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Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 18-Oct-2024 | Report No: PIDIA01209

**BASIC INFORMATION****A. Basic Project Data**

Project Beneficiary(ies)	Region	Operation ID	Operation Name
Barbados	LATIN AMERICA AND CARIBBEAN	P507190	Barbados – Beryl Emergency Response and Recovery Project
Financing Instrument	Estimated Appraisal Date	Estimated Approval Date	Practice Area (Lead)
Investment Project Financing (IPF)	01-Oct-2024	20-Nov-2024	Urban, Resilience and Land
Borrower(s)	Implementing Agency		
Ministry of Finance, Economic Affairs and Investment	Ministry of Environment and National Beautification, Blue and Green Economy		

Proposed Development Objective(s)

The Project Development Objective is to: (i) restore targeted, disaster-affected sectors; (ii) enhance climate-resilient infrastructure; and (iii) strengthen emergency preparedness and response capacity.

Components

Component 1: Immediate Recovery from Hurricane Beryl
Component 2: Strengthening Barbados' resilience for future events
Component 3: Contingent Emergency Response Component
Component 4: Project Management

PROJECT FINANCING DATA (US\$, Millions)**Maximizing Finance for Development**

Is this an MFD-Enabling Project (MFD-EP)?	Yes
Is this project Private Capital Enabling (PCE)?	No

SUMMARY

Total Operation Cost	54.00
Total Financing	54.00



of which IBRD/IDA	54.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	54.00
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Environmental And Social Risk Classification

Substantial

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Country Context

1. **Hurricane Beryl, the most powerful Atlantic hurricane on record to form in June, devastated a number of Caribbean countries between June 29 and July 5, 2024, as it tore through the region and strengthened to Category 5 status.** The eye of the then-category 4 Hurricane Beryl passed within 150 kilometers of the southern coast of Barbados on June 30 and July 1, causing severe damage to the south and west coasts and the Bridgetown marina, and severely affecting the fishing industry, with 240 vessels damaged or destroyed.¹ The cruise terminal of Bridgetown Port was also affected, including nearby breakwaters. The hurricane disrupted the accessibility, availability, quality, and use of goods and services in the area, especially the fisheries value chain, posing long-term economic challenges. Tourism and housing sectors were also affected, with 73 percent of hotels, apartments, and guest houses and 40 houses suffering various levels of damage.

2. **The Government of Barbados has made substantial efforts to address the most urgent needs in the aftermath of Hurricane Beryl.** The Government swiftly mobilized resources across ministries, the private sector, and

¹ Damage assessment conducted by the Barbados Fisheries Division.



international partners for immediate response and recovery of the fisheries complex and Bridgetown Port. The measures included fishing vessel relocation, debris removal, and rehabilitation works at the Bridgetown Port. Besides the immediate response and repair effort, the Government's overarching effort to support the recovery of the fishing industry extended to set up the National Fisheries Benevolent Fund. The fund is expected to support fisherfolk in restoring their livelihoods.²

3. Barbados is the most populous and prosperous country in the eastern Caribbean although poverty remains prevalent. With a population of approximately 281,995 in 2023 and a population density of 662 per square kilometer, Barbados is a high-income economy with a gross domestic product (GDP) per capita of US\$22,673 in 2023.³ The country has shifted from a sugarcane producer to a service-oriented economy including tourism, financial services, real estate, and public administration. Collectively, these sectors accounted for approximately 80 percent of its GDP in 2021. Tourism is a significant driver, and the financial services sector is the country's second largest source of foreign exchange. However, the country's achievements in economic and poverty reduction over the years are vulnerable to its small island inherent constraints, high dependence on tourism, and considerable exposure to weather-related risks exacerbated by climate change. By the end of 2023, the economy had weathered the COVID-19 pandemic, the side effects of St. Vincent and the Grenadines La Soufrière volcano eruption and Hurricane Elsa impact both occurring in 2021. Barbados was back on a strong growth path, with a strengthened fiscal position and a rebound of the tourism sector.⁴ Barbados' national poverty stood at 17.2 percent according to the last official survey of 2016–17.⁵ The statistic on poverty has not been measured since to gauge the effects of the triple shocks in 2020–21 and Hurricane Beryl. Yet, the Caribbean Food Security and Livelihoods Survey indicates that significant segments of the population have difficulty carrying out livelihoods: 46 percent of respondents in February 2021 and 36 percent in April 2024 reported that they had gone a whole day without eating in the 30 days prior to the survey.⁶

4. Barbados is one of the smallest island states located in the easternmost and windward part of the Caribbean's archipelago that overlaps with the southern edge of the North Atlantic Hurricane Belt. Its climate is heavily influenced by the El Niño Southern Oscillation and the island is highly vulnerable to climate change. With a coastline of approximately 97 kilometers and an extensive coral life located in marine protected areas on the western coast, Barbados is especially vulnerable to the adverse effects of weather-related hazards and increased frequency and intensity of climate-induced disasters and other natural hazards. The hazards include coastal inundation and sea level rise, increasing tidal and storm surge levels, coastal erosion, rising temperatures, changing rainfall patterns, drought, and more frequent and intense tropical storms and cyclones.⁷ Observed and anticipated climate change impacts are of particular concern to Barbados given the vulnerability of its blue economy and that 25 percent of the population live in coastal areas.

