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EASTERN AND SOUTHERN CARIBBEAN CLIMATE CHANGE REGIONAL PROFILE

USAID’s Eastern and Southern Caribbean (ESC) Mission supports the countries in the Eastern Caribbean to build their climate resilience through investments in disaster preparedness and response, including climate information services, standard operating practices and policies, facilitating access to climate finance, and supporting community and private sector participation in resilience building.

The Eastern Caribbean Islands are highly vulnerable to a set of hydro-meteorological hazards such as tropical cyclones, excessive rainfall, droughts, dry spells, and heatwaves, and associated climate-driven hazards such as floods, landslides, coral reef bleaching, and coastal erosion. Many of these hazards are being exacerbated by climate change and the associated sea level rise.

Over the past decade, as climate variability and climate changes manifest, ESC countries have experienced an increased intensity and frequency of storms. Vulnerability is compounded by a high dependence on natural resources for income, coupled with much of the population concentrated in low-lying coastal areas. Weather and climate shocks, such as rising temperatures, increased intensity of rainfall events, and more

frequent storms have had devastating impacts on the people and governments of the ESC, the scope of which is overwhelming relative to the small size of the region's economy. Such disruptions adversely impact critical sectors such as tourism, health, water, and agriculture-related infrastructure and livelihoods.

Regional Climate Priorities

As the number of climate-induced disasters rise, so do the needs for investing in disaster resilience across the region. Investments include targeted capacity building; strengthening policy development; data collection, analysis, and use; building capacity in national and regional institutions; increasing access to climate finance; and increasing the resilience of key sectors including energy, agriculture, and water to reduce risk among populations, including those most vulnerable to the impacts of climate change.

USAID'S Climate Change Program: Objectives and Results

USAID/ESC aims to expand the ability of countries in the ESC to prepare for, recover from, and respond to disasters driven by a changing climate. USAID is investing in increasing information sharing, developing standard practices and policies, strengthening operational systems, increasing access to climate finance, and increasing community and private sector participation in resilience building. Efforts will build on strong partnerships with regional research institutions, governments, and other regional partners. Resilience programming supports key sectors, such as clean energy, agriculture, and water, that are critical to supporting economic stability and growth, as well as contingency planning regarding at-risk youth, who are most likely affected by the effects of climate change.

USAID supports the Caribbean Community's development and climate priorities through a series of programs and partnerships across the areas of climate adaptation and renewable energy.

Adaptation and Resilience

USAID/ESC programs seek to strengthen the ability of Caribbean countries to recover from adverse shocks and adapt to climate variability and change by improving climate data and information sharing, developing standard practices and policies, strengthening operational systems, and increasing community participation and resilience. Efforts also support increased access to finance by countries from international sources, as well as through the development of innovative financial tools. Institutional strengthening targets national and regional institutions to ensure appropriate regional training and awareness regarding climate change.

Key Results

- Procurement of five drones to increase geospatial data/imagery availability for disaster management decision-making in Barbados, Saint Vincent and the Grenadines, and Dominica.
- Disaster recovery support to Guyana (June 2021) and Suriname (May 2022).

