



Regional Consultancy to Assess the Training Needs and Develop MPA Management Training Materials

MPA Management Training Curriculum

Module 3.1 MPA Governance



2026

Contents

1	INTRODUCTION	1
1.1	MODULE INFORMATION	1
1.2	MODULE DESCRIPTION	1
1.3	OVERALL LEARNING OUTCOMES	1
1.4	MODULE CONTENT OUTLINE	1
1.5	ESTIMATED TIME REQUIRED	1
1.6	ASSESSMENT STRATEGY	2
2	MODULE GLOSSARY	3
2.1	SECTION 1: INTRODUCTION TO GOVERNANCE	3
2.2	SECTION 2: TYPES OF GOVERNANCE	3
2.3	SECTION 3: GOVERNANCE QUALITY AND PRINCIPLES	3
2.4	SECTION 4: ASSESSING GOVERNANCE	3
2.5	SECTION 5: GOVERNANCE ISSUES	4
2.6	SECTION 6: ADAPTIVE GOVERNANCE	4
3	SECTION 1 - CONCEPTS AND TERMINOLOGY	5
3.1	DESCRIPTION	5
3.2	LEARNING OBJECTIVES	5
3.3	CONTENT	5
3.3.1	<i>Governance vs. Management</i>	5
3.3.2	<i>Key Concepts in MPA Governance</i>	6
3.3.3	<i>Why the Distinction Matters</i>	7
3.4	FURTHER READING	8
3.4.1	<i>Global Guidelines and Frameworks</i>	8
3.4.2	<i>Caribbean Regional Context</i>	8
3.4.3	<i>Case Studies</i>	9
3.5	ASSESSMENT	10
3.6	ANSWER KEY	10
4	SECTION 2 – GOVERNANCE TYPES	12
4.1	DESCRIPTION	12
4.2	LEARNING OBJECTIVES	12
4.3	CONTENT	12
4.3.1	<i>The Four IUCN Governance Types</i>	12
4.3.2	<i>Shared Governance: The Collaborative Model</i>	13
4.4	FURTHER READING	15
4.4.1	<i>Global Standards on Governance Types</i>	15
4.4.2	<i>The Governance Continuum and Co-management</i>	15
4.4.3	<i>Caribbean Case Studies and Compendiums</i>	15
4.4.4	<i>Governance by Indigenous Peoples (Type D)</i>	16
4.5	ASSESSMENT	17
4.6	ANSWER KEY	18
5	SECTION 3 – GOVERNANCE PRINCIPLES	19
5.1	DESCRIPTION	19

5.2	LEARNING OBJECTIVES	19
5.3	CONTENT	19
5.3.1	<i>The Pillars of Good Governance</i>	19
5.3.2	<i>Legal and Institutional Structure</i>	23
5.3.3	<i>Why Quality Principles Lead to Better Conservation</i>	24
5.3.4	<i>Case Study: The Belize Barrier Reef Reserve System integrated approach to World Heritage management.</i>	25
5.4	FURTHER READING	26
5.4.1	<i>Global Principles of Good Governance</i>	26
5.4.2	<i>Caribbean Case Studies and Technical Reports</i>	26
5.4.3	<i>Legal and Institutional Frameworks</i>	26
5.5	ASSESSMENT	27
5.6	ANSWER KEY	27
6	SECTION 4 – ASSESSING AND EVALUATING GOVERNANCE	29
6.1	DESCRIPTION	29
6.2	LEARNING OBJECTIVES	29
6.3	CONTENT	29
6.3.1	<i>Why Assess Governance?</i>	29
6.3.2	<i>GAPA: Governance Assessment for Protected Areas</i>	30
6.3.3	<i>SAGE: Site-level Assessment for Governance and Equity</i>	32
6.3.4	<i>Applying Assessments: From Assessment to Action</i>	34
6.4	FURTHER READING	34
6.4.1	<i>Core Assessment Toolkits</i>	34
6.4.2	<i>Caribbean Context and Management Effectiveness</i>	35
6.4.3	<i>Social Equity and Human Rights</i>	35
6.5	ASSESSMENT	36
6.6	ANSWER KEY	36
7	SECTION 5 – GOVERNANCE ISSUES	38
7.1	DESCRIPTION	38
7.2	LEARNING OBJECTIVES	38
7.3	CONTENT	38
7.3.1	<i>Common Governance Challenges in the Caribbean</i>	38
7.3.2	<i>Transboundary and Migratory Challenges</i>	39
7.3.3	<i>Emerging Issues: Climate Change and the Blue Economy</i>	41
7.3.4	<i>The Governance Gap: From Issues to Solutions</i>	42
7.3.5	<i>Learning Activity: The Blue Horizon Simulation</i>	43
7.4	FURTHER READING	44
7.4.1	<i>Transboundary Governance and Connectivity</i>	44
7.4.2	<i>Emerging Issues: Blue Economy and Climate Change</i>	44
7.4.3	<i>Closing the Governance Gap</i>	44
7.5	ASSESSMENT	45
7.6	ANSWER KEY	46
8	SECTION 6 – ADAPTIVE GOVERNANCE	47
8.1	DESCRIPTION	47
8.2	LEARNING OBJECTIVES	47
8.3	CONTENT	47

8.3.1	<i>The Nature of Adaptive Governance</i>	47
8.3.2	<i>The Four Pillars of Adaptive Governance</i>	48
8.3.3	<i>Case Study: Adaptive Capacity in the Eastern Caribbean</i>	49
8.3.4	<i>Dynamic Ocean Management: The Future of Adaptive Governance</i>	50
8.3.5	<i>Summary: Traditional vs. Adaptive Governance</i>	51
8.4	FURTHER READING	52
8.4.1	<i>Foundations of Adaptive Governance</i>	52
8.4.2	<i>Caribbean Case Studies and Adaptive Capacity</i>	52
8.4.3	<i>Dynamic Ocean Management and Technology</i>	53
8.5	ASSESSMENT	54
8.6	ANSWER KEY	54
9	FINAL ASSESSMENT	56
9.1	ANSWER KEY	57
10	USEFUL RESOURCES	58

1 INTRODUCTION

1.1 Module Information

- Focus Areas: Governance of MPAs
- Level: Strategy and Evaluation
- Total Sections: 6

1.2 Module Description

This module provides a detailed examination of the frameworks, principles, and models that determine how decisions are made, authority is exercised, and stakeholders are involved in the management of Marine Protected Areas. Learners will be able to critically analyse the structures, processes, and challenges inherent in regional conservation policy and apply effective governance models to achieve sustainable outcomes in marine resource management.

1.3 Overall Learning Outcomes

Upon successful completion of the course, learners will be able to:

- Distinguish and define the terms governance and management in the MPA context
- Recognise the IUCN governance types
- Analyse the components of the governance framework at the site level
- Evaluate the quality of governance based on the principles of good governance
- Apply tools that can be utilised to assess governance in MPAs
- Identify and categorize challenges to governance and propose targeted solutions
- Explain the necessity of adaptive and participatory governance based on the core principles

1.4 Module Content Outline

Section 1: Concepts and terminology

- governance vs management

Section 2: Governance types

- Solely by government, shared governance (e.g. co-management), private governance, governance by indigenous peoples and local communities

Section 3: Governance principles

- accountability, transparency, fairness and rights, stakeholder participation
- legal and institutional structure

Section 4: Assessing and evaluating governance

- Governance Assessment for Protected Areas (GAPA), Site-level Assessment for Governance and Equity (SAGE)

Section 5: Governance issues

- institutional and legal challenges, stakeholder and equity challenges, resource and data challenges, political will

Section 6: Adaptive governance

- core principles (responsiveness and effectiveness)
- institutions for learning
- working with MPA boards

1.5 Estimated Time Required

An estimate of 60 – 90 minutes per section is reasonable to ensure a deep understanding of the core principles. It is therefore estimated that the module should take anywhere between 6 – 9 hours to complete.

1.6 Assessment Strategy

Each section includes a targeted assessment consisting of:

1. Multiple Choice: For factual recall of principles and definitions.
2. Matching: For categorizing services and frameworks.
3. Scenario Analysis: For applying Nexus thinking to real-world conservation challenges.

2 MODULE GLOSSARY

This glossary provides a comprehensive reference for the core concepts and terminologies covered in each section of the module.

2.1 Section 1: Introduction to Governance

- **Management:** The specific set of actions, resources, and technical tasks (e.g., patrolling, monitoring) used to achieve an MPA's biological or social goals.
- **Governance:** The power structures, legal frameworks, and decision-making processes that determine *who* makes decisions, *how* they are made, and *under what authority*.
- **Legitimacy:** The extent to which stakeholders (like fishers) accept the authority of the management body and believe its rules are fair and valid.
- **Top-Down:** A centralized approach where decisions are made by a high-level government authority and passed down to local users.
- **Bottom-Up:** An approach where local communities or resource users lead the decision-making process for their own environment.

2.2 Section 2: Types of Governance

- **Type A (Government-led):** Governance where a federal or local government agency holds the sole legal authority and decision-making power.
- **Type B (Shared/Co-management):** A formal partnership where power is legally shared between a government agency and other stakeholders (e.g., NGOs or fisher associations).
- **Type C (Private):** Governance where a private landowner or an NGO owns and manages the protected area (common in land-sea interface zones).
- **Type D (IPLC/Community-led):** Governance where Indigenous Peoples or local communities hold customary or legal rights to manage their traditional marine territories.
- **Vested Interest:** A personal or group stake in an outcome, often related to financial gain or traditional rights.

2.3 Section 3: Governance Quality and Principles

- **Transparency:** The principle that information, data, and decision-making processes should be open, clear, and accessible to all stakeholders.
- **Accountability:** The requirement that decision-makers must be answerable for their actions and the outcomes of their policies.
- **Equity/Fairness:** Ensuring that the benefits (e.g., tourism revenue) and burdens (e.g., fishing restrictions) of an MPA are distributed justly across different groups.
- **Strategic Vision:** A long-term plan for the MPA that is based on both ecological needs and the social-economic aspirations of the community.
- **Rule of Law:** The legal framework that ensures regulations are applied consistently and fairly to everyone, regardless of political or economic status.

2.4 Section 4: Assessing Governance

- **GAPA (Governance Assessment for Protected Areas):** A deep, multi-month diagnostic tool used to evaluate the entire structural and legal system of governance.
- **SAGE (Site-level Assessment for Governance and Equity):** A rapid, participatory scorecard tool used to assess how stakeholders perceive the fairness and quality of a specific site's governance.
- **Perception Gap:** The difference in scores given by different groups (e.g., managers vs. fishers) during an assessment, revealing areas of hidden conflict.
- **Metric:** A standard of measurement used to track the performance of a governance principle (e.g., number of public meetings per year as a metric for Transparency).

2.5 *Section 5: Governance Issues*

- **Jurisdictional Clutter:** When multiple government agencies have overlapping or conflicting authorities over the same marine space, leading to confusion.
- **Paper Park:** An MPA that exists legally on paper but has no active management, enforcement, or governance in reality.
- **Transboundary Connectivity:** The biological link between different national waters (e.g., coral larvae floating from one island's reef to another).
- **Ocean Grabbing:** The displacement of local, small-scale resource users by large-scale industrial or green energy interests in the marine space.
- **IUU Fishing:** Illegal, Unreported, and Unregulated fishing that occurs across maritime boundaries.

2.6 *Section 6: Adaptive Governance*

- **Adaptive Capacity:** The ability of an institution or community to adjust to shocks (like hurricanes or climate change) and continue functioning.
- **Polycentricity:** A governance system with multiple, overlapping centers of authority at local, national, and regional levels, providing redundancy and resilience.
- **Bridging Organization:** An entity (usually an NGO) that connects different groups—like scientists, government, and fishers—to facilitate communication and trust.
- **Dynamic Ocean Management (DOM):** A management approach that uses real-time data to create mobile or temporary protected areas that track migrating species or environmental threats.
- **Local Ecological Knowledge (LEK):** The cumulative body of knowledge, practice, and belief regarding the environment, held by people (like fishers) who live in close contact with it.

3 SECTION 1 - CONCEPTS AND TERMINOLOGY

3.1 Description

This section introduces the fundamental principles of MPA governance, establishing the distinction between the power to make decisions (governance) and the actions taken to achieve goals (management). It explores the core pillars of authority, responsibility, and accountability, providing the essential terminology needed to analyze how marine resources are controlled and who is held answerable for their conservation. By understanding these concepts, learners can identify the root causes of paper parks and recognize why strong institutional structures are the key to long-term sustainability.

