

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

BARBADOS

PROPOSAL FOR THE MODIFICATION OF THE BARBADOS CLIMATE RESILIENT SOUTH COAST WATER RECLAMATION PROJECT (LOAN CONTRACT No. 5908/OC-BA/RESOLUTION DE-94/24)

LOAN AND NON-REIMBURSABLE RESOURCES FOR INVESTMENT FINANCING (COMPLEMENTARY FINANCING) (BA-L1065 AND BA-G1008)

This document was prepared by the project team consisting of: Kambiri Cox, Project Team Leader (INE/WSA); Gilroy Lewis and Keisuke Sasaki, Alternate Team Leaders (INE/WSA); Jennifer Doherty-Bigara, Alternate Team Leader (CSD/CCS); Liliana Lopez, Kleber Machado, Rodrigo Riquelme, Melissa Barandiaran, Leticia Ortega and Maria Fernanda Romero (INE/WSA); Carlos Rodrigues (WSA/CSU); Carlos Echeverria (INE/ENE); Gloria Visconti and Farah Al Taher (CSD/CCS); Cecilia Vidal (SPD/SDV), Janette Archer-Headley, Rochelle Franklin and Gwinn James (CCB/CBA); Monica Centeno Lappas and Maria Cristina Landazuri (LEG/SGO); Johanna Pelaez, Naveen Jainauth-Umrao and Marie Seedansingh (VPC/FMP); Laura Romero, Sarah Mangones (VPS/ESG), Ana Rios Galvez (CSD/RND), Michael Anthony Hall and Pia Zanetti (IFD/CMF).

In accordance with the Access to Information Policy, this document is being released to the public and distributed to the Bank's Board of Executive Directors simultaneously. This document has not been approved by the Board. Should the Board approve the document with amendments, a revised version will be made available to the public, thus superseding, and replacing the original version.

CONTENTS

MODIFICATION SUMMARY.....	1
I. SUMMARY OF PROPOSED MODIFICATIONS.....	3
II. PROJECT MODIFICATION - BACKGROUND.....	3
A. Project Background	3
B. Project Progress	5
III. RATIONALE.....	5
IV. PROPOSED MODIFICATION.....	6
V. IMPLEMENTATION AND MANAGEMENT PLAN	10
A. Summary of Implementation Arrangements	10
B. Summary of Arrangements for Monitoring Results.....	11
VI. RECOMMENDATIONS OF THE PROJECT TEAM.....	12

ANNEXES	
Annex I	Summary Development Effectiveness Matrix (DEM)
Annex II	Results Matrix
Annex III	Updated Fiduciary Agreements

REQUIRED ELECTRONIC LINKS (REL)	
REL#1	Updated Pluriannual Execution Plan (PEP) / Annual Operational Plan (AOP)
REL#2	Updated Monitoring and Evaluation Arrangements
REL#3	Updated Environmental and Social Review Summary (ESRS)
REL#4	Updated Procurement Plan (PP)
REL#5	Loan Proposal for Barbados Climate Resilient South Coast Water Reclamation Project (BA-L1063; 5908/OC-BA)
REL#6	Request Letter: Request to Support for a Debt-for-Climate Initiative Under Roofs to Reefs Program

ABBREVIATIONS	
ADWF	Average Dry Weather Flow
AOP	Annual Operating Plans
AWT	Advanced Water Treatment
BADMC	Barbados Agricultural Development and Marketing Corporation
BWA	Barbados Water Authority
DfCT	Debt for Climate Transaction
EA	Executing Agency
EPC	Engineering, Procurement and Construction
FAA	Funded Activity Agreement
GAS	Government Analytical Services (a department of the MAFS)
GCF	Green Climate Fund
GHG	Greenhouse Gases
GHS	Graeme Hall Swamp
GoB	Government of Barbados
IDB	Inter-American Development Bank
MAFS	Ministry of Agriculture, Food and Nutritional Security
MRV	Monitoring, Reporting and Verification
NHCA	Natural Heritage Conservation Area
OC	Ordinary Capital
O&M	Operation and Maintenance
PEP	Pluriannual Execution Plan
PEU	Project Execution Unit
PMO	Project Management Office, BWA
POM	Project Operations Manual
PP	Procurement Plan
PWD	Persons with Disabilities
SCSTP	South Coast Sewage Treatment Plant
SCWRRF	South Coast Water Reclamation and Re-use Facility

MODIFICATION SUMMARY
PROPOSAL FOR THE MODIFICATION OF THE BARBADOS CLIMATE RESILIENT
SOUTH COAST WATER RECLAMATION PROJECT
(LOAN CONTRACT NO. 5908/OC-BA/RESOLUTION DE-94/24)

LOAN AND NON-REIMBURSABLE RESOURCES FOR INVESTMENT FINANCING
(COMPLEMENTARY FINANCING)
(BA-L1065 AND BA-G1008)

Financial Terms and Conditions				
Borrower			Green Climate Fund (GCF)^(a)	
Government of Barbados (GoB)			GCF Loan	GCF Investment Grant
Executing Agency				
Barbados Water Authority (BWA)				
Source	Amount (US\$)	Amortization Period:^(b)	20 Years	N/A
BA-L1065 - GCF (Loan):	30,000,000	Disbursement Period:	5 Years	5 Years
		Grace Period:	5.5 Years ^(c)	N/A
		Interest rate:	0.75 fixed	N/A
BA-G1008 - GCF (Investment Grant):	40,000,000	Commitment fee:	0.50%	N/A
		Service fee:^(d)	0.25%	N/A
Total:	70,000,000	Currency of Approval:	Dollars of the United States of America	
Structure and Financing for the Barbados Climate Resilient South Coast Water Reclamation Project (Loan Contract 5908/OC-BA; BA-L1065; BA-G1008)				
Source	Amount (US\$)	%		
BA-L1065/BA-G1008 Complementary Financing (GCF):	70,000,000	63.6		
Loan Contract No. 5908/OC-BA (Original Financing):^(e)	40,000,000	36.4		
Local:	0	0		
Total:	110,000,000	100		

Project at a Glance			
Topic	Modification		Loan Modification Summary
	Yes	No	
Declaration of Objectives	<input type="checkbox"/>	<input checked="" type="checkbox"/>	- No changes in the general objectives and specific objectives.
Outcomes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	- No changes in expected outcomes and definition of result indicators.
Beneficiaries	<input type="checkbox"/>	<input checked="" type="checkbox"/>	- No changes in intervention beneficiaries.
Components	<input type="checkbox"/>	<input checked="" type="checkbox"/>	- Total budget for each component remains the same. Within each component, allocation of IDB Ordinary Capital (OC) remains the same. - No changes in definition of product indicators. - The modified operation requires GCF resources to be distributed between the GCF loan and GCF investment grant in the allocation to components.
Execution Arrangements	<input type="checkbox"/>	<input checked="" type="checkbox"/>	- No changes.
Financial Terms and Conditions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	- The modified operation does not require any additional funds from OC. - The financial terms and conditions for the GCF loan are included.
Strategic Alignment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	- No changes.
Financing Instruments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	- Co-financing: US\$70million counterpart resources now replaced by US\$30million GCF loan and US\$40million GCF investment grant. - No changes to the funds from OC.
Disbursement period	<input type="checkbox"/>	<input checked="" type="checkbox"/>	- The disbursement period remains the same. - With the modification, the updated disbursement schedule includes disbursing GCF loan and GCF investment grant resources, as agreed with the GCF. - The total disbursement of GCF resources per year differs marginally from the previous schedule for disbursing counterpart resources.

Topic	Modification		Loan Modification Summary
	Yes	No	
Monitoring and Evaluation Arrangements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	- The required electronic link REL#2 Monitoring and Evaluation Arrangements is updated to include further GCF indicators and details on the monitoring, reporting and verification system (MRV) financed under GCF resources.

- (a) The loan and investment grant resources were approved by the GCF Board of Directors on 23 October 2024. The GCF resources will be used in accordance with the framework agreement signed by the GCF and the Bank on 29 August 2017, pursuant to Resolution DE-31/17 (document GN-2895) (as amended and restated pursuant to a first amendment and restatement agreement dated April 16th, 2024), and with the activity Funded Activity Agreement for this program, which will be signed between the GCF and the Bank once the Bank's Board of Executive Directors approves this loan proposal. GCF resources will be available to the program once the Funded Activity Agreement is signed and has entered into effect.
- (b) This period begins on the effective date of the loan contract. Payments will be made semiannually. The amortization payments and the service and commitment fees will be paid on the same date as the interest payments.
- (c) These payments will be made in 30 principal installments and will begin on date of the first interest payment following the 5.5-year anniversary of the effective date of the loan contract.
- (d) The GCF's service fee applies to loans financed with GCF resources. The service fee covers the cost of administering and mobilizing resources, and it is paid on the outstanding balance of the loan.
- (e) Approved on July 26th, 2024 by the Board of Executive Directors of the Bank pursuant to Resolution DE-94/24 (BA-L1063).

