

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**BELIZE**

**WATER AND SANITATION PROGRAM FOR RURAL AREAS**

**(BL-L1045, BL-J0006)**

**LOAN AND  
NONREIMBURSABLE FINANCING PROPOSAL**

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REQUIRED ELECTRONIC LINKS (REL)	
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REL#2	<a href="#">Monitoring and Evaluation Arrangements</a>
REL#3	<a href="#">Environmental and Social Review Summary (ESRS)</a>
REL#4	<a href="#">Procurement Plan</a>

OPTIONAL ELECTRONIC LINKS (OEL)	
OEL#1	<a href="#">Technical Analysis (Options and Design)</a>
OEL#2	<a href="#">Economic Analysis</a>
OEL#3	<a href="#">Financial Analysis</a>
OEL#4	<a href="#">Compliance Analysis with the Public Utilities Policy (PUP)</a>
OEL#5	<a href="#">Climate Change Analysis</a>
OEL#6	<a href="#">Operations Manual</a>
OEL#7	<a href="#">Environmental and Social Management Framework</a>
OEL#8	<a href="#">Migration Analysis</a>

ABBREVIATIONS	
BWSL	Belize Water Services Limited
CAPEX	Capital Expenditures
CBA	Cost Benefit Analysis
CDB	Caribbean Development Bank
CEA	Cost-Effectiveness Analysis
DOE	Department of Environment
EA	Executing Agency
EIRR	Economic Internal Rate of Return
SAP	Environmental and Social Management Plan
ESMF	Environmental and Social Management Framework
ESMS	Environmental and Social Management System
ESPF	Environmental and Social Policy Framework
ESRR	Environmental and Social Risk Rating (ESRR)
E&S	Environmental and Social
FY	Fiscal Year
GDP	Gross Domestic Product
GOB	Government of Belize
GRF	Grant Facility to Support Countries with Large and Sudden Intraregional Migration Inflows
ICAP	Institutional Capacity Assessment Platform
IDB	Inter-American Development Bank
IOM	Organization for Migration
MFAFTI	Ministry of Foreign Affairs, Foreign Trade & Immigration
MRD	The Ministry of Rural Transformation, Community Development, Labor, and Local Government
NCCO	National Climate Change Office
OC	Ordinary Capital
OSG	On-site Generation
POM	Program Operations Manual
O&M	Operation and Maintenance
OPEX	Operational Expenditures
PA	Procurement Plan
PEP	Pluriannual Execution Plan
PEU	Program Executing Unit
PMR	Project Monitoring Report
POA	Annual Operation Plan
POD	Proposal for Operation Development
POM	Program Operations Manual
PUC	Public Utilities Commission
SIB	Statistical Institute of Belize
SIF	Belize Social Investment Fund
SPF	Safeguard Policy Filter

SSF	Safeguard Screening Form
UNDP	United Nations Development Program
VC	Village Council
VCA	Village Councils Act
VWB	Village Water Boards
WB	World Bank
W&S	Water and Sanitation

**PROJECT SUMMARY**  
**BELIZE**  
**WATER AND SANITATION PROGRAM FOR RURAL AREAS**  
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Financial Terms and Conditions						
Borrower			Item		Flexible Financing Facility <sup>(a)</sup>	GRF
Belize			Amortization Period:		25 Years	N/A
Executing Agency (EA)			Disbursement Period:		4 Years	4 Years
Belize Social Investment Fund (SIF)			Grace Period:		5.5 Years <sup>(b)</sup>	N/A
Source	Amount (US\$)	%	Interest rate:		SOFR Based	
IDB (OC) (BL-L1045)	4,000,000	86	Credit Fee:		(c)	
IDB (GRF) (BL-J0006) <sup>(f)</sup>	640,000	14	Inspection and supervision fee:		(c)	
			Weighted Average Life (WAL):		15.25 Years	
Total	4,640,000	100	Currency of Approval:		Dollars of the United States of America	
Project at a Glance						
<b>Project Objective/Description.</b> 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) improving the drinkability of water in rural areas; and (ii) strengthening the financial management of Village Water Boards (VWB) and the institutional capacity of Belize’s water sector.						
<b>Special Contractual Clauses prior to the first disbursement.</b> The Executing Agency (EA) will provide evidence to the satisfaction of the Bank of: (a) the establishment of the Project Execution Unit, including the appointment and/or hiring of key personnel responsible for managing the program, including: (i) one General/Technical Coordinator; (ii) one procurement specialist; (iii) one financial management specialist, and (iv) one environmental and social specialist; and (b) the Program Operations Manual has been approved and is in effect in the terms and conditions agreed with the Bank, which shall have, among other elements, the environmental and social requirements and include as Annexes: the Environmental and Social Management System (ESMS) and the Environmental and Social Management Plan (ESAP)(¶3.4). See other environmental conditions in Annex B of the Environmental and Social Review Summary (REL#3).						
<b>Special Contractual Clauses of execution.</b> Prior to the commencement of each of the works for Component1, an institutional agreement will have to be signed between EA, the corresponding Village Water Board (VWB), and the Ministry of Rural Transformation, Community Development, Labour, and Local Government (MRD), as the case may be, establishing the responsibilities of each entity in the implementation and operation of the investments (¶3.5).						
<b>Exceptions to Bank Policies.</b> None.						
Strategic Alignment						
<b>Challenges<sup>(d)</sup>:</b>		SI	<input checked="" type="checkbox"/>	PI	<input checked="" type="checkbox"/>	EI <input type="checkbox"/>
<b>Cross-Cutting Issues<sup>(e)</sup>:</b>		GE <input checked="" type="checkbox"/>	and	DI <input checked="" type="checkbox"/>	CC <input checked="" type="checkbox"/>	and ES <input checked="" type="checkbox"/>
						IC <input checked="" type="checkbox"/>

<sup>(a)</sup> Under the Flexible Financing Facility (document FN-655-1), the borrower has the option to request modifications to the amortization schedule, as well as currency, interest rate, commodity, and catastrophe protection conversions. In considering such requests, the Bank will take into account operational and risk management considerations.

<sup>(b)</sup> Under the flexible repayment options of the Flexible Financing Facility (FFF), changes in the grace period are possible as long as the Original Weighted Average Life (WAL) and the last payment date, as documented in the loan agreement, are not exceeded.

<sup>(c)</sup> The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors during its review of the Bank's lending charges, in accordance with the relevant policies.

<sup>(d)</sup> SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

<sup>(e)</sup> GE (Gender Equality) and DI (Diversity); CC (Climate Change) and ES (Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

<sup>(f)</sup> Non-reimbursable financing. The GRF, or IDB Grant Facility, is the IDB's Non-Refundable Facility. In accordance with document GN- 2947-26, the IDB financing structure for this operation includes a combination of 14% of non-reimbursable resources (GRF) and 86% of reimbursable resources (Ordinary Capital). The GRF proceeds will be disbursed proportionally with the Ordinary Capital loan proceeds, which cannot be disbursed before the Ordinary Capital disbursements.

## I. PROJECT DESCRIPTION AND RESULTS MONITORING

### A. Background, problem addressed, and justification.

- 1.1 **Background.** Belize has been one of the most highly impacted economies by the COVID-19 pandemic. Its Gross Domestic Product (GDP) contracted by 16.7% in 2020, unemployment increased from 7.7% to 13.7% and labor force participation deteriorated from 70.1% to 55.1% in 2020 and 2021.<sup>1</sup> The Belizean economy has begun to recover following the devastating impact of the pandemic. However, the economic contraction affected the country's capacity to invest in basic services such as Water and Sanitation (W&S), especially in rural areas, where more than 50% of the population lives.<sup>2</sup>
- 1.2 **Service provision in rural areas.** In Belize's rural areas, water services are mostly provided by Village Water Boards (VWB), community-based organizations that administrate, operate, and maintain the systems. VWB manage and operate 108 water supply systems in approximately 130 villages, each with less than 4,000 inhabitants, representing about one-third of the country's population.<sup>3</sup> The Ministry of Rural Transformation, Community Development, Labor, and Local Government (MRD) is the government agency responsible for the monitoring of water services in rural areas, providing financial oversight and capacity building support to VWB. MRD is the entity that also supports the structuring of VWB and approves tariffs set at the village level. Under the Village Councils Act (VCA) of 2003, VWB must be composed by seven members (president, treasury, secretary, among other positions set in the Act). VWB members are not elected by the village. The VCA establishes that five (out of the seven) members be appointed by MRD and the other two be automatic appointees: the chairperson of the Village Council (VC) and a member of the Council nominated by the VC. When it comes to investments, VWB do not cover the upfront costs needed to build the water distribution systems. These costs are borne by the national government. Historically, the Belize Social Investment Fund (SIF) has been the agency responsible for the construction of most new water systems in rural areas. VWB are not regulated by the Public Utilities Commission (PUC), an agency established in 1999 to regulate the electricity, telecommunications, and W&S sectors.
- 1.3 **Service provision challenges in rural areas.** The main problem water service provision faces in rural areas is service quality. This is driven by many factors such as: (i) the lack of water disinfection equipment and/or practices; (ii) the low financial sustainability of VWB; and (iii) the inadequate staff capabilities and lack of standard procedures to properly operate and maintain the systems. All these challenges affect the capacity of VWB to maintain service quality among existing customers and contribute to the rapid and premature deterioration of the equipment and infrastructure, which directly affect service quality in most rural villages. This cycle explains, to a great extent, the low levels of tap water consumption as users do not

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<sup>1</sup> Statistical Institute of Belize (SIB), 2022.

<sup>2</sup> Statistical Institute of Belize (SIB), 2022.

