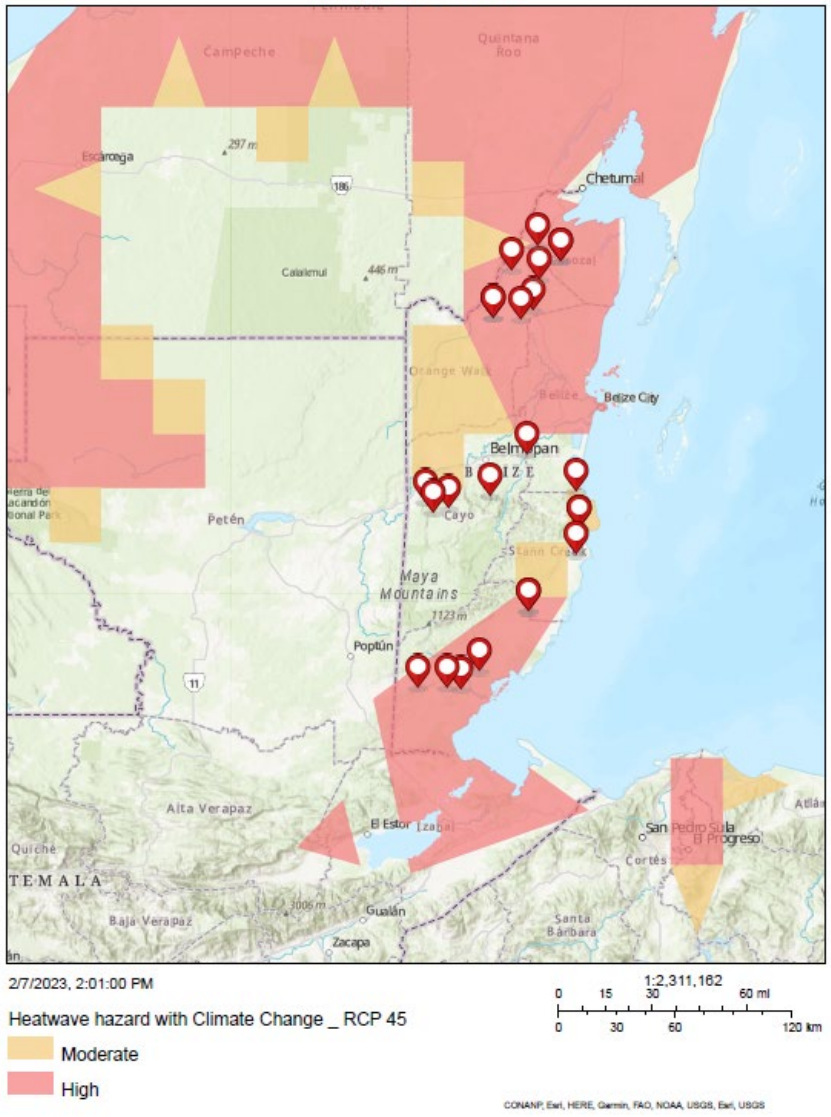
Map 8-Hurricane Wind Hazard



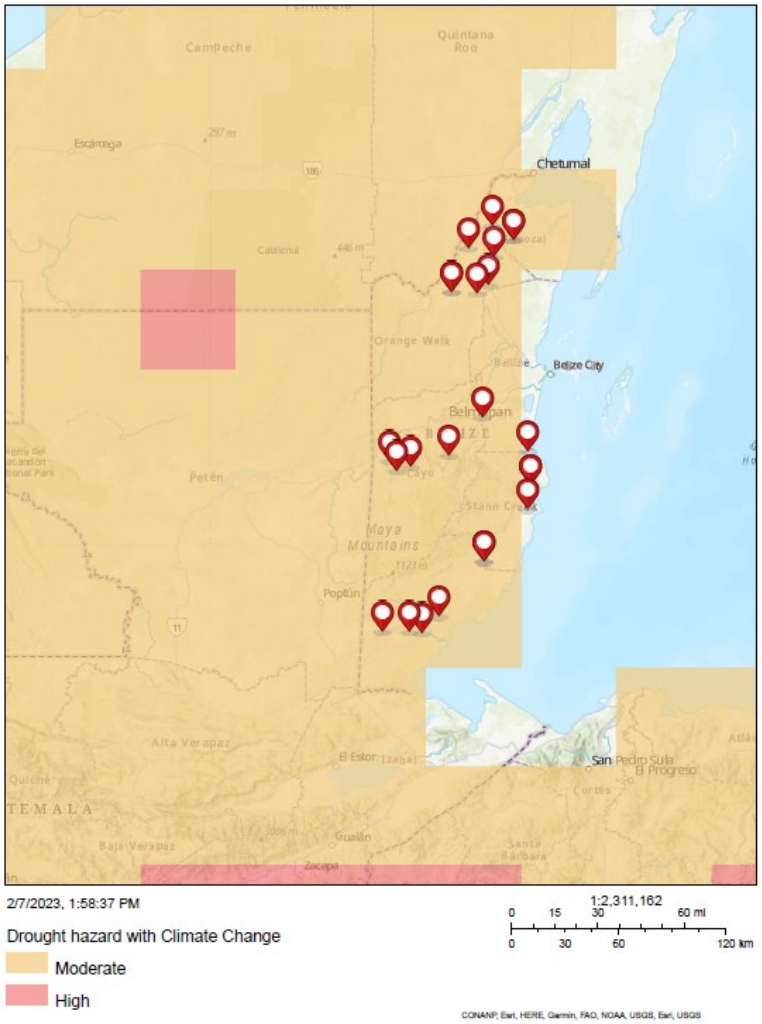