I. SUMMARY OF PROPOSED MODIFICATIONS

- 1.1 Management requests that the Board of Executive Directors approves a modification to the financing structure of the “Barbados Climate Resilient South Coast Water Reclamation Project” (the “Project”) by granting a complementary financing in the total amount of US\$70,000,000 as follows: (i) up to US\$30,000,000 as a loan; and (ii) up to US\$40,000,000 as an investment grant from the resources of the Green Climate Fund (GCF). Once approved, the complementary financing will substitute the US\$70,000,000 originally contemplated¹ as counterpart resources of the Project to be provided by the Government of Barbados (GoB). This will support the GoB in managing its debt service through access to concessional reimbursable, and non-reimbursable funding, while investing in climate resilient infrastructure.

II. PROJECT MODIFICATION - BACKGROUND

A. Project Background

- 2.1 The investment loan No. 5908/OC-BA ([REL#5](#)) was approved by the Inter-American Development Bank’s (IDB) Board of Executive Directors (the “Board”) on July 26th, 2024, in the amount of US\$40,000,000 from the IDB’s Ordinary Capital (OC) resources. The total cost of the approved project was US\$110,000,000, which included the amount of US\$70,000,000 as local counterpart resources to be contributed by the GoB. As mentioned in the approved Loan Proposal (PR-5215), the GoB was expecting the approval of the complementary financing from the GCF². The GCF Board approved the financing on October 23rd, 2024.
- 2.2 The general objective of the Project is to enhance Barbados’ water supply resilience and reliability with a focus on climate action, environmental sustainability, and food security. This main objective is achieved through the following specific objectives: (i) diversify Barbados’s water supply sources and reduce water insecurity through the reuse of reclaimed wastewater; and (ii) strengthen key sector institutions on water resource management, operational efficiency, monitoring, and gender mainstreaming. The project components, costs and financing as defined in the approved loan proposal are included in Table II-1:

¹ Pursuant to document PR-5215, approved by the Board of Executive Directors in accordance with Resolution DE-94/24, the total cost of the Project was foreseen to be financed as follows: (i) US\$40,000,000, chargeable to the Bank’s ordinary Capital resources; and (ii) US\$70,000,000 to be provided by the Government of Barbados as local counterpart resources.

² As mentioned in paragraph 2.1 and footnote No. 50 included in the Loan Proposal document ([REL#5](#)): “The GoB is expecting a soft loan of US\$30 Mn and a grant of US\$40 Mn from GCF. IDB is expected to be the accredited agency for processing these resources. While the GCF funding is expected to be approved in October 2024, in the unlikely scenario the funding does not come through, the risk will be mitigated by GoB providing counterpart resources”.

Table II-1. Original costs and financing (5908/OC-BA): Summary of Project costs (in US\$ thousands)*

Components	IDB	Local	Total	%
Component 1. Water Reclamation Infrastructure	27,400	36,000	63,400	57.64
New South Coast Water Reclamation and Re-use Facility (SCWRRF)	13,602	20,000	33,602	30.55
Upgraded South Coast Sewage Treatment Plant (SCSTP)	13,798	16,000	29,798	27.09
Component 2: Reclaimed Water Reuse	1,100	18,500	19,600	17.82
New Reclaimed Water Pipeline for Agriculture Reuse	780	13,500	14,280	12.98
New Aquifer Recharge Infrastructure	320	5,000	5,320	4.84
Component 3: Climate Change and Biodiversity Opportunities	2,000	14,000	16,000	14.55
Graeme Hall Swamp NHCA Conservation	2,000	0	2,000	1.82
Solar energy generation with battery storage	0	14,000	14,000	12.73
Component 4: Institutional Strengthening	0,000	1,500	1,500	1.36
Project Administration and Other Costs	3,150	0	3,150	2.86
Contingency Resources	6,350	0	6,350	5.77
Total	40,000	70,000	110,000	100

* Costs per component or main activity are indicative.

- 2.3 In July 2023, the GOB formally requested to the IDB ([REL#6](#)) support for a Debt-for-Climate transaction that will facilitate investment in climate resilient infrastructure, including the construction of modern wastewater treatment infrastructure on the South Coast. The GoB outlined a specific request for a US\$40 million investment loan and US\$150 million guarantee both from the IDB. Further, the GoB indicated that they would apply for additional resources from the GCF towards the South Coast project.
- 2.4 The development of the GCF Funding Proposal occurred in parallel with the IDB loan project preparation (PR-5215/Loan No. 5908/OC-BA). The GCF project team participated in all project missions with the expectation that the Funding Proposal would be presented to the GCF Board for approval during the 40th GCF Board Meetings from October 21-24, 2024. The GoB was keen on proceeding with the advanced procurement of the water reclamation infrastructure and targeted the conclusion of the bidding process and potentially the award of contract by end 2024. This required the completion of all relevant due diligence and feasibility analyses to advance project design. The IDB moved ahead with project preparation towards loan approval in July 2024, on an earlier schedule than the GCF approval timeline for the concessional resources.
- 2.5 During the Special Mission in March 2024, it was agreed that once approved by the GCF Board, the GCF financing (loan and investment grant) would substitute the GoB counterpart resources of US\$70,000,000. This commitment of GoB resources to the Project also functioned as a risk mitigation measure, should the GCF Board not approve the funding proposal in October 2024.
- 2.6 In May 2024, the IDB in the role of Accredited Entity, submitted a Funding Proposal to the GCF on behalf of the GoB. The funding proposal requested a soft loan for

US\$30,000,000 and an investment grant of US\$40,000,000 to co-finance the Project. On September 23rd, 2024, the GCF informed the IDB that the funding proposal cleared the GCF internal assessments and was subsequently recommended to the GCF Board for approval. The GCF Board approved the Funding Proposal on October 23rd, 2024. The IDB has 120 days from the GCF approval date (ending February 20th, 2025) to finalize the Funded Activity Agreement (FAA). During this period, the GCF loan and GCF investment grant will need to be approved by the IDB Board of Executive Directors.

- 2.7 In light of the above, Management proposes that the IDB Board of Executive Directors amends the original financing structure of the Project by approving the complementary financing to be provided by the GCF up to the amount of US\$70,000,000. Once approved the complementary financing will substitute the original GoB counterpart resources as contemplated in the loan proposal document (PR-5215).

B. Project Progress

- 2.8 Since the approval of the Loan Proposal by the Board, the Bank formalized the Loan Contract with the Borrower and, through the role of Accredited Entity, secured GCF Board approval of the Funding Proposal. The loan contract was signed on December 12th, 2024. The Borrower through the Executing Agency Barbados Water Authority (BWA) is making progress towards achieving conditions prior to first disbursement. The BWA has developed Terms of References towards establishing the Project Execution Unit (PEU).
- 2.9 The GoB is proceeding with the advanced procurement for Component 1. This relates to the construction of the New South Coast Water Reclamation and Re-use Facility and Upgrade of the existing South Coast Sewage Treatment Plant. The Request for Bids from pre-qualified firms is scheduled to close November 2024 and award of contract scheduled for March 2025. Further, the GoB has progressed advanced procurement for the provision of construction supervision services. The BWA has submitted to Cabinet for approval the selected firm for the construction supervision contract.

III. RATIONALE

- 3.1 The rationale for the proposal is to support the debt strategy of the GoB in accessing concessional financing for water infrastructure investments, as well as strengthening the project monitoring and verification which would support the GoB in realizing related commitments under the debt for climate transaction (DfCT)³.

³ The GoB will access long-term financing for climate-resilient investments without increasing the debt stock through IDB financing for a Policy-Based Guarantee approved by the Board of Executive Directors on July 24th, 2024 (BA-U0002; 5902/OC-BA) to support the innovative DfCT. Included policy measures are intended to strengthen the enabling environment for resilient investments and prioritize climate-resilient investments complementary to this operation. These will contribute to further increasing water availability and enhancing the sustainability of the sector.