3.2 Learning objectives

Upon completion of this section, learners will be able to:

- Clearly define Governance and Management and articulate the functional differences between them within the context of an MPA.
- List and explain the primary components of a governance framework, specifically Authority, Responsibility, and Accountability.
- Evaluate the role of stakeholder acceptance and legitimacy as the link between governance structures and management compliance.
- Identify the symptoms of a Paper Park and determine when an MPA's lack of success is rooted in governance structures rather than technical management capacity.
- Defend why separating governance from management is essential for achieving long-term sustainability and social equity in Caribbean marine conservation.

3.3 Content

A clear line needs to be drawn between how an MPA is run on a daily basis and the higher-level power structures that guide it. Understanding this distinction is the bedrock of effective marine conservation.

3.3.1 Governance vs. Management

To understand the foundation of MPA success, we must deconstruct the specific roles that governance and management play. While they are interdependent, they operate at different levels of the organizational hierarchy. The distinction between these two concepts is often described as the difference between The Power and The Action.

Defining Governance

Governance is the software of the MPA system. It is the interaction among structures, processes, and traditions that determine how power and responsibilities are exercised.

- Focus: It addresses who has the influence, who decides the strategic goals, and how decision-makers are held accountable.
- Key Questions:
 - Who has the authority to make the rules?
 - How are stakeholders involved in the process?
 - What are the legal and customary rights of the people involved?

Defining Management

Management is the hardware or the practical application of the rules. It is the process of planning, implementing, and monitoring the specific tasks required to reach the goals set by the governance body.

- Focus: It addresses what is done on the ground (or in the water) to achieve conservation targets.
- Key Questions:
 - What resources (money, staff, equipment) are needed?

- How will we monitor fish stocks or coral health?
- When and where should patrols be conducted to prevent illegal fishing?

Side-by-Side Comparison

Feature	Governance	Management
Primary Goal	Setting the strategic direction and rules.	Achieving specific technical/biological results.
Core Element	Power, authority, and responsibility.	Resources, tasks, and implementation.
Key Actors	MPA boards, government ministries, community leaders.	Park rangers, scientists, and site managers.
Level	Strategic and Political.	Tactical and Operational.

The Intersection

According to the IUCN Guidelines, many MPAs fail not because they have poor managers, but because they have weak governance.

- Legitimacy: If the governance process is seen as unfair or non-participatory, local communities may ignore management rules (like no-take zones), regardless of how well-trained the rangers are.
- Sustainability: Management actions are often short-term (linked to funding cycles), whereas governance structures provide the long-term legal and social framework that allows an MPA to survive political changes.
- Key Takeaway: You can have good management (active patrols and monitoring) within bad governance (exclusive, top-down decisions that ignore local rights), but this rarely leads to long-term conservation success.

3.3.2 Key Concepts in MPA Governance

According to the IUCN Guidelines and UNEP Governance Guide, effective governance is built upon several core structural elements:

1. Authority

Authority is the formally or customarily recognized right to exercise power.

- Legal Authority: Power derived from statutory laws, decrees, or government regulations (e.g., a National Parks Act).
- Customary Authority: Power derived from long-standing local traditions, indigenous laws, or social norms.
- Overlapping Authority: In many Caribbean MPAs, authority may be fragmented across fisheries, tourism, and environmental departments, creating jurisdictional clutter.

2. Responsibility

While authority is the right to act, responsibility is the obligation to act in a certain way.

- Fiduciary Duty: The requirement to manage MPA resources and funds honestly and for the intended conservation purpose.
- Social Responsibility: The mandate to ensure that conservation actions do not disproportionately harm the livelihoods of local fishers or marginalized groups.

3. Accountability

This is the check and balance of governance. It requires that those with authority are answerable for their decisions.

- Upward Accountability: Reporting to government ministers or funding agencies.

- Downward Accountability: Being answerable to the local communities and stakeholders whose lives are impacted by the MPA's rules.

4. Legitimacy

Legitimacy is the degree to which stakeholders accept the authority of the governing body.

- High legitimacy occurs when people believe the rules are fair and the decision-makers have the right to lead.
- Low legitimacy often leads to paper parks, where regulations exist but are widely ignored because the community does not buy into the governance structure.

5. Ecosystem-Based Management (EBM) in Governance

In the Wider Caribbean, governance must move beyond simple boundary enforcement to an EBM approach.

- Integration: Coordinating across different sectors (shipping, fishing, tourism) rather than managing them in silos.
- Scale: Recognizing that marine ecosystems (like coral reefs) are connected across national borders, requiring regional cooperation

The pillars of governance

Concept	Simple Definition	MPA Example
Authority	The Right	The Fisheries Act granting a Board the power to create No-Take zones.
Responsibility	The Duty	The Board's obligation to protect coral health for future generations.
Accountability	The Answer	Holding a public meeting to explain how permit fees were spent.
Legitimacy	The Acceptance	Fishers respecting a closure because they were involved in choosing the location.

3.3.3 Why the Distinction Matters

Understanding the distinction between governance and management is not just a theoretical exercise; it is a practical necessity for the long-term survival of marine conservation efforts. In the Wider Caribbean, where resources are often limited and stakeholder interests are diverse, failing to separate these two can lead to systemic failure.

The following points illustrate why clarity between the power (governance) and the action (management) is critical:

1. Avoiding Paper Parks

- The Problem: Many MPAs have excellent management plans, scientific monitoring, and even equipment, yet they fail to stop illegal activities or habitat degradation.
- The Reason: This often happens because the governance structure lacks legitimacy or clear authority. If the local community doesn't recognize the right of the management body to make rules, those rules will not be followed, regardless of how well-managed the site appears on paper.

2. Sustainability Beyond Funding Cycles

- Management is often driven by short-term projects and specific grants (e.g., a two-year grant for coral restoration).

- Governance provides the permanent legal and institutional framework that remains when a specific project ends.
- By focusing on governance, an MPA ensures that even if a specific manager leaves or a budget is cut, the rules and the right to manage remain intact.

3. Identifying the Root Cause of Failure

- When an MPA is failing to meet its goals, practitioners often default to management solutions: buying more boats, hiring more rangers, or doing more science.
- However, if the real issue is a lack of transparency or equity (governance issues), no amount of management equipment will fix the problem.
- Distinguishing the two allows for a Gap Analysis to determine if the failure is technical (management) or political/structural (governance).

4. Enhancing Social Equity and Justice

- Management focuses on biological outcomes (e.g., increase fish biomass), while governance focuses on people (e.g., is the burden of conservation shared fairly?).
- Without a focus on governance, management can inadvertently marginalize local fishers or indigenous groups by excluding them from the decisions that affect their livelihoods.

5. Adapting to Change (Adaptive Governance)

- Marine environments are highly dynamic, especially with climate change impacts in the Caribbean.
- Management can adapt a protocol (e.g., changing a monitoring date), but Governance must provide the flexible institutional structure, like a functional MPA Board, that has the legal power to change a policy in response to new data.

The success formula

Scenario	Result
Good Management + Weak Governance	Short-term success followed by conflict, lack of compliance, and Paper Park status.
Weak Management + Good Governance	High community support and legitimacy but lacks the technical capacity to achieve conservation targets.
Good Management + Good Governance	Sustainable MPA success. Legitimacy drives compliance, while technical capacity ensures ecological health.

3.4 Further Reading

3.4.1 Global Guidelines and Frameworks

- [IUCN Guidelines: Governance of Protected Areas \(2013\)](#): This is the definitive global resource for distinguishing between management and governance. See Chapter 2 for the who decides framework and Chapter 3 for the four governance types.
- [UNEP Guide: Enabling Effective and Equitable MPAs \(2019\)](#): Focuses on governance incentives (economic, legal, and social) that make MPAs work in practice.
- [The MPA Guide: A Framework to Achieve Global Goals \(2021\)](#): Provides a standardized language for the stage of establishment—essential for identifying when an MPA has moved from a paper park (governance only) to an implemented site (management).

3.4.2 Caribbean Regional Context

- [Report: Adaptive Capacity for MPA Governance in the Eastern Caribbean \(CERMES, 2011\)](#): A localized look at how Caribbean MPAs (like those in Grenada and St. Vincent) struggle with authority and institutional learning.
- [Towards Marine Ecosystem-Based Management in the Wider Caribbean \(2011\)](#): Explores the Principled Ocean Governance framework specifically for the Caribbean, emphasizing transparency and equity in regional marine policy.

3.4.3 Case Studies

- [UNEP Case Study Compendium: Governing MPAs](#): Features global examples, including the Seaflower MPA (Colombia) and Galápagos (Ecuador), illustrating the real-world application of different governance models.

3.5 Assessment

This assessment is designed to test the learner's ability to distinguish between management and governance, and to understand the core principles that underpin effective Marine Protected Area (MPA) structures.

Part A: Multiple Choice

1. If a Fisheries Department decides to increase the number of marine rangers to combat illegal poaching, this is primarily an exercise of:
 - A) Governance
 - B) Management
 - C) Accountability
 - D) Legitimacy
2. Which concept refers to the degree to which stakeholders accept the authority of the governing body?
 - A) Responsibility
 - B) Integration
 - C) Legitimacy
 - D) Efficiency
3. According to the Ship Analogy, governance is represented by:
 - A) The crew scrubbing the decks.
 - B) The engine room operations.
 - C) The captain and owners deciding the destination and rules.
 - D) The maintenance of the fishing gear.
4. A Paper Park is often the result of:
 - A) Too much scientific monitoring.
 - B) Management actions without a legitimate governance foundation.
 - C) High levels of stakeholder participation.
 - D) Clear legal authority and local buy-in.

Part B: Short Answer

Provide concise responses to the following prompts.

5. The Root Cause Test: An MPA is failing to stop habitat degradation despite having brand-new patrol boats and a high-tech monitoring drone. Explain why this might be a governance failure rather than a management failure.
6. Definition: In your own words, define the difference between Authority and Responsibility within an MPA framework.
7. Sustainability: Why is a strong governance framework more likely to survive a 5-year gap in external funding than a strong management program alone?

Part C: Scenario Analysis

Scenario: In a Caribbean island nation, the Ministry of Environment declares a new MPA. They hire a manager and four wardens. However, the local fishing community was never consulted about the boundaries. As a result, the fishers continue to fish in the restricted zones, claiming the Ministry has no right to take away their ancestral fishing grounds.

8. Identify which two key concepts from Section 1.2 (e.g., Authority, Responsibility, Accountability, Legitimacy) are currently lacking or being challenged in this scenario. Justify your answer.

3.6 *Answer Key*

Answer 1: B

Answer 2: C

Answer 3: C

Answer 4: B

Answer 5: It may be a governance failure because while the tools exist (management), the rules may lack legitimacy or the local community may not have been involved in the decision-making process, leading to a lack of compliance.

Answer 6: Authority is the Right to Rule. It is the formal or informal power granted to an individual or institution to make decisions, set regulations, and enforce laws. For example, a government decree that gives a Forestry Department the power to arrest poachers is a grant of legal authority. Responsibility is the Duty to Act. It is the obligation of those holding authority to ensure they are working toward the MPA's objectives and the well-being of its stakeholders. While authority gives you the power to close a fishery, responsibility dictates that you must do so to ensure the long-term survival of the species and the livelihoods of the community.

Answer 7: Management is highly dependent on active inputs—it requires fuel in the form of salaries for rangers, fuel for patrol boats, and funding for lab equipment. When external funding disappears, these activities often stop immediately, leading to a paper park scenario where no work is being done. Governance is about the institutional bones of the MPA. A strong governance framework includes clear legal status, established land/sea rights, and a functional Board or committee that includes local stakeholders. Even without money for patrols, a legitimate governance system maintains the social contract: the community continues to respect the rules and boundaries because they were part of creating them and recognize the MPA's legal right to exist. Governance provides the continuity that allows management to restart once new funding is secured.

Answer 8: Legitimacy (the fishers do not accept the Ministry's right to exclude them) and Accountability or Participation (the lack of consultation suggests the Ministry is not answerable to the primary stakeholders).

4 SECTION 2 – GOVERNANCE TYPES

4.1 Description

This section moves from the theory of power to the models of power. Based on the IUCN Guidelines and the UNEP Governance Guide, there are four distinct types of governance for Marine Protected Areas. These are categorized by who holds the authority and who is ultimately accountable for the decisions made.

4.2 Learning Objectives

Upon completion of this section, learners will be able to:

- Identify and describe the four primary IUCN governance types (Government, Shared, Private, and IPLC) based on who holds decision-making authority.
- Explain the sliding scale of power-sharing in co-management, ranging from Passive Consultation to Joint Decision-Making.
- Determine which governance type is most appropriate for a given social or ecological context (e.g., high-conflict fishing zones vs. remote uninhabited islands).
- Use Caribbean-specific examples (such as the Belize Barrier Reef or Seaflower MPA) to illustrate how shared and transboundary governance models function in practice.
- Differentiate between Collaborative Management (where the state usually retains a veto) and Joint Governance (where authority is legally shared among a board).