5. Barbados has been exposed to strong winds and some coastal flooding caused by several tropical storms and hurricanes in recent decades—approximately 30 events in the last 30 years. These include hurricanes: Ivan (2004), Tomas (2010), Elsa (2021), and Beryl (2024), which have impacted the island, causing casualties, considerable

² <https://www.fisheries.gov.bb/national-fisheries-benevolent-fund/>

³ World Bank Data – Country Profile

⁴ International Monetary Fund. 2023. Barbados IMF Country Report No. 23/436. Washington, D.C.

⁵ World Bank. April 2022. Macro Poverty Outlook for Barbados. Washington, D.C.

⁶ The Survey is conducted online so it does not guarantee national representativeness: <https://analytics.wfp.org/>

⁷ World Bank Climate Change Knowledge Portal.



damage, as well as disruption of the economy and essential services. Depending on the size, intensity and trajectory of the hurricane, Barbados can experience coastal impacts even when the eye of the hurricane is miles away from the island. This is especially true for trajectories south of the island, strongly impacting Barbados' southern shore, which is the most populated and features a dense network of coastal infrastructure.⁸ Hurricanes' annual average loss is estimated at US\$48 million, which is equivalent to 0.9 percent of Barbados' prevailing GDP and probable maximum loss in a 250-year return period is estimated at US\$2.5 billion or 47.8 percent of GDP.⁹

6. **Various assessments on exposure to climate change and preparedness and readiness to respond indicate Barbados is moderately prepared to confront weather and climate related disasters.** The Notre Dame Global Adaptation Initiative's country index, which measures 193 countries' overall climate change readiness and vulnerability, ranks Barbados 30 with a moderate score of 61.1 in 2024.¹⁰ The Fifth Assessment Report of the United Nations Intergovernmental Panel on Climate Change presented evidence that the combination of several factors will contribute to increased tropical storm activity in the region by the end of this century among which: (i) air temperature is projected to rise across the Caribbean by one to four degrees Celsius with a tendency toward drier conditions in the wet season; (ii) annual precipitation is expected to decrease by 12 percent; and (iii) surface water temperature is projected to increase by up to three degrees Celsius while mean sea level rise is expected to reach 0.6 meters. It is already predicted that storm intensity and frequency of Category 4-5 hurricanes across the Caribbean will increase over the next decades. This is of particular concern, given that Barbados was not hit by such hurricanes in the past, resulting in a lower preparedness capacity and moderate preparedness to face disaster according to the World Risk Index.¹¹

Situation of Urgent Need of Assistance

7. **Based on the country's urgent need for assistance, the proposed project is being prepared under the provisions of paragraph 12 of the World Bank's Operational Policy (OP) on Investment Project Financing (IPF).** This falls under the "Projects in Situations of Urgent Need of Assistance or Capacity Constraints." These provisions, approved by the World Bank's Latin America and Caribbean (LAC) Regional Vice President on September 10, 2024, allow for the expedited preparation and approval of this operation because Barbados has faced a disaster, which under the policy is defined as "an event that has caused or is likely imminently to cause a major adverse economic and/or social impact". The World Bank and the Government recognized the urgency of pursuing emergency reconstruction and restoring livelihood efforts and agreed to prepare the proposed operation in an expedited manner.

8. **After graduating¹² in 1994, Barbados became eligible for International Bank for Reconstruction and Development (IBRD) financing again in 2024.** The country has experienced high economic volatility and stalling development since 1994. In May 2024, The World Bank approved the Government's request to access IBRD financing considering: (i) the country's vulnerabilities, which are exacerbated by the increasing frequency of climate-related

⁸ Barbados 2021 Update of the First Nationally Determined Contribution.

⁹ [Barbados Hurricanes and Earthquakes Risk Profile - Barbados | ReliefWeb](#)

¹⁰ [Rankings // Notre Dame Global Adaptation Initiative // University of Notre Dame \(nd.edu\)](#)

¹¹ United Nations Office for Disaster Risk Reduction. 2022. Global Assessment Report on Disaster Risk Reduction 2022: Our World at Risk: Transforming Governance for a Resilient Future. Geneva; and <https://reliefweb.int/report/world/worldriskreport-2023-disaster-risk-and-diversity>

¹² Refers to the Bank's formal determination that a country has attained a certain level of development that renders it ineligible for new IBRD borrowing



disasters and global shocks; (ii) its lack of access to external capital markets on reasonable terms; and (iii) the need to strengthen key institutions for economic and social development. Barbados received exceptional IBRD financing four times after graduating from IBRD: (i) HIV/AIDS projects: Two loans were granted for multi-country HIV/AIDS investment projects in the financial year (FY) 01 and FY09, processed as exceptions to the graduation policy; (ii) COVID-19 pandemic response: A US\$100 million development policy loan (DPL) was approved in FY21 to support Barbados's response and economic recovery, with a graduation policy waiver; (iii) Climate change mitigation and adaptation: a US\$100 million green and resilient recovery DPL was approved in January 2023 with another policy waiver to support the Government to scale up resilient recovery efforts with a dedicated focus on climate adaptation and mitigation to promote low carbon economic development and to strengthen climate and disaster resilience. In addition to these loans, the World Bank has provided analytical and advisory services across various sectors since Barbados's graduation. As a result, this is the first Barbados investment project financing (IPF) loan since the last one closed in 2014.