- 3.2 The GoB seeks to minimize sovereign debt while investing in climate resilient infrastructure for increased water security. Barbados is a small developing island in the Caribbean with a population of 281,635 inhabitants⁴ and Gross Domestic Product (GDP) of US\$23,167 per capita⁵. Prior to the COVID-19 pandemic, the country had been experiencing slow growth, which declined from an average of 1.0% (2000-2009) to -0.3% (2010-2018). Fiscal imbalances led to an unsustainable accumulation of public debt, which peaked at 142.8% of GDP in FY2017/18 and remained high during the COVID-19 pandemic (138.2% in FY2020/21) owing to the strain on public finances and subdued economic activity⁶. With the economy slowly recovering post-pandemic, the debt-to-GDP ratio began to shrink and reached 110.8% in FY2023/24. The GoB continues efforts to achieve fiscal sustainability and decrease the debt-to-GDP ratio, including ongoing structural reforms in public financial management and state-owned enterprises, as well as an innovative debt to climate transaction, which support the sustainability of operations. By accessing a low concessional loan and non-reimbursable resources, the GoB will be able to avoid accumulating expensive debt while advancing on its goals for resilience in the water sector.
- 3.3 GCF resources will finance a robust monitoring, reporting and verification (MRV) system as an activity built into the MRV plan of the Project, with supplementary impact indicators tracked as a fulfilment of funding requirements. With support from GCF and the IDB, BWA will implement the MRV duties to track: (i) the use of reclaimed water; (ii) progress in reducing water loss; (iii) achievements in renewable energy deployment and pollution reduction; and (iv) overall adherence to the sustainability linked targets set for the sustainability linked loan/bond⁷. While the debt for climate transaction (DfCT) financing structure provides Barbados with the fiscal space to invest in climate-resilient infrastructure, the GoB can leverage GCF experience in climate finance MRV to enhance accountability and impact in this investment.

IV. PROPOSED MODIFICATION

- 4.1 It is proposed that the financial structure of the Project as approved pursuant to Resolution DE-94/24 be modified so that complementary financing from the GCF substitutes the total amount of local counterpart resources (US\$70,000,000) as contemplated in the Loan Proposal (PR-5215). The GCF financing will be composed as follows: up to US\$30,000,000 in the form of a concessional loan; and (ii) up to US\$40,000,000 as an investment grant. Once the complementary financing is approved by the Board, the new financial structure of the Project will be as follows: (i) up to \$40,000,000 from the Bank's Ordinary Capital Resources;

⁴ [OEL#1](#) [1]

⁵ World Economic Outlook: Policy Pivot, Rising Threats. International Monetary Fund, October 2024.

⁶ The fiscal year in Barbados runs from April 1 to March 31.

⁷ Barbados will issue a Climate Resilience Sovereign Sustainability-Linked Loan/Bond (SSLL/SSLB) to replace the retired sovereign debt. The instrument is designed to reinforce and raise the profile of the country's commitments and action plan to deliver on an ambitious climate resilience agenda. The country's progress towards meeting these sustainability goals will be monitored and reported, with the terms of the loan or bond (such as interest rates) potentially tied to the achievement of these targets.

and (ii) up to \$70,000,000 from the resources of the GCF. Neither the overall objective, nor the specific objectives, nor component descriptions and products of the Project will be modified.

- 4.2 Table IV-1 shows the allocation of cost financed with the GCF loan and investment grant resources in substitution of the total Local Counterpart in the amount of US\$70,000,000. The GCF will co-finance activities under Components 1 and 2 and Sub-component 3.2 and Component 4 as detailed below.

Table IV-1: The Budget of the Program (Original and Adjusted, in US\$ thousands)*

Component/Subcomponent	IDB OC Loan 5098/OC -BA	Local Counterpart (original)	GCF Co-financing (to substitute Local Counterpart)			Total	%
			GCF Loan (BA-L1065)	GCF investment grant (BA-G1008)	GCF Total		
Component 1. Water Reclamation Infrastructure	27,400	36,000	16,000	20,000	36,000	63,400	57.64
New South Coast Water Reclamation and Re-use Facility (SCWRRF)	13,602	20,000	0	20,000	20,000	33,602	30.55
Upgraded South Coast Sewage Treatment Plant (SCSTP)	13,798	16,000	16,000	0	16,000	29,798	27.09
Component 2: Reclaimed Water Reuse	1,100	18,500	0	18,500	18,500	19,600	17.82
Sub-component 2.1: New Reclaimed Water Pipeline for Agriculture Reuse	780	13,500	0	13,500	13,500	14,280	12.98
Sub-component 2.2: New Aquifer Recharge Infrastructure	320	5,000	0	5,000	5,000	5,320	4.84
Component 3: Climate Change and Biodiversity Opportunities	2,000	14,000	14,000	0	14,000	16,000	14.55
Sub-component 3.1: Graeme Hall Swamp NHCA Conservation	2,000	0	0	0	0	2,000	1.82
Sub-component 3.2: Solar energy generation with battery storage	0	14,000	14,000	0	14,000	14,000	12.73
Component 4: Institutional Strengthening	0,000	1,500	0	1,500	1,500	1,500	1.36
Project Administration and Other Costs	3,150	0	0	0	0	3,150	2.86
Contingency Resources	6,350	0	0	0	0	6,350	5.77
Total	40,000	70,000	30,000	40,000	70,000	110,000	100

* Costs per component or main activity are indicative.

- 4.3 The annual allocation of GCF investment grant resources within Component 4 has been revised to reflect a shift of resources towards Year 1 due to moving up completion of some milestones. This will facilitate the earlier execution of a larger proportion of work towards milestones that build toward the development and implementation of an Institutional Gender and Persons with Disabilities (PwD) Action Plan for BWA (Activity 4.1.2.1). The Pluriannual Execution Plan (PEP) and Annual Operating Plan (AOP) ([REL#1](#)), and Procurement Plan (PP) ([REL#4](#)) have been adjusted accordingly.

- 4.4 Table IV-2 shows the updated disbursement schedule that reflects the replacement of local counterpart with GCF loan and GCF investment grant resources (disaggregated), as well as the re-distributed annual disbursement of

GCF investment grant resources within Component 4. While this schedule is indicative, no changes are foreseen to the disbursement period.

Table IV-2: Disbursement Schedule (US\$1000)

Components	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Annual						
IDB OC loan	8,394	8,855	14,800	5,713	2,238	40,000
%	21.0%	22.1%	37.0%	14.3%	5.6%	100.0%
GCF loan	1,170	9,830	11,000	5,200	2,800	30,000
%	3.9%	32.8%	36.7%	17.3%	9.3%	100.0%
GCF grant	1,458	17,151	17,987	3,237	167	40,000
%	3.6%	42.9%	45.0%	8.1%	0.4%	100.0%
GCF Total	2,628	26,981	28,987	8,437	2,967	70,000
%	3.8%	38.5%	41.4%	12.1%	4.2%	100.0%
Total	11,022	35,836	43,787	14,150	5,205	110,000
%	10.0%	32.6%	39.8%	12.9%	4.7%	100.0%
Cumulative						
IDB OC loan	8,394	17,249	32,050	37,762	40,000	40,000
%	21.0%	43.1%	80.1%	94.4%	100.0%	100.0%
GCF loan	1,170	11,000	22,000	27,200	30,000	30,000
%	3.9%	36.7%	73.3%	90.7%	100.0%	100%
GCF grant	1,458	18,609	36,596	39,832	40,000	40,000
%	3.6%	46.5%	91.5%	99.6%	100.0%	100.0%
GCF total	2,628	29,609	58,596	67,033	70,000	70,000
Percentage	3.8%	42.3%	83.7%	95.8%	100.0%	100.0%
Total	11,022	46,858	90,645	104,795	110,000	110,000
%	10.0%	42.6%	82.4%	95.3%	100.0%	100.0%

- 4.5 For the project Components, the source of financing will now include the GCF loan and investment grant resources replacing local counterpart. The activities and products for all Components, however, will remain unchanged.
- 4.6 **Component 1. Water Reclamation Infrastructure – US\$63.4 million** (IDB loan OC: US\$27.4 million; GCF loan: US\$16 million; GCF grant: US\$20 million). This component will finance the construction of the New South Coast Water Reclamation and Re-use Facility (SCWRRF) with an Average Dry Weather Flow (ADWF) of 9,000 m³/day⁸ under a Design Build Engineering Procurement Construction (EPC/Turnkey) modality and operation and maintenance (O&M) costs for one year including climate proofing considerations. It will include all process units and ancillary facilities to provide secondary and tertiary treatment, followed by an Advanced Water Treatment (AWT) side stream including safe and sustainable treatment and management of sludge with the aim to reduce pollution and GHG emissions.
- 4.7 Additionally, this component will finance the upgrade of the existing SCSTP upgrading equipment in the existing influent lift pump station and headworks including interconnecting piping to the SCWRRF and the design and installation of the odor control system. This component will also finance Construction Supervision services.

