

THE MPA GAP ANALYSIS

STUDY 2025

SUMMARY REPORT



Oracabessa Bay Fish Sanctuary (Jamaica)

CARIBBEAN MARINE PROTECTION - KEY TAKEAWAYS

The Caribbean Biodiversity Fund (CBF) is a regional environmental trust fund advancing sustainable financing for biodiversity conservation and ecosystem-based management across the Caribbean. As part of its commitment to strengthening marine protection, this report presents a Marine Protected Area (MPA) gap analysis for eight countries: Antigua and Barbuda, The Bahamas, the Dominican Republic, Grenada, Jamaica, St. Kitts and Nevis, St. Vincent and the Grenadines, and Trinidad and Tobago.

The analysis highlights progress and clear opportunities to build a more connected, well-resourced, and effective regional MPA network:

- Strengthen Functionality by improving enforcement, staffing, and community participation so MPAs can achieve their full ecological and socio-economic potential.
- Mobilize Sustainable Finance to meet 30×30 targets, requiring an estimated US \$642 million annually, and expand innovative, blended financing through the CBF and national conservation trust funds.
- Expand Protection to Key Habitats such as seagrass meadows, mangroves, nursery zones, and pelagic corridors to enhance coastal resilience, carbon storage, and fisheries productivity.
- Advance Legal and Institutional Readiness by building on models from Jamaica and The Bahamas, supporting broader regional harmonization and capacity-building.
- Improve Data and Monitoring Systems to strengthen ecological and socio-economic information for evidence-based planning and adaptive management.
- Empower Co-management and Inclusion by engaging fishers, indigenous peoples, and local communities to foster stronger stewardship and compliance.
- Enhance Regional Cooperation to ensure shared ecosystems and migratory species are managed through harmonized, transboundary frameworks and joint monitoring.
- Build Political and Policy Momentum through sustained commitment, policy alignment, and integration with national development and climate goals.
- The Dominican Republic stands out as a regional leader, having already achieved 30% marine protection. Across all eight countries, 11.4% of combined Exclusive Economic Zones (EEZs) are currently protected. Meeting the 30×30 goal will require an additional ~143,500 km² — a transformative opportunity to secure the Caribbean's marine biodiversity and blue economy for future generations.

INTRODUCTION

The Effective Marine Protected Areas for the Caribbean (EMPAC) project, a flagship initiative of the CBF launched in 2023 with support from the Blue Nature Alliance, aims to strengthen marine conservation outcomes in line with the Global Biodiversity Framework's Target 3, which calls for protecting 30% of marine and terrestrial areas by 2030 (the 30×30 target).

As part of this initiative, this report presents a comprehensive MPA gap analysis for eight Caribbean countries: Antigua and Barbuda, The Bahamas, the Dominican Republic, Grenada, Jamaica, St. Kitts and Nevis, St. Vincent and the Grenadines, and Trinidad and Tobago.

Purpose and Scope

The analysis identifies key gaps and opportunities across the Caribbean's MPA landscape, focusing on legal, policy, financial, institutional, and stakeholder engagement dimensions. It also supports the design of a regional MPA finance facility and national action plans to accelerate progress toward the 30×30 target. The report considers all forms of marine protection, including MPAs, Marine Managed Areas (MMAs), and other area-based management measures.

Methodology

The study combined desk reviews, legal and policy assessments, financial benchmarking, stakeholder mapping, and consultations—both in person and virtual. Field missions were conducted in six countries, engaging over 150 stakeholders through interviews, surveys, and workshops, including regional partners and conservation finance institutions, over a seven-month period. McKinsey & Company served as a key partner, supporting the financial analysis and planning of a future MPA financing framework.

MPAs are designated zones established to protect biodiversity and ecosystem services. MMAs encompass broader management objectives, integrating conservation with sustainable use, fisheries management, cultural heritage, recreation, and climate resilience.

Target Country Selection

The eight countries were prioritized using a scoring matrix of 15 criteria assessing MPA coverage, data availability, and management frameworks. Those scoring 2.0 or higher were selected for detailed analysis, as they demonstrated stronger MPA development and data availability. Others were excluded due to limited funding, institutional capacity, or data constraints.

Little Inagua National Park (Bahamas)



St. Mary's Biosphere Reserve
(St. Kitts and Nevis)



West Seide National Park (Bahamas)





Buccoo Reef Marine Reserve (Trinidad and Tobago)

The Caribbean region is highly economically dependent on tourism. This sector is responsible for 25.4% of the GDP and 13.4% of the jobs (OECD/IDB, 2024). These ecosystems underpin regional livelihoods through fisheries, tourism, and coastal protection while contributing to global biodiversity.

Marine conservation in the Caribbean is guided by an evolving framework of regional and international agreements, supported by a dynamic constellation of stakeholders committed to enhancing management effectiveness, institutional capacity, and sustainable financing.