9. While the government's initial response met the most urgent needs, a more systematic approach for resilient recovery and reconstruction is required. A systematic approach is needed to include climate change adaptation and disaster risk reduction (DRR) measures, requiring global best practices and support to ensure the resilient recovery and long-term sustainability of ports, coastal infrastructure, and disaster-affected sectors and communities

Sectoral and Institutional Context

10. Although the Hurricane Beryl Damage and Loss Assessment being conducted by the United Nation's Economic Commission for Latin America and the Caribbean (ECLAC) has not yet been released, the Government performed several post-disaster damage assessments. Two sectors were particularly impacted by Hurricane Beryl:

- a. **Tourism is one of the main drivers of Barbados' economy, representing 53 percent of GDP in 2023.** Tourism provides fiscal revenues and foreign currency inflows that are essential to secure the Central Bank of Barbados reserve coverage. After steady growth until 2018, the sector experienced a decline— a drop of 41.8 percent on cruise passengers and a drop of 50.4 percent for stay-over tourists from 2018 to 2021—due to the triple shocks described.¹³ The Government provided aid to the sector through the Barbados Employment and Sustainable Transformation Plan starting 2020 to alleviate short-term cashflow challenges, maintain employment, facilitate the training of personnel in various areas, and promote green private investments. The sector registered a remarkable increase after Hurricane Elsa in 2021 with 854,641 tourists for the first semester of 2024 against 655,816 for the whole year in 2023.¹⁴ However, the tourism sector was again affected in July 2024 after the passage of Hurricane Beryl. The estimated average monthly revenues from stay-over tourists were about US\$200 million during the first semester of 2024, but revenue losses attributed to Hurricane Beryl for the tourism sector have yet to be calculated.
- b. **The fisheries sector maintains an ancestral cultural heritage and contributes directly to the social and cultural life of Bridgetown city life, as well as indirectly to the tourism sector despite having a modest contribution of 0.06 percent the country's GDP.**¹⁵ The sector, which includes artisanal, marine commercial and recreational

¹³ [Tourism Statistics Dashboard - Barbados](#)

¹⁴ [Publications – Barbados Statistical Service \(stats.gov.bb\)](#)

¹⁵ <https://openknowledge.fao.org/server/api/core/bitstreams/f125c7f2-a3e0-4443-b242-dea9b33095a5/content>



capture fisheries, and aquaculture, is regulated by the Fisheries Division (FD) within the Ministry of the Environment and National Beautification, Green and Blue Economy (MENB). The sector is composed by 1,150 registered fishing vessels, which varies from small open boats to larger long liners while the entire value chain employs 3,230 fisherfolk.¹⁶ The local fishing industry operates from approximately 30 fish landing and vending sites around the island.¹⁷ Hurricane Beryl heavily impacted its main fishing fleet and the fisheries sector will need time to recover before reaching its pre-Hurricane Harvey capacity of 2017 average landing of about 1,933 tons per year as reported between 2011 and 2016. As the fish catch is showing a steady annual decline of 13.5 percent—after being impacted by hurricanes Harvey and Elsa in 2021, Tropical Storm Bret in 2023 and Hurricane Beryl in 2024—and is expected to maintain the negative trend.¹⁸ Moreover, the 35-year-old breakwater system in the Barbados Fisheries Marina, composed of interlocking concrete five-ton dolos designed to dissipate waves, was damaged by the storm and was breached at various points, leading to the damage and destruction of 240 fishing boats.

11. The Government has focused its emergency response efforts on addressing urgent and critical needs by targeting vulnerable groups, including women, children, the elderly, and low-income families. The Government has mainly focused on the loss of livelihoods suffered by Barbados’ fishing communities, as the hurricanes caused extensive losses of equipment and supplies. Women—who are a critical part of the fisheries value chain largely responsible for processing and selling—suffered increased economic pressures, and in the aftermath of Hurricane Beryl are focusing on selling fish reserves and importing fish to cover the local market demand. The capacity to mitigate these risks involves effective coordination and response by national and international agencies. These include the Barbados Red Cross Society and international actors including the World Food Programme, the International Federation of Red Cross and Red Crescent Societies (IFRC) and national authorities. Relief efforts had evolved into early recovery as of early August 2024. Local communities have played a crucial role in response efforts, with volunteers assisting in shelters, distributing supplies, and providing first aid. Strengthening community resilience through training and resources is vital for long-term recovery. The disaster has highlighted the need for a coordinated approach that prioritizes the restoration of livelihoods, mental health support, and strengthening community resilience against future disasters.

12. Preparedness and response to Hurricane Beryl—under the comprehensive disaster management (CDM) approach that is being gradually mainstreamed in key sectors in Barbados—has been led by the Department of Emergency Management (DEM) under the Ministry of Home Affairs and Information. Before, during, and after Hurricane Beryl, the DEM coordinated the responses from several government and non-governmental institutions. Existing emergency preparedness and response contingency plans in key sectors such as tourism, health, transport and works, and housing were activated in response to Hurricane Beryl.¹⁹ Moreover, the Barbados Defense Force sent supplies to affected areas, the MENB worked on debris clearance, and the Ministry of Housing, Urban Development Commission, Rural Development Commission, and National Housing Corporation coordinated the provision of immediate relief, including social assessments, foodstuffs, and temporary accommodation. The MENB undertook

¹⁶ Fisheries Division. 2023. Barbados Fisheries Policy. Ministry of the Environment and National Beautification, Green and Blue Economy. Bridgetown: Barbados. 27 pp