⁸ The proposed design flows are: ADWF is 9,000 m³/day, average wet weather flow (AWWF) 24,000 m³/day and peak wet weather flow (PWWF) 28,000 m³/day.

- 4.8 **Component 2: Reclaimed Water Reuse – US\$19.6 million** (IDB loan OC: US\$1.1 million; GCF grant: US\$18.5 million). This component will finance the following sub-components:
- 4.9 **Sub-component 2.1: Agriculture Reuse of Reclaimed Water Pipeline** consisting of the installation of a 25 km pipeline for transporting reclaimed water for irrigation for potentially some 1,320 hectares at River Plantation along the old trainline (Trailway), Haggatt Hall, Salters, Marchfield, and Sanford irrigation districts, and ancillary equipment, and a reservoir.
- 4.10 **Sub-component 2.2: Aquifer Recharge Infrastructure** consisting of the installation of 4 km water pipeline, 5 injection wells, 6 exploratory boreholes, 3 monitoring wells, 3 abstraction boreholes and pumping stations, and ancillary equipment for aquifer recharge.
- 4.11 This component will also finance **Construction Supervision** services.
- 4.12 **Component 3: Climate change and biodiversity opportunities – US\$16 million** (IDB loan OC: US\$2 million; GCF grant: US\$14 million). This component will finance:
- 4.13 **Sub-component 3.1: Graeme Hall Swamp Natural Heritage Conservation Area (NHCA) Conservation** consisting of: (i) the development of baseline assessments for the NHCA, inclusive of the Graeme Hall Swamp (GHS), associated beach, and buffer zone; (ii) the development of a results-based management plan for GHS; and (iii) upgrade the drainage system to facilitate efficient discharge from the swamp to the sea.
- 4.14 **Sub-component 3.2: Solar Energy Generation with Battery Storage** consisting of 7MW solar photovoltaic plant and associated energy storage, to be co-located with existing 3MW solar systems.
- 4.15 **Component 4: Institutional Strengthening – US\$1.5 million** (GCF grant: US\$1.5 million). This component will finance institutional strengthening activities including: (i) Improving the governance and project management capacity of BWA through the implementation of an action plan based on AquaRating and training in Operations and Maintenance (O&M) of the SCWRRF; (ii) Implementing an Institutional Gender and PWD Action Plan to promote the increased participation of women and PWD within BWA, and data collection on PWD within BWA; (iii) Implementing robust monitoring, reporting and verification (MRV) systems to track water quality and quantity, soil quality and climate-related parameters; (iv) Developing and implementing a project planning, management and monitoring system for BWA; (v) Developing and implementing an action plan to increase capacity at Government Analytical Services (GAS); (vi) Strengthening the Barbados Agricultural Development and Management Corporation (BADMC) Farmers' Empowerment and Enfranchisement Drive program; and (vii) Designing and implementing public awareness and stakeholder engagement campaigns to promote the benefits of wastewater reuse and build community support.
- 4.16 **Project Administration and Other Costs – US\$3.15 Million** (IDB OC loan: US\$3.15 million). This component will finance project execution unit (PEU) dedicated staff, audits, monitoring and evaluation, communication, and

supervision and implementation of an Environmental and Social Management Plan (ESMP).

- 4.17 **Contingency Resources – US\$6.35 Million** (IDB OC loan: US\$6.35 million). This component will finance unanticipated costs arising from risks factors during infrastructural works.
- 4.18 The proposal presents in the following the impact of the modification on key aspects of the Project:
- 4.19 **Results Matrix and evaluation.** The impact, outcome and product indicators in the original loan proposal Results Matrix (Annex II) remain unchanged.
- 4.20 **Developmental Impacts, Benefits and Expected Beneficiaries.** The development impacts, benefits and expected beneficiaries remain unchanged.
- 4.21 **Environmental and Social Safeguard Risks.** In accordance with the IDB's Environmental and Social Policy Framework (ESPF) and the environmental and social due diligence, this operation was classified as "Category B" in the original Loan Proposal. The project objectives, components and budget allocation remain the same, thus the E&S classification for the project, risk and impact assessment, and proposed management measures remain the same as in the Environmental and Social Review Summary (ESRS) prepared for the approval of the original LP. The ESRS has been updated to include confirmation of the above ([REL#3](#)).
- 4.22 **Fiduciary Risks.** No additional fiduciary risks have been identified.
- 4.23 **Additional risks.** The project team and counterparts have identified no additional risks.

V. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of Implementation Arrangements

- 5.1 **Borrower and Executing Agency.** As outlined in the original Loan proposal, the Borrower will remain the GoB as will the EA remain BWA.
- 5.2 **Project Execution Unit.** Project implementation will remain the responsibility of the PEU in direct coordination with BWA's PMO. No changes are foreseen to the project execution mechanism.
- 5.3 **Project Operations Manual (POM).** Project execution will be governed by the provisions of the Loan Contract and those established in the POM. As the IDB finalizes the POM with the EA towards meeting conditions prior to first disbursement, the POM will be updated to include the GCF resources and the procedural and reporting aspects to be agreed with the GCF upon finalization of the FAA.
- 5.4 **Changes in contractual conditions.** The GCF funds will be used in accordance with the provisions of the Accreditation Master Agreement signed by the GCF and the IDB on 29 August 2017 (as amended and restated pursuant to a first amendment and restatement agreement dated 16 April 2024) and in accordance with the provisions of the Funded Activity Agreement (FAA) for this Project, which

will be signed by the GCF and the IDB⁹. These conditions will be reflected in the Loans and grant agreements the Bank will sign with the GoB.

- 5.5 **Procurement Execution.** Procurement activities will continue to be carried out 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). No changes are foreseen with procurement execution. A partial waiver has been granted by the Board at the time of approval of the Project to said provisions so that firms, individuals, and goods originating from non-member countries of the Bank can participate in the selection, procurement and contracting processes relating to Component 1 of the Project.
- 5.6 **Advance of funds.** The advance of funds will be governed by the provisions of the Financial Management Guidelines for IDB-financed Projects (OP-273-12). After the first disbursement, subsequent disbursements will be subject to justification of 70% of the previous advance. No changes are foreseen for the advance of funds.
- 5.7 **Auditing.** During the loan disbursement period, the EA will submit to the Bank the project's annual audited financial statements within 120 days of the close of the fiscal year. Additional arrangements for financial monitoring of the operation in compliance with GCF requirements may be included at the Bank's request.
- B. Summary of Arrangements for Monitoring Results.**
- 5.8 **Monitoring.** A monitoring and evaluation plan was agreed for the Project ([REL#2](#)), which establishes the use of the updated PP ([REL#4](#)), updated PEP ([REL#1](#)), updated AOP ([REL#1](#)), Financial Plan, and the RM and Progress Monitoring Report. This plan has been updated to reflect supplementary monitoring requirements of the GCF. The Project monitoring, reporting and evaluations will cover the three sources of financing.
- 5.9 **Evaluation.** A mid-term and a final evaluation following the Project Completion Report (PCR) Guidelines are planned.
- 5.10 **Changes in Disbursements.** The GCF loan and GCF investment grant resources will be disbursed using a pari passu ratio and mechanism to be agreed with the GCF.
- 5.11 **Audits.** As outlined in the original LP, an external audit of the program will be performed by a firm of independent auditors acceptable to the Bank. No changes in the audit requirements and procedures are foreseen.
- 5.12 **Changes in Climate Change Tracking.** According to the joint multilateral development bank (MDB) approach on climate finance tracking, reporting is done at approval of an operation. The resources of the present operation were tracked as part of the 2024 climate financing review process and will not be double counted in following years.

⁹ The GCF funds will be available for the Project once the FAA is signed and enters into force.

VI. RECOMMENDATIONS

6.1 Management recommends that the Board of Executive Directors approves the proposed modification of the Project and the complementary financing to the “Barbados Climate Resilient South Coast Water Reclamation Project”, in accordance with the terms and conditions detailed in this proposal, by Short Procedure, pursuant to the provisions set forth in paragraph 6 of document CS-3953-4 “List of matters to be considered by the Board via Short Procedure” by adopting the Resolution attached hereto. The approval of the Resolution would represent the adoption of the following recommendations:

6.1.1. Recommendation 1: To grant to the Government of Barbados a loan up to the amount of US\$30,000,000 and an investment grant up to the amount of US\$40,000,000, from the resources of the Green Climate Fund (“GCF”), and to amend the financing structure of the Project as proposed in this document.