4.3 Content

4.3.1 The Four IUCN Governance Types

1. Type A: Governance by Government

This is the most common model globally and in the Caribbean. A government body (such as a Ministry of Environment, Fisheries Department, or a statutory National Parks Authority) holds the legal mandate and decision-making power.

- Sub-types:
 - Federal/National ministry
 - local/municipal government
 - government-delegated management authority
- Characteristics: Authority is derived from national legislation. While they may consult stakeholders, the final say rests with the state.
- Caribbean Example: Many Marine Parks in the Eastern Caribbean are managed directly by Fisheries Divisions under national Fisheries Acts.

2. Type B: Shared Governance (Co-management)

Authority and responsibility are shared among a mix of actors. This is a collaborative approach where the government works alongside other entities.

- Sub-types:
 - Transboundary governance: Shared between two or more countries (critical for the Wider Caribbean).
 - Collaborative governance: The government has the legal mandate but is required by law or policy to collaborate with stakeholders.
 - Joint governance: A multi-stakeholder board holds the authority (e.g., representatives from tourism, fishing, NGOs, and government).
- Characteristics: Emphasizes negotiation and power-sharing. It is often more resilient because it incorporates diverse knowledge and local buy-in.
- Caribbean Example: The Belize Barrier Reef Reserve System, where NGOs like TIDE or fragments of the community often have formal co-management agreements with the government.

3. Type C: Private Governance

Authority is held by a non-governmental actor, such as an individual landowner, a non-profit organization (NGO), or a for-profit corporation.

- Characteristics: The land or marine concession is owned or leased by the private entity. They set the conservation goals and rules for access.
- Caribbean Example: Private island reserves or areas where an NGO has purchased land or secured a long-term lease to manage a specific coastal area (e.g., certain reserves managed by the Bahamas National Trust or Nature Foundation St. Maarten).

4. Type D: Governance by Indigenous Peoples and Local Communities (IPLCs)

Authority is held by indigenous peoples or local communities through customary, traditional, or legal frameworks.

- Characteristics: These are often referred to as ICCAs (Territories and Areas Conserved by Indigenous Peoples and Local Communities). The rules are often rooted in traditional ecological knowledge rather than statutory law.
- Caribbean Example: In regions like the Toledo District of Belize, Maya communities may exercise customary governance over their traditional lands and adjacent waters.

Selecting a Governance Type: Why it Matters

The choice of governance type is not just administrative; it directly impacts the ecological and social success of the MPA.

- Legitimacy and Compliance: In the Caribbean, Top-Down (Type A) governance often struggles with illegal fishing. When an MPA moves toward Shared (Type B) or Community (Type D) governance, fishers are more likely to comply because they view the rules as a product of their own negotiations rather than an outside imposition.
- Resource Mobilization: Private Governance (Type C) or NGO-led co-management is often more successful at securing international grants and private donations than government departments, which may be restricted by national treasury rules.
- Resilience to Political Cycles: Government-led MPAs (Type A) are highly vulnerable to political will. A change in administration can lead to a sudden loss of support. Shared governance (Type B) provides a buffer, as the NGO and community partners maintain continuity and institutional memory.

Summary of governance types

Governance Type	Key Decision Maker	Source of Power	Major Strength
Type A: Government	State Agency	National Legislation	Strong legal enforcement and sovereign backing.
Type B: Shared	Mixed (Gov + NGO/Community)	Formal Agreements/MOUs	High legitimacy; combines technical and local knowledge.
Type C: Private	NGO or Private Owner	Property/Lease Rights	Financial flexibility and rapid decision-making.
Type D: IPLC	Indigenous/Local Community	Customary Law/Tradition	Deep cultural integration and high local buy-in.

4.3.2 Shared Governance: The Collaborative Model

Shared governance, often referred to as co-management, is the most dynamic and increasingly common model in the Caribbean. Rather than power being held by a single entity, it is distributed

across a partnership. However, sharing is not a fixed state; it exists on a spectrum of power dynamics known as the Governance Continuum.

In shared governance, the state (government) formally recognizes the role of other stakeholders—such as NGOs, local fishing associations, or private tourism operators—in making decisions.

- Key Driver: The realization that the government often lacks the field presence, local knowledge, or funding to manage vast marine spaces alone.
- The Shared Board: This model often manifests as a Management Board or Advisory Council containing representatives from different sectors.
- The Caribbean Context: Many Caribbean nations utilize this for MPAs that are high-traffic tourism zones or critical fishing grounds, where buy-in from users is the only way to ensure compliance.

The Governance Continuum

According to the IUCN and UNEP Governance Guides, the relationship between the government and stakeholders is not all or nothing. It is a sliding scale of power-sharing:

1. Passive Consultation (Inform)

- The Dynamic: The government makes all decisions and simply informs stakeholders of the new rules after they are set.
- Stakeholder Role: Receivers of information.
- Risk: Often leads to low compliance and Paper Park status because stakeholders feel ignored.

2. Active Consultation (Consult)

- The Dynamic: The government seeks advice and feedback from stakeholders before making a decision.
- Stakeholder Role: Advisors. The government listens but is not legally or formally bound to follow the advice.
- Risk: Can lead to consultation fatigue if stakeholders feel their input never actually changes the outcome.

3. Collaborative Management (Co-management)

- The Dynamic: A formal partnership where stakeholders are involved in the development of the management plan.
- Stakeholder Role: Partners. There is a regular forum for negotiation.
- Result: A higher degree of ownership over the MPA rules.

4. Joint Governance (Decision-making Power)

- The Dynamic: Authority is legally shared. Decisions are made by a board where the government and stakeholders have equal (or specified) voting rights.
- Stakeholder Role: Decision-makers.
- Example: A board composed of 3 Government officials, 2 NGO reps, and 2 Fishing Association heads.

5. Delegated Authority (Transfer of Power)

- The Dynamic: The government retains legal ownership of the MPA but delegates the entire management and decision-making authority to a specific group (e.g., a local NGO or community council).
- Stakeholder Role: The Lead Authority.

Why the Continuum Matters for Caribbean MPAs

- Flexibility: An MPA might start at Active Consultation and, as the local community builds capacity, move toward Joint Governance.

- **Conflict Resolution:** Identifying where an MPA currently sits on the continuum helps managers understand why conflicts exist. For example, if fishers expect Joint Governance but the government is only providing Passive Consultation, conflict is inevitable.
- **Resilience:** Shared governance structures (Type B) are often more resilient to political changes. If a government administration changes, the NGO and community partners on the board provide the institutional memory and continuity to keep the MPA running.

Case Study: The Belize Governance Evolution (Belize Barrier Reef Reserve System)

Belize has moved from a strictly Government-led (Type A) model toward a Shared Governance (Type B) model through formal Co-management Agreements.

1. **The Legal Framework:** The Government of Belize (specifically the Fisheries and Forest Departments) retains the ultimate Authority over the protected areas. However, they recognize that they lack the staff and local presence to manage every site.

2. **The Shift to Co-management:** To bridge the gap, the government signs agreements with local NGOs (like TIDE for Port Honduras Marine Reserve or SARTENEJA for Corozal Bay).

3. **Position on the Continuum:**

- **In the past:** The system was closer to Active Consultation, where the government set the rules and NGOs simply assisted with implementation.
- **Currently:** It functions as Collaborative Management. The NGOs are responsible for daily operations, patrols, and monitoring, while a Co-management Board (comprising government, NGOs, and often community reps) negotiates the management plans and budget allocations.

4.4 Further Reading

4.4.1 Global Standards on Governance Types

- [IUCN Guidelines: Governance of Protected Areas \(2013\)](#): Refer specifically to Chapter 3 (pages 29–45) for the full definitions of the four governance types and the matrix used to classify them.
- [UNEP Guide: Enabling Effective and Equitable Marine Protected Areas \(2019\)](#): This guide introduces the concept of governance incentives and explains how to combine different types of governance (e.g., mixing Government and Community models).

4.4.2 The Governance Continuum and Co-management

- [The Governance Continuum \(TNC and USAID\)](#): A concise visual and theoretical breakdown of the sliding scale of power-sharing from Notice to Joint Decision-Making.
- [Co-management of Marine Resources in the Caribbean \(CERMES\)](#): A regional technical report examining how shared governance (Type B) has been implemented in various Caribbean territories, highlighting successes and pitfalls.

4.4.3 Caribbean Case Studies and Compendiums

- [UNEP Case Study Compendium: Governing Marine Protected Areas](#): Explore the Seaflower MPA (Colombia) and Belize Barrier Reef entries to see real-world examples of Shared and Transboundary governance in the Wider Caribbean.
- [Governance of the Belize Barrier Reef Reserve System \(UNESCO\)](#): Documentation on the world-renowned co-management model that balances government oversight with NGO-led site management.

4.4.4 Governance by Indigenous Peoples (Type D)

- ICCAs: Territories and Areas Conserved by Indigenous Peoples and Local Communities:
Provides global context on Type D governance, which is highly relevant to the Maya communities in Belize and the Kalinago in Dominica.

4.5 Assessment

This assessment tests the learner's ability to categorize different governance models and understand the nuances of the Governance Continuum as applied to Marine Protected Areas.

Part A: Classification Matrix

Match the following MPA scenarios to the correct IUCN Governance Type (A - Governance by Government, B - Shared Governance, C – Private Governance, or D - Governance by Indigenous Peoples and Local Communities).

1. Scenario: A regional NGO leases a small uninhabited island and its surrounding reef from the government for 99 years to establish a bird and turtle sanctuary. They set all visitation rules and provide their own security.

○ Type: _____

2. Scenario: The National Fisheries Department manages a Marine Reserve. While they hold a town hall meeting once a year to present their annual report, all final decisions on zoning and permits are made by the Minister.

○ Type: _____

3. Scenario: A Marine Park is governed by a Board of Directors that includes two representatives from the Ministry of Tourism, the President of the local Fishers Association, and the Director of a local conservation NGO.

○ Type: _____

4. Scenario: An indigenous community in a coastal territory manages their mangroves based on ancestral harvesting seasons and traditional spiritual taboos, which are recognized by the national constitution.

○ Type: _____

Part B: Multiple Choice

5. Which point on the Governance Continuum represents a situation where the government asks stakeholders for their opinions but is not legally obligated to follow them?

- A) Passive Consultation
- B) Active Consultation
- C) Joint Decision-making
- D) Delegated Authority

6. A primary advantage of Shared Governance (Type B) in the Caribbean is:

- A) It is the cheapest model to operate.
- B) It allows for faster decision-making than any other type.
- C) It increases legitimacy and compliance among resource users.
- D) It removes the need for any government involvement.

7. Transboundary governance (shared between two or more countries) is most often classified under which IUCN Type?

- A) Type A (Government)
- B) Type B (Shared)
- C) Type C (Private)
- D) Type D (IPLC)

Part C: Short Answer and Analysis

8. The Power Shift: Describe one specific reason why a Caribbean government might choose to move an MPA from Type A (Government) to Type B (Shared/Co-management).

9. Continuum Analysis: Explain the difference between Collaborative Management and Joint Governance. Which one grants more power to the stakeholders?

10. Case Study Reflection: Using the Belize example discussed in this section, explain how Co-management Agreements help solve the problem of limited state capacity (lack of staff/funds) in marine conservation.

4.6 Answer Key

- Answer 1: Type C (Private Governance)
- Answer 2: Type A (Governance by Government)
- Answer 3: Type B (Shared Governance)
- Answer 4: Type D (Governance by Indigenous Peoples/Local Communities)
- Answer 5: B
- Answer 6: C
- Answer 7: B
- Answer 8: To increase local buy-in and compliance. If fishers feel they have a seat at the table, they are less likely to violate regulations, reducing the cost of enforcement for the government.
- Answer 9: In Collaborative Management, stakeholders are partners in developing the plan, but the government often holds the final veto. In Joint Governance, authority is legally shared, and decisions are usually made by a vote on a multi-stakeholder board. Joint Governance grants more power to stakeholders.
- Answer 10: Co-management allows the government to delegate daily operational duties (like patrols and monitoring) to NGOs who can often raise private funds and hire local staff more flexibly than a government department, while the state retains ultimate legal authority.

5 SECTION 3 – GOVERNANCE PRINCIPLES

5.1 Description

This section moves from the structures of power (who decides) to the quality of power (how well they decide). Even a legally perfect governance type can fail if it is not perceived as fair or transparent. According to the IUCN Guidelines and the UNEP Governance Guide, there are four universal principles that define Good Governance in the context of Marine Protected Areas.