¹⁷ A Secondary Data Review on the Barbados Fishery Livelihoods Opportunities: A Focus on Women’s Role in the Value Chain, <https://reliefweb.int/report/barbados/secondary-data-review-barbados-fishery-livelihoods-opportunities-focus-womens-role-value-chain>

¹⁸ World Development Indicator. 2024. World Bank. Washington, D.C.¹⁹ [6b1a8333cc7aa3e2f4d59077621550cb.pdf \(barbadosparliament.com\)](https://documents.worldbank.org/curator/en/6b1a8333cc7aa3e2f4d59077621550cb/pdf/barbadosparliament.com)

¹⁹ [6b1a8333cc7aa3e2f4d59077621550cb.pdf \(barbadosparliament.com\)](https://documents.worldbank.org/curator/en/6b1a8333cc7aa3e2f4d59077621550cb/pdf/barbadosparliament.com)



significant efforts to restore the fishing industry. Volunteer divers removed sunken boats over two weeks. Local efforts were complemented by the United Nations World Food Program, Food and Agriculture Organization (FAO) and the Barbados Red Cross Society. Although the Government is planning to include more sectors in its preparedness and response plans, DEM has not reached its full potential as stated in its mandate. Indeed, effective linkages across sectors are not fully operational, and limited resources forced the Government to seek the urgent financial support of development partners (see para 15).

13. As a Small Island Developing State (SIDS), Barbados has taken important steps since 2003 to incorporate disaster risk management (DRM) and climate change adaptation (CCA) into its comprehensive strategy, laws and regulation framework. The Barbados Physical Development Plan (PDP) amended in 2023, outlines the Government's vision for the development of Barbados in the next 10 years and provides a spatial framework to support this vision. The plan addresses new concerns and aims at a country that is resilient and prepared for the impacts of the climate crisis.²⁰ The Roofs to Reefs Programme, launched in 2019, seeks to: (i) make low- and middle-income homes more resilient to extreme events and (ii) implement more sustainable land and marine use practices, and (iii) secure resilient financing. The Barbados Fisheries Policy 2023-2033 aims to develop the fisheries value chain by adopting the ecosystem approach to fisheries and increasing the resilience and reducing the vulnerability of fishing communities to climate change and disaster risks.²¹ The Blue Economy 2020-2030 Programme seeks to define and implement an infrastructural development program targeted at enhancing coastal resilience to climate change and enhancing the coastal landscape.²² Building on the 2020–2030 program, the Government formulated a Blue Economy Action Plan/Roadmap²³ that seeks to develop an inclusive and distributive blue economy where fisheries, mariculture, and biotechnology will sustain growth in healthy and resilient marine ecosystems. The Government proclaimed the Emergency Management Act Cap. 160A in 2007 leading to the creation of DEM with a broader mandate for a CDM approach. Barbados also created a National Climate Change Policy in 2012, which outlined plans to further institutional, administrative, and legislative work in both climate adaptation and mitigation in Barbados. The Green Economy Scoping Study and Coastal Risk Assessment and Management Program, among other programs, were developed to help achieve this goal. The Draft National Climate Change Policy Framework, the Updated Barbados Integrated Coastal Zone Management Plan of 2020–2030 and the Barbados Comprehensive Disaster Management Policy of 2022²⁴ were formulated to ensure a strategic direction that keeps people safe and makes communities more resilient to disaster and climate related risks and impacts.²⁵

14. The DEM supervises the country's national disaster management program and: (i) seeks civil society engagement regarding disaster management; (ii) promotes disaster management activities using the most effective channels; (iii) institutionalizes preventive and mitigation measures; and (iv) promotes the development and maintenance of sector wide early warning systems, preparedness, response, and recovery plans. The Policy Framework and Standard Operating Procedures for the Systematic Shutdown and Reactivation of Barbados of 2019 is under The DEM's oversight. The DEM can issue alerts on behalf of the Government in case of emergency.

²⁰ <https://www.barbadosparliament.com/uploads/sittings/attachments/23aaba16d823369d5633a9c98b39f585.pdf>

²¹ Fisheries Division. 2023. Barbados Fisheries Policy 2023-2033. Policy No. 12. Ministry of the Environment and National Beautification, Green and Blue Economy. Bridgetown, Barbados.

²² <https://www.undp.org/sites/g/files/zskgke326/files/migration/bb/undp-bb-Barbados-Blue-Economy-Scoping-Study-Synthesis-Report.pdf>

²³ [Barbados-BE-Roadmap-Final.pdf \(coastal.gov.bb\)](https://dem.gov.bb/public/downloads/Barbados_BE_Roadmap_Final.pdf)

²⁴ dem.gov.bb/public/downloads/BARBADOS_NATIONAL_CDM_POLICY.pdf

²⁵ <https://www.preventionweb.net/media/97841/download?startDownload=20240829>



Conversely, the DEM formulated the 2019–2023 strategic plan, which outlined its programs and mechanisms such as: (i) managing the national emergency management system (NEMS), a multisector mechanism linking human resources skills, technical expertise, and other resources to ensure effective readiness and to address DRR; (ii) chairing the Emergency Management Advisory Council’s public and private sector representation; and (iii) working closely with 30 district emergency organizations (DEOs) to organize preparedness at the local level with community volunteers. The DEM contributed to the Barbados National Disaster Preparedness Baseline Assessment in 2024 that examined Barbados’ unique hazard profile, cultural characteristics, geographical and geopolitical context, historical events, and other factors that could impact its ability to manage disasters both positively and negatively.²⁶ Since 2016, Barbados serves as the Central Sub-Regional Disaster Emergency Response Focal Point for the Caribbean Disaster Emergency Management Agency (CDEMA).²⁷