6.1.2. Recommendation 2: To authorize the President of the Bank, or such representative he shall designate, to enter into such agreement or agreements as may be necessary with the GCF to receive and administer resources from the GCF for the purposes of the Project and to adopt any other measures as may be pertinent for execution of said agreement or agreements.

6.1.3. Recommendation 3: To authorize the President of the Bank, or such representative he shall designate, acting as the Accredited Entity of the GCF, to enter into such the agreement or agreements with the Government of Barbados as Borrower and Beneficiary in connection with the loan and the investment grant referred to in Recommendation 1 above, and to implement the Project in accordance with the terms and conditions set forth in this document.

Development Effectiveness Matrix		
Summary		BA-L1063
I. Corporate and Country Priorities		
Section 1. IDB Group Institutional Strategy Alignment		
Operational Focus Areas	<ul style="list-style-type: none"> -Biodiversity, natural capital, and climate action -Gender equality and inclusion of diverse population groups -Institutional capacity, rule of law, citizen security -Sustainable, resilient, and inclusive infrastructure 	
[Space-Holder: Impact framework indicators]		
2. Country Development Objectives		
Country Strategy Results Matrix	GN-2953-1	Promote private sector engagement that encourages greater productivity, as well has in resilient infrastructure investments.
Country Program Results Matrix	GN-3207-3	The intervention is included in the 2024 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		9.1
3.1 Program Diagnosis	2.1	
3.2 Proposed Interventions or Solutions	3.5	
3.3 Results Matrix Quality	3.5	
4. Ex ante Economic Analysis		7.5
4.1 Program has an ERR/NPV, or key outcomes identified for CEA	1.5	
4.2 Identified and Quantified Benefits and Costs	3.0	
4.3 Reasonable Assumptions	0.0	
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 High	
Environmental & social risk classification	B	
IV. IDB's Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Budget, Treasury, Accounting and Reporting. Procurement: Information System.
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	Yes	BA-T1107

The general objective of the operation is to enhance Barbados' water supply resilience and reliability with a focus on climate action, environmental sustainability, and food security. The specific objectives of the operation are to: (i) diversify Barbados's water supply sources and reduce water insecurity through the reuse of reclaimed wastewater; and (ii) strengthen key sector institutions on water resource management, operational efficiency, monitoring, and gender mainstreaming.

The diagnosis is adequate, as it clearly presents the problem on which the program is focused, as well as its determinants. However, this is weakened by the limited information presented to quantify the dimensions of food security and its relationship to agricultural production, a sector that is key for the economic benefits of the project to materialize. The Results Matrix has a clear vertical logic and SMART indicators that allow for the evaluation of the achievement of the specific objectives. Only one of the indicators is not considered SMART, since it is not clear that it measures a result and not an output.

The economic analysis assesses the net benefits associated with the increase in reused water available for irrigation that will allow an expansion of total cropland and an increase in the number of harvests per year. It also includes the net benefits from net savings in water treatment, marine ecosystem protection and the reduction in Greenhouse Gas Emissions.

The program has a Monitoring and Evaluation Plan that specifies: (i) the methodology for measuring indicators; (ii) attribution of project results; (iii) data requirements; and (iv) those responsible and the estimated budget. The evaluation of the results will be done with a before-and-after analysis, where the attribution of the results depends on the link between the implemented solutions and the associated results, which is considered appropriate in this case. The Project also proposes an ex-post economic analysis and has a plan and budget to collect the necessary data.

Results Matrix

Project Objectives	The specific objectives are to: (i) Diversify Barbados' water supply sources and reduce water insecurity through the reuse of reclaimed wastewater and (ii) Strengthen key sector institutions on water resource management, operational efficiency, monitoring, and gender mainstreaming. Achieving these objectives will contribute to the general objective to enhance Barbados' water supply resilience and reliability with a focus on climate action, environmental sustainability, and food security.
---------------------------	--

Impacts

Indicators	Unit of measurement	Baseline (BL) value	BL year	Expected year for achievement	Target	Means of verification	Comments ¹
General development objective: To enhance Barbados' water supply resilience and reliability with a focus on climate action, environmental sustainability, and food security.							
I.1 Yearly per capita water availability	m ³ /hab./year	285	2020	2030	273	Reports from BWA's Monitoring, Reporting and Verification (MRV) system	
I.2 Biochemical Oxygen Demand (BOD) in reuse facility effluent	(mg/l)	190	2023	2030	30		
I.3 Greenhouse gas (GHG) emissions reduction	tCO ₂ eq	0	2024	2030	3,705		
I.4 Percentage of food products sold in markets that are locally produced	Index (base=100)	100	2024	2030	145	Farm surveys and official records (MAFS/BADMC)	The baseline and target values will be updated at Start-up Plan based on pre-preprogram information that will become available from data collected by MAFS and BADMC.

¹ For more details, please refer to the Monitoring and Evaluation Plan ([REL#2](#))

Outcomes

Indicators	Unit of measurement	BL value	BL year	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Means of verification	Comments
Specific development objective 1: Diversify Barbados' water supply sources and reduce water insecurity through the reuse of reclaimed wastewater											
R.1.1 Yearly volume of reclaimed water available for productive uses that meets local and international standards	Mm ³ /year	0	2024				1.32	2.05	2.05	Operational reports from BWA and readings from distribution system BADMC	It is estimated that the agricultural sector will use most of the reclaimed and reuse water primarily during the dry season. Measurement will be taken on the main distribution pipeline meter.
R.1.2 Percentage of agricultural stakeholders adopting reused water as part of their water sources in the area of influence of the program	%	0	2024				50	75	75		It is expected that the project will benefit some 114 small farmers leasing government land mainly in the River Plantation farming district with reuse water for irrigation. With the aquifer recharge, it is expected that 96 farmers in 2 districts at Silver Hill and Gibbon's Boggs will benefit from improved groundwater abstraction from the Christ Church aquifer. 75% of stakeholders adopting reused water equals 158 farmers
R.1.3 Yearly volume of reclaimed water injected to the Christ Church aquifer	Mm ³ /year	0	2024				1	1	1		Measure volume of treated effluent discharged to recharge wells, infiltration basins etc. to replenish aquifers, using flow meters. Recharge to the Christ Church Aquifer equal to 4 months of during the wet season.

Indicators	Unit of measurement	BL value	BL year	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Means of verification	Comments
Specific development objective 2: Strengthen key sector institutions on water resource management, operational efficiency, monitoring, and gender and PwD mainstreaming											
R.2.1 Percentage of operating expenses covered with BWA's operating revenues	%	111	2023						111	Operational reports from BWA	<p>Operating revenues and operating expenses based on BWA's financial statements. Operating costs do not include the cost of depreciation and amortization. BWA's fiscal year ends in March each year, and the latest available data is March 2023.</p> <p>The minimum target at the end of the project is 111%. It is expected that BWA will maintain its current level by implementing efficiency improvement measures, despite the expected cost increases owing to the project as well as inflation.</p>
R.2.2 Verification reports from the Monitoring, Reporting and Verification (MRV) system for the Program produced	Report	0	2024			1	1	1	3	Operational Reports from BWA validated by an independent verification agent	<p>The MRV system will allow BWA to improve accuracy, accountability, decision-making, transparency, and stakeholder engagement related to its environmental performance.</p> <p>The reports must include information on the use of resources and the impact of the project, in particular, on whether or not the milestones included in the Resilience Commitments and KPIs have been met.</p> <p>Yearly reports. The report for year 3 will be a baseline (w/o project) and annual and final targets of agreed milestones and the protocol to measure progress.</p>

Indicators	Unit of measurement	BL value	BL year	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Means of verification	Comments
R.2.3 Operational reports from the integrated information systems of BWA approved by the Board	Report / year	0	2024			1	1	1	3	Report from the planning and monitoring platform for BWA approved by the Board	From the institutional assessment of BWA there is a lack of a software platform and procedures to download the overall strategic, operations and investments planning of the institution (physical and financial).
R.2.4 Percentage of BWA technical and operational personnel that are certified on O&M practices for the SCWRRF	%	0	2024				50	50	100	Certification lists from the course (part of the Firm building SCWRRF) validated by BWA	It is expected that the training will be imparted by the same Firm(s) that will design and build the SCWRRF and SCWTP works. Technical and operational staff operating Bridgetown Sewage Treatment Plant (BSTP) and SCWTP will be rotated and require training (currently 44 employees total, expected to increase).