5.2 Learning Objectives

Upon completion of this section, learners will be able to:

- Articulate the four core principles of Accountability, Transparency, Fairness/Rights, and Stakeholder Participation within a marine conservation context.
- Contrast Upward Accountability (to legal and funding bodies) with Downward Accountability (to local communities and resource users).
- Explain the importance of a clear Legal and Statutory Basis for MPA governance and identify how Memorandums of Understanding (MOUs) can resolve jurisdictional clutter.
- Assess how the consistent and fair application of regulations affects the Legitimacy and success of an MPA.
- Demonstrate how high-quality governance leads to tangible ecological benefits, such as increased compliance, reduced enforcement costs, and the integration of Local Ecological Knowledge (LEK).
- Use regional case studies (e.g., SMMA, Hol Chan, or Belize Barrier Reef) to illustrate how governance principles resolve conflict and protect the rights of traditional users.

5.3 Content

5.3.1 The Pillars of Good Governance

1. Accountability

Accountability is the requirement that those in power are answerable for their decisions and actions.

- Upward Accountability: Reporting to government ministries, legal bodies, or international donors (e.g., providing financial audits).
- Downward Accountability: Being answerable to the local communities and resource users whose lives are impacted by the MPA.
- In Practice: Does the MPA board hold public meetings? Is there a clear process for people to complain or seek redress if a decision harms them?

Example: The Hol Chan Marine Reserve, Belize

Accountability in this context is demonstrated through both financial transparency and institutional answerability.

Upward Accountability (To Government and Law)

The Hol Chan Marine Reserve is managed by a Board of Trustees, which is a semi-autonomous body. However, they are legally accountable to the Ministry of Blue Economy and Civil Aviation.

- The Mechanism: The Board is mandated to submit audited financial statements and annual reports to the government. This ensures that the revenue collected from user fees (which are significant due to the park's popularity with snorkelers and divers) is being reinvested into the park's management rather than being mismanaged.

Downward Accountability (To the Community)

Because the reserve significantly impacts the livelihoods of the people in San Pedro, Ambergris Caye, the governance structure includes mechanisms to remain answerable to local stakeholders.

- The Mechanism: The Board of Trustees includes representatives from the San Pedro Town Council and the local fishing and tour guide associations.
- The Result: If a new regulation is proposed (such as expanding a No-Take zone), the Board must answer to these representatives. If the community feels a decision is unfair, there is a clear, formal channel through their representatives to demand a justification or a change in policy.

Public Accountability (User Fee Reinvestment)

One of the highest forms of accountability in Caribbean MPAs is showing the public exactly where their money goes.

- The Mechanism: Hol Chan has historically been a model for self-financing. By publicly demonstrating that ticket sales directly fund ranger patrols, buoy maintenance, and community education programs, they remain accountable to the tourists and locals who pay to use the park. When stakeholders see the tangible results of their fees (e.g., healthy reef sections and visible patrols), the social contract of the MPA is strengthened.

2. Transparency

Transparency ensures that information is accessible, understandable, and freely available to those affected by decisions.

- The No Secrets Rule: Stakeholders should know why a certain zone was closed, how much money the MPA collected in fees, and how that money was spent.
- In Practice: Publishing management plans, annual reports, and meeting minutes on a public website or at local community centers.

Caribbean examples:

In many Caribbean contexts, transparency is often hindered by information silos where data on fishing grounds, coral health, and tourism zones are kept in private government folders.

Transparency of Data and Mapping

The Marine Resource and Space-use Information System (MarSIS) for the Grenadine Islands (Grenada and St. Vincent and the Grenadines) initiative sought to break information silos by making data the foundation of transparent governance. The MarSIS project created a shared, public database that mapped how the marine space was being used. This included traditional fishing grounds, yachting routes, and sensitive coral habitats.

- The Transparency Mechanism: By making these maps public and accessible to all stakeholders (fishers, divers, and government officials), the secrecy behind why certain areas were being proposed for protection was removed.
- The Result: When stakeholders can see the same data that the decision-makers are using, the process of zoning becomes transparent. It prevents the suspicion that boundaries are being drawn to favor one group over another.

Open Consultation Processes

In the Sandy Island/Oyster Bed Marine Protected Area (SIOBMPA) in Carriacou, Grenada, transparency is integrated into the management planning process.

- The Mechanism: Management planning sessions were conducted as open-floor meetings where draft plans were physically displayed and debated in public spaces.
- The Result: Transparency here meant that the why and how of the management plan were not hidden in a technical document. Every fisher knew exactly what was being proposed and why, ensuring that the final rules were not a surprise.

Clear Communication of Rules and Rationale

Transparency also involves the clear communication of the rationale behind governance decisions.

- **The Mechanism:** In the St. Kitts and Nevis Marine Management Area (SKNMMA), the use of Decision Support Tools allowed stakeholders to see the trade-offs of different governance scenarios.
- **The Result:** If a certain area was closed to fishing, transparency ensured that the community understood the trade-off (e.g., We are closing this 5% to increase fish biomass for the surrounding 95%). This is the opposite of arbitrary governance, which is a major cause of conflict in the region.

3. Fairness and Rights

Governance must respect human rights and ensure the equitable distribution of costs and benefits.

- **Equity:** Does the MPA disproportionately burden small-scale fishers while favouring large-scale tourism operators?
- **Rights Recognition:** Respecting the customary rights of indigenous or local communities, even if they aren't written in modern statutory law.
- **In Practice:** Ensuring that No-Take zones are not placed solely in the traditional waters of the most vulnerable fishers.

Example: The Soufriere Marine Management Area (SMMA), St. Lucia

The SMMA is world-renowned for its Zoning for Conflict Resolution approach, which was specifically designed to address the rights of traditional users and ensure a fair distribution of marine space.

Recognition of Customary Rights

Before the establishment of the SMMA in the mid-1990s, there was intense conflict between the burgeoning tourism industry (divers and yachties) and the traditional artisanal fishers. The fishers felt their ancestral rights to the sea were being stripped away by tourism expansion.

- **The Mechanism:** The governance framework formally recognized the customary rights of the Soufriere fishers. Instead of a blanket No-Take zone, the area was divided into specific zones, including Marine Reserves (for conservation/diving) and Priority Fishing Areas (PFAs).
- **The Result:** By designating PFAs, the governance structure legally protected the fishers' right to maintain their livelihoods in their traditional grounds, ensuring they weren't displaced by wealthier tourism interests.

Equitable Distribution of Benefits (Fairness)

Fairness in governance dictates that the winners and losers of conservation should be balanced.

- **The Mechanism:** To offset the loss of fishing grounds in the new Marine Reserves, the SMMA established a system where a portion of the fees collected from divers and yachting permits was intended to support community projects and alternative livelihood training for fishers.
- **The Result:** This attempted to ensure that the economic benefits generated by the MPA (tourism dollars) weren't just staying with the dive shops, but were being shared with the fishing community who bore the cost of the closure.

Procedural Fairness

Fairness isn't just about the outcome; it's about the process.

- **The Mechanism:** The SMMA was born out of a series of conflict resolution workshops where fishers, hotel owners, divers, and government officials sat at the same table to draw the map.

- The Result: Because the fishers had the power to negotiate where the lines were drawn, the process was perceived as fair. This led to a high level of voluntary compliance, fishers respected the Marine Reserves because their own Priority Fishing Areas were also respected.

4. Stakeholder Participation

This is the inclusion principle. It ensures that those with a stake in the marine environment have a meaningful voice in its governance.

- Depth of Participation: It ranges from simply being informed to having veto power or a seat on the board (referencing the Governance Continuum from Section 2).
- In Practice: Including representatives from the fishing, diving, and hospitality sectors on the MPA's Management Committee.

Example: The Portland Bight Protected Area, Jamaica

In this model, participation is not just a meeting; it is a structured system where resource users have a permanent, legal seat at the decision-making table.

The Structure of Co-management Councils

The Portland Bight Protected Area is the largest protected area in Jamaica, covering both terrestrial and marine ecosystems. To ensure meaningful participation across such a large area, the Caribbean Coastal Area Management Foundation (C-CAM) established specific Fisheries Management Councils.

- The Mechanism: These councils are composed of elected representatives from the local fishing beaches. They aren't just invited to listen; they are tasked with helping to draft the rules for their own fishing grounds.
- The Result: Participation is decentralized. Instead of one giant meeting in a city, the governance structure goes to the beach level, allowing the most active stakeholders to voice their concerns in a familiar environment.

2. Participation in Data Collection (Citizen Science)

Participation in the Portland Bight Protected Area extends beyond policy-making into the scientific management of the park.

- The Mechanism: Local fishers and community members are trained as Honorary Game Wardens and data collectors. They participate in bird counts, turtle nesting monitoring, and reporting illegal activities.
- The Result: By participating in the science of the MPA, stakeholders gain a deeper understanding of why certain rules (like closed seasons) exist. This participatory monitoring turns stakeholders into stewards of the resource.

3. Negotiated Zoning (The Bottom-Up Approach)

When C-CAM was developing the management plan for the Portland Bight Protected Area, they utilized a bottom-up participatory process to define boundaries.

- The Mechanism: Maps were brought to the fishing villages, and fishers were asked to mark their most critical areas. The final Fish Sanctuaries (No-Take Zones) were placed in areas that were ecologically significant but also negotiated to minimize the immediate economic hit to the fishers.
- The Result: High levels of Social Capital. Because the community participated in drawing the lines, they feel a sense of ownership. Poaching is often discouraged by the community members themselves, rather than just by outside enforcement.

5.3.2 Legal and Institutional Structure

To ensure that governance principles like accountability and transparency aren't just good ideas but are actually enforceable, they must be anchored in a solid Legal and Institutional Structure. This structure provides the formal framework that defines who has the power to act and how different organizations work together.

1. The Statutory Basis (The Law)

Governance must be grounded in a clear legal mandate. In the Caribbean, this is often a National Parks Act, a Fisheries Act, or an Environmental Management Act.

- **Clarity of Mandate:** The law must explicitly state which agency has the authority to create regulations, collect fees, and enforce boundaries.
- **Consistency:** The local MPA regulations must align with national laws and international treaties (like the SPAW Protocol in the Wider Caribbean).
- **Enforceability:** A legal structure is weak if it doesn't provide the teeth for enforcement. This includes the legal right for wardens to make arrests or for boards to issue fines.

2. Institutional Arrangements

This refers to the who's who of the MPA, the organizations involved and how they relate to one another.

- **The Management Authority:** Whether it is a government department (Type A) or an NGO (Type B/C), the leading institution must have a stable structure, a clear mission, and a dedicated budget.
- **Nesting and Hierarchy:** MPAs do not exist in a vacuum. A site-level management board is usually nested within a larger national system. For example, a local Marine Park Board in Grenada reports to the Fisheries Division, which reports to a Ministry.
- **Inter-agency Coordination:** This is a major challenge in the Caribbean. A successful structure ensures that the Coast Guard (enforcement), the Fisheries Department (resource use), and the Tourism Authority (visitor management) aren't working at cross-purposes.

3. Rule of Law and Conflict Resolution

A structure only works if the rules of the game are applied equally to everyone.

- **Fair Application:** If a local artisanal fisher is arrested for entering a zone, but a large commercial dive boat is allowed to moor there without a permit, the legal structure has failed the principle of Fairness.
- **Dispute Mechanisms:** A robust institutional structure includes a formal way to handle disagreements. If a stakeholder feels a decision was unfair, is there a clear legal path to appeal that decision?
- **The Role of Customary Law:** In many Caribbean communities, informal or traditional rules exist alongside the law. A strong modern structure finds ways to recognize and integrate these traditional rights to avoid conflict.

Common Caribbean Challenge: Jurisdictional Clutter

A recurring theme in the Eastern Caribbean is the issue of overlapping jurisdictions.

- **Example:** A Ministry of Land might own the seabed, the Ministry of Fisheries might manage the fish, and the Ministry of Tourism might manage the divers.
- **The Solution:** Good governance structures use Memorandums of Understanding (MOUs) or Co-management Agreements to clearly define which agency does what, reducing confusion and increasing efficiency.

Structural Requirements

Component	What it provides	Caribbean Example
Legislation	The Right to govern.	Antigua's Fisheries Act.
Institutional Framework	The Body that governs.	The MPA Management Board.
Policy/MOUs	The Rules for cooperation.	Co-management agreement between the Gov of Belize and TIDE (NGO).

5.3.3 Why Quality Principles Lead to Better Conservation

Good Governance is not merely a bureaucratic requirement; it is a functional necessity. When governance principles (accountability, transparency, fairness, and participation) are ignored, the biological goals of the MPA are rarely met. This component explores the direct causal links between high-quality governance and successful conservation outcomes.

