

# Jamaica

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## Introduction

Jamaica, a mountainous island in the Caribbean Sea, takes its name from the Taino word "Xaymaca," meaning "land of wood and water." The island is home to over 3,500 plant species, including 900 endemics, and has one of the highest numbers of endemic birds and plants among Caribbean islands. The Blue Mountains and the remote, off-shore Pedro Bank and Cays are just two important places for a range of natural resources.

Jamaica attracts millions of visitors annually and at the same time faces significant environmental challenges. Development pressures, pollution, overfishing, and climate change threaten its biodiversity and the livelihoods of communities that rely on these resources. Additionally, Jamaica is among the top three countries most exposed to multiple natural hazards globally.

For over three decades, The Nature Conservancy (TNC) has worked with local partners to conserve Jamaica's natural resources. TNC supported the establishment of Jamaica's first national park in the Blue and John Crow Mountains, helped build capacity for the Montego Bay Marine Park—Jamaica's first marine protected area—and provided seed funding for a national conservation endowment to sustain protected areas.

TNC continues to collaborate and partner with the government, other entities and communities, to strengthen the resilience of vulnerable groups to climate change while promoting sustainable land and sea management. This work is part of national and local efforts to ensure the responsible use of natural resources and the long-term health of Jamaica's ecosystems.



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ISLAND



# Marine Programme – Championing and Advancing Marine Management, Sustainable Fisheries and Coral Reef Restoration

TNC Jamaica's Marine Program is strategically focused on **Marine Management, Coral Reef Restoration and Sustainable Fisheries** given that Jamaica, a small island developing state, is heavily dependent on its coastal resources for coastal protection, livelihood and food security. TNC has worked with local partners to protect, conserve and encourage the sustainable use of these vital resources, including leading and supporting the establishment of Marine Protected Areas (MPAs), providing science-based tools, like habitat maps and assessments, and training for NGO's, government and academia.

## • International Climate Initiative (IKI) CoralCarib Project –

In 2023, TNC launched the CoralCarib Project, a 6 year regional project funded by the International Climate Initiative (IKI) aimed at improving marine biodiversity in coral reefs. Modeling was used to select priority coral reef sites with an increased likelihood of withstanding the effects of climate change. In Jamaica TNC and local partner Alligator Head Foundation (AHF) has been working in East Portland to improve the conditions for coral reefs to not just survive but to thrive. Key components of the project include:

**a**

### Improving effective management of coral reefs

A plan to address the main threats and a Management Plan for the East Portland Fish Sanctuary were developed to guide project activities, with the aim of measurably improving management effectiveness and reducing threats over time.

**b**

### Scaling up Coral Reef Restoration

Scientific analysis showed that urgent scaling up of coral reef restoration was critical so the project focuses on building capacity to implement scalable restoration techniques, including:

- Expanding AHF's land-based coral nursery
- Diversifying and expanding underwater nursery activities
- Using innovative restoration techniques e.g. macro and micro-fragmentation and assisted sexual reproduction to increase species number and diversity
- Assisted sexual reproduction of corals to increase their chances of fertilization
- Building the capacity of coral practitioners nationally to use the innovative restoration techniques



**c**

### Supporting sustainable livelihood opportunities for coastal communities

Unsustainable fishing practices were identified as one threat and through community dialogue a few sustainable livelihood opportunities are being supported:

- Small business capacity development or expansion
- Seamoss mariculture
- Pelagic fishing

**d**

### Assessment of ecosystem services and outreach

CoralCarib carried out an economic valuation of the East Portland project site ecosystem services to highlight the value of the coastal resources to the lives and livelihoods within the community, inform policy, planning and bring greater understanding as to the importance of its conservation and proper management. This and other information will be used for outreach to key stakeholders.

**e**

### Policy support and resource mobilization

The project will assess national coral reef and related policies and provide capacity building opportunities and scientific tools to key stakeholders to enhance their ability to improve policy decisions. Some key stakeholders are the AHF, academia, other NGOs managing MPAs, coral reef practitioners and government agencies with responsibility for coastal resources. The impact of the project goes far beyond a single location but can be seen nationally. For more project details see here: <https://www.nature.org/en-us/about-us/where-we-work/caribbean/coralcarib/>



### • **Wastewater Treatment: Reducing Coastal Pollution with Nature-Based Solutions**

Jamaica's coastal waters have suffered from land-based pollution, negatively impacting marine and coastal biodiversity and the ecosystem services they provide. TNC aims to increase the understanding of the value of using nature-based solutions in the suite of tools to manage wastewater and reduce pollution. This included carrying out an assessment of current wastewater practices and laws, provided training to key officials in utilizing nature-based solutions for wastewater management and working to increase awareness of the impacts of wastewater on coastal habitats.