Indicators	Unit of measurement	BL value	BL year	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Means of verification	Comments
R.2.5 Results-based management plan for the Natural Heritage Conservation Area implemented	Plan	0	2024					1	1	Reports of activities approved by Ministry of Environment and National Beautification (MENB), Blue and Green Economy	For the Plan to be considered in implementation, at least the following activities have resources budgeted and is in execution: (i) At least one report on the State of the GHS Ecosystem approved. (ii) At least one meeting of the Interministerial coordination committee has taken place and Minutes are available. (iii) At least one report on the performance of the Hydraulic System at GHS has been produced. (iv) At least three reports on the results of the collection and analysis of samples on the condition of biodiversity of the freshwater sedge, mangrove swamp, seagrass bed and coral reef.
R.2.6 Internal policy aimed at promoting the participation of PWD within BWA approved by the Board	Policy	0	2024					1	1	BWA Board Meetings Minutes	GDI Flag
R.2.7 BWA personnel that are women who complete the leadership training program	%	0	2024				15	15	30	Completion lists from the courses and training sessions approved by BWA	Specifically targeted at women, which may include mentoring plans, self-esteem, and assertiveness courses, and why gender and diversity matter in WASH, among others. GDI Flag: Disaggregated by Gender

Indicators	Unit of measurement	BL value	BL year	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Means of verification	Comments
R.2.8 Technical assistance packages on sustainable agriculture practices in implementation through BADMC Farmers' Empowerment and Enfranchisement Drive (FEED) Program in the area of influence of the Program	Assistance package	0	2024			1	1	1	3	Reports from BADMC	<p>Technical assistance packages include assessment and implementation of activities and training on sustainable agriculture practices.</p> <p>In implementation means that at least one technical assistance activity identified in the FEED assessment has resources budgeted and is in execution.</p>

Outputs

Output Indicators	Corresponding Outcomes	Unit of measurement	BL value	BL year	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Means of verification	Comments
Component 1: Water reclamation infrastructure												
1.1.1 New South Coast Water Reclamation and Re-use Facility (SCWRRF) constructed and operating	R.1.1, R.1.2, R.1.3.	Facility	0	2024				1		1	Progress Reports approved by BWA	
1.1.2 Existing South Coast Sewage Treatment Plant (SCSTP) upgraded and operating	R.1.1, R.1.2, R.1.3.	Plant	0					1		1		Upgraded means that the plant will be able to treat wastewater to the tertiary level (removal of nutrients). Refurbished means that all equipment that is not functioning or functioning inefficiently (energy consumption) has been replaced.
Component 2: Reclaimed Water Reuse												
2.2.1. Agriculture Reuse of Reclaimed Water Distribution Pipeline Installed	R.1.1, R.1.2, R.1.3.	Pipeline	0	2024			1				Progress Reports approved by BWA	
2.2 Aquifer Recharge Infrastructure	R.1.1, R.1.3.	Infra-structure	0	2024			1			1	Progress Reports approved by Ministry	Includes pipeline, monitoring and injection wells,

Output Indicators	Corresponding Outcomes	Unit of measurement	BL value	BL year	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Means of verification	Comments
installed and operating											of Environment, National Beautification (MENB), Blue and Green Economy	and ancillary equipment.
Component 3: Climate Change and Biodiversity Opportunities												
3.1 Natural Heritage Conservation Area (NHCA) Management Plan developed and implemented	R.2.4	Plan	0	2024					1	1	Final Report approved by BWA's Board	The results-base Plan for the NHCA includes the Graeme Hall Swamp, associated beach area and buffer zone and will inform activities and interventions to minimize locally generated stressors such as CC and pollutants on the downstream ecosystems and improve the health and resilience of the NHCA.
3.2 Solar Energy Generation Plant with Battery Storage implemented	R.2.1	Plant	0	2024					1	1	Final Report and Plan approved by BWA and FTC	7 MW generation capacity and one BESS system with specifications based on feasibility study funded by IDB Invest.

Output Indicators	Corresponding Outcomes	Unit of measurement	BL value	BL year	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Means of verification	Comments
Component 4: Institutional Strengthening												
4.1 AquaRating action plan developed and implemented	R.2.1, R.2.4.	Plan	0	2024					1	1	Final Reports approved by BWA	The AquaRating action plan will be considered "implemented" when at least two of the activities prioritized have been executed.
4.2 Groundwater Modeling System (GMS) in BWA implemented	R.2.1, R.2.4.	System	0	2024					1	1		It will complement actions undertaken by BWA to model groundwater resources. It includes training.
4.3 Plan to increase participation of women and people with disabilities (PWD) within BWA with technical and operational roles and leadership training developed and implemented	R.2.4, R.2.6, R.2.7.	Plan							1	1	Final Report, including draft Gender and PWD Policy Proposal from Consulting Firm approved by BWA's Board	Includes: (i) an internal policy to promote the participation of PWD within the institution; (ii) a leadership training program specifically targeted at women, which might include mentoring plans, self-esteem, and assertiveness courses, and why gender and diversity matter in WASH.

Output Indicators	Corresponding Outcomes	Unit of measurement	BL value	BL year	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Means of verification	Comments
4.4 BWA's Monitoring, Reporting and Verification (MRV) to track water quality, quantity, and climate-related parameters implemented	R.2.1, R.2.2, R.2.3.								1	1	Final Report form approved by BWA's Board	
4.5 BWA's project planning, management, and monitoring platform designed, integrated, and implemented	R.2.1, R.2.3	Platform	0	2024	1					1		Integrated with BWA's existing monitoring systems for project and financial management.
4.6 Government Analytical Service (GAS) laboratory capacity plan developed and implemented	R.1.3, R.2.1, R.2.2.	Plan	0	2024	1					1	Final Report, approved by GAS	Plan to address capacity challenges at GAS (personnel, equipment and training needs). Equipment can include upgrading obsolete equipment for determining organic environmental contaminants. Training to include soil analysis to meet increasing demand for soil testing.

Output Indicators	Corresponding Outcomes	Unit of measurement	BL value	BL year	Year 1	Year 2	Year 3	Year 4	Year 5	End of Project	Means of verification	Comments
4.7 BADMC's Farmers' Empowerment and Enfranchisement Drive (FEED) Program strengthened.	R.1.2, R.1.3, R.2.8.	Program	1						1	1	Final report approved by BADMC/MAFS	The plan will detail the nature of technical assistance packages, delivery protocols, expected results, and number of farmers benefitted
4.8 Stakeholder awareness and engagement plan designed/upgrade d and implemented	R.1.1, R.1.2.	Plan	0	2024					1	1	Final Report approved by BWA	Implementation of public awareness and stakeholder engagement campaigns to promote the benefits of wastewater reuse and build community support, with gender and diversity considerations

Country: Barbados**Division:** WSA**Operation No.:** BA-L1063,
BA-L1065, BA-G1008.**Year:** 2025**Fiduciary Agreements and Requirements****Executing Agency (EA):** Barbados Water Authority (BWA)**Operation Name:** Barbados Climate Resilient South Coast Water Reclamation Project**I. Fiduciary Context of EA**1. Use of country system in the operation¹

<input checked="" type="checkbox"/> Budget	<input type="checkbox"/> Reports	<input checked="" type="checkbox"/> Information System	<input type="checkbox"/> National Competitive Bidding (NCB)
<input checked="" 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"/> Co-financing	Green Climate Fund (GCF) reimbursable and non-reimbursable
<input checked="" type="checkbox"/> Executing Agency	BWA
<input checked="" type="checkbox"/> Particularities of the fiduciary execution	The Government of Barbados is the Borrower. The EA of the operation will be the BWA. BWA will administer the three financing sources: OC Loan, GCF Loan and GCF grant. A department called the Project Management Office, (PMO), that comes under the Office of the Chief Executive Officer (CEO) of BWA, will be ultimately responsible for the financial management responsibilities of the Program. For this purpose, the Finance Section of such office will work in direct coordination with the Financial Specialist of the Program Execution Unit (PEU) to be established under the Office of the Project Manager of the Project Management Office. In addition, financial execution will count on the support from the Finance Department of BWA.