REGIONAL MPA DATA

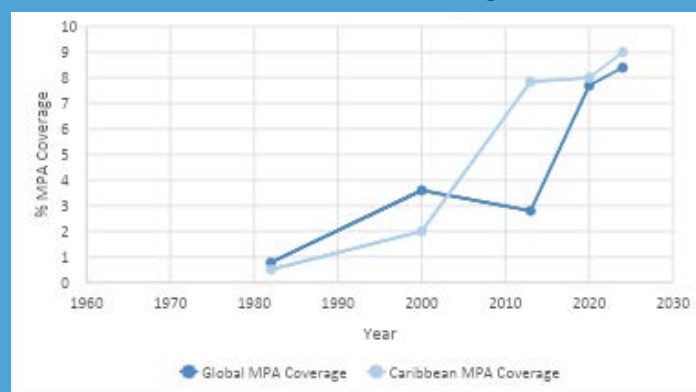
The region has rapidly increased the level of protection since the year 2000, rising from approximately 2% to approximately 9% in 2025, which is above the global average of 8.4%.

In 2008, The Bahamas, Dominican Republic, Grenada, Jamaica, and Saint Vincent and the Grenadines made the initial commitments to the Caribbean Challenge Initiative (CCI), an innovative platform uniting governments, international cooperation agencies and the private sector to voluntarily work on collective actions to conserve and sustainably manage the Caribbean's marine and coastal environment. This likely played a significant role in the ability of the Caribbean to mobilize funding.

CBF has 14 partner countries (countries for which CBF provides continuous funding for conservation and sustainable development). Collectively, the partner countries have been successful at leveraging international finance and allotting national budgets to raise US\$1.037 billion between 2013 and 2025, with the majority being raised after the year 2020.

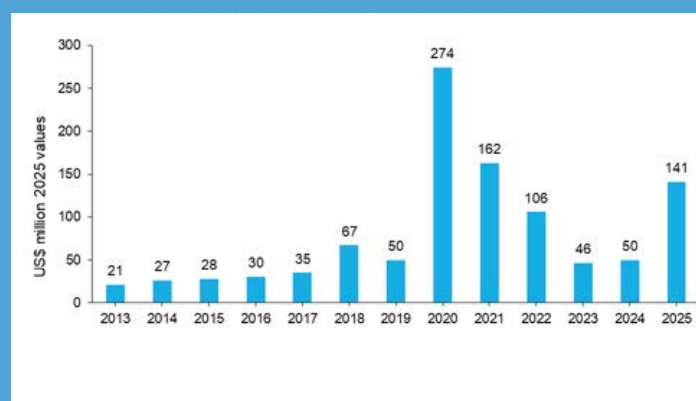
To meet the 30x30 target, the 8 focus nations will need to add another 143,500 km² of marine protected space. It is projected to cost US\$4.3 billion in total to meet this target over the next 5 years. Annual financing need is estimated at US\$642 million. With current financing levels, this creates an annual funding gap of US\$576 million. This figure does not include operational costs.

Global vs Caribbean MPA Coverage 1980-2024

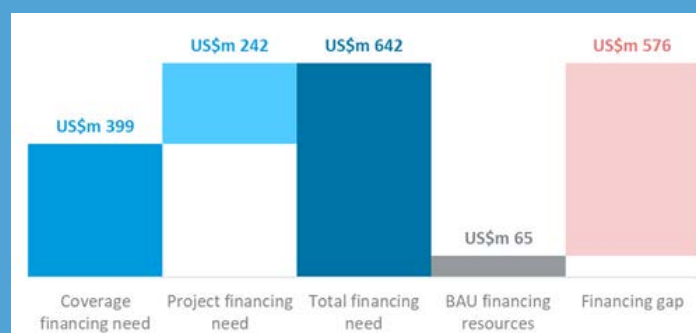


Source: (OECD/IDB, 2024, Knowles 2015)