15. International and regional partners, which are actively providing aid and assistance after Hurricane Beryl, are leveraged by private climate financing to attain climate policy objectives. In response to Hurricane Beryl, the Development Bank of Latin America and the Caribbean (CAF)²⁸ donated US\$250,000 as immediate relief in the aftermath of Hurricane Beryl to capitalize the National Fisheries Benevolent Fund to assist fisherfolk affected by the hurricane. The International Federation of Red Cross and Red Crescent Societies issued a US\$4.7 million appeal to aid four countries impacted by Hurricane Beryl, including Barbados. Overall, the Government is seeking green financial instruments, including sovereign and corporate green bonds as well as prudential green financing, to attract the private sector in financing climate-related investments. The World Bank Group (WBG) is supporting the Government in the preparation of a disaster risk management development policy loan (DPL) with catastrophe deferred drawdown option.

16. The International Monetary Fund (IMF)²⁹ played a key role in Barbados’s 2019 debt restructuring and the inclusion of a disaster clause in the bulk of new public debt instruments that allows for debt deferred payments,³⁰ and is supporting the Government with a US\$40-million program launched in 2023. The program is supported by the Extended Fund Facility and implemented under the Resilience and Sustainability Facility Arrangement promoting the Blue-Green Bank coalition. The program will help finance more than US\$250 million in green investments, including affordable homes, hurricane-resistant roofs, and the electrification of public and private transportation. The Inter-American Development Bank (IDB)³¹ provided a loan of US\$100 million in 2024 to continue modernizing Barbados DRM policies, laws, and regulations. Before Hurricane Beryl, CAF was already working with the Government to develop resilient infrastructure through the Blue Green Bank coalition. The European Investment Bank (EIB), in line with its global gateway strategy,³² and in partnership with IDB, has approved US\$300 million in guarantees to support an innovative debt-for-climate operation that will help Barbados unlock much-needed resources to invest in critical climate adaptation projects, while safeguarding other priorities. The Green Climate Fund (GCF) will crowd in

²⁶ [FINAL NDPBA Island Report Barbados.pdf \(pdc.org\)](#)

²⁷ [Caribbean Disaster Emergency Management Agency \(cdema.org\)](#)

²⁸ [CAF joins the Barbados coalition to develop resilient infrastructure](#)

²⁹ International Monetary Fund. 2023. Barbados IMF Country Report No. 23/436. Washington, D.C.

³⁰ Anthony, Myrvin, Gregorio Impavido, and Bert van Selm. 2020. Barbados’ 2018–19 Sovereign Debt Restructuring—A Sea Change? IMF Working Paper 20/34. Washington, D.C.

³¹ <https://www.iadb.org/en/news/barbados-complete-sustainable-development-policy-program-idb-support>

³² [Barbados: EIB and Inter-American Development Bank approve guarantees to support climate and fiscal resilience](#)



investments to the tune of US\$15 million for climate projects and boost the financial sector of Barbados to access climate finance.³³

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

17. The Project Development Objective (PDO) is to (i) restore disaster-affected targeted sectors; (ii) enhance climate-resilient infrastructure; and (iii) strengthen emergency preparedness and response capacity.

Key Results

18. The following indicative indicators will track progress toward the Project Development Objective:
- People benefiting from financial support in response to disasters—number disaggregated by gender.
 - People benefiting from new or rehabilitated climate-resilient infrastructure—number disaggregated by gender.
 - Successfully tested district level contingency plans.

D. Project Description

19. **Project activities will focus on supporting climate resilient recovery and reconstruction in the wake of Hurricane Beryl while strengthening the country's resilience to future disasters and climate change, including building capacity for disaster preparedness and response.** Activities that directly support the immediate recovery of livelihoods for fisherfolk will be sequenced to ensure timely implementation over those focused on medium- to long-term resilience building. The activities eligible for retroactive financing amount to US\$5.42 million out of US\$54 million and will be assessed according to World Bank directives on retroactive financing before being approved by the World Bank. The project is composed of four components:

20. **Component 1: Immediate recovery from a hurricane—US\$43.5 million, of which retroactive financing up to US\$5.32 million.** This component will finance activities prioritized by the Government according to the degree of damage in the aftermath of a hurricane. Activities focus on the immediate response to the hurricane and the resilient recovery of the fisheries sector, Bridgetown Port, Fisheries Marina, and affected coastal areas. This component will have three sub-components.

21. **Sub-component 1.1: Recovery of the affected sectors—US\$28.5 million, of which retroactive financing up to US\$0.8 million.**

- Financial assistance to repair and replace fishing vessels affected by hurricanes and propose a mechanism to compensate fisherfolk in the future—US\$10.55 million.** The project will provide financial assistance to fisherfolk, and related industry members impacted by the hurricane to repair or replace damaged fishing vessels and equipment. The financial support will have two windows: (i) conditional grants to boat owners for 25 percent of the cost for repairs provided boat owners contribute the remaining in-kind or in-cash repair cost from their own or other sources; and (ii) a combination of a conditional grant, subject to the approval