Map 9Hurricane Storm Surge Hazard



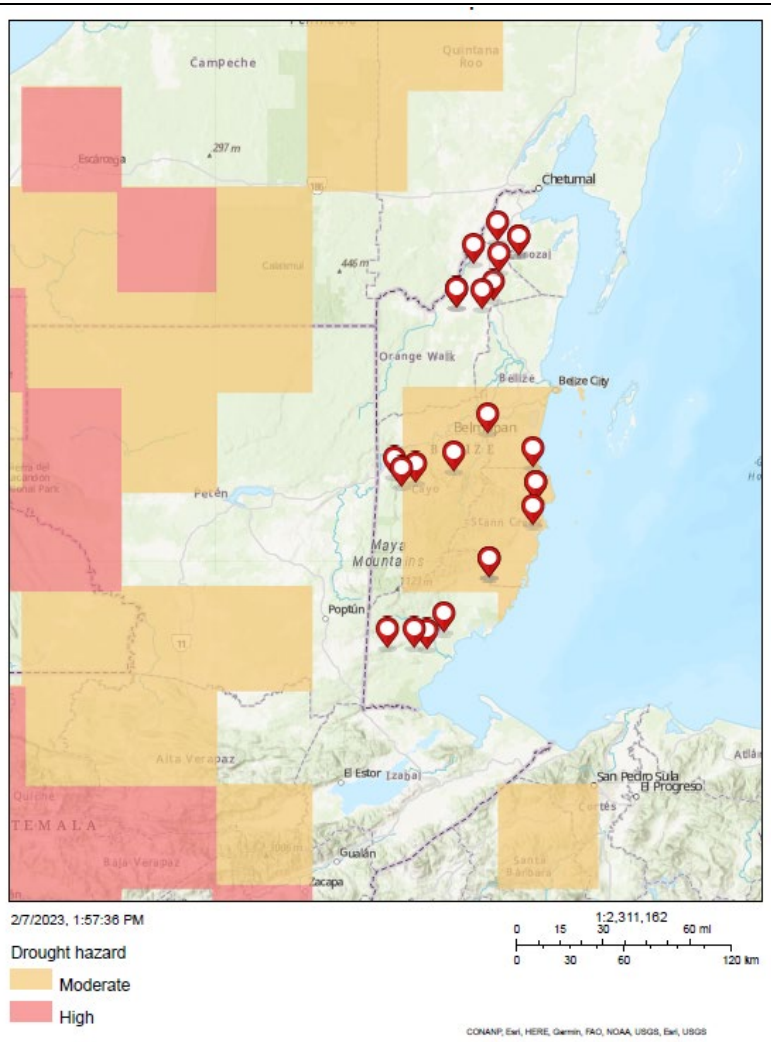
Map 10-Heatwave hazard with Climate Change -RCP 85