All CBF Partner Countries Total Resources Raised for MPAs²



Average Annual Financing Gap 2026-2030 :
Base scenario. US\$ 2025 value³

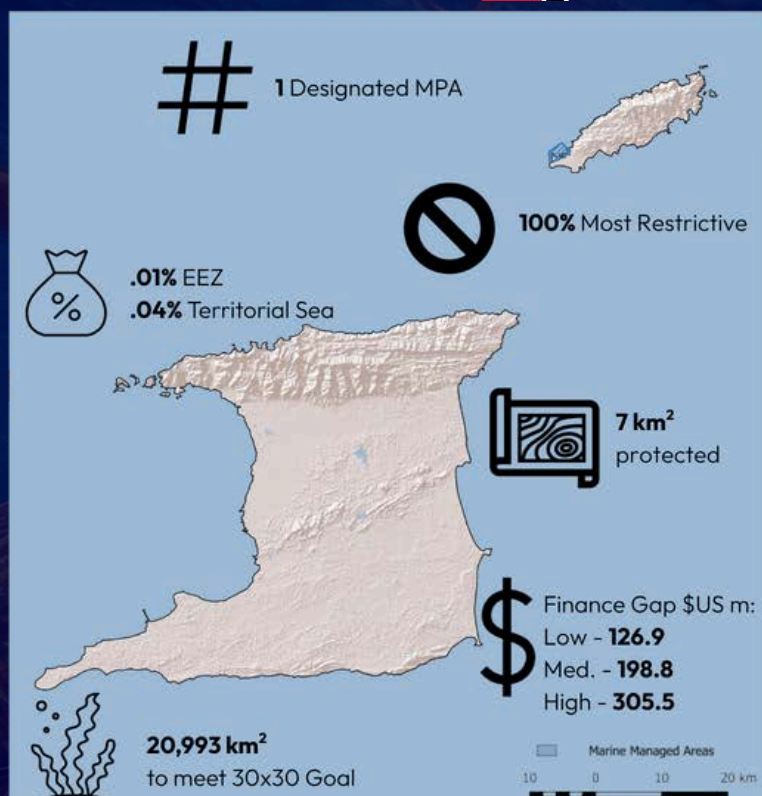


² Data for the analysis came from various sources: the World Bank, GEF, CBF, the German Corporation for International Cooperation (GCIC), government publications, consultations with national officials and stakeholders, and other international donors. Detailed references are provided in the main report in the Overview of Financial Arrangements section for each country.

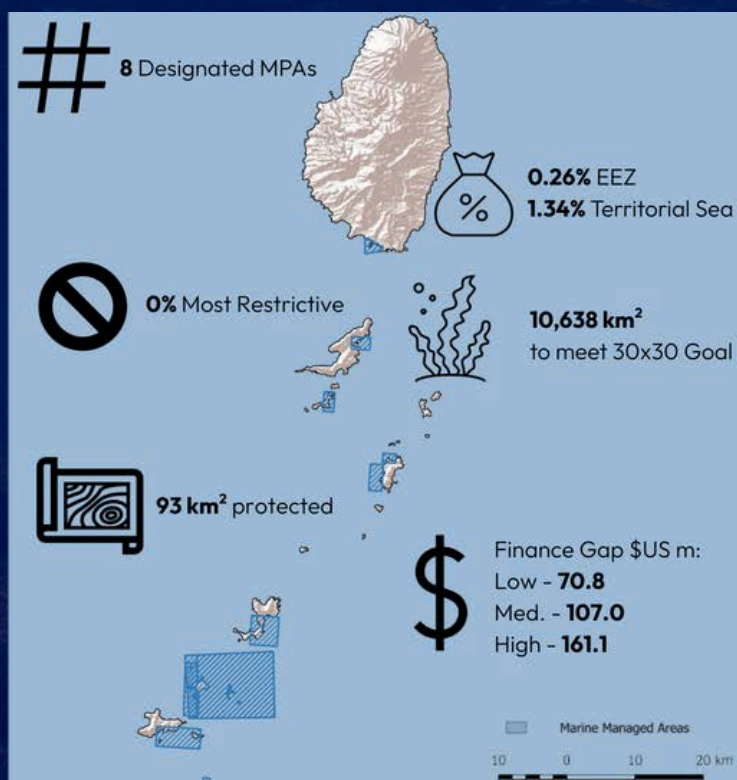
³ Data for the financing resources analysis came from various sources, including the World Bank, GEF, CBF, GCIC, government publications, consultations with national officials and stakeholders, and other international donors. Data for the financing need resources came from benchmarks of establishment costs and project costs, which are detailed in the main report in Annex 10.1.