³³ <https://www.greenclimate.fund/project/fp213>



of a loan to replace boats destroyed in the hurricane. The MENB's fisheries division, in coordination with a Project Execution and Coordination Unit (PECU), will implement the first window, and the MENB will procure the fee-based services of a fiduciary agent (FA) reporting to PECU for the second window. The government will assume the credit risk of the FA. The World Bank team, in coordination with the MFEI and MENB, is exploring a viable FA and two potential FAs are already being assessed: (i) fund access and (ii) enterprise growth fund limited. A dedicated operation manual (OM) will provide the details of this financial support including implementation arrangements, criteria, grant and loan terms, requirements, and an environment and social (E&S) risk checklist for the portfolio of loans. This dedicated OM will complement the project operational manual (POM) Annex 3: financial intermediary financing (FIF) provides additional information on flow of funds and implementation arrangements. This financial support will ensure highly vulnerable populations, including men, women, and youth, will have equitable access and opportunities to recover and thrive within the fisheries value chain. Boat repair and replacement will promote the use of climate-friendly practices including energy efficiency contributing to environmental sustainability. Since women are integral to the fisheries value chain, and are often spouses of fishermen, special consultations and targeted outreach activities will be undertaken. It is expected that the financial support provided by the Project to repair or replace the boats will contribute to the overall recovery of the affected families. In addition, the project will develop a concept for future sustainable support to fisherfolk affected by disasters, including insurance schemes.

- b. **Rehabilitation of the Barbados fisheries marina and its coastal protection, as well as rehabilitation of landing facilities—US\$17.95 million, of which retroactive financing up to US\$0.8 million.** This activity is a priority for the government, and toward that end, the Barbados Port Incorporated (BPI) has already hired a firm for the design and supervision of the rehabilitation of the Fisheries Marina and its breakwater. The contract will be reviewed for eligibility for retroactive financing under the project. Given the time constraint in having the breakwater rehabilitated before the next hurricane season, the project will ensure the designs for all infrastructure rehabilitation are informed by future climate scenarios, predicted extreme events, and economic and E&S feasibility. BPI is ready to start the procurement for the contractor to carry out the works. The World Bank team will support BPI to proceed with the advance procurement using STEP and ensure compliance with the World Bank's ESS. The fish markets at Paynes Bay and Oistins will also be rehabilitated.

22. Sub-component 1.2: Repair and rehabilitation of Bridgetown Port—US\$7.5 million of which retroactive financing up to US\$4.52 million. Activities under this sub-component will include clearance of debris in the immediate aftermath of a hurricane, small civil engineering works for the cruise terminal, and repairs to the breakwaters to ensure the structural integrity of the port facilities. This activity will be implemented by BPI.

23. Sub-component 1.3: Climate resilient coastal protection—US\$7.5 million. Activities under this sub-component will include design and construction of critical coastal protection works for priority sites to enhance coastal resilience. Coastal resilience refers to the ability of the coastal areas to absorb, recover from, and adapt to the impacts of climate-related hazards, such as storm surges, sea-level rise, and coastal erosion. The protection measures will be defined through detailed studies, including green, grey and hybrid options such as breakwaters, revetments, and dune restoration. The government has prioritized coastal protection works such as breakwaters at the Six Mens and Paynes Bay sites. Additional sites may be included in the project, depending on the availability of funds and their



feasibility. Designs will be informed by climate risk data and quantitative decision-making methods under various risk models, including climate change scenarios for various time horizons.

24. Component 2: Strengthening Barbados' resilience for future catastrophic events—US\$5.5 million. This component will finance activities to increase the resilience of Barbados to disaster and climate-related hazards by focusing on strengthening preparedness and response capacity of the NEMS, as well as planning for climate-resilient infrastructure for NEMS, the Barbados Fisheries Marina, and the BPI. This component will have two sub-components.

25. Sub-component 2.1: Strengthening the emergency management services—US\$1.75 million. Activities under this sub-component will aim at strengthening the preparedness and response capacity of the DEM. Hurricane Beryl had a strong impact on the fisheries sector and other infrastructure, and it was a wakeup call for the DEM. Therefore, activities will include a comprehensive gender and disability sensitive institutional assessment to inform potential reforms and provide detailed plans to strengthen the preparedness, response and recovery systems. Activities will support: (i) the improvement of the management information system for the DEM; (ii) the resource enhancement and capacity building at the national and sub-national levels to enhance preparedness and response capacity, including of the District Emergency Organizations (DEOs) at local level; (iii) the implementation of priority recommendations emanating from the recently concluded national disaster preparedness baseline assessment and the ongoing comprehensive disaster management assessment; and (iv) the development of a national emergency shelter strategy and associated management guidelines. All activities will include measures to ensure gender and disability inclusion. Capacity building activities will promote female participation, as well as increased inclusion of women in decision making processes for DRM. Training modules for DEO will incorporate a gender perspective to raise awareness of the disproportionate impact of disasters on women and vulnerable groups due to gender disparities. These modules will also include training on preventing gender-based violence, particularly within emergency shelter management. Recommendations for the DEM's potential reforms will be informed by the aforementioned comprehensive assessment and will be responsive to both gender and disability perspectives and promote female participation in decision making process. The project will also foster female participation in leadership positions in DEOs.

26. Sub-component 2.2: Studies and support for port and fisheries infrastructure resilience—US\$3.75 million. Activities under this sub-component aim at building resilience to climate change and future catastrophic events of key infrastructure for the Bridgetown Port and the fisheries sector, as well as fostering economic development in the decades to come. Informed by the government's Vision Plan 2075 and the 2023 Port Masterplan, activities will develop climate-proofing studies and designs for strengthening or upgrading of breakwaters and sea walls, as well as feasibility studies and designs for a new fisheries port and development of Bridgetown Port, which will include climate smart and build back better considerations. This sub-component will be implemented by BPI.