<sup>3</sup> Belize Water Services Limited (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.

trust the quality of the water provided by their systems. Bottled water consumption in rural Belize is extraordinarily high, despite the low-income levels of its population.<sup>4</sup> Preliminary 2022 Census data for 23 villages, shows that 58% of the households are buying bottled water, at an average cost per gallon of US\$0.44. In some of these villages, more than 80% of the households are purchasing bottled water on a regular basis. Rural water service provision in rural areas faces additional challenges such as: (iv) high vulnerability of the water systems to weather events and climate change; and (v) gender disparities in the management of water systems.

- 1.4 **Lack of water disinfection.** Information provided by SIF, estimates that only 38% of VWB are actively disinfecting water, in all cases through a chlorination system based on calcium hypochlorite.<sup>5</sup> 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 identified that, even when there is an operational chlorination system in place, VWB typically do not disinfect for four main reasons: (i) lack of financial liquidity to purchase the chlorine; (ii) mobility and supply chain issues that make the purchasing of the chlorine challenging and expensive; (iii) fear of using chlorination systems incorrectly; and (iv) concerns raised by consumers about the taste and smell of water (high chlorine taste and smell especially in households close to the water distribution tank).

- 1.5 **Low financial sustainability and inadequate financial management.** A SIF report estimates that O&M costs for rural water systems average about 0.5 to 0.7 cents per gallon.<sup>6</sup> Most VWB charge a flat rate of \$10 Belizean dollars per month. This rate is defined by the VWB based on Operational Expenses (OPEX) and validated by MRD.<sup>7</sup> Most VWB face issues when it comes to service payment and collection rates. Over 40% of VWB show rates below 60%, meaning that, on average, 40% of users in rural Belize are not paying for its water service. According to SIF, the few VWB that charge volumetric tariffs through household meters 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 VWB call on MRD to help rehabilitate them. The SIF report also highlights that the majority of the VWB maintain accounting records manually, typically in paper-based books stored in the homes of VWB members, making it extremely difficult to exercise proper financial management and creating challenges to obtain copies of past records when new VWB members are appointed. Inadequate staff capabilities in VWB and lack of standard procedures are negatively affecting the proper O&M of rural water systems and leading to the rapid and premature deterioration of the equipment and infrastructure. Badly maintained equipment and infrastructure generates

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<sup>4</sup> [Mapping Income Poverty in Belize Using Satellite Features and Machine Learning](#), IDB, 2020.

<sup>5</sup> The Review of Management and Operations of Village Water Boards, SIF, 2017.

<sup>6</sup> The Review of Management and Operations of Village Water Boards, SIF, 2017.

<sup>7</sup> A community meeting is held to discuss whether tariffs need to be created or adjusted. This discussion takes place after a test run has been done for two months to determine how much water is utilized by the village. A survey would then be carried out to determine the relevant rate that is being proposed. After other discussions, one last public meeting will be done to finalize by-laws (tariffs) and then it is sent by the VWB to MRD for approval.



inefficiencies that increase OPEX for VWB. MRD, the agency responsible for providing technical assistance to VWB, has regional personnel who attend the needs of the villages on a demand basis. However, high personnel rotation and lack of training materials such as manuals or guidelines make it difficult for these personnel to provide technical assistance on a consistent basis.

**1.6 Lack of institutional capacity to address the pollution of water sources.**

In Belize, low sanitation coverage in urban and rural areas<sup>8</sup> 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. 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 for the New River, 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 identified potential innovative solutions, including the application of bioremediation technologies, specifically for point sources of pollution such as the ones coming from industrial and urban wastewater discharges, highlighting the need to implement concrete actions to address the pollution of this water body.

**1.7 Vulnerability to weather events and climate change.** Belize's Water Supply Services Climate Change Adaptation Plan<sup>9</sup> highlights that in recent years, due to the country's exposure to extreme weather events, water sources have recurrently faced climate related challenges. Water supply systems, especially those based on surface water, are at risk from a variety of climate hazards including hurricanes, floods, and droughts which can lead to the damage of water supply infrastructure, water quality issues, and thus water shortages. Climate change represents an additional risk as it exacerbates existing hazards and has the potential to alter source yields for surface and groundwater sources. Raising temperatures are likely to increase evaporative losses from vegetation and soils, reducing the volume of rainfall which contributes to groundwater recharge and river flows. Coupled with reduced rainfall, this is likely to reduce average river flows and groundwater recharge. Periods of drought conditions and extremely low flows in surface waters are likely to increase, potentially limiting water availability and increasing the concentration of pollutants in surface water sources. To address climate-related

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<sup>8</sup> 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.

<sup>9</sup> Supply Services Climate Change Adaptation Plan, Belize Water Services Limited (BWS) and Belize National Climate Change Office (NCCO), 2021.

hazards, Belize's National Climate Change Office (NCCO), in coordination with Belize Water Services Limited (BWSL) and MRD, developed in 2021 a Water Supply Services Adaptation Plan as a mechanism for achieving long term sustainability and resilience of its water supply services. The goal of the Plan is to ensure that quality water services can be provided in the face of existing climate variability and future climate change. The Plan's implementation cost in rural areas is estimated at US\$1.5 million.

- 1.8 **Gender disparities.** The Global Gender Gap Index places Belize in the 95<sup>th</sup> place out of 146 countries. This index measures variables such as the level of political empowerment, health, educational attainment, and economic participation and opportunity for women.<sup>10</sup> Disparities in the job market are highlighted by UNDP's Gender Inequality Index,<sup>11</sup> which ranks Belize 97 out of 189 countries. The labor participation rate (+15 years) of women is 49.9%, while that of men is 80.6%. The percentage of unemployed women in Belize is 11.40%, while that of men is 5.49% (ages between 15 and 64 years).<sup>12</sup> These disparities are also present in the water sector. A SIF report identifies low participation of women in the O&M of rural water systems (below 20%). The report highlights that, in most VWB, decisions within VWB are mostly taken by men.<sup>13</sup> Information collected by the IDB in 20 VWB confirms these low levels of women's participation in VWB, especially when it comes to decision-making. About 30% of total VWB members are women, but only 15% is presided by one (3 out of 20 surveyed VWB).
- 1.9 **Diversity disparities.** A culturally diverse nation, Belize is a part of both the Caribbean and Central American regions. Most of the population is of mixed ethnic origin being either English Creoles or Mestizos. Other groups include indigenous Maya, Garifuna.<sup>14</sup> Europeans (English, Dutch/German, and Spanish), Chinese, East Indians, and a number of Lebanese, West Africans, Koreans, Central Americans, and expatriate Americans. The main concentration of Indigenous communities based on languages spoken include are Mayan Yucatec, predominantly located in Cayo District, and Mayan Mopan and Mayan Ketchi, predominantly located in the Toledo and Stan Creek Districts.<sup>15</sup> The Mayas hold customary land rights as Indigenous peoples. Guarantee access to quality water services in these areas is typically more challenging. According to the 2017 Labor Force Survey, there are accentuated differences to water quality access in terms of ethnicity. For instance, 58% of mestizo or Hispanic populations have access to

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<sup>10</sup> The Global Gender Gap Index has been presented by the World Economic Forum since 2006 to define a framework to capture the magnitude of gender disparities and track their evolution over time. It is based on the measurement of four dimensions: (i) Opportunity and Economic Participation; (ii) Educational Achievement; (iii) Health and Survival; and (iv) Political Empowerment, providing indices for countries that allow effective comparisons between regions and income groups.

<sup>11</sup> The Gender Inequality Index prepared by UNDP uses three dimensions: (i) reproductive health (maternal mortality rate and adolescent pregnancy rate); (ii) empowerment (seats held in parliament and population with at least secondary education) and (iii) labor participation. A low value of this Index indicates low inequality between women and men.

<sup>12</sup> PNUD (2020). [\*Human Development Report 2020: The next frontier. Human development and the Anthropocene\*](#). New York, USA.

<sup>13</sup> The Review of Management and Operations of Village Water Boards, SIF, 2017.

<sup>14</sup> The main concentration of Afro-descendent communities (Garifuna) is located in Stann Creek and Toledo Districts. It must be noted that in Belize the term afro-descendant is seldom used to describe Creoles and Garifunas.

<sup>15</sup> According to the Statistical Institute of Belize (2011), in 2010 there were over 20,000 Maya Ketchi in the country (73% located in Toledo), about 13,000 Maya Mopan (41% located in Toledo), and almost 3,000 Maya Yucatec (59% located in Cayo).

purified water. In contrast only 5.6% of Garifuna and 3.36% of Maya have access to it. By 2017, 72% of Maya population reported that their main water source was a river, creek, or stream. In the case of the mestizo/Hispanic population, the value was 13.6%.

- 1.10 **Low access to water services among migrants.** 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.<sup>16</sup> According to the International Organization for Migration (IOM), 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.<sup>17</sup> After years of sustained migration inflows, Belize is currently undergoing a historic amnesty process after which an estimated 40,000 migrants would be regularized by 2023.<sup>18</sup> 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 is about 64%, much lower than the national average.<sup>19</sup>
- 1.11 **Benefits of investing in water services.** It is estimated that each dollar invested in drinking water in rural areas yields a return of US\$8.2 per dollar.<sup>20</sup> Globally, access to drinking water reduces episodes of diarrhea by 75%.<sup>21</sup> High incidence of diarrhea in children hinders absorption of nutrients they need to grow and could lead to malnutrition.<sup>22</sup> There is also a correlation between the availability of water services and productivity and income. Lack of access to quality water services leads to lost labor productivity due to sickness-related absenteeism and/or the need to care for sick children. Time spent obtaining water from sources far from home also affects the potential for income generation. In rural areas, the greatest economic benefit of water availability is the time saved fetching water, which can be used instead for productive activities that generate household income.<sup>23</sup>

<sup>16</sup> [Abstract of Statistics 2021](#); Statistical Institute of Belize.