Current MPA Status

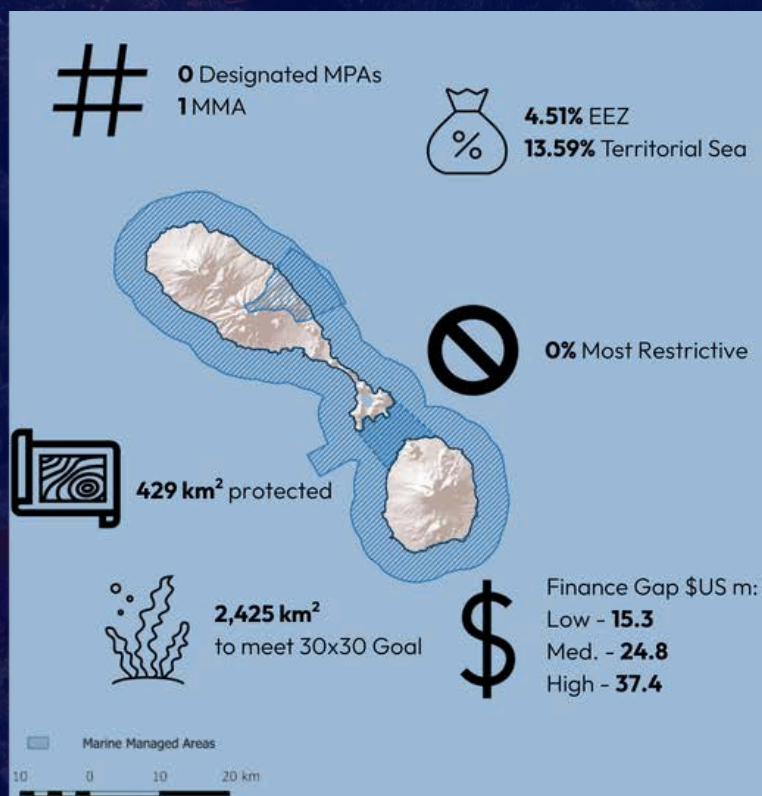
Trinidad & Tobago



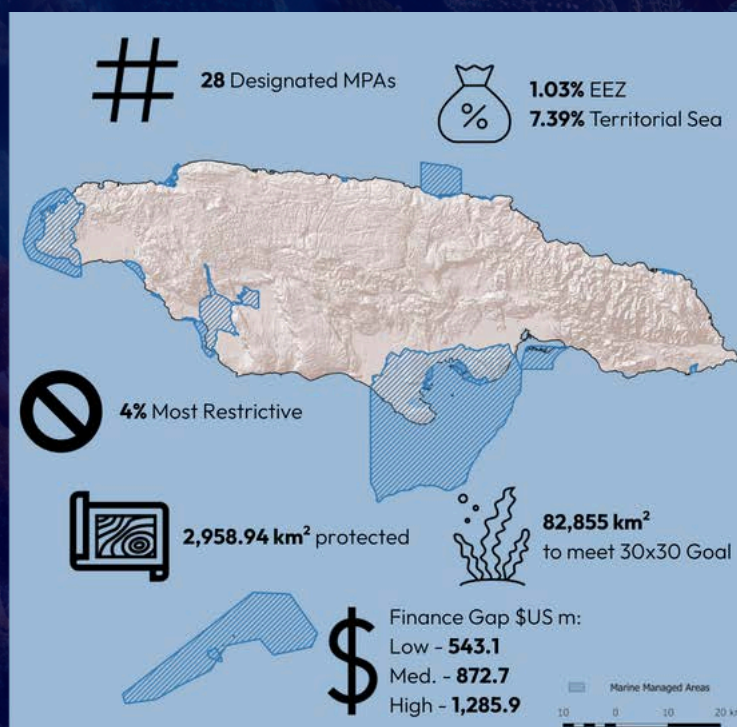
Saint Vincent & the Grenadines



Saint Kitts and Nevis

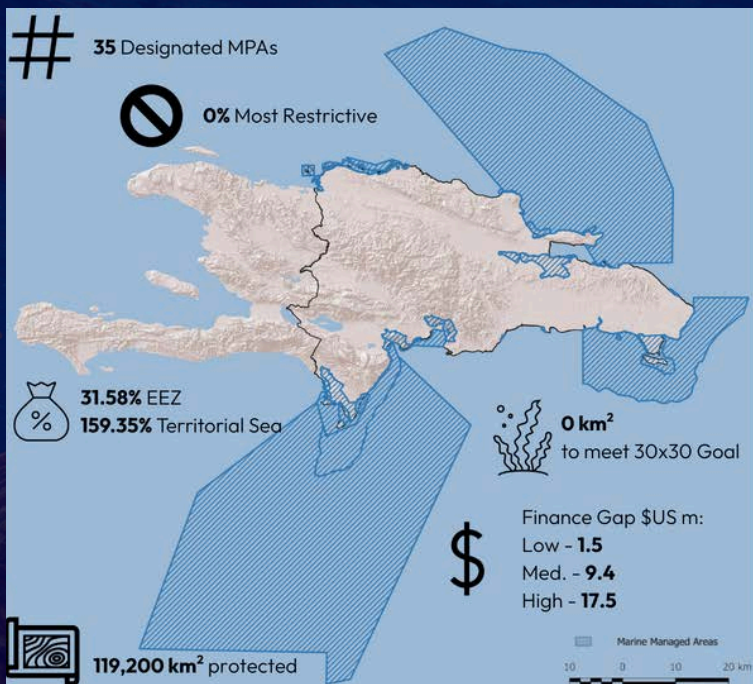


Jamaica

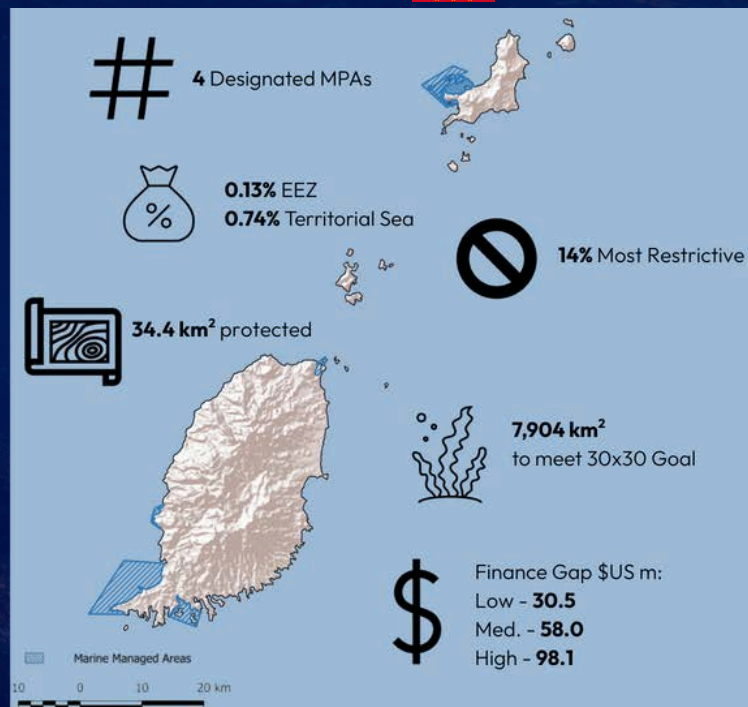


Current MPA Status

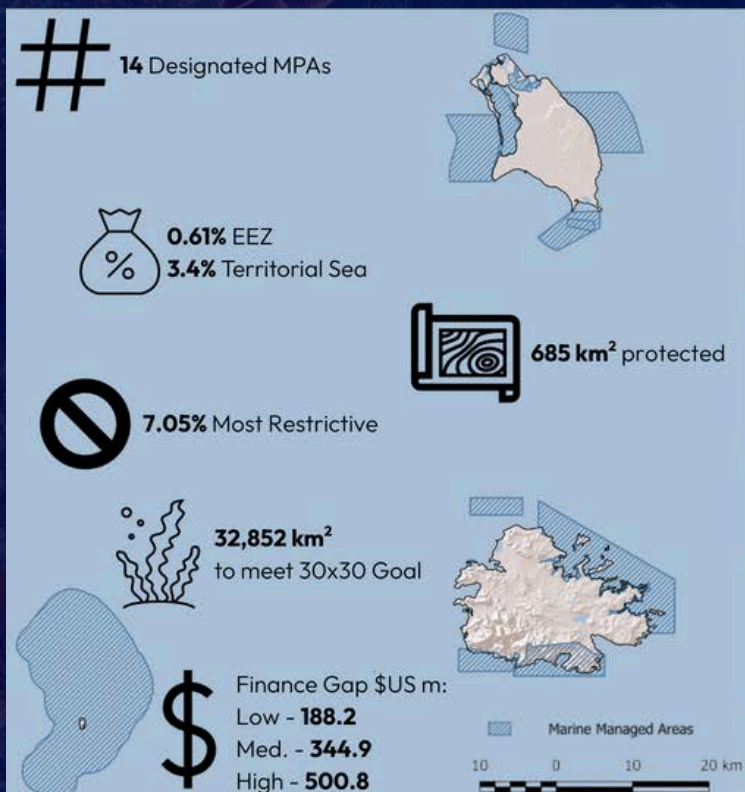
Dominican Republic



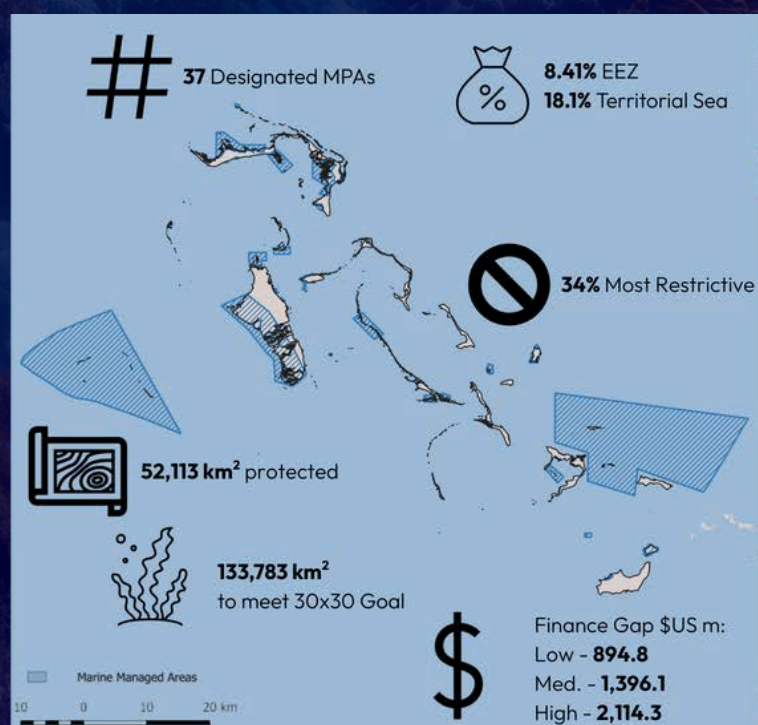
Grenada



Antigua and Barbuda



The Bahamas



MPA Policy Gap Analysis

The focus nations have established 127 MPAs and MMAs, designated zones where certain human activities are regulated to conserve marine resources. However, adequate ocean protection extends beyond establishing boundaries; it also requires robust policies, comprehensive legislation, sufficient funding, and coordinated efforts among stakeholders. The key challenges are as follows:

01

Ambiguous Regulations

Multiple overlapping or conflicting laws exist, and regulatory guidelines are often unclear and inconsistent. This creates challenges for effective management of these areas and complicates communication with local communities regarding permissible activities.

02

Coordination Challenges

Various agencies and ministries frequently operate independently. Currently, there is no Caribbean-wide organisation responsible for coordinating all MPAs, which limits opportunities for countries to share experiences or collaborate across borders.

03

Limited Public Involvement

Coastal communities that rely on marine resources are frequently excluded from decision-making processes. Such exclusion may result in diminished trust, increased conflict, and policies that fail to incorporate local knowledge or address specific community needs.