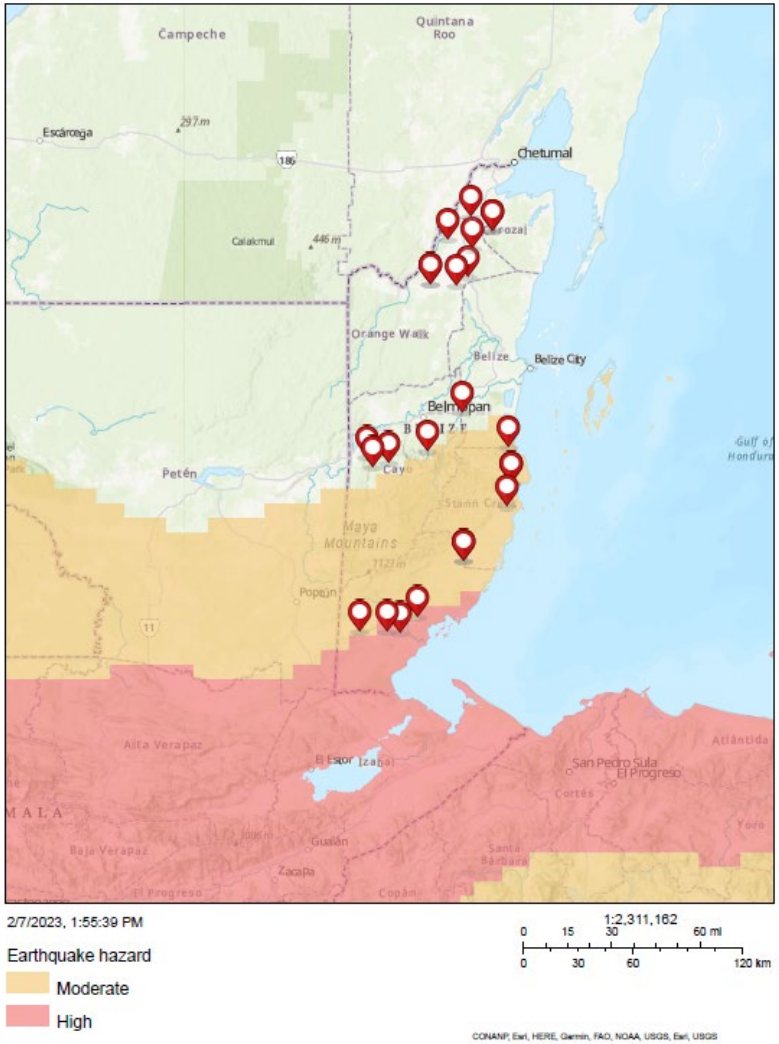
Map 11- Hurricane Storm Surge Hazard-RCP 45



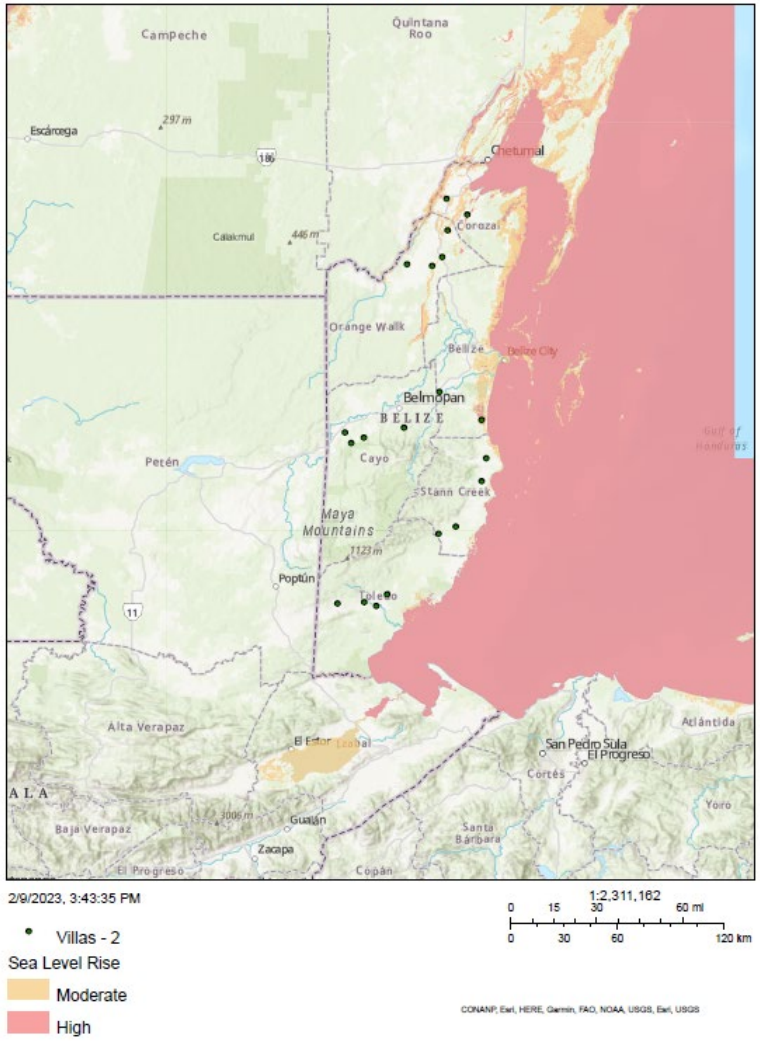
Map 12-Drought Hazard with Climate Change