<sup>17</sup> [Abstract of Statistics 2021](#); Statistical Institute of Belize.

<sup>18</sup> According to the Ministry of Foreign Affairs, Foreign Trade, and Immigration (MFAFTI), most of the migrants who have settled in Belize come from neighboring countries such as Guatemala, El Salvador, and Honduras.<sup>18</sup> Although some of these migrants have regularized their status since 2010, many still have irregular migration status.<sup>18</sup> MFAFTI estimates that the number of irregular migrants in Belize is between 40,000 to 60,000.

<sup>19</sup> According to the Joint Monitoring Program, 86% of households in Belize have access to piped water. [WHO/UNICEF Joint Monitoring Programme \(JMP\) Database, 2021](#).

<sup>20</sup> Agénor, Pierre Richard (2013): *Public Capital, Growth and Welfare*. Analytical Foundations for Public Policy. Princeton University Press. This return is estimated for Latin America and the Caribbean.

<sup>21</sup> Wolf, Jennyfer & Hunter, Paul & Freeman, Matthew & Cumming, Oliver & Clasen, Thomas & Bartram, Jamie & Higgins, Julian & Johnston, Richard & Medlicott, Kate & Boisson, Sophie & Prüss-Ustün, Annette. (2018). *Impact of Drinking Water, Sanitation and Hand Washing with Soap on Childhood Diarrhoeal Disease: Updated Meta-Analysis and –Regression*. Tropical Medicine & International Health. 23. 10.1111/tmi.13051.

<sup>22</sup> UNICEF (2021). *Reimagining WASH. Water Security for all*.

<sup>23</sup> Pickering, A.J. and Davis, J. (2012) Freshwater Availability and Water Fetching Distance Affect Child Health in Sub-Saharan Africa. *Environ. Sci. Technol.*, 2012, 46 (4), pp 2391–2397.

- 1.12 **Program strategy to address disinfection challenges.** An IDB-led assessment in 20 water systems identified that VWB (would) spend US\$2,775 per year in the purchase of calcium hypochlorite (chlorine) to feed their water disinfection systems, representing a high percentage of its OPEX. The reality is that in most villages the chlorination equipment is not actually operating as VWB do not have the financial capacity to cover these costs or the equipment is heavily deteriorated. In this context, the assessment suggested the use of alternative water disinfection technologies based on the onsite generation (OSG) of the disinfectant (using mixed oxidants or sodium hypochlorite) to reduce the dependence on calcium hypochlorite, an expensive and hazardous substance. The deployment of these innovative technologies could significantly reduce disinfection costs for VWB. The assessment estimates that the average OPEX for the mixed oxidant alternative would be US\$515 per year, an 81% reduction from the US\$2,775 required to buy the chlorine. In addition, these technologies yield benefits in terms of improved organoleptic properties (water's odor and taste), which are expected to increase tap water consumption and reduce bottled water purchases in the villages.
- 1.13 **Program strategy to address low financial sustainability and inadequate financial management.** The program will advance capacity building at the VWB level by financing training for VWB members on O&M, financial management and water sources' protection. 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. To address the issue of inadequate financial management and manual bookkeeping, it will support the development and deployment of a financial management system for VWB. The program will finance the development of a rural water policy proposal that could introduce changes in how the rural water sector is managed, including tariff structuring and service payment. It will also finance a study to identify the potential of innovative technologies in improving the environmental conditions of a strategic water body for the country: the New River. The study will provide critical input to the water sector when it comes to deploying and scaling up solutions to water pollution challenges.
- 1.14 **Program strategy to address migrant access challenges.** One of the program's prioritization criteria is the percentage of immigrants living in rural villages, following the criteria established by the Non-Refundable Facility (GRF) that supports countries facing migration flow challenges (GN-2947-26). Operational Guidelines for the Use of Resources from the IDB Grant Facility to Support Countries with Large and Sudden Intraregional Migration Inflows. SIF has identified villages where more than 20% of the population is migrant such as Armenia and El Progreso in Cayo District or Silk Grass in Stann Creek District. In several other villages more than 10% of the population was foreign born. According to SIB.<sup>24</sup>, the Cayo District is home to 21,925 foreign-born persons (21% of the district's population). The investments in water disinfection and water system rehabilitation would benefit about 7,000 immigrants (1,615 households),

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<sup>24</sup> [Abstract of Statistics 2021](#), Statistical Institute of Belize.

about 30% of the district's immigrants and about 10% of the country's migrant population ([OEL#8](#)).

- 1.15 **Program strategy to address climate resilience challenges.** One of the recommendations of the Water Supply Services Climate Change Adaptation Plan to enhance the climate resilience of rural water services is to promote water conservation in rural areas. Average water consumption in Belize rural areas is estimated at 160 liters per person per day, significantly higher than The World Health Organization (WHO) drinking water availability benchmark, which states that between 50 and 100 liters/capita/day is required to meet domestic needs, including washing, personal hygiene, and cleaning. To support the Plan's recommendation, the program will finance training and activities in the beneficiary villages to promote efficient water use, which will help reduce demand and pressure on water resources, especially during extreme weather events such as droughts. This will allow communities to improve their levels of climate resilience, especially in the face of water scarcity for human consumption. It will also include a pilot to identify the effect of introducing micro metering on water consumption, which is expected to reduce consumption levels. The program will also strengthen water systems' resilience by rehabilitating current wells and water tanks, reducing leaks and frequent observed cases of excessive pumping and overflows.
- 1.16 **Program strategy to address gender and diversity challenges.** The program anticipates the implementation of specific trainings at the VWB level to promote the participation of women and underrepresented ethnic groups in VWB and contribute to the reduction of existing gender and diversity gaps. Special emphasis will be put in promoting the participation of women from migrant households. A growing body of evidence shows that water projects are more effective when women participate.<sup>25</sup> The absence or not meaningful participation of women at the decision-making table could have negative implications as it is typically women the ones who ensure that water is safe for both drinking and cooking purposes. The program is also expected to benefit a number of villages with high presence of Indigenous peoples from Mayan descent, particularly in the Toledo District. Most of Indigenous people of this district are Maya Ketchi and speak this language. In these villages, all trainings will be conducted taking into considerations the language and sociocultural characteristics of the population and will address specific expectations and needs of Indigenous peoples benefited by the program. Whenever relevant, all program activities will guarantee that Indigenous peoples are provided with relevant project information and that their cultural traditions and practices of communities are respected. Traditional indigenous authorities such as the alcaldes will be engaged in the activities to ensure community support. In addition, the operation will finance the development of a rural water policy proposal that will include gender and diversity considerations when it comes to service provision, tariff structuring, and service payment.
- 1.17 **Bank experience in the sector and country.** The Bank has a vast experience in financing W&S programs for rural areas across Latin America and the Caribbean (LAC). The Bank's active rural portfolio is estimated at US\$950 million, with over ten projects across the region. The Bank's involvement in Belize's W&S sector

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<sup>25</sup> UN-Water, 2015. [Gender, Water and Sanitation: A Policy Brief](#). Mohammed T. Kholif and Ahmed M. Elfarouk, [Activating the role of women in water projects](#), Science Direct, 2014.



includes several loans, technical cooperation, and investment grant operations. In 2010, the Bank, through its Water and Sanitation Division (INE/WSA) approved loan operation “Integrated Water and Sanitation Program in Placencia” ([2486/OC-BL](#)) 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 “Solid Waste Management Project” ([1270/OP-BL-PCR](#)), and “Solid Waste Management Project II” ([3684/OC-BL](#)) 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 W&S sectors. Namely: Innovation in the Solid Waste Management Sector in Belize ([ATN/JF-17360-BL](#)), which is supporting the executing of loan operation [3684/OC-BL](#) and piloting recycling projects in tourist destinations; “Design of Wastewater Treatment Solutions in Coastal Areas” ([ATN/OC-18380-BL](#)), which is financing the design of Caye Caulker’s sewerage systems (wastewater collection and treatment); and “Support to Integrated Water Resources Management to strengthen water resources management countrywide” ([ATN/OC-19027-BL](#)). In 2022, the Bank approved an investment grant operation ([GRT/CF-19538-BL](#)) to finance the piloting of new water disinfection technologies in urban and rural areas. This operation will provide useful inputs for Component 1, specifically for the deployment of new water disinfection equipment in selected rural water systems. An exchange of lessons learned as well as technical documents is envisioned between BWS and SIF.