3. Fiduciary Capacity

Fiduciary Capacity of the EA	The PMO was established during 2017 under the approval of the Board of Directors of BWA. It has implemented an IDB-funded project Water and Sanitation Systems Upgrade (BA-L1015 or 2255/OC-BA), which was concluded in 2016. The execution of the said Loan gave BWA a solid experience and exposure to, among others, IDB financial management policies and internal control requirements. However, IDB has updated their procurement policies since the conclusion of the project, and there is a need to fill in specific fiduciary positions within the PMO with new personnel who will potentially be new to IDB project execution
------------------------------	--

¹ (Any system or subsystem that is subsequently approved may be applicable to the operation, in accordance with the terms of the Bank's validation).

	<p>The PMO has implemented various infrastructure development programs, via loans and grants, from organizations such as the Caribbean Development Bank (CDB), the European Investment Bank (EIB), the Green Climate Fund (GCF), the CARICOM Development Fund, and CAF Development Bank.</p> <p>It is expected that under a PMO, which will provide technical guidance with its experience, a fully staffed and dedicated PEU will be created to allow for strong fiduciary capacity to implement the operation.</p>
--	--

4. Fiduciary risks and risk response

Risk Taxonomy	Risk	Risk level	Risk response
Institutional	FINANCIAL MANAGEMENT- There are several factors that contribute to a Medium High: 1. Despite the PMO is established, a newly created PEU will be inexperienced, 2. Lack of a Project Operations Manual, (POM).	Medium-High	The Risk will be mitigated by the appointment and training, (on Bank policies and procedures) of a dedicated Financial Specialist, increased supervision activities in the early stages, and the creation of an Operations Manual with complete authority levels and process flow charts.
Institutional	If a procurement officer with the required skills is not contracted within the first month of execution of the project, key procurement activities will experience significant delays in the award of the contracts	Medium-High	Accelerate hiring process with involvement of highest management/executive levels of BWA
Internal processes	If systemic delays related to procurement, negotiation, closing, and initiation of contracts for key procurement activities are not resolved, this will impact the achievement of results associated which these activities	High	An in-depth assessment of the origin of such bottlenecks to be conducted or delegated by the Procurement, Audit and Finance Committee of the Board of Directors, and taking into consideration both: (a) internal processes under the responsibility of the Finance Department (Procurement Unit), the Project Management Office, and the Engineering Department, among others; and (b) external processes under the responsibility of the GPD and its Special Tenders Committee, and the Ministry of Finance, Economic Affairs and Investment (MFEI).
Institutional	If the necessary capacity building of BWA and the PEU is not conducted, the uptake of the use of IDB procurement policies will be slow and affect the overall execution of the project	Medium-High	Even though in recent years and currently BWA has executed investment project with external funding from various funding agencies including CDB, EIB, and CAF, it is imperative that during the preparation and eligibility stages, the Bank's fiduciary team conducts the necessary training

			activities at BWA with respect to the adoption, application and compliance with Banks' procurement regulations and procedures.
--	--	--	--

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: A partial waiver has been granted by the Board at the time of approval of the Project to the provisions of the Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document GN-2349-15, paragraph 1.8) and the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (document GN-2350-15, paragraph 1.13) so that firms, individuals, and goods originating from non-member countries of the Bank can participate in the selection, procurement and contracting processes relating to Component 1 of the Project.

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

Exchange Rate: For purposes of Article 4.10 of the General Conditions, the Parties agree that the applicable exchange rate shall be that indicated in paragraph (b)(i) of said Article. For purposes of determining the equivalency of expenditures incurred in Local Currency chargeable to the Additional Resources or of the reimbursement of expenditures chargeable to the Loan, the agreed exchange rate shall be the exchange rate on the effective date on/in which the Borrower, the EA, or any other person or legal entity in whom the power to incur expenditures has been vested makes the related payments to the contractor, supplier, or beneficiary.

Type of Audit: Annual Audited Financial Statements (AFS) of the operation are to be submitted to the Bank within 120 days after the close of each fiscal period. In addition, Final AFS are due for submission to the Bank within 120 days of the close (last disbursement date) of the program. The AFS should report on the overall program and be in the expressed currency of the Loan. The AFS of the program should include, in addition to the main financial statements, an internal control report. Additional arrangements for financial monitoring of the operation may apply in compliance with GCF requirements.

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 particular 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 particular 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.
-------------------------------------	-------------------	--

☒	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.
☒	Advanced Contracting Retroactive financing	The Borrower requested the Bank to proceed with the initial steps of procurement before signing the loan for the design and construction of the new South Coast Water Reclamation and Re-use Facility and the associated supervision services. As such, the Borrower has agreed that the procurement procedures, including advertising, will be in accordance with the Bank's Core Procurement Principles, prohibited practices, and eligibility for the eventual contracts to be eligible for Bank financing, and the Bank will review the process used by the Borrower. 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 make and/or approve a loan for the project in question (See Section 1.11, of GN-2349-15). (See GN-2349-15, GN-2350-15 y I(a) Policy on Cost Recognition, Retroactive Financing and Advance Procurement (GN-2259-1)).
☒	Special procurement provisions applicable to the operation	<p>The applicable policies for co-financed procurement under Component 1 will be those of the IDB (documents GN-2349-15, GN-2350-15). The IDB will be the lead cofinancing entity. The applicable thresholds for international competitive bidding or the selection of consulting firms under contracts jointly cofinanced by the EIB and the IDB will be €5 million for works and €200,000 for goods and services (consulting and non-consulting), or the equivalent in U.S. dollars. General and specific procurement notices will be published in a newspaper with national circulation or the official bulletin, the United Nations Development Business (UNDB) online, the Official Journal of the European Union (OJEU), or the IDB website. Contract awards will be published, at a minimum, in the UNDB online, the OJEU, and the IDB website.</p> <p>Pursuant to the antifraud policies and prohibited practices of the EIB, the IDB, respectively, all selection or bidding documents will include a covenant of integrity. In the event that a bidder makes a positive statement under this covenant, the banks will agree on the steps to be taken based on their own policies and procedures, which includes ruling on contract financing or the ineligibility of the bidding firm. The content of this commitment will be agreed upon by the financiers.</p> <p>-All protests will be processed collaboratively by the banks, with the IDB taking the lead. Protests received by the EIB will be sent to the IDB for review and final decision.</p> <p>-Other provisions that will apply to this operation are the mutual agreement between the IDB and the EIB for the exchange of information regarding investigations of prohibited conduct or practices, protests, and information related to procurement, as well as requirements of prohibitions for commercial and financial sanctions in each case.</p> <p>-Contract amendments that exceed 15% of the original contract value, or that exceed the amount of €5,000,000 for works or €200,000 for goods or services,</p>

		will only be eligible with a joint no objection from the IDB and the EIB, under the terms of the respective cofinancing agreements.
<input checked="" type="checkbox"/>	Procurement supervision	The method of supervision shall be ex post, except in cases where ex ante supervision is justified. The supervision method ((i)ex ante, (ii) Ex post o (iii) national system) must be determined for each selection process. The ex-post reviews will be each 6 months according to the Project Supervision Plan, subject to change during execution. Ex-post review reports will include at least one physical inspection visit (to verify the existence of the acquisitions, leaving the quality check and compliance with specifications to the sector specialist), chosen from procurement processes subject to the ex-post review Percentage of Physically Reviewed Contracts - Not Less 10%.
<input checked="" type="checkbox"/>	Records and Archives	BWA 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\$
Goods				
Repair, operation, and maintenance of hydraulic systems (automated pump system/sluice gate, other), including the scheduled removal of the sand bar.	International Competitive Bidding (ICB)		[06/15/2026]	1,250,000
Works				
Contracting under the EPC modality of the design and construction of the new South Coast Water Reclamation and Re-use Facility (SCWRRF) and the upgrade, refurbish, or replacement of equipment in the existing South Coast Sewage Treatment Plant (SCSTP).	International Competitive Bidding with Prequalification		[02/15/2025]	60,000,000
Design and installation of solar photovoltaic plant/panels (PV), and battery energy storage system (BESS) at the pumping station.	ICB		[09/15/2025]	14,000,000

Description of the procurement	Selection Method	New Procedures / Tools	Estimated Date	Estimated Amount US\$
Contracting of the installation of pipeline for irrigation, and a high-water mark catchment area.	ICB		[09/15/2025]	13,500,000
Consulting Firms				
International consultancy to conduct the supervision of the EPC design and construction of the new South Coast Water Reclamation and Re-use Facility (SCWRRF); and the upgrade, refurbish, or replacement of equipment in the existing SCSTP.	Quality- and Cost-Based Selection (QCBS)		[06/15/2025]	3,400,000