04

Weak Enforcement

Although effective regulations may be in place, enforcement frequently remains insufficient. Numerous MPAs are inadequately resourced, lacking the necessary personnel, vessels, or equipment to prevent illegal fishing and pollution.

05

Insufficient Funding

Ocean conservation requires significant financial resources. While certain nations have benefited from international assistance, current support remains inadequate. According to expert estimates, for the 8 focus countries, approximately US\$576 million annually is needed to close the funding gap required to achieve the objective of protecting 30% of the Caribbean Sea by 2030. National funding should be a consideration in determining the scope and capacity for MPA operations.



CURRENT STRENGTHS IN MPA POLICY FRAMEWORKS

Several countries are demonstrating practical approaches to marine protection:

- Antigua and Barbuda has established Nelson's Dockyard as an exemplar of sustainable tourism and conservation.
- Jamaica has adopted a co-management approach at the Oracabessa Bay Fish Sanctuary, serving as a scalable model for engaging coastal communities in the restoration of fish populations.
- The Bahamas has utilised debt-for-nature swaps and encouraged community involvement to expand protected areas.



Blue Hole (Bahamas)

KEY RECOMMENDATIONS

1. Clear Unified Policies

Nations should update and harmonise their legal and policy frameworks to ensure that MPA management remains streamlined, equitable and effective.

2. Strengthen Integration of MPA Policies

Embed MPA objectives in national development plans, marine spatial planning efforts, and climate resilience strategies as well as align MPAs with national biodiversity strategies and action plans (NBSAPs) and blue economy policies to secure broader institutional support.

3. Engage Local Communities

Require and encourage active participation from coastal communities, particularly stakeholders who rely on marine resources, which is critical to the success of conservation efforts.

4. Close the Funding Gap

Expand innovative financial mechanisms such as conservation trust funds, blue bonds, usage fees and tourism levies, which are key to securing sustainable funding.

5. Better Monitoring and Enforcement

Governments should invest in comprehensive training, advanced equipment, and modern technology to empower MPA officers in efficiently safeguarding these regions.



Grande Anse (Grenada)

The effectiveness of MPAs hinges upon the comprehensiveness and clarity of their legal frameworks. Robust legislation provides the basis for establishing, managing, and enforcing MPAs, ensuring that conservation objectives are met and that local communities and stakeholders can meaningfully participate in these goals. Without clear laws and governance structures, efforts to protect marine environments can falter, leaving ecosystems vulnerable and undermining international commitments. Key challenges in the legislative framework include:

MPA LEGAL GAP ANALYSIS

01

Time Delays

Designating protected areas and amending legislation is slow due to bureaucracy, boundary complexities, and limited legal expertise. Financial constraints further restrict the ability to hire external specialists, weakening legislative responsiveness and delaying effective MPA establishment and management.

02

Defining Permitted and Prohibited Activities

Effective MPA management requires clear legislation on allowed and banned activities. Robust laws should regulate access, enforce compliance, and penalise violations. Several Caribbean countries lack comprehensive legal provisions for restricted and prohibited activities within MPAs, creating enforcement gaps.

03

Environmental Management Processes

GBF Target 1 promotes integrated spatial planning, inclusive decision-making, and effective biodiversity protection. Achieving near-zero loss by 2030 requires participatory management, including environmental assessments. Few Caribbean countries, like Grenada and St. Kitts, mandate EIAs for developments within MPAs.

04

Coordination among Local Authorities

Multiple government entities often share MPA jurisdiction, causing unclear responsibilities, overlaps, and inefficiencies. Strengthened coordination among management and environmental permitting authorities is essential to streamline processes, enhance accountability, and improve overall MPA governance and effectiveness.

05

Benefit-sharing

GBF Target 13 obliges Parties to adopt legal and policy measures for fair benefit-sharing of genetic resources. Only Antigua and Barbuda and the Dominican Republic have legislation requiring equitable access and benefit-sharing, leaving significant regional gaps in implementation.

06

Public Participation

GBF Target 22 requires inclusive decision-making, justice, and information access. While some Caribbean countries allow public involvement in approving developments, few explicitly provide for participation in MPA designation, management planning, or co-management arrangements, limiting transparency and local engagement.

07

Enforcement and Compliance

MPA laws authorise enforcement by police, military, and fisheries officers, but outdated legislation, low fines, inadequate staffing, and overlapping jurisdictions weaken effectiveness. Some countries lack legal designation of officers, resulting in poor capacity to prosecute offences consistently.

CURRENT STRENGTHS IN MPA LEGAL FRAMEWORKS

Several countries have enacted modern and innovative provisions in their legal frameworks to support MPA protection:

- Antigua and Barbuda's MPA legislation includes modern enforcement powers, including the ability to seek court orders, including injunctions, restraining orders, closure orders and equitable relief.
- Jamaica's new Protected Area Regulations empowers authorities to seek court orders to restore damage done to MPAs.
- Dominican Republic's Ministry of Environment has a Prosecution Unit to handle environmental offences without having to rely on other state agencies.
- Antigua and Barbuda has established Nelson's Dockyard as an exemplar of sustainable tourism and conservation.