- 1.18 **Lessons learned applicable to the program.** Water rural programs implemented across LAC and past projects in Belize indicate that to ensure successful project implementation, the following variables must be considered ([IADB, 2020](#)): (i) conducting meaningful public consultations to guarantee de buy-in from beneficiaries ([5628/OC-PE](#)); (ii) coordination between EAs and the Central Bank of Belize; (iii) timely supervision of the civil works ([GRT/WS-12127-PE](#)); and (iv) strengthening of local water operators (VWB in the case of Belize) to guarantee the sustainability of the Infrastructure ([2377/OC-EC](#)). Loan operation [2486/OC-BL](#) ended up being cancelled due to the opposition of local stakeholders to the location of the proposed wastewater treatment plant. Alternative locations were analyzed, but the higher costs of these other locations made the project not financially feasible for the loan’s EA: BWSL. This experience highlighted the importance of conducting meaningful public consultation processes for all projects. Since 2018, the entire IDB loan portfolio in Belize has transitioned to use of the Advance of Funds as the main disbursement method with the Direct Payment method only used on exceptional basis and on few occasions. This arrangement has provided the EAs with greater flexibility to manage their cash flow and process both foreign and local payments in a timely manner. Low sustainability of rural water infrastructure highlights the importance of budgeting capacity building activities for local water operators. All these lessons were considered in the design of this operation, including meaningful consultations (¶2.14), strengthening local water operators (¶1.13), and an adequate executing structure (¶3.2).
- 1.19 **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 and by promoting equal access to basic services for migrant populations; and (ii) Productivity and Innovation challenge as it will finance the deployment of innovative technologies that will improve the operational performance of VWB by reducing OPEX and introducing easy-to-operate technologies based on the on-site generation of the disinfectants (replacement of calcium hypochlorite by sodium hypochlorite). The program is also aligned with the crosscutting topics of: (i) Gender Equality and Diversity, as it will promote the participation of women and migrants in VWB and develop training materials with a gender and diversity approach to address the specific expectations and needs of women and Indigenous populations; (ii) climate change and environmental sustainability (§1.21); and (iii) Institutional Capacity and Rule of Law by developing training materials and a policy study for the rural water sector, by strengthening VWB on issues such as O&M, by developing a rural water policy proposal that will include gender and diversity considerations when it comes to service provision, tariff structuring and service payment, and by providing technical inputs to the sector through the development of a study that will present recommendations on how to improve the environmental conditions of the New River. The operation is included in the 2023 Operational Program Report. The program is also consistent with IDB's Country Strategy with Belize 2022-2025 (GN-3086) as it will finance public goods and services, namely equipment to improve the quality of water services in rural areas. It will also contribute to the country's sustainable economic growth by improving basic services in rural areas. The program is also aligned with Belize's Medium-Term Development Strategy 2022-2026 as it will support rural transformation through infrastructure development and the implementation of conservation activities for ecosystems of national importance, namely the New River Watershed. Additionally, the program is consistent with the Water and Sanitation Sector Framework (document GN-2781-13) by promoting universal access to water and sanitation, strengthening sector governance and management, and incorporating climate change, water safety and risk management considerations.

- 1.20 **Alignment with Paris Agreement.** Based on the analysis of the activities financed by the operation, it is considered that the project is universally aligned with the mitigation goals of the Paris Agreement.<sup>26</sup> sector: "water supply and wastewater", subsectors: "water supply systems" and "water quality improvement". Additionally, the program will contribute to the Corporate Results Framework (CRF) 2020-2023 (GN-2727-12) by supporting migrant and host populations.
- 1.21 **Compliance with climate change targets.** The development of training and activities in the beneficiary villages to promote the efficient use of water will help reduce the demand and pressure on water resources (surface and underground water), especially during extreme weather events such as droughts. This will allow communities to improve their levels of climate resilience, especially in the face of water scarcity for human consumption. Rehabilitation interventions will also contribute to reduce water leaks and optimize water production. In total, 50.05% of the operation's resources will be invested in climate change activities (Adaptation), according to the [Joint Methodology of the Multilateral Development Banks](#) for tracking climate change adaptation finance. These resources contribute to the IDB Group target of allocating financing for climate-related projects of up to

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<sup>26</sup> Paris Alignment Implementation Approach (PAIA) and its Technical Guidance.

30% of approvals. The operation also contributes to Belize's compliance with its Nationally Determined Contribution (NDC 2021) in the adaptation component (NDC – Sector “Water Resources” and “Land use, human settlements, and infrastructure”) ([OEL#5](#)). In addition, according to IDB's Green Finance Tracking methodology, the project was labeled as 100% green finance as it will contribute to the environmental sustainability objective of “Sustainable use and protection of water and marine resources”.

- 1.22 **Compliance with Public Utilities Policy (GN-2716-6).** The operation is also aligned with the Bank's Public Utilities Policy (PUP) 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. The financial evaluation conducted showed that VWB will have the financial capacity to meet the commitments arising from the proposed investments and to properly operate and maintain the equipment and infrastructure ([OEL#4](#)).

## **B. Objective, components, and cost**

- 1.23 **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) improving the drinkability of water in rural areas; and (ii) strengthening the financial management of VWB and the institutional capacity of Belize's water sector.
- 1.24 **Component 1. Improving the drinkability of water (IDB-OC: US\$2,755,100; IDB-GRF: US\$600,000).** This component will finance the installation of innovative disinfection technologies in rural villages, namely 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, and the implementation of a pilot to identify the effect of introducing micro-metering on water consumption and service payment.
- 1.25 **Component 2. Strengthening the Institutional Capacity of the water sector (IDB-OC: US\$844,900; IDB-GRF: US\$40,000).** 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 behavioral change campaign at the household level on tariff payment, water conservation and use, and tap water consumption that will contribute to an efficient use of water resources. This campaign will be developed with a gender and diversity approach. In addition, the campaign will support the implementation of the micro-metering pilot. It will also finance the development of a policy proposal to advance changes in how the rural water sector is managed, will include gender and diversity considerations when it comes to service provision, tariff structuring and service payment. Finally, it will finance a study to identify the potential of innovative



technologies in improving the environmental conditions of the New River watershed, including an analysis on the impact of these technologies in ameliorating pollution generated by industrial and wastewater discharges.

- 1.26 **Project Management, Audit and Evaluation (US\$400,000).** Remaining resources will cover management and supervision costs as well as the operation's external audits and intermediate and final evaluations.

### C. Key results indicators

- 1.27 The program is expected to directly benefit at least 20,000 households with improved water quality services distributed in approximately 44 rural villages. Of those, about 1,600 will be households headed by migrants (8% of total benefited households) and about 3,000 households located in indigenous villages. The program is also expected to increase the percentage of women in VWB. Key outcome indicators and targets are included in the table below. More details in Annex I.

**Table 1. Key Outcome Indicators**

Outcome Indicator	Unit	Baseline	Target
Village Water Boards providing quality water services	%	0	100%
Households with improved access to potable water	Households	0	20,189
Households with improved access to potable water headed by migrants	Households	0	1,616
Households with improved access to potable water headed by Indigenous peoples	Households	0	3,050
Financially sustainable Village Water Boards	%	47%	80%
Village Water Boards with a female president	%	15%	25%

## II. FINANCING STRUCTURE AND MAIN RISKS

### A. Financing Instruments

- 2.1 **Financing structure and modality.** The operation is structured as an Investment Loan under the Multiple Works Program modality, as it will finance technically similar but mutually independent works whose feasibility does 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 also applies to GRF's Grant resources. The execution and 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.
- 2.2 **Cost and financing.** The total cost of the program is US\$4,640,000, financed with resources from the Bank's Ordinary Capital for US\$4,000,000 and US\$640,000; from IDB's Non-Reimbursable Grant Facility to Support Countries with Large and Sudden Intraregional Migration Inflows (GRF). A consolidated budget is shown in Table 2.

- 2.3 **Use of GRF resources**<sup>27</sup>. The program meets one of the three eligibility criteria for the use of resources from the GRF (GN-2947-26 and AB-3332). Belize's migration increased its population by 1.4% between 2015 and 2018, almost triple the level required to qualify under Criteria 1 (0.5%), and therefore, Belize is eligible under Criteria 2 (permanence). It also complies with the design criteria as: (i) the program identifies water service quality challenges and defines appropriate solutions to tackle it; (ii) it is aligned with one of the strategic thematic areas of the GRF: access to basic services and housing; (iii) it defines migrant and non-migrant beneficiaries as well as geographical areas (rural villages) with high concentration of migrants (§1.14) and the results matrix sets targets for expanding access to migrant households and defines targeting criteria to ensure that they are met; and (iv) the operation is considered in the country's programming. Accordingly, the US\$4,000,000 from OC will leverage the US\$640,000 in GRF resources, consistent with a combination of a maximum of 86% of IDB reimbursable resources and 14% of non-reimbursable resources ([OEL#8](#)).

**Table 2. Summary of Program's Costs (in US\$)**

Component	OC	GRF	Total	%
<b>C1. Improving the drinkability of water in rural areas</b>	<b>2,755,100</b>	<b>600,000</b>	<b>3,355,100</b>	<b>72%</b>
1.1. Disinfection equipment	1,361,800	600,000	1,961,800	42%
1.2. Rehabilitation	1,343,100	0	1,343,100	29%
1.3. Water Meters	50,200	0	50,200	1%
<b>C2. Strengthening the institutional capacity of the water sector</b>	<b>844,900</b>	<b>40,000</b>	<b>884,900</b>	<b>19%</b>
2.1. Design of behavioral change campaign for households	37,000	0	37,000	1%
2.2. Implementation of Behavioral change campaign for households	153,600	10,000	163,600	4%
2.3. Training materials package for strengthening VWB	40,000	0	40,000	1%
2.4. VWB equipment	40,000	0	40,000	1%
2.5. VWB trainings	134,300	30,000	164,300	4%
2.6. Rural Water Policy Proposal	40,000	0	40,000	1%
2.7. Innovative Technologies Study for the New River	400,000	0	400,000	9%
<b>Project management, audit &amp; evaluation</b>	<b>400,000</b>	<b>0</b>	<b>400,000</b>	<b>9%</b>
3.1. Project Management	310,000	0	310,000	7%
3.2. Evaluations	50,000	0	50,000	1%
3.3. External Audits	40,000	0	40,000	1%
<b>TOTAL</b>	<b>4,000,000</b>	<b>640,000</b>	<b>4,640,000</b>	<b>100%</b>

\*The values in Table 2 are indicative. Items 2.1, 2.2, 2.3 & 2.5 will be designed and implemented with a gender and diversity approach.

- 2.4 **Disbursement schedule**. The execution and disbursement periods are four years. The disbursement schedule is shown in the following Table.

<sup>27</sup> GRF resources will be used to improve the quality of service to migrant families and host communities in villages with a high presence of migrants.