- Awarded 16 grants totaling \$4,336,855 in partnership with the Inter-American Foundation to community-based organizations to undertake resilience building initiatives in areas such as sustainable agriculture, natural resource management, and institutional strengthening for civil society to increase their ability to implement projects and support their communities.
- Built regional capacities in partnership with the Caribbean Institute for Meteorology and Hydrology (CIMH) in areas such as Light Detection and Ranging (LiDAR) to produce high resolution, community-level spatial data; the ability to create time-lapse imagery, develop and implement image classification and landform, and cover change detection algorithms; and to interpret and manipulate remote sensing data/imagery (satellite and optical imagery).
- Awarded a \$350,000 grant to the CIMH to procure 38 groundwater monitoring stations for the Barbados Water Authority, bringing the total to 42. These new monitoring stations provide Barbados a premiere island wide network delivering a continuous stream of data to the Barbados Water Authority to monitor water levels and quality, and provide critical information to improve aquifer planning and management.
- Improved WebAlert protocols and early warning communication systems for hydro-meteorological hazards in Grenada and Saint Lucia.
- Developed a new mangrove monitoring system for Guyana to improve future decision-making.
- Supported the National Emergency Management Office in Saint Vincent and the Grenadines to build its operational capacity and assist in responding to the volcanic eruption in 2021.
- Updated The Caribbean Disaster Emergency Management Agency's (CDEMA) Community Resilience Framework and testing of the framework in two villages in Guyana (Katoonarib and Sawariwau).
- Issued drones to disaster management offices in The Bahamas, Grenada, and Barbados.
- Trained 24 people on the use of the CDEMA Logistics System in Dominica, used for enhanced post-disaster relief management and tracking, and improved inter-agency preparedness.
- Organized the first Caribbean Water Conference, which brought together leaders from across the region to address water availability, usage, and management challenges.
- Supported three entrepreneurs from Trinidad and Tobago, Saint Lucia, and Saint Vincent and the Grenadines with funding and capacity building to advance their concepts to improve water technologies for increased climate resilience, through the Water for All Pitch Competition.
- Conducted several capacity building events for governmental entities, civil society and research institutions in Suriname, Guyana, Trinidad and Tobago, Barbados, and the Eastern Caribbean on the use of geospatial information services and earth-observing satellites for environmental decision-making.
- Provided training for national disaster offices in Dominica, Trinidad and Tobago, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines in policy and procedure development, particularly as it relates to disaster management, in collaboration with the University of the West Indies (UWI).

Key Activities

Caribbean Climate Resilience Initiative (CCRI)

In partnership with CDEMA, CCRI works to institutionalize Comprehensive Disaster Management (CDM) as the Caribbean's platform for achieving risk reduction to improve the capacity of regional and national institutions to respond to natural disasters and strengthen community systems to manage risks and build resilience to climate-related hazards.

Policy and Regulatory Reform for Resilience (PROSE) Activity

USAID/ESC supports The Cadmus Group to implement the PROSE activity in collaboration with the UWI and Adapt Consulting, working closely with CDEMA. The purpose of PROSE is to support national governments within the ESC to strengthen legal frameworks for regional, national, and sectoral resilience. Additionally, interventions seek to improve implementation of risk reduction and climate resilience measures across critical economic sectors and enhance civic participation in the development and enhancement of CDM policy, regulations, and plans.

SERVIR-Amazonia

A joint development initiative of NASA and USAID, SERVIR-Amazonia is led by the Alliance of Biodiversity International and the International Center for Tropical Agriculture (CIAT). The five-year program (2019–2023) works with countries to bring together local knowledge and some of the world's best science in geospatial and Earth observation technology to develop tools, products, and services that improve environmental decision-making. The project provided training to Caribbean organizations and stakeholders to increase their capacity in geospatial service design and development, specifically in monitoring their mangrove ecosystems and hydro-meteorological events. The project also worked with stakeholders in Guyana to develop a mangrove monitoring service which will help plan mangrove protection efforts in low-lying coastal regions.

Program for Accelerating Climate Change Adaptation (PACCA)

This activity supports the programmatic acceleration of climate action and access to finance by strengthening regional institutional capacity. This will be done through the provision of climate data, data management and modeling tools, and technical assistance to public and private sector organizations involved in the development and execution of climate projects. This activity is expected to directly benefit 500,000 people and indirectly benefit 3,000,000 regionally through a pipeline of over \$300,000,000 in Green Climate Fund projects.

Comprehensive Action for Climate Change Initiative (CACCI)

This activity is designed to support countries to implement their Nationally Determined Contributions and National Adaptation Plans through technical and analytical support, capacity development, and inclusive and evidence-based policy dialogue. CACCI aims to help achieve a critical mass of countries able to respond to their commitments under the Paris Agreement, thus promoting household and community level resilience, food security, and robust inclusive growth.

Advancing Caribbean Community Climate Resilience Planning (ACCRP)

Implemented by the Global Resilience Institute of Northeastern University, this activity supports community-driven climate and economic resilience planning among three vulnerable communities in Barbados and Dominica. It aims to facilitate bottom-up community engagement efforts that are

calibrated to local contexts while addressing systemic inequities and build the capacity of the Caribbean Islands Higher Education Resilience Consortium so that they can replicate and scale climate resilience interventions throughout the region and globally. By leveraging the depth of knowledge of universities, the program aims to develop and empower local groups to plan against climate risks.