KEY RECOMMENDATIONS

CLARIFY ENFORCEMENT POWERS

Legislation should provide well-defined enforcement powers to authorized officers, including the ability to search, arrest, detain, and seize items related to offences. This ensures that authorities can effectively manage and protect MPAs.

UPDATE PENALTIES

To serve as effective deterrents, fines and penalties for violations of MPA regulations should be updated to reflect the severity of the offences. This includes increasing fines to levels that dissuade illegal activities and adequately penalize offences.

ESTABLISH CLEAR OBJECTIVES

MPA legislation should clearly state the objectives for the designation and management of MPAs, prioritizing conservation while also supporting recreation, education, and scientific research.

INCORPORATE PUBLIC PARTICIPATION

Legislation should require public participation in the management and decision-making processes related to MPAs to ensure the inclusion of local stakeholders. This includes decisions relating to the creation, alteration and revocation of MPAs, preparation of management plans, and co-management arrangements.

COORDINATION AMONG AUTHORITIES

Address overlapping jurisdictions by establishing coordinated approaches among various authorities responsible for MPA management e.g. task forces, joint enforcement training across public authorities and information sharing mechanisms on the status of MPAs. This ensures effective use of resources in particular for countries with limited resources.

MANDATORY EIAs FOR PROJECTS PROPOSED IN MPAS

Require EIAs for proposed development projects within MPAs to ensure that the risks and impacts, mitigation measures and alternatives are considered in the decision-making. Legislation should mandate EIAs and outline the process for public participation and ensure that the terms and conditions for permits consider whether to include bonds/security in the event of damage to MPAs during the construction and operational stages of developments.

SOURCES OF FUNDING

MPAs are funded through a mix of domestic and international sources. Government budget allocations, often managed by environment, fisheries, or tourism ministries, are a primary source, but can be affected by changing political and fiscal priorities. International donor grants from entities such as the GEF, United Nations Development Programme, and the World Bank provide important but typically short term and project specific support. Tourism and user fees, including entry charges, diving permits, mooring fees, and cruise passenger levies, can generate stable income if effectively managed. Private sector partnerships with hotels, dive operators, and other stakeholders contribute funds or in-kind resources. Non-governmental organisations may provide financing, technical support, or co-manage MPAs. Conservation trust funds, such as CBF, offer long term financing through interest income.

THE ANALYSIS LOOKS AT TWO TARGETS:

1. MPAs coverage target: Aligned with the Global Biodiversity Framework's Target 3, which calls for the protection of 30 percent of marine areas by 2030
2. Achieving effective management in the current and new MPAs and MMAs.

MPA FINANCING



However, securing long-term large-scale financing such as payments for Ecosystem Services, need to be integral operations of the central government, likely through Ministries of Finance to include options such as blue carbon initiatives.

To meet the MPA coverage target, the selected countries would need to add 285,853km² MPAs in aggregate. Currently, the countries have 175,537km² of MPAs and an aggregated EEZ of 1,537,968km². This implies that only 11.4% of the EEZ has been declared as an MPA or MMA. The table below shows MPA area information by country.

Country	Existing MPA (km ²)	EEZ (km ²)	Existing MPA as a % of EEZ (%)	Gap (km ²)	Territorial sea area (km ²)	Onshore MPA as a % of territorial sea area (km ²)
Antigua and Barbuda	682.00	111,781.00	0.6	32,852.00	9,808.00	3.4
Dominican Republic	119,220.00	377,517.00	31.6	-	74,816.00	8.9
Grenada	34.00	26,462.00	0.1	7,904.00	4,649.00	0.2
Jamaica	2,959.00	287,276.00	1	83,224.00	40,040.00	0.6
St. Kitts and Nevis	429.00	9,512.00	4.5	2,425.00	3,157.00	13.6
St. Vincent and the Grenadines	93.00	35,769.00	0.3	10,638.00	6,940.00	0
The Bahamas	52,113.00	619,651.00	8.4	133,783.00	288,553.00	11.2
Trinidad and Tobago	7.00	70,000.00	0	20,993.00	17,500.00	0
Total	175,537.00	1,537,968.00	11.4	285,853.00	445,462.00	9

- To effectively cover the overall financial needs associated with sustainable management of protected areas, the selected countries would need between US\$2.1 billion and US\$4.7 billion for the period 2026–2030 (i.e., between US\$413 million and US\$943 million annually).

The overall financing need is comprised of two main categories: coverage financing and project financing, each addressing distinct aspects of MPA and MMA development and management.

- Coverage Financing Need:** Refers to the monetary resources required to establish new MPAs. The estimated coverage financing need ranges between US\$1.3 billion and US\$3.1 billion.
- Project Financing Need:** Refers to the monetary resources necessary to develop and implement projects within existing MPAs and MMAs to ensure effective management. The estimated project financing need ranges between US\$811 million and US\$1.6 billion.