**Table 3. Disbursement Schedule (US\$)**

Source	Year 1	Year 2	Year 3	Year 4	Total
IDB	82,025	1,429,469	1,377,469	1,111,036	<b>4,000,000</b>
GRF	0	267,905	267,905	104,189	<b>640,000</b>
<b>Total</b>	<b>82,025</b>	<b>1,697,375</b>	<b>1,645,375</b>	<b>1,215,225</b>	<b>4,640,000</b>
%	<b>1.8%</b>	<b>36.6%</b>	<b>35.5%</b>	<b>26.2%</b>	<b>100.0%</b>

- 2.5 **Representative sample.** A representative sample was analyzed as part of the program design, which accounts for 32% of the total program amount. The sample included 20 rural water systems that benefit 23 villages distributed in all Belize's districts (Belize, Cayo, Corozal, Orange Walk, Stann Creek, and Toledo). Information was 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\$1,464,622, (about 32% of total budget). All projects and investments under the sample followed the eligibility criteria defined in ¶2.6. SIF is in the process of identifying a new set of water systems and villages following the same criteria. SIF expects to have all villages identified before program eligibility. A project profile per water system will be developed to identify disinfection and rehabilitation needs.
- 2.6 **Eligibility and prioritization criteria.** For the identification of new projects and investments, the following eligibility criteria have been defined with SIF and are included in the Program's Operations Manual (OM) ([EOL#6](#)): (i) the project must be in rural villages with access to piped water services but no active water disinfection is taking place; (ii) the project must be technical, financial, environmental, and socioeconomically feasible.<sup>28</sup> (iii) the project must fall under (risk assessment) categories "B" or "C" (Category "A" projects, under the Bank's Environmental and Social Policy Framework (ESPF) and the guidelines set out in the program's Environmental and Social Management Framework (ESMF), will be excluded); and (iv) an institutional agreement between SIF, MRD, and the corresponding VWB (or equivalent), as the case may be, establishing the responsibilities of each entity in the implementation and operation of the investments. For Component 1, one prioritization criterion has been identified: (i) the percentage of immigrants living in the rural village.
- 2.7 **Technical feasibility.** The program proposes the introduction of innovative disinfection technologies, based on onsite generation of mixed oxidants or sodium hypochlorite. A technical analysis that contemplated different alternatives and configurations, carried out by experienced consultants in disinfection and rehabilitation together with SIF's engineering department, recommended disinfection through OSG, preferably with mixed oxidants, to address the water quality issues observed in rural Belize (no effective disinfection in most villages). The benefits of this alternative (versus the current dosing of calcium hypochlorite solution) are: (i) lower OPEX; (ii) autonomy in production (do not rely so heavily on

<sup>28</sup> Works are socioeconomically feasible if they have an EIRR greater than 12% under a Cost-Benefit Analysis (CBA) or if the most cost-efficient alternative was selected using a cost-effectiveness analysis following IDB guidelines and the considerations defined in the program operating regulations.

supply chains); (iii) significant improvement in the organoleptic properties of water (reduced and stable chlorine taste and odor); (iv) ease to operate and maintain; and (v) lack of hazardous chemicals that could endanger the water systems' operators. The analysis also concluded that the proposed disinfection technology is technically feasible, and that the sizing criteria and parameters adopted are fully compatible with local and international design standards. Although the general approach, the materials, and the technology that will be used are new to Belize, they have been successfully used in other projects elsewhere. To further guarantee the proper O&M of the assets, VWB, SIF and MRD will receive support from the specialized firm or firms that will carry out the supply and installation of the proposed disinfection equipment. The costs of these alternatives were also compared to confirm the economic feasibility considering local unit prices, technologies, and services. The program also proposes the development of a study to evaluate the potential of innovative technologies that could contribute to improve the environmental conditions of the New River. Overall, the proposed interventions are technically viable, adequate for the defined capacity and quality objectives, and correspond to the minimal cost solution under the framework of such objectives. [OEL#1](#) includes a description of the proposed investments and related costs.

- 2.8 **Socioeconomic feasibility.** An Economic Evaluation was carried out to determine the socioeconomic feasibility of the program. The main benefits of the interventions are: (i) an increase in water consumption from the systems; (ii) a decrease in the cost the households are paying from alternative solutions; and (iii) a decrease in the OPEX of the water system. A Cost-Effectiveness Analysis (CEA) was conducted for each of the 20 water systems of the sample where two alternatives were considered. According to an IDB Study (¶1.3), the most appropriate option for water supply disinfection in Belize is the onsite generation of chemical disinfectants, with two alternatives depending on water supply conditions: (i) OSG of sodium hypochlorite; and (ii) OSG of mixed oxidants. The CEA considered capital investment costs (CAPEX) and OPEX for the recommended technologies. The cost-effective indicator analyzed was cost per system calculated per each alternative. The alternatives being evaluated are equivalent in terms of disinfection capacity. Using a 12% discount rate and a 10-year period, the most cost-effective solution for 17 of the 20 water systems is OSG of mixed oxidants. For Carmelita, San Antonio, and San Narciso the most cost-effective solution is OSG with sodium hypochlorite ([OEL#2](#)).
- 2.9 **Financial feasibility.** The financial analysis conducted indicates that the implementation of the new disinfection technologies will have no significant impact on OPEX, adding an average of 3% of villages' current operating expenses. Although 10 of the 20 Village Boards' currently do not cover their OPEX with their collected revenues (with an average cost coverage of 94%), the financial projections indicate that considering an expected increase of tariff collection efficiency, as a result of the institutional strengthening of the VWB, an average tariff increase of 6% would be required in only 2 villages (Armenia and San Esteban) to obtain financial sustainability of the water systems ([OEL#3](#)).
- 2.10 **Institutional feasibility.** An Institutional assessment of SIF was conducted during the design phase of the program following the Bank's Institutional Capacity Assessment Platform (ICAP) methodology. The results of the assessment show

satisfactory results with respect to SIF's institutional capacity to execute the program based on: (i) its historical performance as a social and sanitation sector project implementing and management institution of the Government of Belize (GOB); (ii) its track record with international donors; (iii) the presence of technical and administrative capacities accompanied by governance and institutional structure apt for project management, as well as the necessary mechanisms for monitoring, control and rendering of accounts. Specific institutional strengthening needs have been identified and are in the process of implementation with alternative donor funding. These include: (i) the strengthening of its strategic planning environment; (ii) the implementation of an integrated platform for planning, administration, financial management, and project technical implementation; (iii) the updating of the Institution's organizational and internal administrative manuals; and (iv) the strengthening of the environmental management function directly related to project planning, implementation, monitoring and compliance.

## **B. Environmental and social safeguard risks**

- 2.11 The operation has been classified as Category "B" for its likely moderate Environmental and Social (E&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.
- 2.12 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.
- 2.13 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.
- 2.14 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 and gender sensitive public consultations which included 16 meetings held corresponding with clusters of villages throughout the 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 ESMF. All documents can be found at: <https://www.iadb.org/en/project/BL-L1045>

- 2.15 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).

### **C. Fiduciary risks**

- 2.16 SIF has served as EA for several public sector investment projects including those financed by multilateral development organizations such as the World Bank (WB), the Caribbean Development Bank (CDB) and the CARICOM Development Fund (CDF). Based on the ICAP and risk assessment, except for the absence of a SIF policies and procedures manual or handbook, the fiduciary systems of SIF are considered adequate to implement the program. Furthermore, most of the identified fiduciary risks qualified as low, except for the following which were qualified as medium-high: (i) considering that SIF is currently implementing other projects, there is a risk of work overload should the existing staff assume the responsibility of carrying out all the fiduciary tasks for the project, which could lead to overall execution delays in the first two years. This risk will be mitigated by strengthening the institutional capacity by creating a Program Execution Unit (PEU) within SIF, which will include the hiring of a procurement specialist with full dedication to the project (¶3.2); (ii) if the local market does not have the capacity and willingness to provide some of the specialized consultancy services of the project such as the change management and capacity building activities under Component 2, it could lead to non-responsiveness of the market to the procurement process, which could lead to delays in the behavioral change campaign and capacity building planned to be delivered in year two of the program. To mitigate this risk the Bank will support the GOB to conduct market research at the start of implementation to identify potential providers for these specialized services as part of the project's procurement strategy; and (iii) considering that SIF does not have a well-documented operations and procedures manual or handbook, it could lead to fiduciary functions not being conducted correctly and efficiently, particularly in the first year, which could lead to delays and errors in payment processing, financial reporting and the annual audits. To mitigate this risk a Program Operations Manual (POM) has been developed outlining the necessary fiduciary procedures and internal controls. The Bank will also provide coaching and training in IDB fiduciary policies to SIF staff.

## **D. Other risks and key issues**

- 2.17 **Execution risks.** The following risks have been 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; and (c) cost overruns due to overall inflationary factors. To mitigate risks (a) and (b), the following measures have been anticipated and/or planned: (i) all VWB will receive technical assistance from the firm installing the new disinfection equipment; (ii) a 12-month technical assistance period is anticipated in the budget; and (iii) all VWB will receive training on financial management and O&M. To mitigate risk (c), the following measures have been identified: (i) all activities/items included in the budget incorporate contingency factors in their cost structures; (ii) budget estimations for equipment and infrastructure established and updated based on actual cost references by source and professional designs; and (iii) the program's PA has been prepared taking into consideration contingency times.
- 2.18 **Operation and maintenance risks.** SIF will take the necessary measures to ensure that the program's assets are properly maintained in accordance with generally accepted technical and environmental standards. To mitigate these risks, the following measures are anticipated: (i) all supply and installation contracts (for the provision of goods and connected services) will include a 12-month technical assistance to VWB, SIF and MRD, which will be provided by the equipment supplier; (ii) capacity building at the VWB level will include specific O&M and financial management activities that will contribute to the sustainability of the equipment. and (iii) capacity building at SIF and MRD levels will include activities on how to support the proper O&M of the water systems. During the disbursement period and as part of the semiannual progress reports, SIF will submit a report on the status of such works and goods. If Bank inspections or reports received by the Bank determine that maintenance is being performed below the agreed service levels, SIF, as EA, will adopt the necessary measures to fully correct the deficiencies.