Roadmaps for Urban Adaptation in Latin America and the Caribbean

Implemented under the Program for Local and Urban Sustainability, this pilot activity aims to develop climate resilience and climate finance roadmaps for a city in Trinidad and Tobago. The roadmaps will have a specific focus on meeting the needs of vulnerable populations, who face negative health, social, and economic impacts of climate change in this urban environment. Lessons learned from applying a bespoke city-selection methodology and developing the roadmaps will be applied to other islands within the ESC.

Farmer-to-Farmer (F2F) Program

The F2F Program promotes sustainable economic growth, food security, and agricultural development while addressing negative impacts of climate change, incorporating climate-smart techniques, and helping local hosts adapt to changing climate and weather patterns. A new project began for Guyana in October 2023.

Caribbean Agricultural Productivity Improvement Activity (CAPA)

USAID and the Caribbean Community (CARICOM) have partnered to address food security in the Caribbean, a pledge reinforced at the Ninth Summit of the Americas and the U.S.-Caribbean Partnership to Address the Climate Crisis 2030. The three-year, \$5.3 million activity, implemented by Improving Economies for Stronger Communities and the Inter-American Institute for Cooperation on Agriculture, focuses on food security by increasing fruit and vegetable productivity, building the capacity of buyers and input suppliers to strengthen relationships with farmers, and improving farm-level extension systems.

INVEST

Implemented by DAI, this mechanism will help USAID mobilize private capital for development results. INVEST is working with the CARICOM Development Fund to develop a new regional funding instrument focused on growth and resilience investing, partnering with the Bank of Saint Lucia to support lending to women, and enhancing access to credit and financing for local businesses in Guyana.

Renewable Energy

USAID/ESC works in tandem with other Missions in the Caribbean under the Caribbean Energy Initiative to build clean, secure, and reliable energy systems throughout the region. USAID is strengthening the energy resilience of countries by increasing renewable power generation, increasing utilities service efficiency and quality, and enhancing the ability of electricity systems in the Caribbean to withstand shocks.

Key Results

- Model Grid Code developed for Saint Lucia, which is replicable to other countries.
- Energy Policy Outreach program implemented for Barbados to support the transition to clean energy.
- Caribbean Climate Investment Program (CCIP) launched throughout the region, including 1 on 1 consultations with over 40 private sector firms in Trinidad and Tobago, Barbados, and Suriname.
- Operational Framework for the Blue Green Bank development underway.

Key Activities

Energy Sector Reform (ESR)

Through the ESR activity, USAID will provide technical assistance for energy reform to utilities, ministries, and regulators in the host countries to develop policies, laws, regulations, tools, and processes to design and operate more resilient and modern energy systems. By supporting the development, reform, and promotion of sustainable policies in the energy sector, this activity will facilitate the harmonization of islands' policies and therefore create a larger market for the expansion of cleaner and renewable energy generation. The activity will also address key policy reforms to support the removal of barriers to clean energy development.

Caribbean Climate Investment Program (CCIP)

This activity seeks to provide financial and technical assistance and support to businesses deploying technologies that advance climate mitigation and adaptation goals across the Caribbean region by mobilizing private finance and private sector-led actions. CCIP will facilitate access to a regional-level facility that enables assistance and financing for private sector investments, with a focus on small and medium-scale enterprises working in renewable energy and energy efficiency.

Blue Green Bank (BGB)/Blue Green Investment Corporation (BGIC)

Co-funded by USAID/ESC, the Government of Barbados, and Green Climate Fund, the BGB is a joint public-private sector effort to create a regional financing vehicle to overcome the existing financing challenges and constraints of climate change adaptation and mitigation. The BGB's overall objective is to contribute to climate resilience, adaptation, and greenhouse gas emissions reduction in Barbados and other frontline countries in the region.

Strengthening Utilities and Promoting Energy Reform (SUPER)

The SUPER program works in partnership with the National Renewable Energy Laboratory (NREL) and the Caribbean Cyber Security Center, and offers a suite of assessments, training, interactive exercises, resources, and planning tools. Program activities include conducting a cybersecurity assessment, developing internal policies on domains such as incident response and business continuity, developing a risk register tool, and other ad-hoc assistance to build the cybersecurity capacity of utilities.