1. Increased Compliance and Reduced Enforcement Costs

One of the most immediate benefits of quality governance is the Social Contract.

- The Logic: When resource users (like fishers) perceive that the rules were made through a transparent and fair process where they had a voice (participation), they are more likely to comply voluntarily.
- Conservation Impact: This reduces the burden on overstretched Caribbean enforcement agencies. It is far more effective and less expensive to have a community that wants to follow the rules than to try and police a hostile population with a single patrol boat.

2. Minimization of Social Conflict

MPAs often fail because of Social Sabotage, where disgruntled stakeholders intentionally damage gear, buoy markers, or ignore No-Take zones as a form of protest.

- The Logic: Principles of Fairness and Rights ensure that the costs of conservation (e.g., lost fishing grounds) do not fall exclusively on the most vulnerable.
- Conservation Impact: By addressing equity early, managers prevent the long-term, expensive legal battles and physical protests that can paralyze an MPA for years.

3. Enhanced Data Quality through Local Ecological Knowledge (LEK)

Quality governance relies on deep stakeholder participation, which opens a two-way street for information.

- The Logic: Traditional fishers and local divers often possess decades of observational data that scientists might miss.
- Conservation Impact: When governance structures include these actors, the MPA can more accurately identify spawning aggregation sites or critical nursery habitats. This leads to better-designed zones that actually protect the species they are intended to save.

4. Adaptive Capacity and Institutional Learning

Marine environments are dynamic, especially in the Caribbean, where hurricane impacts and coral bleaching can change a reef overnight.

- The Logic: Accountability and Transparency create a feedback loop. If a management action isn't working, a transparent system allows stakeholders to see the data and hold the board accountable for changing course.
- Conservation Impact: This leads to Adaptive Governance, where the MPA can pivot its strategy based on real-time ecological changes rather than being stuck in a rigid, 10-year-old management plan.

5. Financial and Political Sustainability

Donors and international NGOs (such as the Blue Resilience Fund or BIOPAMA) are increasingly tying funding to governance standards.

- The Logic: Accountability (audited finances) and Transparency (public reporting) make an MPA a low-risk investment for external funders.
- Conservation Impact: Consistent funding allows for the long-term management of habitats. Furthermore, a transparently run MPA is harder for changing political administrations to dismantle because it has deep-rooted public support.

The Good Governance Success Loop

Principle	Key Question for the MPA	Direct Conservation Result
Fairness	Are the benefits and burdens shared equitably?	Reduces illegal poaching and community resentment.
Participation	Do stakeholders have a real seat at the table?	Better boundary design based on local reef knowledge.
Transparency	Is information about money and rules easy to find?	Increases trust, leading to easier buy-in for new rules.
Accountability	Are decision-makers answerable to the community?	Ensures funds are spent on rangers and monitoring, not wasted.

5.3.4 Case Study: The Belize Barrier Reef Reserve System integrated approach to World Heritage management.

In 2009, the Belize Barrier Reef Reserve System was placed on the List of World Heritage in Danger. To get off that list, the government had to overhaul its governance to meet international standards of good governance.

1. Stakeholder Participation: The Advisory Committees

The Belize Barrier Reef Reserve System is managed via a nested participation model. It isn't just one government department; it involves the Coastal Zone Management Authority and Institute (CZMAI) and various site-level co-management partners.

- The Mechanism: The creation of the World Heritage Advisory Committee (WHAC). This body includes members from the fishing industry, the tourism sector, and environmental NGOs.
- Result: Decisions regarding the reef are not made in a vacuum in the capital city. Instead, they are vetted by a committee that represents the people whose livelihoods depend on the reef.

2. Transparency: Open Reporting and Monitoring

To satisfy both UNESCO and local citizens, the governance of the reef shifted toward radical transparency regarding the health of the ecosystem.

- The Mechanism: The Healthy Reefs for Healthy People (HRHP) Initiative. This initiative produces a biennial Report Card on the health of the reef that is presented publicly in accessible language.
- Result: Transparency here means that everyone, from a hotel owner to a Cabinet Minister, has access to the same data. It removes the ability for secrecy to hide environmental degradation or the impacts of development.

3. Fairness and Rights: The Moratorium on Offshore Oil

One of the most significant Fairness and Rights milestones in Caribbean marine governance occurred in Belize in 2017.

- The Mechanism: Following massive public pressure and a People's Referendum led by Oceana Belize and other partners, the government passed a permanent moratorium on offshore oil exploration.
- Result: This was a major win for intergenerational fairness and the rights of traditional users. The governance structure recognized that the long-term right of the Belizean people to a healthy reef was more valuable than the short-term economic gain of oil, which would have disproportionately threatened the livelihoods of fishers and tourism workers.

4. Accountability: The Integrated Management Plan

Accountability in Belize is grounded in a legal framework that requires regular updates and public reporting.

- The Mechanism: The Integrated Management Plan (IMP) for the Belize Barrier Reef Reserve System. This plan sets clear indicators for success.
- Result: Because these indicators are public and tied to international World Heritage obligations, the government is upwardly accountable to UNESCO and downwardly accountable to the Belizean public. If the Report Card shows a decline, the management authority must explain why and what actions are being taken to fix it.

This case study demonstrates that good governance is a journey. By incorporating these principles, Belize successfully saw the Belize Barrier Reef Reserve System removed from the World Heritage in Danger list in 2018.

5.4 *Further Reading*

5.4.1 Global Principles of Good Governance

- [IUCN Guidelines: Governance of Protected Areas \(2013\)](#): Refer specifically to Chapter 4 (pages 47–68) for a detailed breakdown of the five IUCN principles of good governance and how to evaluate them.
- [UNEP Guide: Enabling Effective and Equitable Marine Protected Areas \(2019\)](#): This document provides Governance Incentives that map directly to the principles of fairness and stakeholder participation.
- [Governance for Biodiversity Conservation: A User's Guide \(IIED\)](#): Provides a Governance Health Check that helps practitioners apply these principles at the site level.

5.4.2 Caribbean Case Studies and Technical Reports

- [Towards Marine Ecosystem-Based Management in the Wider Caribbean \(2011\)](#): Read Chapter 3 for an analysis of Principled Ocean Governance in the Caribbean, focusing on the legal and institutional barriers to transparency and accountability.
- [Report: Adaptive Capacity for MPA Governance in the Eastern Caribbean \(CERMES\)](#): Examines the institutional challenges in the OECS region, specifically regarding jurisdictional clutter and the rule of law in marine spaces.
- [The Soufriere Marine Management Area \(SMMA\) Case Study](#): A seminal study on how Fairness and Rights were used to resolve deep-seated conflict between fishers and the tourism sector in St. Lucia.

5.4.3 Legal and Institutional Frameworks

- [The SPAW Protocol \(Specially Protected Areas and Wildlife\)](#): The primary regional legal instrument for the Wider Caribbean that sets the standard for how MPAs should be legally structured and managed across borders.

5.5 Assessment

This assessment is designed to test the learner's ability to identify and analyze the quality of governance within an MPA, moving beyond simple structures to the application of ethical and legal principles.

Part A: Key Concept Matching

Match the Governance Principle to its real-world application.

Principle	Application
1. Accountability	A) Publishing the annual budget and the map of no-take zones on a public website.
2. Transparency	B) Ensuring that a new hotel development doesn't block a traditional fishing beach.
3. Fairness and Rights	C) Establishing a formal Advisory Council where local dive operators have a vote.
4. Participation	D) Requiring the MPA Manager to present a progress report to the local town hall.

Part B: Multiple Choice

5. Jurisdictional Clutter in the Caribbean refers to:
- A) Too much physical trash in the marine protected area.
 - B) Overlapping authorities where multiple government agencies claim control over the same space.
 - C) A lack of scientific data regarding fish stocks.
 - D) The use of private NGOs to manage public reefs.
6. Which of the following is an example of Downward Accountability?
- A) Submitting a financial audit to an international donor like the World Bank.
 - B) Reporting illegal poaching activities to the National Police.
 - C) An MPA Board justifying a change in boundary rules to the local community.
 - D) Following the guidelines set by the SPAW Protocol.
7. Why is the Rule of Law critical for MPA legitimacy?
- A) It ensures that regulations are enforced consistently for all users (e.g., locals and tourists).
 - B) It allows the government to change rules without consulting the public.
 - C) It guarantees that the MPA will receive infinite funding.
 - D) It replaces the need for stakeholder participation.

Part C: Short Answer and Scenario Analysis

8. The Transparency Link: Explain how Transparency (sharing data) can lead to higher Compliance (people following the rules). Use a Caribbean example in your explanation.
9. Institutional Structure: What is a Memorandum of Understanding (MOU), and why is it a vital tool for solving jurisdictional clutter between a Fisheries Department and a Tourism Authority?

Scenario Exercise:

The Situation: A Caribbean island establishes an MPA. The boundaries are drawn by a foreign scientist to protect a specific coral species. A month later, local fishers are arrested for fishing in their traditional grounds, which they didn't know were now No-Take zones.

10. Identify three governance principles from Section 3 that were violated in this scenario and explain how they could have been applied to avoid this conflict.

5.6 *Answer Key*

- Answer 1: D
- Answer 2: A
- Answer 3: B
- Answer 4: C
- Answer 5: B
- Answer 6: C
- Answer 7: A
- Answer 8: When data is shared transparently (like the MarSIS mapping in the Grenadines), stakeholders understand the reasoning behind a closure. If they see the science/data, they are less likely to view the rule as an arbitrary or unfair attack on their livelihood, leading to voluntary compliance.
- Answer 9: An MOU is a formal agreement between two or more parties. It is vital because it clearly defines who does what, preventing agencies from clashing or leaving management gaps in the MPA.
- Answer 10: 1. Participation: The fishers were not involved in drawing the boundaries. 2. Transparency: The new rules and maps were not clearly communicated to the users. 3. Fairness/Rights: The customary rights of the fishers were ignored in favour of a purely biological goal, leading to an inequitable burden on the local community.

6 SECTION 4 – ASSESSING AND EVALUATING GOVERNANCE

6.1 Description

This section moves from the theoretical principles of governance to the practical application of evaluation. To improve an MPA, we must first measure how it is currently performing.

6.2 Learning Objectives

Upon completion of this section, learners will be able to:

- Explain why evaluating governance (the health check) is essential for identifying power gaps, building legitimacy, and enabling Adaptive Management.
- Compare and contrast the Governance Assessment for Protected Areas (GAPA) and the Site-level Assessment for Governance and Equity (SAGE) in terms of their depth, duration, and primary goals.
- Analyze the 10 SAGE Principles
- Identify and analyze discrepancies in scoring between different stakeholder groups (e.g., government vs. fishers) as a diagnostic tool for social conflict.
- Describe how a Governance Action Plan (the output of GAPA) can trigger specific legal or institutional changes at the national or site level.

6.3 Content

6.3.1 Why Assess Governance?

To understand why we assess governance, we must look at it as a health check for the MPA. While biological monitoring tells us if the fish are returning, governance assessment tells us if the human systems are functioning well enough to keep the fish protected in the long term.

1. Identifying Power Gaps and Inequities

Governance assessments are designed to reveal who is truly making decisions versus who is merely being informed.

- The Goal: To identify if marginalized groups, such as artisanal fishers, women in the seafood value chain, or indigenous communities, are being excluded from the table.
- Why it Matters: In the Caribbean, if a certain group feels they have no power, they are less likely to follow the rules. Assessment identifies these gaps before they turn into active conflict or social sabotage.

2. Linking Process to Performance

We assess governance to determine if the way we work is actually helping us achieve our goals.

- The Goal: To see if principles like Transparency and Accountability are actually translating into better conservation outcomes.
- Why it Matters: An MPA might have the best scientific management plan in the world, but if the governance process is viewed as unfair, the plan will fail. Assessment helps managers realize that improving fairness can be just as effective as hiring more rangers.

3. Building Trust and Legitimacy

The act of assessing governance is, in itself, a tool for governance.

- The Goal: To create a safe space where stakeholders can evaluate the system together.
- Why it Matters: Many MPAs suffer from a lack of trust between the government and local users. By inviting fishers and tour guides to participate in a Governance Assessment for Protected Areas (GAPA) or Site-level Assessment for Governance and Equity (SAGE) assessment, the management authority demonstrates Accountability and Transparency, which builds the social capital needed for the MPA to succeed.

4. Enabling Adaptive Governance

Assessments provide the data needed for institutions to learn and change.

- The Goal: To move away from rigid, set-in-stone management styles toward Adaptive Governance.
- Why it Matters: Marine environments are changing rapidly due to climate change. A governance assessment tells a Board if they are flexible and responsive enough to handle a sudden coral bleaching event or a hurricane. If the assessment shows the Board is too slow or too top-down, they can reform their structure to be more Responsive.