Nelson's Dockyard (Antigua and Barbuda)

CURRENT STRENGTHS IN MPA FINANCING FRAMEWORKS

Several countries have enacted innovative measures to fund MPA protection:

- Antigua and Barbuda's has diversified revenue generation at Nelson's Dockyard with entrance fees, a bakery, a museum, restaurants, boutiques, international competitions and boat repair.
- Jamaica has a high level of engagement with the private sector with hotel entities partnering with NGOs to manage marine protected areas.
- Dominican Republic created an independent legal entity to fund environmental protection with a percentage of funds collected earmarked for marine protection.
- The Bahamas has conducted a debt for nature swap to fund environmental protection and created an innovative membership program which provides benefits to members locally and internationally.

KEY RECOMMENDATIONS

1. Increasing Funding Sources

- Expand Trust Fund Contributions – strengthen capital base and institutional capacity of conservation trust funds
- Leverage Regional Aggregation – Cluster MPAs regionally to reduce transaction costs and attract large-scale donor funding
- Tourism Revenue Systems – Implement national-level fees, surcharges and tourism taxes for MPAs
- Ecosystem Services Monetisation – Develop blue carbon and ecosystem service payment schemes.

2. Attract and Secure Funding

- National-Level Finance Mandates – Establish finance ministry units to secure MPA funding
- Debt Swaps and Blue Bonds – Use sovereign-level instruments to fund MPAs and reduce debt
- Revenue-Backed Financing – Use tourism fees or carbon credits to structure repayable loans
- Public-Private Co-Management – partner with NGOs and private sector to share costs and responsibilities
- Transparent Fund Allocation – Set equitable distribution criteria for regional financing systems.

3. Create Enabling Institutional Frameworks

- Strengthen Policy Frameworks – Reform laws to allow MPAs revenue retention and financial autonomy
- Enable Financing Mechanisms – Create regulatory foundations for carbon bonds, Public Private Partnerships and blended finance
- Build Technical Capacity – Train government, fund staff and MPA managers in finance and structuring
- Finance Ministry Units – Establish dedicated units to streamline approvals and resource flows
- Empower MPAs Locally – Link conservation with eco-tourism and community income generation.

CROSS REGIONAL RECOMMENDATIONS

Establish a Regional MPA Coordination Mechanism

Purpose – Strengthen governance coherence and reduce fragmentation in marine conservation efforts across all countries of the Caribbean in order to encourage joint planning, periodic regional dialogues, and a shared monitoring platform.

Recommendation – Create a formal communication mechanism for the various regional bodies possibly linked through the SPAW Protocol.

Promote Transboundary MPA Networks

Purpose – Conserve migratory species, cetaceans and pelagic ecosystems, and shared coral reef systems by using tools like marine spatial planning (MSP) and the Caribbean Marine Atlas to identify and align these networks.

Recommendation – Develop ecologically connected networks of MPAs, particularly where marine ecosystems cross EEZs or administrative boundaries (e.g., Dominica–Martinique).

Develop a Regional MPA Data and Monitoring Hub

Purpose – Standardize data collection, promote transparency and accuracy as well as reduce duplication with agreed upon shared biodiversity indicators, management effectiveness criteria, and data protocols.

Recommendation – Support the consolidation of a regional marine spatial database and the pilot program for a MPA dashboard, integrated with the Caribbean Protected Areas Gateway (CPAG).

Harmonize Legal and Policy Frameworks

Purpose – Reduce legislative inconsistencies that hinder enforcement or limit regional cooperation.

Recommendation – Support legal reform efforts to streamline MPA designations, fee collection, and enforcement mandates, including recognition of community co-management through the use of model legislation or regionally coordinated legal reviews (e.g., via the Caribbean Natural Resources Institute (CANARI)).

Coordinate Sustainable Financing Across the Region

Purpose – Leverage shared financial mechanisms to sustain MPAs over the long term by exploring blended finance, blue bonds, and eco-tourism fee harmonization across island states.

Recommendation – Strengthen collaboration among National Conservation Trust Funds (NCTFs), particularly through the CBF, to develop joint funding proposals, pooled resources, and shared investment platforms.

Expand South-South Learning and Capacity-Building

Purpose – Build technical capacity across MPA agencies and stakeholders by using existing platforms like the Caribbean Marine Protected Area Management Network and Forum, CANARI, and C-FISH as regional hubs.

Recommendation – Create regional peer learning exchanges, mentorship programmes, modular certification courses, and training residencies that allow managers and community groups to learn from successes across jurisdictions.

Align with the Actioning Blue: Caribbean 30×30 Vision for the Ocean

Purpose – Strengthen regional cooperation and political alignment to advance the Caribbean's collective ocean protection and sustainable management goals under the 30×30 framework.

Recommendation – Integrate the Actioning Blue: Caribbean 30×30 Vision for the Ocean Political Declaration (2025) and the newly established Ocean Coordination Mechanism (OCM) into regional MPA governance and planning frameworks. This will ensure coherence across national strategies, align data and policy efforts with the 30×30 vision, and foster joint implementation and monitoring of regional marine conservation commitments.

MPA GAP ANALYSIS REPORT

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ACKNOWLEDGEMENT

Financial support for this project comes from the Blue Nature Alliance. This global partnership aims to safeguard global ocean biodiversity, build resilience to climate change, promote human wellbeing, and enhance ecosystem connectivity and function.

CBF WEBSITE



EMPAC PROJECT