To access, see Procurement plan [here](#)

IV. Agreements and Requirements for Financial Management

<input checked="" type="checkbox"/>	Programming and Budget	Each year, the MFEI approves estimates of income and expenditure from ministries and other agencies for inclusion in the National Budget for the following fiscal year, April 1 to March 31.
<input checked="" type="checkbox"/>	Treasury and Disbursement Management	<p>The Project Cash Flow is characterized by advances, direct payment to suppliers and Direct Payment to Borrowers, (Re-Imbursements), and will use a separate dedicated account for the OC resources and for the GCF resources. The disbursement mechanism shall entail using the online disbursement methodology by default, with a paper-based method as a contingency. The operating currency will be USD, with the ability to make expenditure in local currency. The exchange rate to be used in the transaction will be the effective exchange rate on the date of payment of the expense in the local currency.</p> <p>Separate bank accounts will be established for the disbursement and management of resources of the OC loan and GCF loan and GCF grant. Those accounts will be used to conduct all financial activities related to the respective OC loan, GCF loan and GCF grant resources in accordance with the terms and conditions specified in the Project Operations Regulations. The BWA, (inclusive of the PMO) commits to maintaining strict control over the utilization of the resources disbursed to ensure the easy verification and reconciliation of balances between the PEU's and IDB records. Bank policies allow for the following disbursement methodologies will be used for the program:</p> <ol style="list-style-type: none"> a. Reimbursement of Payments Made. b. Direct Payment to Supplier. c. Advance of Funds (only to provide for the liquidity needs to meet eligible financial commitments, and to facilitate the day-to-day operations). <p>The project will provide adequate justification of the existing Advance of Funds balance, whenever 70% of said balance has been spent. The</p>

		<p>reasons that make flexibility necessary are that the PEU will be executing several works of different characteristics, the execution mechanism is complex, and the administrative and financial systems and processes of the Government.</p> <p>Advances will normally cover a period not exceeding 180 days and no less than 90 days.</p>
<input checked="" type="checkbox"/>	Accounting, information systems and reporting	<p>The PMO deploys the ERP/accounting platform Sage AccPac for the financial administration of each individual externally-funded project under its umbrella. Under its present deployment, it has the following management capabilities: general ledger, accounts payable, accounts receivable, purchase order, multi-currency transactions, other.</p> <p>Most institutions of the Central Administration of the GOB, including statutory agencies have implemented and deployed the platform "CloudSuite" (previously SmartStream) to discharge their overall budget, accounting, and treasury administration responsibilities. The current capacities of such platform as procured by the MFEI (Treasury Department), include: (a) budget (estimates of income and expenditure and execution; (b) general ledger; (c) accounts and financials; (d) payables; (e) purchasing; and (f) vendor requests.</p> <p>Project accounting will be performed within the legal framework contained in the Financial Management and Audit Act (Act 2007-11) and corresponding Financial Management and Audit (Rules), 2011, and the Public Finance Management Act, 2019, which includes statutory agencies and corporations, IDB's financial management requirements; the modified cash basis of accounting, which is a comprehensive basis of accounting other an IFRS.</p>
<input checked="" type="checkbox"/>	Internal Control and Internal Audit	<p>The management of the project, at the level of both the Borrower and BWA level, will assume the responsibility for designing and implementing a sound system of internal control for the project.</p> <p>There exists at BWA an Internal Audit Unit, which reports to the Procurement, Audit and Finance Committee of the Board of Directors. The Internal Audit Unit discharges its responsibilities under its Internal Audit Charter, 1999 and follows the Global Internal Audit Standards as purported by the Institute of Internal Auditors (IIA) and the Public Finance Management Act, 2019. The scope is to evaluate and improve risk management, control, and governance processes about the operations of BWA and third-party engagements.</p> <p>Notwithstanding, activities of the Internal Audit Unit in BWA is severely constrained by the level of staffing which comprises four members including: Unit Manager, Internal Auditor, and Internal Audit Assistants (2).</p>
<input checked="" type="checkbox"/>	External control: external financial audit and project reports	<p>For each fiscal year during project execution, BWA will be responsible to submit Audited Financial Statements, (AFS) for the loan, within 120 days after the close of each fiscal year. The audit shall be performed by independent auditors who have been previously accepted by the Bank or by a supreme audit institution previously accepted by the Bank, in accordance with auditing principles and standards acceptable to the Bank. The Borrower, directly or through the EA, as the case may be, shall authorize the supreme audit institution or the independent auditors to provide the Bank with such additional information it may reasonably request with respect to the external financial audit reports. A final AFS is to be submitted to the Bank within 120</p>

		days from the date of last disbursement. Additional arrangements for financial monitoring of the operation may apply in compliance with GCF requirements upon finalization of the Funded Activity Agreement (FAA).
<input checked="" type="checkbox"/>	Project Financial Supervision	<p>Financial Supervision will be developed based on the initial and subsequent risk assessments carried out for the program. Financial, Accounting and Institutional Inspection visits will be performed at least once per year, covering, among other things, the following topics:</p> <ul style="list-style-type: none">a. Review of AFS findings.b. Review of the bank reconciliations and supporting documentation for Advances and Justifications.c. Review of compliance with the Project Operations Manual (POM).d. Conducting ex-post reviews on an as needed basis.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/25

Barbados. Modification to the Barbados Climate Resilient South Coast Water Reclamation Project. Complementary Financing (Loan ___/GN-BA and Nonreimbursable Investment Financing GRT/GN-___-BA). Amendments to Resolution DE-94/24 and Loan Contract 5908/OC-BA

WHEREAS:

The Green Climate Fund (the “GCF”) approved a complementary investment financing consisting of a loan up to the amount of US\$30,000,000 and a nonreimbursable investment financing up to the sum of US\$40,000,000 (the “Complementary Financing”) for the implementation of the Barbados Climate Resilient South Coast Water Reclamation Project (the “Project”), approved by the Board of Executive Directors pursuant to Resolution DE-94/24 dated July 26, 2024.

The Complementary Financing to be administered by the Bank was not included as part of the Project approved by the Board of Executive Directors.

The Board of Executive Directors

RESOLVES:

1. To amend Resolution 94/24 to include the Complementary Financing in accordance with the terms of this Resolution and document PR-___.
2. To approve the modifications to Loan Contract 5908/OC-BA, in accordance with the terms and conditions established in document PR-_____.
3. That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, acting as Accredited Entity of the GCF, to enter into such contract or contracts as may be necessary with the Government of Barbados, as borrower and beneficiary, for the purpose of granting it: (i) a loan up to US\$30,000,000, from the resources of the GCF, which will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of document PR-_____; and (ii) a nonreimbursable investment financing up to US\$40,000,000, chargeable to the resources of the GCF, and to adopt any other measures as may be pertinent for the implementation of the proposal contained in document PR-_____.
4. 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 agreement or agreements with the GCF as the case may be to receive and administer resources from the GCF for the

purposes of the Project and to adopt any other measures as may be pertinent for execution of said agreement or agreements.

5. That the authorization granted in paragraph 3 of this Resolution will be effective once the corresponding agreement or agreements to which reference is made in paragraph 4 of this Resolution have entered into effect.

(Adopted on ____ 2025)

LEG/SGO/CCB/EZIDB0000366-1621835735-4764
BA-L1063 (Modification)
BA-L1065 and BA-G1008 (Complementary Financing)

BARBADOS CLIMATE RESILIENT SOUTH COAST WATER RECLAMATION PROJECT

BA-L1065, BA-G1008

CERTIFICATION

The Grants and Co-Financing Management Unit (ORP/GCM) certifies that the referenced operation will be financed through:

Operation Number	Funding Source	Fund Code	Currency	Amount Up to
BA-L1065	Green Climate Fund	GRN	USD	30,000,000
BA-G1008	Green Climate Fund	GRN	USD	40,000,000

For operations financed by funds where the Inter-American Development Bank (IDB) does not control liquidity, the availability of resources is contingent upon the request and the receipt of the resources from the donors. Additionally, in case of operations financed by funds that require a post-approval agreement with the donor, the availability of resources is contingent upon the signature of the agreement between the Donor and the IDB. (i.e.: Project Specific Grants (PSG), Financial Intermediary Funds (FIF), and single donor trust funds).

Certified by: Original signed December 12, 2024 | 4:40 PM EST

Maria Fernanda Garcia Rincon Date
Chief
Grants and Co-Financing Management Unit
ORP/GCM