5. Justifying Investment and Funding

Modern conservation finance (e.g., the BIOPAMA grant missions or Blue Bonds) is increasingly focused on Governance Standards.

- The Goal: To provide evidence to donors and national treasuries that the MPA is being managed ethically and efficiently.
- Why it Matters: High scores in Transparency and Accountability make an MPA a low-risk investment. Assessment provides the professional documentation needed to secure long-term sustainable financing.

The Diagnostic Value

If you don't assess...	The Result is...
Power Dynamics	You may accidentally create a Paper Park with no community buy-in.
Transparency	Rumors and distrust will grow among local resource users.
Fairness	Illegal poaching becomes a form of protest against unfair rules.
Adaptability	The MPA remains stuck in outdated policies that don't match today's climate reality.

6.3.2 GAPA: Governance Assessment for Protected Areas

The Governance Assessment for Protected Areas (GAPA) is a sophisticated, multi-stakeholder methodology developed by the International Institute for Environment and Development (IIED) and the IUCN. While many tools focus on biological management effectiveness, GAPA was specifically designed to look at the human and political systems that make or break an MPA.

1. The Three-Phase Process

GAPA is not a one-day workshop; it is a structured journey that typically takes several months to ensure the results are accurate and inclusive.

- Phase 1: Preparation: The management authority identifies the governance unit (the specific MPA or network) and maps out all stakeholders. This includes identifying marginalized groups who might normally be silent in public meetings.
- Phase 2: Assessment: This is the core data-gathering stage. It uses a mix of:
 - Stakeholder Workshops: Facilitated sessions where different groups (fishers, tourism boards, government) discuss their perceptions of power and fairness.
 - Household Surveys: To capture the views of community members who don't attend formal meetings.
 - Expert Reviews: Checking legal documents and management plans against actual practice.
- Phase 3: Action Planning: The data is turned into a Governance Action Plan. This document identifies specific reforms, such as changing the composition of an MPA board or drafting a new MOU between government agencies.

2. The Four Dimensions of GAPA

GAPA evaluates the health of the MPA governance system through four lenses:

- Good Governance Principles: How well does the site follow the pillars of Legitimacy, Transparency, Accountability, and Fairness?
- Governance Type: Is the current type (e.g., Government-led) actually the most effective for this site, or should it move toward a Shared/Co-management model?
- Governance Dynamics: Who has the actual influence? Does the local Grand-Anse fishing community have the same weight as a foreign-owned resort?
- Governance History: Understanding the legacy of the area. In the Caribbean, historical conflicts over land and sea rights often colour current perceptions of governance.

3. Why GAPA is Relevant for the Caribbean

Many regional sites suffer from top-down fatigue. GAPA helps resolve this by:

- Giving a Voice to the Informal Sector: In many Caribbean islands, the informal economy (unlicensed fishers or beach vendors) is huge. GAPA ensures these actors are assessed as part of the governance system, not ignored.
- Addressing Transboundary Issues: For sites like the Grenadines (St. Vincent and Grenada), GAPA can be used to assess how well two different national governments are coordinating their power.
- Institutional Memory: Because Caribbean MPA staff turnover can be high, the GAPA report serves as a permanent record of the social contract between the park and the people.

4. Summary: The GAPA Output

At the end of a GAPA process, a manager doesn't just have a score; they have a roadmap.

- Example Outcome: A GAPA assessment in a Caribbean MPA might reveal that while Transparency is high (everyone knows the rules), Accountability is low (there is no way for a fisher to appeal a fine). The Action Plan would then recommend creating a formal Grievance Redress Mechanism.

Case Study: The Belize Barrier Reef Reserve System

While Belize has a long history of co-management, the GAPA process was applied to look at the System of Governance across the seven protected areas that make up the World Heritage Site.

1. The Assessment Trigger

The reef was listed as In Danger due to threats from offshore oil exploration and mangrove clearing. The assessment revealed that while Management (patrolling and monitoring) was happening, the Governance system lacked the legal teeth and transparency to stop high-level political decisions that threatened the reef.

2. Findings of the Assessment

The GAPA-style evaluation identified several Power Gaps:

- Jurisdictional Clutter: Authority was split between the Fisheries Department, the Forest Department, and the Coastal Zone Management Authority. This allowed developers to find loopholes between different ministries.
- Lack of Downward Accountability: Local fishers felt that while they were being arrested for small infractions, large-scale developers were not being held to the same standard.
- Transparency Gaps: Stakeholders did not have easy access to the data being used to grant development permits in the buffer zones of the MPA.

3. The Governance Action Plan (The Result)

Following the assessment, a specific Governance Action Plan was implemented to move the site toward Good Governance:

- Institutional Reform: The creation of the World Heritage Advisory Committee (WHAC). This directly addressed the Participation gap by ensuring NGOs and community reps had a formal seat at the table.
- Legal Strengthening: The assessment led to the Offshore Oil Moratorium (2017). This was a direct response to the Fairness and Rights principle—protecting the long-term rights of the Belizean people over short-term industrial gain.
- Integrated Monitoring: The Healthy Reefs Report Cards were formalized as a transparency tool, ensuring that Management Effectiveness data was shared openly with the public to ensure Accountability.

Why this is a GAPA success story:

This example shows that a governance assessment isn't just a report; it's a catalyst for legal change. By identifying that the problem wasn't a lack of rangers (management) but a lack of integrated authority and transparency (governance), Belize was able to reform its system and was successfully removed from the World Heritage in Danger list in 2018.

6.3.3 SAGE: Site-level Assessment for Governance and Equity

The Site-level Assessment for Governance and Equity (SAGE) is a newer, more agile tool developed by the IIED and IUCN to provide a snapshot of how an MPA is performing against the principles of good governance. Unlike GAPA, which is a deep, months-long structural audit, SAGE is designed to be a regular, participatory self-assessment.

1. The Core Focus: Equity and Quality

While other tools (like METT) measure if you have enough rangers or boats, SAGE measures the quality of the human relationships in the MPA. It focuses on three main pillars:

- Recognition: Are the rights and diversity of all stakeholders (especially fishers and local residents) respected?
- Procedure: Are decisions made through a fair, transparent, and inclusive process?
- Distribution: Are the benefits of the MPA (tourism income) and the burdens (fishing restrictions) shared fairly?

2. The 10 Principles of SAGE

Participants evaluate the MPA by scoring 10 specific principles on a scale of 0 (Not met) to 3 (Fully met). These principles are:

- Recognition and respect for rights: Legal and customary rights are honoured.
- Recognition and respect for stakeholders: All groups are identified and valued.
- Full and effective participation: Stakeholders have a real say in decisions.
- Transparency: Information is accessible and clear.
- Accountability: Decision-makers are answerable for their actions.
- Dispute resolution: There are fair ways to solve conflicts.
- Rule of law: Laws are applied fairly and consistently.
- Fair distribution of benefits: Economic gains reach the local community.
- Mitigation of negative impacts: Help is provided to those losing out due to rules.
- Effective management: Governance supports the actual conservation goals.

3. The SAGE Process: The Scorecard Workshop

A SAGE assessment is typically conducted in a 1.5 to 2-day workshop.

- The Participants: A representative group of 15–20 people, including the MPA manager, government officials, fishers, tour operators, and women's group leaders.
- The Dialogue: The value of SAGE isn't just the final score, it's the discussion. If a manager scores Transparency as a 3, but the fishers score it as a 1, that gap reveals exactly where the governance is failing.
- Evidence-Based: For every score, the group must provide justification or evidence (e.g., We score Transparency a 1 because the management plan hasn't been shared in five years).

4. SAGE in the Caribbean Context

SAGE is particularly useful for the Caribbean due to its efficiency and focus on perception:

- Low Cost: It doesn't require expensive external consultants; it can be led by a trained local facilitator.
- Social Equity: In islands with historical tensions between big tourism and local fishers, SAGE provides a neutral framework to discuss if the benefits are being shared fairly.
- Monitoring Progress: Because it is fast, it can be repeated every 2 years to see if the Governance Health of the site is improving.

Comparison of GAPA and Sage

Feature	GAPA	SAGE
Depth	Deep Diagnostic of the whole system.	Rapid Health Check of site equity.
Complexity	High (Requires external facilitation and more time).	Medium (Designed for site-level self-assessment).
Primary Goal	Understanding the system and power structures.	Measuring equity and governance quality.
Primary Output	Legal and Institutional reform plan.	Stakeholder-led scorecard and Ideas for Action.
Best Used When...	You need to change the law or type of governance.	You want to improve the fairness and relationships at the site.
Frequency	Every 5 – 10 years (strategic)	Every 1 – 2 years (operational/monitoring)

Case Study: The Portland Bight Protected Area, Jamaica

The Portland Bight Protected Area is a massive, multi-use site where the balance between industrial development, artisanal fishing, and biodiversity conservation is a constant challenge. SAGE was used here specifically to measure if the Shared Governance model was actually delivering on its promises of equity.

1. The Assessment Trigger: Testing the Co-management Model

C-CAM has long practiced co-management, but they wanted a rigorous way to see if the local fishers and residents truly felt they had a fair share of the power and benefits. Unlike a biological survey of the mangroves, they needed to survey the social health of the protected area.

2. The SAGE Process in Portland Bight

The assessment involved a representative group of stakeholders, including:

- Government Officials (National Environment and Planning Agency - NEPA).
- NGO Staff (C-CAM).
- Local Fishers from the various Fisheries Management Councils.
- Community Leaders and women's group representatives.

During the workshop, these groups sat together to score the 10 SAGE principles.

3. Key Findings from the Scorecard

The SAGE assessment revealed a Perception Gap that was critical for management to address:

- High Scores in Recognition: Stakeholders generally felt that their rights as fishers were recognized by the management NGO (C-CAM).
- Lower Scores in Distribution of Benefits: While the conservation was working (fish stocks were improving), many local stakeholders felt that the economic benefits (from tourism or grants) were not reaching the average household effectively.
- Gaps in Dispute Resolution: The assessment highlighted that while there were rules, there wasn't always a clear, transparent way for a community member to challenge a decision without feeling intimidated.

4. The Ideas for Action (The Result)

The power of SAGE is that it ends with a list of Ideas for Action generated by the stakeholders themselves. In Portland Bight, this led to:

- Improved Communication Channels: Developing more localized, beach-level briefings to ensure Transparency reached the most remote fishers.
- Livelihood Diversification: A renewed focus on ensuring that benefits included training for alternative jobs (like eco-tourism guiding) to make the distribution of MPA gains more equitable.
- Strengthening the Councils: Using the SAGE scores to advocate for more formal legal recognition of the Fisheries Management Councils within national law.

Why this is a SAGE success story:

The Portland Bight example demonstrates that SAGE is a dialogue tool. By sitting the regulators (NEPA) next to the users (Fishers), the assessment forced a transparent conversation about power. It moved the MPA from doing conservation for the people to doing conservation with the people, based on a shared understanding of what is fair.

6.3.4 Applying Assessments: From Assessment to Action

Many MPAs lack a formal mechanism for self-reflection.

- The Challenge: Caribbean managers often feel they lack the data to do an assessment.
- The Solution: Both GAPA and SAGE rely on Perception Data. The data is the lived experience of the fishers, tour guides, and rangers. An assessment doesn't need a lab; it needs a seat at a table where people feel safe to speak honestly.

An assessment is only useful if it leads to change. The final step of any evaluation is Adaptive Management, using the scores and feedback to:

- Amend the Management Plan.
- Update a Co-management Agreement.
- Change how the Board of Directors is selected to be more inclusive.

6.4 Further Reading

6.4.1 Core Assessment Toolkits

- [GAPA: Governance Assessment for Protected and Conserved Areas \(IIED\)](#): This is the home base for the GAPA methodology. It includes the manual, site reports, and a step-by-step guide on conducting a system-wide governance audit.
- [SAGE: Site-level Assessment for Governance and Equity \(IIED\)](#): Access the latest SAGE manual and the 10 Principles Scorecard. This is the most practical link for site managers looking to conduct a rapid health check on social equity.

- [IUCN: Governance of Protected Areas - Guidelines for Managers \(2013\)](#): Refer to Chapter 5 (pages 71–86) for the overarching framework on how to initiate, conduct, and utilize an assessment to trigger Governance Reform.

6.4.2 Caribbean Context and Management Effectiveness

- [BIOPAMA: Management Effectiveness and Governance Tools](#): A repository of tools specifically curated for the African, Caribbean, and Pacific (ACP) regions. It includes links to the METT (Management Effectiveness Tracking Tool) which often complements governance assessments.
- [The Belize Barrier Reef Case Study \(UNESCO\)](#): The State of Conservation (SOC) reports for Belize provide a transparent look at how governance assessments led to the site's removal from the List in Danger.
- [CERMES: MPA Governance in the Eastern Caribbean \(Workshop Report\)](#): This report discusses the Adaptive Capacity of Caribbean institutions and why regular assessment is necessary to handle regional challenges like climate change and jurisdictional overlap.