Map 13- Drought Hazard

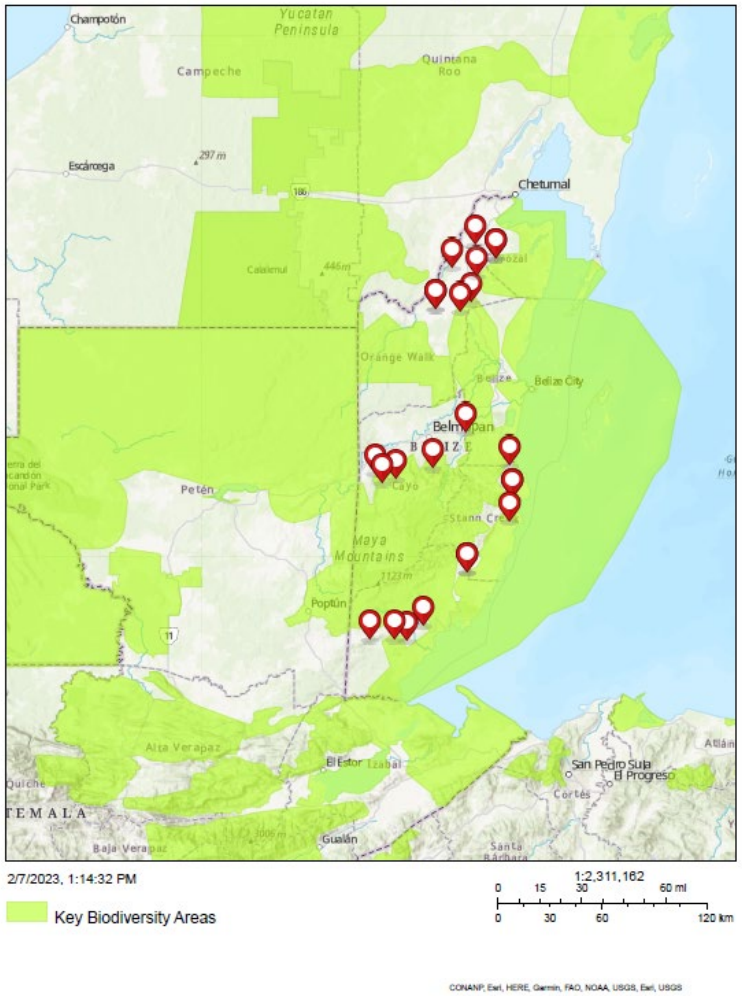


Map 14-Eartquake hazard



Map 15- Sea Level Rise

Map 16-Tsunami Hazard



Map 17- KBA-Key Biodiversity Areas

INDEX FOR COMPLETED AND PROPOSED SECTOR WORK

Issues	Description	Source	Expected Dates
Institutional Capacity Assessment, Results Matrix, and Operating Manual	Institutional Capacity Assessment of SIF as Executing Agency using IDB's ICAP methodology. Development of the Strengthening Plan for SIF as Executing Agency. Evaluation of potential risks associated with the operations (Risk Matrix). Development of Operating Manual for the operation.	Transactional	February – April 2023
Consolidated Budget, Multiannual Budget, Procurement Plan.	Development of planning documents for the operation (Consolidated Budget, Multiannual Budget, Procurement Plan).	Transactional	February – April 2023
Environmental and Social Documents/Studies.	Development of Environmental and Social Analysis (ESA) and Environmental and Social Management Plan (ESMP) for sample projects. Development of Environmental and Social Management Framework (ESMF). Development of Environmental and Social Management System (ESMS).	Transactional	February – April 2023
Data Collection and Project Profiles for Program Sample	Data Collection for 20 Sample Villages, including data on the existing water systems, status of Village Water Boards and rehabilitation needs. Development of Project Profile per village.	TC	December – April 2023
Engineering Analysis, including disinfection equipment analysis, for Sample Projects	Development of Technical Analysis for the 20 sample villages.	Transactional	February – April 2023
Water Boards' Financial Analysis	Develop financial analysis of water boards.	Transactional	February – April 2023

CONFIDENTIAL[1]

[1] The information contained in this Annex is deliberative, and therefore confidential, in accordance with the exception regarding “Deliberative Information” referred to in paragraph 4.1 (g) of the Bank's “Access to Information Policy” (Document GN-1831-28).