- a. **Transshipment hub connecting Latin America and Africa.** This activity will explore feasibility for developing Barbados Port as a transshipment hub for servicing cargo passing the Panama Canal and destined for or originating in West Africa. An initial study will serve as market mapping, including understanding cargo volumes, origin or destination flows and imbalances of freight, current routing of the targeted cargos, and a general growth estimation of the market. The study would also include a high level or rough-order-of-magnitude of investment cost estimations needed and presentation of options for hypothetical partnering arrangements to realize the objective. Subject to the outcome of the initial study and government's strategic decisions, further studies pursuing the goal will need to be decided on.



- b. **Dry-dock.** Explore feasibility for construction of a dry dock in Barbados Port, for maintenance and repairs for cargo and cruise ships and aiming at diversifying the port's operation. An initial study will serve as market mapping in the broad regional area, segmenting by type of vessels to understand the range of capacities that might be provided. The study would include estimation of docking frequency and needs of the target vessels. The study would identify existing service providers in the broad regional area, as well as any plans for an increase in docking capacities. The study would also include a high-level or rough-order cost estimation of investments needed and presentation of options for hypothetical partnering arrangements to realize the objective. Subject to the outcome of the initial study and government's strategic decisions, further studies pursuing the goal will need to be decided on. This study has the potential to increase private sector interest and activity.
- c. **Sustainability of local boat building, repair and possible retrofitting capacity.** The viability of local boat building and repair is at risk. Artisanal activity has reportedly suffered in recent years from the declining number of skilled persons. Additionally, new boats tend to be constructed of fiberglass thus necessitating some reskilling, as the traditional wooden boats are gradually being replaced. This activity will, through an assortment of targeted studies, technical assistance, training and possibly material support, improve the skills of local technicians and apprentices to maintain local capacity for serving fisheries boats. Where applicable, specific climate resilience measures will be adapted. Examples are: (i) the use of storm-resilient materials beyond standard water exposure and (ii) climate mitigation measures like energy efficiency improvements, with the goal to gradually move toward a more climate-friendly fleet. By significantly boosting its repair and retrofitting capacity, Barbados will strengthen its resilience to future hurricanes and ensure its ability to respond and recover more quickly.
- d. **New fisheries port.** Feasibility studies and design identification are based on the BBB approach and will be carried out to explore the relocation of the current marina to a safer area.

27. **Component 3: Contingent emergency response component (CERC).** This component will finance eligible response and early recovery activities in the event of a disaster caused by natural hazards. In the event of an emergency, uncommitted funds from other components may be reallocated in accordance with an emergency action plan that the Government will prepare. Uncommitted funds to be allocated to this component will be determined at the time of the emergency in agreement with the World Bank. CERC's operation manual (OM) will provide the overall financing framework and outline the types of activities eligible under CERC. A dedicated chapter in POM will detail the trigger, execution of the funds in the event of an eligible emergency and the eligible activities to be Paris-aligned³⁴. This alignment will also be ensured for the specific activities to be financed and included in the emergency action plan, based on the information available at the time of CERC activation. Immediate emergency preparedness and response activities that are temporary and time-bound, such as debris removal, emergency evacuation, structural stabilization, restoration of essential services, procurement of medicines, food security, and cash transfers are considered low risk, and therefore Paris-aligned. Additional contingency instruments will include: a Rapid Response Option (RRO), which allows for quick repurposing of undisbursed and uncommitted World Bank financing across a country's portfolio to address emergency needs during a crisis; and a Climate Resilient Debt clause (CRDC), which allows to postpone the project debt repayments in the instance of climate disasters.

³⁴ <https://www.worldbank.org/en/publication/paris-alignment>



28. **Component 4: Project management—US\$5 million, of which retroactive financing up to US\$0.1 million.** This component will be implemented by the MENB through a dedicated PECU. PECU will assume responsibilities of project coordination, monitoring and evaluation (M&E) and reporting, and technical oversight including Environmental and Social Standards, fiduciary aspects including financial management and procurement, and contract administration, audits, as well as disaster risk management, coastal engineering, financial services and communications, and coastal zone management (CZM). Moreover, the World Bank will provide hands-on expanded implementation support requested by the Government to achieve the IPF safeguard objectives. Costs associated with PECU staff contracted before project approval can be eligible to retroactive financing.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Area OP 7.60	No
Summary of Screening of Environmental and Social Risks and Impacts	

E. Implementation

Institutional and Implementation Arrangements

29. **The Ministry of Finance, Economic Affairs and Investment (MFEI) has designated the MENB as responsible for overall implementation through a dedicated PECU.** This includes project coordination, planning, and expertise provided by specialists in the following fields: E&S, procurement, fiduciary management, monitoring and evaluation, DRM, coastal engineering, financial services and communications. This decision was partly made because of the size and nature of the project activities supporting sectors within the MENB: FD and the CZMU. PECU will also implement activities to strengthen DEM.