## **III. IMPLEMENTATION AND MANAGEMENT PLAN**

### **A. Summary of implementation arrangements**

- 3.1 **Borrower and Executing Agency (EA).** The borrower will be Belize and the EA will be SIF. As EA, SIF will be responsible for the administration of the loan and grant resources and the fulfillment of the operation's objectives. 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 GOB. SIF has executed several development projects in the areas of W&S, education, health, economic infrastructure, and social services, among others. These projects have been mainly funded by external resources, in particular multilateral development organizations including: (i) the Belize Climate Resilient Infrastructure Project (BCRIP) for US\$30,000,000 (loan) from the International Bank for Reconstruction and Development (IBRD/WB); (ii) the Belize Municipal Development Project (BMDP) for US\$15,000,000 (loan) from IBRD/WB; (iii) the Belize Social Investment



Fund Loan I (BSIF I) for US\$10,000,000 from the CDB; (iv) the BSIF Loan II (BSIF II) for US\$15,000,000 from CDB; (v) 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\$4,700,000 (from CDB-grant); (vi) the Basic Needs Trust Fund Tenth Program (BNTF 10) for US\$5,000,000 (from CDB-grant) (vii) previous grant programs from the CDB (BTNF 1-8) for approximately US\$25,000,000; and (viii) the Improvement of Community Water Supply Systems for US\$800,000 (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. SIF is currently managing an investment portfolio of US\$44,100,000. In FY 2022/2023 is expected to disburse about US\$5,300,000, including water expansion projects similar to the ones that will be financed under the operation, highlighting the organization's capacity to carry on these types of investments.

- 3.2 **Program Execution Unit (PEU).** Following the results of the ICAP, which evaluated SIF's governance, administrative and operating structure, and procedures, a PEU will be created under the Office of the Executive Director. The PEU will be funded by the loan's administrative resources and staffed by the appointment and/or hiring of the following consultants: (i) a General/Technical Coordinator; (ii) a Senior Procurement Specialist; (iii) a Financial Management Specialist, and (iv) an Environmental and Social Management Specialist. Such personnel will coordinate their activities with other SIF units. Namely, the Finance Unit, the Technical Unit, which is comprised of a team of regional engineers, the Procurement Unit, the Administration Unit, and the Monitoring and Evaluation Specialist. The POM defines the responsibilities of the PEU and the overall implementation arrangements for the program.
- 3.3 **Program Operations Manual (POM).** The program will be managed following a POM, which will regulate the needs and specifications established for the program. The POM details the project cycle, institutional coordination mechanisms and instruments, and technical, environmental, and social, fiduciary, and other criteria and specifications ([OEL#6](#)). The POM also includes the environmental and social requirements for the program such as the ESMS and the Environmental and Social Management Framework (ESMF).
- 3.4 **Special contractual conditions precedent to first disbursement.** The EA will provide evidence to the satisfaction of the Bank of: (i) the establishment of the PEU, including the appointment and/or hiring of the following key personnel responsible for managing the program: (a) one General/Technical Coordinator; (b) one procurement specialist; (c) one financial management specialist; and (d) one environmental and social specialist; and (ii) the POM has been approved and is in effect in the terms and conditions agreed with the Bank, which shall have, among other elements, the environmental and social requirements and include as Annexes: the ESMS and the ESAP. See other environmental conditions in Annex B of the Environmental and Social Review Summary ([REL#3](#)). These conditions are necessary to start the execution of the program in a timely manner and to provide guidance to the EA.



- 3.5 **Special Contractual Clauses of Execution.** Prior to the commencement of each of the works of Component 1, an institutional agreement will have to be signed between the EA, the corresponding VWB, and the MRD, as the case may be, establishing the responsibilities of each entity in the implementation and operation of the investments. The justification for this condition is to mitigate execution risk and guarantee buy-in from the villages by establishing clear roles and responsibilities between the EA other participating entities before project implementation at each village.
- 3.6 **Procurement of works, goods, services, and consulting services.** The procurement of works, goods and services will be executed in accordance with the Policies for the Procurement of Works and Goods Financed by the IDB (GN-2349-15), and the selection and contracting of consulting services will be carried out in accordance with the Policies for the Selection and Contracting of Consultants Financed by the IDB (GN-2350-15), or those in effect at the time of project execution. The revision of the technical specifications, as well as the terms of reference of the procurements during the preparation of selection processes, will be the responsibility of the program's sector specialist. This technical review will be ex ante and independent of the procurement review method.
- 3.7 **Single-Source Selection.** The Single-Source Selection of Technologies Corporation is foreseen for the New River Study. The firm has unique expertise in the development of studies to identify the effective bioremediation solutions in other LAC countries. Its proven track record with respect to transfer of experience and knowledge to similar entities in other developing countries, and unique knowledge and experience of these technologies is considered of exceptional worth for the assignment in accordance with paragraph 3.11 (d) of the Bank's Policies GN-2350-15. See Annex III.
- 3.8 **Retroactive financing.** The Bank may retroactively finance, as a charge against the Bank's loan, up to US\$200,000 (4.3% of the program total) in eligible expenditures made by the executing agency prior to the loan approval date, provided that requirements substantially similar to those established in the loan contract have been met. Under this program, eligible expenditures include the hiring of the key personnel for the PEU. Such expenditures must have been made no earlier than March 20<sup>th</sup>, 2023, but under no circumstances may expenditures incurred more than 18 months prior to the loan approval date be included. The POM describes the category of eligible expenditures which shall be made in accordance with the core procurement principles established in the Policies GN-2349-15 Acquisition of Goods and Works Financed by the Inter-American Development Bank and GN-2350-15 Selection and Hiring of Consultants Financed by the Inter-American Development Bank. The following expenditure has been identified: Contracting of key personnel for SIF's PEU.
- 3.9 **Advance Contracting.** Due to the urgency to improve the environmental conditions of the New River, the EA, prior to the date of loan approval, may start the following procurement process that shall be recognized and disbursed once the loan contract enters into effect: Innovative technologies study to address pollution in the New River. The procurement procedures, including advertising, shall be in accordance with the Bank's Core Procurement Principles for the contract to be eligible for Bank financing, and the Bank shall review the process used by the Borrower. The Borrower undertakes such advance contracting at its

own risk, and any concurrence by the Bank with the procedures, documentation, or proposal for award does not commit the Bank to grant a loan for the project in question. The contract will be awarded only after the project reaches its eligibility (entry into force and all conditions prior to first disbursement are met). Therefore, it is not anticipated that retroactive financing will be required for this activity.

- 3.10 **Financial auditing.** Throughout the loan disbursement period, the EA will submit to the Bank annual audited financial statements within 120 days after the close of the fiscal year (March 31<sup>st</sup>). A Bank-eligible independent audit firm will conduct the audit. The audit's scope and related considerations will be governed by the Financial Management Guidelines (OP-273-12) and the Guide for Financial Reports and Management of External Audit. Audit costs will be financed with project resources.

**B. Summary of arrangements for monitoring results**

- 3.11 **Program monitoring.** The monitoring structure will include the Procurement Plan (PA), the Multiannual Execution Plan (PEP), the Annual Operation Plan (POA), the Results Matrix, the Progress Monitoring Report (PMR), and the Risk Management Plan. The EA will submit, within 60 days of the end of each six-month period, semiannual reports to the Bank that will systematize the progress made and outcomes achieved during that period as well as an action plan for the following six-month period ([REL#2](#)).
- 3.12 **Program evaluation.** The EA will contract: (i) a midterm evaluation, which will be submitted 90 days after the date on which 50% of the program resources have been disbursed; and (ii) a final evaluation, which will be submitted 90 days after the date of the final disbursement of program resources. The methodology for the final evaluation will use a before and after comparison, which will consist of measuring the outcome indicators after the interventions have been implemented and comparing the measurements to verify achievement of the targets. As part of the final evaluation, an ex post economic evaluation will be conducted, the methodology of which is detailed in the monitoring and evaluation plan. The intermediate and final evaluations will include an assessment of the performance of the newly installed disinfection systems. The mid-term and final evaluation will be developed under IDB's Project Completion Report (PCR) format ([REL#2](#)).

Development Effectiveness Matrix		
Summary		BL-L1045
I. Corporate and Country Priorities		
Section 1. IDB Group Strategic Priorities and CRF Indicators		
Development Challenges & Cross-cutting Issues	-Social Inclusion and Equality -Productivity and Innovation -Gender Equality and Diversity -Climate Change -Institutional Capacity and the Rule of Law	
CRF Level 2 Indicators: IDB Group Contributions to Development Results	-Households with improved access to water and sanitation (#) -Beneficiaries of initiatives that support migrants and their host communities (#)	
2. Country Development Objectives		
Country Strategy Results Matrix	GN-3086	Support the reactivation of key economic sectors through the continued provision of services, improving their resilience to natural hazards and climate change.
Country Program Results Matrix	GN-3154-1	The intervention is included in the 2023 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
II. Development Outcomes - Evaluability		Evaluable
3. Evidence-based Assessment & Solution		8.1
3.1 Program Diagnosis		2.5
3.2 Proposed Interventions or Solutions		1.6
3.3 Results Matrix Quality		4.0
4. Ex ante Economic Analysis		10.0
4.1 Program has an ERR/NPV, or key outcomes identified for CEA		2.0
4.2 Identified and Quantified Benefits and Costs		3.0
4.3 Reasonable Assumptions		2.0
4.4 Sensitivity Analysis		2.0
4.5 Consistency with results matrix		1.0
5. Monitoring and Evaluation		9.5
5.1 Monitoring Mechanisms		4.0
5.2 Evaluation Plan		5.5
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood		Medium Low
Environmental & social risk classification		B
IV. IDB's Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget.
Non-Fiduciary		
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project		

**Evaluability Assessment Note:** The general objective of the proposed multiple works investment operation is to contribute to improve the quality of water services in rural areas of Belize. The specific objectives are: i) improving the drinkability of water in rural areas, and ii) strengthening the financial management of Village Water Boards (VWB) and the institutional capacity of Belize's water sector.