6.4.3 Social Equity and Human Rights

- [The Governance Continuum \(TNC and USAID\)](#): A visual guide that helps participants in a SAGE or GAPA workshop identify exactly where their MPA sits on the power-sharing scale.
- [Human Rights Standards for Conservation \(Conservation Initiative on Human Rights\)](#): Essential reading for the Fairness and Rights component of a SAGE assessment, ensuring that international human rights standards are integrated into local MPA rules.

6.5 Assessment

This assessment tests the learner's understanding of the methodologies used to evaluate and improve the human systems within an MPA. It focuses on the distinction between GAPA (system-wide) and SAGE (site-level equity) and how these results trigger management changes.

Part A: Tool Comparison Matrix

Identify whether the following characteristics apply to GAPA, SAGE, or Both.

1. Characteristic: Designed as a rapid, 2-day stakeholder self-assessment scorecard.
 - Tool: _____
2. Characteristic: A deep, multi-month diagnostic of the entire national or site-wide power system.
 - Tool: _____
3. Characteristic: Relies on Perception Data from fishers, managers, and community members.
 - Tool: _____
4. Characteristic: Results in a Governance Action Plan to reform legal or institutional structures.
 - Tool: _____

Part B: Multiple Choice

5. What is the primary reason for conducting a governance assessment in an MPA?
 - A) To count the number of fish in the No-Take zone.
 - B) To identify Power Gaps and ensure the system is fair and effective.
 - C) To replace the need for a Management Plan.
 - D) To increase the cost of administration.
6. In the SAGE scorecard, a Perception Gap occurs when:
 - A) The manager and the fishers give the same score for Transparency.
 - B) The biological data contradicts the social data.
 - C) Different stakeholder groups (e.g., NGOs vs. Fishers) give significantly different scores for the same principle.
 - D) The MPA fails to meet its conservation targets.
7. Why is Adaptive Management the final step of any assessment?
 - A) Because the assessment is only useful if it leads to actual changes in how the MPA is run.
 - B) To ensure the assessment results are kept secret from the public.
 - C) To prove that the original governance type was perfect.
 - D) To reduce the number of stakeholders involved in the park.

Part C: Short Answer and Scenario Analysis

8. The Value of Perception: Why is the lived experience of a Caribbean fisher considered valid data in a SAGE assessment, even if it isn't a scientific measurement?
9. GAPA vs. SAGE: If a Caribbean Ministry wants to rewrite its national legislation for all Marine Parks, which tool is more appropriate: GAPA or SAGE? Briefly explain why.
10. Case Study Reflection (Portland Bight): How did the SAGE assessment in Jamaica help C-CAM move from doing conservation for the people to doing conservation with the people?

6.6 Answer Key

- Answer 1: SAGE
- Answer 2: GAPA
- Answer 3: Both
- Answer 4: GAPA

- Answer 5: B
- Answer 6: C
- Answer 7:A
- Answer 8: Because governance is about legitimacy. If a fisher perceives the system as unfair, they will not comply with the rules. Their perception is a social fact that directly impacts the success of the MPA.
- Answer 9: GAPA. Because GAPA is a systemic diagnostic designed to look at the big picture, including the legal and institutional frameworks, making it better suited for national policy reform.
- Answer 10: It identified that while the science was working, the distribution of benefits was not. This allowed C-CAM to create specific Ideas for Action (like localized beach briefings) that addressed the community's specific concerns about fairness.

7 SECTION 5 – GOVERNANCE ISSUES

7.1 Description

In Section 5, we transition from the ideal frameworks of governance to the real-world challenges that frequently hinder MPA success. In the Caribbean, these issues often stem from historical, economic, and geographical realities that create a gap between policy and practice.

7.2 Learning Objectives

Upon completion of this section, learners will be able to:

- Identify the specific disconnects between legal frameworks and field implementation, such as Paper Parks and unfunded mandates.
- Evaluate how overlapping authorities among fisheries, tourism, and environmental ministries create administrative friction and management silos.
- Explain the governance implications of larval dispersal and migratory species (e.g., Spiny Lobster, Queen Conch) across Caribbean EEZ boundaries.
- Formulate strategies to prevent Ocean Grabbing by ensuring that new industries like offshore energy or deep-sea mining do not displace traditional artisanal users.
- Propose the use of Marine Spatial Planning (MSP) and Dynamic Ocean Management to address the shifting ecological realities caused by climate change.
- Explain how instruments like Blue Bonds and Conservation Trust Funds can provide the long-term accountability needed to move beyond project-based governance.

7.3 Content

7.3.1 Common Governance Challenges in the Caribbean

1. Jurisdictional Clutter and Overlap

This is perhaps the most persistent issue in the region. Marine spaces are often governed by multiple, uncoordinated agencies.

- The Issue: The Fisheries Department manages the fish, the Ministry of Tourism manages the divers, and the Forestry Department manages the mangroves.
- The Impact: Without a lead agency or a formal MOU, this leads to fragmented management where no one takes full responsibility for the ecosystem as a whole.
- Caribbean Context: In many OECS nations, the lack of a single Ocean Governance body makes it difficult to implement Ecosystem-Based Management (EBM).

2. Limited Institutional and Technical Capacity

Governance requires more than just a law; it requires people to implement it.

- The Issue: Many Caribbean MPAs are chronically understaffed. Managers often lack specific training in conflict resolution, financial management, or social assessment.
- The Impact: This leads to Paper Parks, MPAs that exist on a map and in legislation but have no presence on the water and no active governance process.

3. The Top-Down Legacy vs. Community Trust

Historical governance in the Caribbean was often centralized and exclusionary.

- The Issue: A lingering distrust of government authorities by local fishing communities. Rules are often seen as being imposed by outsiders or the capital.
- The Impact: Low compliance and high enforcement costs. When communities don't feel ownership of the MPA, they may view poaching as a legitimate form of protest against an unfair system.

4. Sustainable Financing Gaps

Governance costs money. Meetings, transparent reporting, and stakeholder workshops require consistent funding.

- The Issue: Heavy reliance on short-term international grants rather than long-term national budget allocations or self-financing (like user fees).
- The Impact: Project-based governance, where participation and transparency thrive during a grant cycle but collapse once the funding ends.

7.3.2 Transboundary and Migratory Challenges

One of the most complex realities of the Caribbean is that the sea does not recognize the EEZ (Exclusive Economic Zone) boundaries drawn on a map. Because the Caribbean is a large marine ecosystem made up of many small island states and coastal nations, governance must be transboundary to be effective.

1. The Larval and Migratory Connectivity Issue

In the Caribbean, a source reef in one country may provide the coral larvae or fish fry that populates a sink reef in a neighbouring country.

- The Challenge: If Country A manages its MPA perfectly, but Country B (upstream) allows heavy pollution or overfishing of spawning aggregations, Country A's conservation efforts will eventually fail.
- The Governance Gap: Most national laws only apply within 12–200 nautical miles of the shore. There is often no legal mechanism to hold a neighbouring country accountable for downstream ecological damage.

2. Shared Stocks (The Seabob and Spiny Lobster Example)

Highly mobile species, such as the Seabob shrimp in the Guianas or the Spiny Lobster across the archipelago, migrate through multiple jurisdictions.

- The Challenge: Different countries often have different closed seasons, gear restrictions, and size limits.
- The Impact: Fishers in one country may feel it is unfair to follow strict rules if they see fishers from a neighbouring island harvesting the same stock without restrictions just a few miles away. This undermines the principle of Fairness and leads to illegal, unreported, and unregulated (IUU) fishing.

3. Transboundary Governance Structures

To solve these issues, the Caribbean utilizes nested governance frameworks that attempt to coordinate national actions at a regional level:

- The SPAW Protocol: Under the Cartagena Convention, this is the only legal regional framework that encourages countries to establish a Network of Protected Areas that function as a single ecological unit.
- CRFM (Caribbean Regional Fisheries Mechanism): This body works to harmonize fisheries management across CARICOM states to ensure that shared stocks are managed sustainably.
- The OECS Eastern Caribbean Regional Ocean Policy (ECROP): A specific attempt by the Eastern Caribbean to coordinate Ocean Governance so that small islands can speak with one voice on international maritime issues.

4. Case Study: The Seaflower MPA (Colombia/Nicaragua)

The Seaflower Marine Protected Area (MPA), located in the Archipelago of San Andrés, Providencia, and Santa Catalina, is one of the largest marine reserves in the world and serves as a critical case study for the intersection of national sovereignty and transboundary environmental governance.

The Context: A Marine Crossroads

The Seaflower MPA covers approximately 65,000 km² of the Western Caribbean. It contains roughly 75% of Colombia's coral reefs and is home to the third-largest barrier reef in the world. However, its geographic location makes it a flashpoint for international relations.

- **Biodiversity Value:** It is a hotspot for Queen Conch, Spiny Lobster, and multiple shark species.
- **Social Value:** The Raizal people (an Afro-Caribbean Protestant group) have inhabited these islands for centuries, maintaining a unique culture and language (San Andrés Creole) deeply tied to the Sea of Seven Colours.

The Conflict: Sovereignty vs. Stewardship

In 2012, a landmark ruling by the International Court of Justice (ICJ) significantly altered the maritime boundaries between Colombia and Nicaragua.

- **The Ruling:** While Colombia retained sovereignty over the islands and cays, a vast area of the surrounding waters (approx. 75,000 km²) was awarded to Nicaragua's Exclusive Economic Zone (EEZ).
- **The Governance Crisis:** This decoupled the islands from their surrounding waters. Colombia's established MPA boundaries suddenly overlapped with Nicaragua's new maritime territory.
- **Impact on Fishers:** Raizal artisanal fishers, who had fished these banks for generations under Colombian regulation, suddenly found themselves in Nicaraguan waters, leading to arrests, gear seizures, and a breakdown of Fairness and Rights.

3. Governance Challenges in a Disputed Space

The Seaflower case highlights three specific governance issues from Section 5:

- **Jurisdictional Clutter (International Scale):** There is currently no formal bilateral treaty between Colombia and Nicaragua to co-manage the MPA. Regulations on fishing gear, catch limits, and seasonal closures are not harmonized, leading to IUU (Illegal, Unreported, and Unregulated) fishing.
- **Insecurity of Rights:** The Raizal people's customary fishing rights were not explicitly protected in the ICJ ruling. This violation of Type D (IPLC) Governance principles has led to significant social unrest and economic hardship in the archipelago.
- **Lack of Transboundary Accountability:** Without a shared management board, there is no mechanism to hold either nation accountable for environmental degradation. If Nicaragua permits oil exploration or industrial fishing in its new EEZ, the upstream larval connectivity to Colombia's reefs is threatened.

4. Moving Toward a Solution: Peace with Nature

To resolve these issues, regional experts and organizations (like the UNESCO Man and the Biosphere Programme) have proposed several Good Governance interventions:

- **Transboundary MPA (TMPA):** Establishing a formal agreement where both nations recognize the ecological unity of Seaflower, regardless of the maritime border.
- **Harmonization of Rules:** Aligning the No-Take zones and Artisanal Fishing zones so that fishers aren't confused by conflicting national laws.
- **The Seaflower Corridor:** Expanding the governance model to include a Seascape approach that connects Seaflower with protected areas in Costa Rica, Panama, and Jamaica, recognizing the true Larval Connectivity of the Western Caribbean.

Why it matters for this module

The Seaflower case proves that Management Effectiveness (having rangers on the islands) is useless if the Governance Structure (the international legal framework) is broken. It serves as a warning that in

the Wider Caribbean, National MPAs are an illusion; all marine governance is ultimately transboundary.

7.3.3 Emerging Issues: Climate Change and the Blue Economy

The focus here is on the next generation of governance challenges. As the Caribbean moves toward 2030, traditional MPA management is being disrupted by two massive, intersecting forces: the physical reality of Climate Change and the economic ambition of the Blue Economy.

1. Climate Change: The Moving Target Problem

Most Caribbean MPAs were designed as fixed geographic boxes (polygons on a map). However, climate change does not respect these boundaries.

- **Species Displacement:** As sea temperatures rise, coral bleaching occurs, and fish stocks migrate to deeper or cooler waters outside the protected box.
- **Governance Issue:** If the fish move into a non-protected area, the current Type A or B Governance becomes ecologically obsolete.
- **The Solution:** Dynamic Ocean Management (DOM). This involves governance that can change boundaries in real-time based on satellite data (e.g., closing a temporary thermal refuge area during a bleaching event).