## Building Climate Resilience

Jamaica is vulnerable to the impacts of climate change with risks to natural resources, economic development, and social well-being. To that extent, strengthening climate resilience requires cross-cutting engagements to ensure natural systems can adapt and recover quickly from the impacts of climate change. TNC Jamaica's climate program aims to promote the use of nature-based solutions to tackle climate change impacts on people and support local stakeholders to meet global climate targets.

### • **Incorporating Coastal Wetlands in Jamaica's Climate Commitments**

TNC Jamaica, in partnership with the Centre for Marine Sciences at the University of the West Indies and with funding from the Pew Charitable Trusts, is leading the groundwork to integrate coastal ecosystems—mangroves and seagrasses—into Jamaica's Nationally Determined Contributions (NDCs). These contributions represent Jamaica's commitments to reducing greenhouse gas emissions as part of global climate change mitigation under the Paris Agreement.

Recognizing the vital role of mangroves as a national resource, the Government of Jamaica (GOJ) has expressed a strong interest in incorporating mangroves and seagrass ecosystems into their climate strategies. However, a lack of data has previously hindered their inclusion in the previous NDCs. To address this, TNC's project aims to:

- 1 Provide spatial data and policy support**
  - To ensure that Jamaica can set science-based NDC targets for the carbon sequestration potential of its mangroves and seagrasses, the project will produce comprehensive habitat maps for Jamaica's mangrove forests and seagrass beds.
- 2 Estimate the carbon sequestration capacity of mangrove ecosystems**
  - By establishing a national carbon stock estimate for mangroves, the project will provide a foundation for exploring the feasibility of voluntary carbon markets.
- 3 Provide technical and policy assistance to the Government of Jamaica**
  - Offer training in remote sensing techniques and correlating spatial extent to carbon stocks
  - Provide recommendations on integrating coastal wetlands ecosystems into NDC commitments. This support will contribute to the protection of coastal wetland ecosystems and contribute to global climate goals.

- **Blue Carbon Resilience Credits Program**

Mangrove forests and seagrass beds provide crucial ecological services like storm protection, coastal erosion prevention, and carbon sequestration. TNC Jamaica is working alongside global and local colleagues to investigate the potential for protecting and restoring Blue Carbon (coastal wetlands) habitats of mangroves and seagrasses, through carbon markets – specifically how these habitats can generate carbon and resilience credits, offering a financial incentive for their conservation.

TNC is currently conducting scoping studies to identify the feasible areas for a blue carbon offset project in Jamaica. These projects, which require land areas of at least 500 hectares, could reduce mangrove deforestation, enhance habitat, and provide greenhouse gas (GHG) benefits. TNC is engaging landowners to assess their interest in participating in these projects, which could provide financial returns through carbon credits.

Feasibility studies and stakeholder engagement are key components of this initiative and are ongoing.



- **Roots to Resilience**

1 Jan 2025 to Dec 2027 – 3 years

Roots to Resilience is being implemented by The Nature Conservancy (TNC) and the International Federation of the Red Cross and Red Crescent Societies (IFRC). This has the overall goal of expanding the geographic and thematic scope of the existing partnership between our 2 organisations and showcasing a model of a functional partnerships between the environmental, humanitarian and development sectors in Latin America and the Caribbean that reduces social, economic, and environmental vulnerabilities

The objectives are to:

- 1 Help climate-vulnerable communities equitably reduce the risks of climate-related hazards and disasters while strengthening local communities and ecosystem resilience to the impacts of climate change
- 2 Roll out a suite of Nature-based adaptation solutions to address challenges at the nexus of climate change and environmental, humanitarian and development issues, at the community level within the two sites – one in Colombia and one in Jamaica
- 3 Strengthen and expand the partnerships between IFRC and TNC including joint fund-raising



CONSERVING THE LANDS AND WATERS  
ON WHICH ALL LIFE DEPENDS

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