The proposal has a clear diagnosis that identifies the main challenges related to the quality of water services in rural areas, as well as its multiple determinants including gaps in water disinfection, weaknesses in the financial management of services and vulnerability to CC, among others. The problems and associated factors are adequately supported by quantitative evidence. To address the determinants contributing to the problems, the project will invest in innovative disinfection technologies; rehabilitation of existing water systems; training and capacity building for service providers, community communication to promote behavioral changes in water consumption and collection efficiency, among others.

The proposal has a clear theory of change that relates the set of products with the expected results. The results matrix is consistent with the diagnosis and the proposed solutions and adequately reflects the vertical logic of the project. The result indicators have baseline values, targets, and means of verification.

The socioeconomic evaluation was based on a cost-effectiveness analysis for 20 projects in the sample, equivalent to 32% of the total amount of the project. The costs of two alternatives that are equivalent in terms of disinfection were compared, and the most cost-effective solution was identified, according to the characteristics of the water supply system. It should be noted that the project team carried out a complementary cost-benefit analysis, but given the quality of the consumption data, the results were not reliable yielding rates of return above 100%.

The monitoring and evaluation plan proposes a retrospective evaluation based on a "before and after" analysis of the RM outcome indicators, as well as an ex post economic analysis. The project also proposes a complementary evaluation of the impact of micrometers on water consumption. M&E arrangements have a properly allocated budget.

**Results Matrix**

<b>Project Objective</b>	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) improving the drinkability of water in rural areas; and (ii) strengthening the financial management of Village Water Boards and the institutional capacity of Belize's water sector.
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**General Development Objective**

Indicators	Unit of measurement	Baseline value	Base line year	Expected year for achievement	Target	Means of verification	Comments
<b>General development objective: Contribute to improve the quality of water services in Belize's rural areas</b>							
Village Water Boards providing quality water services <sup>1</sup>	%	0	2022	2026	100%	Reports from the executing agency.	The General Objective will be achieved at the end of the execution of the Program. 44 villages are expected to be benefited with the Program.

**Specific Development Objectives**

Indicators	Unit of measurement	Baseline value	Baseline year	Year 1	Year 2	Year 3	Year 4	End of Project	Means of verification	Comments
<b>Specific development objective 1: Improving the drinkability of water in rural areas</b>										
Households with improved access to potable water in benefited villages	Households	0 <sup>2</sup>	2022	-	8,259	8,259	3,671	20,189	Reports from the executing agency.	Improved means that water is potable according to national standards.
Households with improved access to potable water headed by migrants in benefited villages	Households	0	2022	-	661	661	294	1,616	Reports from the executing agency.	Improved means that water is potable according to national standards.

<sup>1</sup> Quality Water Services means that the water is potable according to national standards and the households are receiving the water 7 days a week 24 hours per day.

<sup>2</sup> Households are connected to the system but not receiving quality (potable) water.

Households with improved access to potable water headed by Indigenous peoples in benefited villages	Households	0	2022	-	1,525	1,525	-	3,050	Reports from the executing agency.	Improved means that water is potable according to national standards.
<b>Specific development objective 2: Strengthening the financial management of Village Water Boards and the institutional capacity of the water sector</b>										
Financially sustainable Village Water Boards in benefited villages	%	47%	2022	-	-	-	80%	80%	Reports from the executing agency.	Financially sustainable means that operating income is equal or greater than operating expenses.
Watershed Management Plan including a water pollution strategy approved	Plan	0	2022	-	-	-	1	1	Report from the Department of Environment.	
Village Water Boards with a female president	%	15%	2022	-	-	-	25%	25%	Reports from the executing agency	

## Outputs

Indicators	Unit of measurement	Baseline value	Baseline year	Year 1	Year 2	Year 3	Year 4	End of Project	Means of verification	Comments
<b>Component 1: Improving the drinkability of water</b>										
Disinfection equipment installed	Equipment	0	2022	-	18	18	8	44	Reports from the executing agency	
Water systems rehabilitated	Systems	0	2022	-	18	18	8	44	Reports from the executing agency	Rehabilitated includes investments in water tanks, wells, pumping houses, among others.
Water meters installed	Meters	0	2022	-	175	175	68	418	Reports from the executing agency	
<b>Component 2: Strengthening the Institutional Capacity of the water sector</b>										
Behavioral change campaign designed with a gender and diversity approach	Campaign	0	2022	-	1	-	-	1	Reports from the Executing agency and consultancy reports.	Campaign will be developed for Indigenous and non-indigenous water boards members
Behavioral change campaign implemented with a gender and diversity approach	Campaign	0	2022	-	-	-	1	1	Reports from the Executing agency and consultancy reports.	Implemented means that benefited households have been exposed to the campaign
Training material package for the strengthening of Village Water Boards developed	Instruments / Materials	0	2022	-	1	-	-	1	Reports from the Executing agency.	Specific training material will be developed for Indigenous, non-indigenous and migrants (when required) water boards members

Financial management system implemented in VWB	Water Boards	0	2022	-	18	18	8	44	Reports from the Executing agency.	Equipped include a software for financial management for each water board
Village Water Boards trained with a gender and diversity approach	Water Boards	0	2022	-	18	18	8	44	Reports from the Executing agency.	Training in operational and maintenance.
Rural water policy proposal developed with a gender and diversity approach	Strategy	0	2022	-	-	-	1	1	Final consultancy report.	Recommendations on how to change de bylaws, governance of the sector, how to provide technical support, how to strengthen MRD with a gender and diversity approach
Innovative technologies study to address pollution in the New River developed	Pilot project	0	2022	-	-	-	1	1	Final consultancy report.	

Country: Belize

Division: WSA

Operation No.: BL-L1045

Year:2023

## Fiduciary Agreements and Requirements

**Executing Agency (EA):** Belize Social Investment Fund (SIF)

**Operation Name:** Water and Sanitation Program for Rural Areas

### I. Fiduciary Context of Executing Agency

#### 1. Use of country system in the operation

<input checked="" type="checkbox"/> Budget	<input type="checkbox"/> Reports	<input type="checkbox"/> Information System	<input type="checkbox"/> National Competitive Bidding (NCB)
<input type="checkbox"/> Treasury	<input type="checkbox"/> Internal audit	<input type="checkbox"/> Shopping	<input type="checkbox"/> Others
<input type="checkbox"/> Accounting	<input type="checkbox"/> External Control	<input type="checkbox"/> Individual Consultants	<input type="checkbox"/> Others

#### 2. Fiduciary execution mechanism

<input checked="" type="checkbox"/>	Particularities of the fiduciary execution	The EA will be SIF and, will have responsibility for fiduciary management of the project.
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#### 3. Fiduciary Capacity

Fiduciary Capacity of the EA	The results of the institutional capacity assessment (ICA) and risk analysis conducted during the project preparation determined that, except for the absence of an organization operations and procedures manual or handbook, the fiduciary arrangement and systems of SIF are adequate to implement the project. The SIF has served as EA for several public sector investment projects including those funded by other development partners such as the World Bank, Caribbean Development Bank and CARICOM Development Fund. The Finance Unit in SIF will mainly be responsible for executing the fiduciary activities of the project and is headed by a finance unit coordinator who is supported by a senior accounts officer and a junior accounts officer. On the other hand, it is important to note that even though the staff of the Finance Unit have extensive experience implementing externally financed projects, they do not have experience executing an IDB-financed project. The SIF is governed by the Belize Social Investment Fund Act which outlines the objectives and functions of SIF and mainly adopts the public financial management (PFM) systems of Belize. The results of an assessment of PFM systems in Belize conducted in 2021 indicates a low level of development, particularly in internal control. Furthermore, there does not exist a comprehensive organization operations and procedurals manual for SIF that captures the internal control systems necessary to reasonably ensure proper fiduciary management during project execution.
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#### 4. Fiduciary risks and risk response

Risk Taxonomy	Risk	Risk level	Risk response
Human Resources	Considering that SIF is currently implementing other projects, there is a risk of work overload should the existing staff assume the responsibility of carrying out all the fiduciary tasks for the project, which could lead to overall execution delays in the first two years.	Medium-High	This risk will be mitigated by strengthening the institutional capacity by creating a Program Execution Unit (PEU) within SIF, which will include the hiring of a procurement specialist with full dedication to the project.



Economic and financial	If the local market does not have the capacity and willingness to provide some of the specialized consultancy services of the project such as the change management and capacity building activities under component 2, it could lead to non-responsiveness of the market to the procurement process, which could lead to delays in the behavioral change campaign and capacity building planned to be delivered in year 2 of the project.	Medium-High	To mitigate this risk the Bank will support the Government to conduct market research at the start of the execution to identify potential providers for these specialized services as part of the project's procurement strategy.
System	Considering that SIF does not have a well-documented procedures and an operations and procedures manual or handbook, it could lead to fiduciary functions not being conducted correctly and efficiently, particularly in the first year, which could lead to delays and errors in payment processing, financial reporting and the annual audits.	Medium-High	To mitigate this risk a POM will be developed outlining the necessary fiduciary procedures and internal controls as well as the Bank will provide coaching and training in IDB fiduciary policies to the SIF staff.

5. Policies and Guides applicable to operation: The procurement processes financed in full or in part by Bank resources will be conducted in accordance with the Policies for the Procurement of Goods and Works Financed by the IDB (GN-2349-15) and the Policies for the Selection and Contracting of Consultants Financed by the IDB (GN-2350-15), or those in effect at the time of project execution.