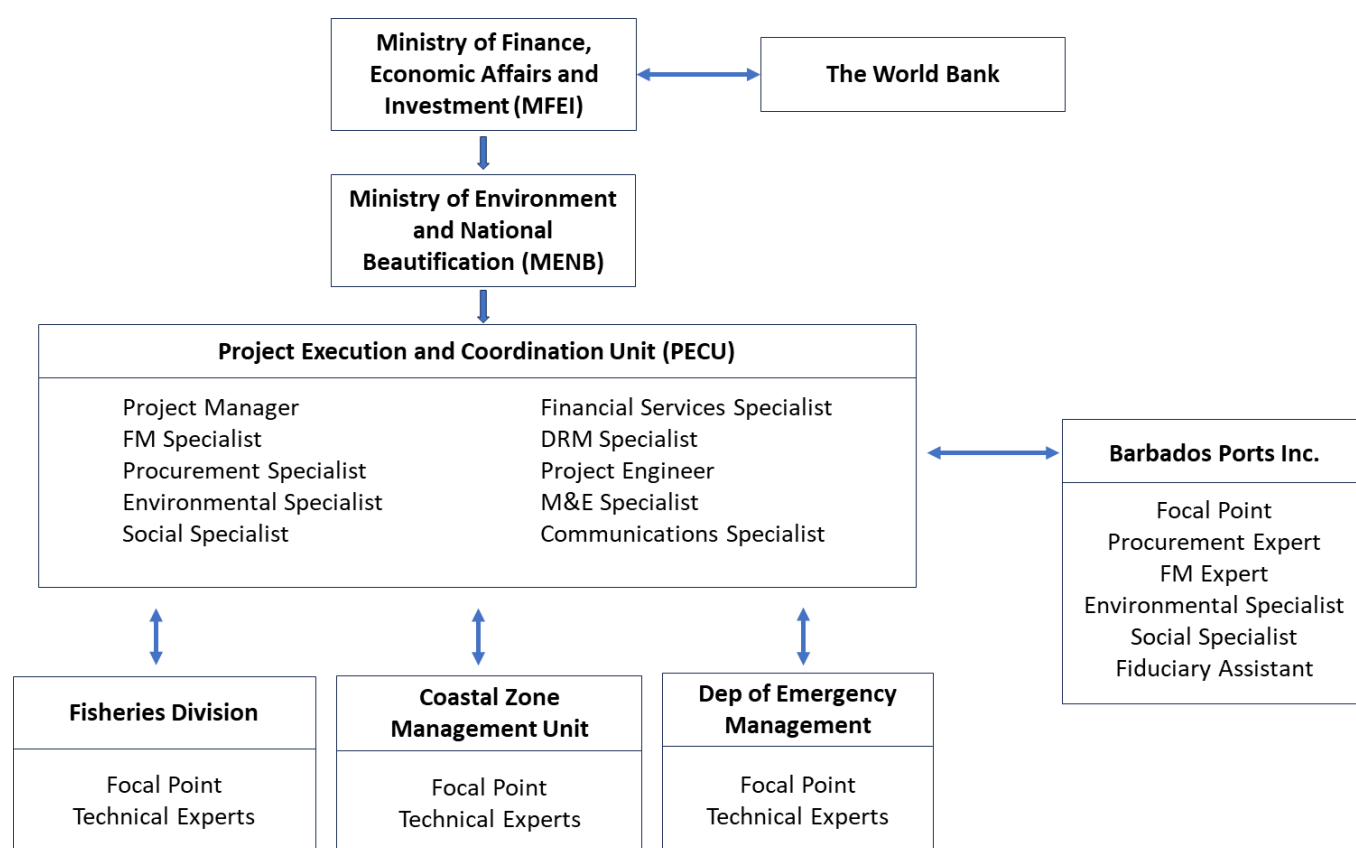
30. **While PECU will act as the apex coordination and implementing entity for the project, BPI—a commercial state-owned enterprise—will be responsible for ESS, procurement and financial management related to project activities it executes.** BPI will work closely with PECU and report on its project-related work to ensure PECU can fulfill its responsibility for overall project management, reporting, and monitoring and evaluation. Each of the four implementing agencies—FD, CZMU, DEM and BPI—will assign focal points who will report to the PECU for project-related activities and provide all the necessary technical expertise to PECU to prepare and implement all activities. BPI will also assign the necessary technical experts to supervise the activities under their control. An FA will be contracted to provide financial support to fisherfolk through a package comprised of grants and loans that will be coordinated under PECU by a financial services specialist.

31. The project implementation arrangements are illustrated in Figure 2. PECU, which will be financed through component 4 of the project, will report to the MENB and be led by a project manager, who will supervise the core



staff cited above. All project implementation arrangements, including PECU's organizational structure, the role and responsibilities of PECU in relation to BPI, and staff roles and responsibilities, will be detailed in the POM that the borrower will adopt in form and substance satisfactory to the World Bank. Moreover, the fiduciary agent's operational manual will complement POM as soon as it is finalized following the selection of the fiduciary agent (see Annex 3). A subsidiary agreement (SA) to the loan agreement will be elaborated and will be signed by the MFEI and BPI and will be accounted as a disbursement condition. The Government will prepare and adopt the POM as a condition of project effectiveness. PECU staff are expected to be hired before the board meeting. Moreover, the Government has requested hands-on expanded implementation support (HEIS) to increase PECU's ESS capacity; this request is still under review by the World Bank. BPI will mainly rely on in-house fiduciary expertise. BPI will recruit E&S specialists as well as a fiduciary assistant. The BPI team will coordinate its work with the PECU staff.

Figure 2: Proposed implementation arrangements under the MENB through a dedicated PECU



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