6. Exceptions to Policies and Rules: none.

## II. Aspects to be considered in the Special Conditions of the Loan Agreement

Exchange rate applicable to the documentation and rendering of expenditure in the Borrower's local currency is Option (b) (ii) of Article 4.10 of the General Conditions of the loan contract, i.e., exchange rate on the effective date of payment of each expenditure in local currency.
Type of Audit: Throughout the loan disbursement period, the EA will submit to the Bank annual audited financial statements within 120 days after the close of the fiscal year, March 31 <sup>st</sup> . The audit will be conducted by a Bank-eligible independent audit firm. The audit's scope and related considerations will be governed by the Financial Management Guidelines (document OP-273-12) and the Guide for Financial Reports and Management of External Audit. Audit costs will be financed with project resources.
Other financial reports: Within 60 days after the end of each semester, an audited financial execution report for the period will be submitted as part of the semi-annual progress report.

## III. Agreements and Requirements for Procurement Execution

<input checked="" type="checkbox"/>	Bidding Documents	For procurement of Works, Goods and Services Different of Consulting executed in accordance with the Procurement Policies (document GN-2349-15), subject to ICB, the Bank's Standard Bidding Documents (SBDs) or those agreed between EA and the Bank will be used for the procurement. Likewise, the selection and contracting of Consulting Services will be carried out in accordance with the Policies for the Selection and Contracting of Consultants (document GN-2350-15) and the Standard Request for Proposals (SRP) issued by the Bank or agreed between the EA and the Bank will be used for the selection. The revision of the technical specifications, as well as the terms of reference of the procurements during the preparation of selection processes, is the responsibility of the sectorial specialist of the project. This technical review can be ex-ante and is independent of the procurement review method.
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<input checked="" type="checkbox"/>	Direct Contracting and Single Source Selection	The Single-Source Selection of Technologies Corporation is foreseen for the New River Bioremediation Study (US\$450,000.00). The firm has unique expertise in the development of studies to identify the effective bioremediation solutions in other Latin American countries. Its proven track record with respect to transfer of experience and knowledge to similar entities in other developing countries, and unique knowledge and experience of these technologies is considered of exceptional worth for the assignment in accordance with paragraph 3.11 (d) of the Bank's Policies for the Selection and Contracting of Consultants (GN-2350-15).
<input checked="" type="checkbox"/>	Training	For the recruitment of "Implementation of training programs for VWBs with gender and diversity approach in the selected beneficiary localities" to be hired as consultancies, the following procedure will be used: Quality and Cost Based Selection (QCBS).
<input checked="" type="checkbox"/>	Recurrent Expenses	The recurrent expenses required to put the project into operation approved by the Project Team Leader, which are financed, will be made following the executing agency's administrative procedures. Such procedures will be reviewed and accepted by the Bank, provided that they do not violate the principles of value for money, economy, efficiency, equality, transparency and integrity.
<input checked="" type="checkbox"/>	Advance Contracting - Retroactive Financing	The Bank may retroactively finance from the resources of the loan, up to the amount US\$200,000 (4.3% of the proposed loan amount), eligible expenses incurred by the Borrower prior to the date of approval of the loan (for expenses in relation to the hiring of the key personnel of the PEU), provided that all requirements shall be substantially in accordance with those set out in the loan contract. Such expenses must have been incurred from March 17 <sup>th</sup> , 2023, but under no circumstances will expenses incurred more than 18 months before the loan approval date be included. (See GN-2349-15, GN-2350-15 and I(a) Policy on Cost Recognition, Retroactive Financing and Early Acquisition (GN-2259-1)).
<input checked="" type="checkbox"/>	Procurement supervision	The method of supervision for the procurement processes executed by the EA shall be ex ante. If during project execution, it is identified that the EA has developed sufficient capacity, the possibility of supervising procurement processes on an ex-post basis will be evaluated.
<input checked="" type="checkbox"/>	Records and Archives	SIF will be responsible for maintaining proper records and supporting documentation of all procurement processes financed with the project resources along with the relevant payment supporting documents in accordance with the terms of the loan contract.

#### Main Acquisitions

Description of the procurement	Selection Method	New Procedures/Tools	Estimated Date	Estimated Amount US\$
<b>Goods</b>				
Purchase and installation of disinfection equipment and provision of technical assistance for operation and management of the equipment.	International Competitive Bidding		03/31/2024	1,875
Purchase and installation of water meters in selected villages.	National Competitive Bidding		06/30/2024	50

<b>Works</b>				
Rehabilitation of water systems at the village level (power supply, pump house infrastructure, water tanks, wells, other).	National Competitive Bidding		03/31/2024	1,274
<b>Non-consulting services</b>				
<b>Consulting Firms</b>				
International consultancy to prepare a technical study and conduct a pilot project for the decontamination of the New River.	Single-Source Selection (SSS)		03/31/2026	450
National consultancy to implement training programs for VWBs with gender and diversity approach in the selected beneficiary local.	Quality- and Cost-Based Selection (QCBS)		06/30/2024	161
National consultancy to implement the behavioural change campaign with gender and diversity approach on water consumption, hygiene, service payments, other.	Quality- and Cost-Based Selection (QCBS)		09/30/2024	140

To access to the Procurement Plan (18 months) see the [link](#)

#### IV. Agreements and Requirements for Financial Management

<input checked="" type="checkbox"/>	Programming and Budget	The budget preparation process begins each year during the third quarter of the financial year (April 1 <sup>st</sup> to March 31) and is mainly coordinated by the Finance Unit. The budgeting is based on the planned investments from the SIF portfolio and operating activities. The annual budget once drafted is submitted to the SIF Board of Directors for their approval. Once the Board approves, a submission is made to the Minister of Finance, Economic Development and Investment for approval and inclusion in the national budget. The Minister then presents the budget as part of the estimates to the National Assembly. Unless approved by the Minister, the SIF should not expend beyond the budget approved for a given fiscal year.
<input checked="" type="checkbox"/>	Treasury and Disbursement Management	In accordance with the norms of the Government of Belize, a bank account within the Central Bank of Belize will be designated for the project to receive disbursements of project resources. A project local bank account will also be established for processing local currency payments. For foreign currency payments, the EA will request to the Central Bank of Belize to make those payments directly from the designated project bank account. In accordance with the disbursing norms for loan operations and the anticipated commitments and obligations of the project, it is expected that the Advance of Funds methodology will be mainly used for the project. The advance of funds, when used, will be based on the true liquidity needs of the project for a period not exceeding six months. Subsequent advances may be disbursed once 80% of the total accumulated balance pending justification has been submitted and accepted by the Bank. The other disbursement methods that may be used includes the Reimbursement of payments made and Direct Payments to Supplier.
<input checked="" type="checkbox"/>	Accounting, information	The SIF uses QuickBooks Enterprise Solution accounting software to carry out its accounting function and does financial reporting in accordance with the format required by the different funding agencies. Individual chart of accounts in

	systems and reporting	<p>QuickBooks are created for each project in SIF's portfolio to allow for separation in book-keeping and monitoring. As such, a chart of account will be created in QuickBooks for this project.</p> <p>The project accounting system will be maintained by the Finance Unit and will follow the Finance and Audit Act (FARA) as it relates to contract and payment processing. Financial reporting for this project will be done in accordance with the format and procedures outlined in the IDB's Audited Financial Reports and External Audit Management Handbook.</p>
<input checked="" type="checkbox"/>	Internal Control and Internal Audit	The internal control system of Government of Belize is weak and though an Internal Audit Unit was established at the MOF in September 2020, no internal audits have been conducted so far. Furthermore, SIF does not have a policies and procedures manual/handbook. To ensure the internal control systems applicable to the project is adequate, there will be a POM outlining the required systems of internal controls to ensure the effective fiduciary management of the project.
<input checked="" type="checkbox"/>	External control: external financial audit and project reports	Considering that the capacity constraints of the Office of the Auditor General, the independent external audit of the program will be contracted and financed through the Program. A private audit firm considered eligible by the Bank will be procured to conduct the annual and final financial statement audits of the project. The EA will select and contract the services of an eligible auditor, in accordance with the Terms of Reference agreed with the Bank.
<input checked="" type="checkbox"/>	Project Financial Supervision	The financial supervision plan of the project will focus on: (i) activities related to the implementation and follow-up of arrangements and systems being implemented for the fiduciary management of the project; (ii) follow-up on the implementation status of risk mitigating measures; and (iii) capacity building of EA personnel in the Bank's procedures and requirements. Disbursements will be reviewed on an ex-post basis.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/23

Belize. Loan \_\_\_\_/OC-BL to Belize  
Water and Sanitation Program for Rural Areas

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with Belize, as Borrower, for the purpose of granting it a financing to cooperate in the execution of the Water and Sanitation Program for Rural Areas. Such financing will be for the amount of up to US\$4,000,000 from the resources of the Bank's Ordinary Capital and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on \_\_\_\_ 2023)

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/23

Belize. Nonreimbursable Investment Financing \_\_\_\_/GR-BL to Belize.  
Water and Sanitation Program for Rural Areas

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, as Administrator of the IDB Grant Facility, hereinafter referred to as the "Account", to enter into such contract or contracts as may be necessary with Belize, as beneficiary, for the purpose of granting it a nonreimbursable investment financing to cooperate in the execution of the Water and Sanitation Program for Rural Areas. Such nonreimbursable investment financing will be for an amount of up to US\$640,000, which form part of the Account, and will be subject to the Terms and Financial Conditions and the Special Contractual Conditions in the Project Summary of the Nonreimbursable Financing Proposal.

(Adopted on \_\_\_\_ 2023)