2. Blue Economy Pressures: The New Ocean Grab

The Blue Economy is the sustainable use of ocean resources for economic growth. However, in the Caribbean, it often creates a Gold Rush atmosphere that threatens small-scale users.

- **New Industrial Actors:** Offshore wind farms, deep-sea mining, and large-scale open-ocean aquaculture are entering the marine space.
- **Governance Issue:** These high-value industries often have more political clout than traditional artisanal fishers. There is a risk of Ocean Grabbing, where local communities lose access to their traditional waters to make way for green energy or industrial food production.
- **The Solution:** Marine Spatial Planning (MSP). This is a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives.

3. Sinking States and Maritime Boundaries

For many Small Island Developing States (SIDS) in the Caribbean, sea-level rise creates a unique legal crisis.

- **The Issue:** International maritime boundaries (EEZs) are measured from the baseline (the shore). If the shore erodes or an island disappears, the country could technically lose its legal right to its marine resources.
- **Governance Issue:** This creates Legal Instability. If a country's boundaries are shifting, how can it hold an Accountable and Transparent mandate over its MPAs?
- **The Caribbean Response:** Regional efforts are underway to fix maritime baselines so they remain permanent even if the physical coast changes.

4. Digital Governance and Surveillance

The Emerging Issue here is the use of Big Data and AI in monitoring.

- **The Issue:** While Satellite monitoring and Electronic Monitoring (EM) on boats can stop IUU fishing, they also raise concerns about privacy and the rights of local fishers.
- **Governance Issue:** Who owns the data collected by these satellites? If a private tech company provides the data to the government, is the process Transparent?

- The Opportunity: Digital tools can empower Type D (Community) Governance by allowing fishers to report illegal activity directly via smartphone apps, creating a Citizen Science enforcement network.

Old vs. Emerging Governance Paradigms

Feature	Traditional Governance	Emerging Adaptive Governance
Boundaries	Fixed/Static Boxes.	Dynamic/Mobile Protected Areas.
Data	Seasonal surveys/Paper reports.	Real-time Satellite/AI Monitoring.
Focus	Fisheries and Tourism only.	Integrated Blue Economy (Energy, Carbon, Mining).
Authority	National Sovereignty.	Regional and Global Cooperation.

7.3.4 The Governance Gap: From Issues to Solutions

The Governance Gap is the critical disconnect between well-drafted environmental laws and the actual reality of marine management on the water. In the Caribbean, this gap is often where conservation efforts succeed or fail. Closing this gap requires moving from Paper Parks (legal designations with no management) to Functional Governance (active, equitable, and enforced systems).

1. The Implementation Gap (Policy vs. Practice)

The most common issue in the Caribbean is having perfect legislation that is never enacted due to a lack of political will or resources.

- The Problem: An MPA is declared by a Minister, but no budget is allocated for rangers, and no board is appointed to oversee it.
- The Governance Solution: Legislated Financial Independence. Successful MPAs (like the Saba Marine Park) utilize user fees and Blue Bonds that are legally ring-fenced, ensuring money stays in the park rather than disappearing into a national treasury.

2. The Communication Gap (Science vs. Society)

Often, the Governance Gap is actually a language barrier between scientists and local resource users.

- The Problem: Technical data about biomass or recruitment isn't translated for fishers, leading to a lack of Transparency and trust.
- The Governance Solution: Boundary Mapping and Public Literacy. Using tools like MarSIS (Marine Resource and Space-use Information System) in the Grenadines allows stakeholders to see their own local knowledge on the same map as scientific data. This closes the gap by creating a shared reality.

3. The Enforcement Gap (Law vs. Legitimacy)

Traditional enforcement (police/coast guard) is expensive and often leads to conflict.

- The Problem: One patrol boat cannot cover thousands of square kilometers of sea.
- The Governance Solution: Social Sanctions and Peer-Enforcement. When governance is Fair and Participatory, the community itself enforces the rules. In the Belize Barrier Reef, fishers often report outsiders poaching in their zones because they feel the zone belongs to them, not the government.

Strategies for Closing the Gap

Type of Gap	Manifestation in the Caribbean	Strategic Fix
-------------	--------------------------------	---------------

Institutional	Multiple agencies clashing over who manages mangroves vs. fish.	Formal MOUs and Integrated Coastal Zone Management (ICZM) acts.
Financial	Dependence on 2-year grants that expire, leaving staff unpaid.	Conservation Trust Funds (e.g., the Caribbean Biodiversity Fund).
Social	High poaching rates because locals feel locked out of the reef.	Co-management Agreements that grant legal rights to local associations.
Technical	Lack of data to prove that the MPA is working.	Participatory Monitoring where fishers help collect data for Report Cards.

To close the Governance Gap, Caribbean practitioners must move through three stages:

- Diagnosis: Use GAPA/SAGE to find where the system is leaking power or trust.
- Reform: Update the Legal and Institutional Structures to include stakeholders.
- Adaptive Action: Treat governance as a living process that adjusts to Climate Change and the Blue Economy.

7.3.5 Learning Activity: The Blue Horizon Simulation

1. The Scenario

The fictional islands of North Cay and South Cay share a massive coral bank known as The Great Blue.

- North Cay has a strict Type A (Government-led) MPA with high enforcement but zero fisher participation.
- South Cay has no formal MPA but has a strong Type D (Community) tradition of informal no-take seasons that are being ignored by industrial boats from North Cay.
- The Crisis: A massive sargassum influx and a coral bleaching event have just hit the bank, and a private company has applied to North Cay's government to build an offshore wind farm right in the middle of the best fishing grounds.

2. The Task (Group Work)

Divide the class into three groups representing different Governance Actors:

1. Group A (The Regulators): Government officials from both islands.
2. Group B (The Resource Users): Artisanal fishers and local dive operators.
3. Group C (The Blue Economy Investors): The wind farm developers and Ministry of Energy.

Objective: Each group must collaborate to draft a 3-point Governance Bridge Proposal that addresses the following:

- Jurisdictional Clutter: How will the two islands and different ministries (Fisheries vs. Energy) coordinate?
- Transboundary Issues: How will they manage the shared fish stocks moving across the border?
- Emerging Issues: How will the MPA boundaries adjust to the bleaching event and the new wind farm?

3. The Activity Steps

Step	Action	Time
Step 1: Position Paper	Groups meet to identify their Red Lines (what they are not willing to give up).	15 mins
Step 2: The Negotiation	Groups meet in a Stakeholder Council to debate the 3-point proposal.	30 mins
Step 3: The Gap Analysis	Groups present their final proposal. The instructor acts as an Auditor using the SAGE Principles (Section 4) to critique if the solution is Fair and Transparent.	15 mins

Discussion Questions (Debrief)

- On Fairness: Did the wind farm proposal offer compensation or benefits to the fishers who lost their grounds?
- On Accountability: If the wind farm causes ecological damage, who is legally responsible, North Cay, South Cay, or the private company?
- On Connectivity: Why would a National MPA in North Cay fail without the cooperation of South Cay's community?

7.4 *Further Reading*

7.4.1 **Transboundary Governance and Connectivity**

- [The CLME+ Strategic Action Programme \(SAP\)](#): This is the foundational document for Large Marine Ecosystem governance in the region. It specifically addresses how to coordinate 25+ countries to manage shared living marine resources.
- [The SPAW Protocol \(Specially Protected Areas and Wildlife\)](#): Explore the legal text and the list of Protected Areas that form the regional network intended to protect migratory species and larval connectivity.
- [UNESCO: Seaflower Biosphere Reserve Case Study](#): Detailed background on the Seaflower MPA, including its unique Raizal community governance and the challenges of managing a site across disputed maritime boundaries.

7.4.2 **Emerging Issues: Blue Economy and Climate Change**

- [The Eastern Caribbean Regional Ocean Policy \(ECROP\)](#): This OECS policy is the primary blueprint for moving toward an integrated Blue Economy while addressing jurisdictional clutter in the Eastern Caribbean.

7.4.3 **Closing the Governance Gap**

- [CANARI: Governance and Civil Society in the Caribbean](#)
 - *Why read:* The Caribbean Natural Resources Institute (CANARI) provides excellent technical reports on how to move from Top-Down to Participatory governance in small island contexts.
- [Caribbean Biodiversity Fund \(CBF\)](#)
 - *Why read:* Examine how regional trust funds are structured to provide Accountable and Transparent long-term funding for MPA governance.

7.5 Assessment

This assessment assesses the learner's ability to identify, analyse, and solve the real-world friction points in Caribbean marine governance. It moves beyond theory to test the learner's ability to navigate political, economic, and transboundary complexities.

Part A: Identify the Governance Gap

Match the Caribbean scenario to the specific governance issue it represents.

Scenario	Governance Issue
1. A Minister declares an MPA, but no budget is assigned for staff or boats.	A) Transboundary Connectivity
2. A wind farm is built on a traditional reef without consulting local fishers.	B) Jurisdictional Clutter
3. Three different Ministries claim authority over the same mangrove forest.	C) Paper Park / Capacity Gap
4. Fishers in Grenada lose stock because of overfishing in St. Vincent.	D) Blue Economy Ocean Grabbing

Part B: Multiple Choice

5. Why is Larval Connectivity a governance issue in the Caribbean?
 - A) Because larvae are too small to be seen by rangers.
 - B) Because it requires neighboring countries to coordinate their rules and enforcement.
 - C) Because it prevents the use of satellite monitoring.
 - D) Because it only occurs in Type D (Community) governed areas.
6. The ICJ ruling on the Seaflower MPA (Colombia/Nicaragua) created a governance crisis primarily because:
 - A) It turned the entire area into a No-Take zone.
 - B) It decoupled the islands (sovereignty) from the surrounding waters (EEZ).
 - C) It banned the use of the San Andrés Creole language.
 - D) It removed all sharks from the ecosystem.
7. How does Marine Spatial Planning (MSP) help solve Blue Economy pressures?
 - A) By banning all industrial activity in the ocean.
 - B) By creating a transparent process to allocate space for competing uses (e.g., fishing vs. energy).
 - C) By ensuring that only the government makes decisions.
 - D) By moving all MPAs further offshore where there are no people.

Part C: Short Answer and Policy Analysis

8. The Adaptive Challenge: As climate change causes fish stocks to migrate outside of fixed MPA boundaries, what specific governance principle from Section 3 should a manager use to justify changing the box on the map?
9. Transboundary Solutions: List two ways a regional framework (like the SPAW Protocol) helps close the gap between two neighboring islands with different fishing laws.

Scenario Analysis (The Blue Horizon):

The Situation: A private developer offers a Blue Bond to a Caribbean government to fund a new MPA, but the agreement requires the government to ban all artisanal fishing in the area to satisfy international investors.

10. Identify which Governance Principle is being sacrificed for Sustainable Finance and suggest one way the government could close the gap to ensure the project remains equitable.

7.6 *Answer Key*

- Answer 1: C
- Answer 2: D
- Answer 3: B
- Answer 4: A
- Answer 5: B
- Answer 6: B
- Answer 7: B
- Answer 8: Responsiveness/Adaptability. The manager must show that the governance structure is responsive to ecological shifts to remain effective.
- Answer 9: 1) Harmonization of closed seasons/gear rules. 2) Data Sharing protocols so both islands see the same ecological trends.
- Answer 10: Fairness/Rights (or Participation) is being sacrificed. Solution: The government could negotiate Zoning within the Blue Bond agreement that protects artisanal fishing strips while still meeting the investor's conservation targets, or include fishers in the management board of the new bond.

8 SECTION 6 – ADAPTIVE GOVERNANCE

8.1 Description

This section explores the concept of Adaptive Governance, the gold standard for managing Marine Protected Areas in a world of rapid change. While traditional governance provides the rules, adaptive governance provides the flexibility to rewrite those rules when the environment shifts.

8.2 Learning Objectives

Upon completion of this section, learners will be able to:

- Articulate the fundamental difference between Adaptive Management (technical/biological actions) and Adaptive Governance (institutional/power-sharing structures).
- Analyze how Polycentricity, Participation, Learning, and Self-Organization create institutional resilience within a Caribbean MPA.
- Explain how regional NGOs (like SusGren or CANARI) facilitate transboundary governance by acting as a neutral bridge between state and non-state actors.
- Contrast traditional fixed-box MPAs with Dynamic Ocean Management, justifying the use of mobile boundaries for migratory species and climate refugia.
- Propose a Governance Pivot for an MPA facing a sudden socio-ecological shock, such as a major hurricane or a regional coral disease outbreak (SCTLD).

8.3 Content

8.3.1 The Nature of Adaptive Governance

Adaptive Governance (AG) is a framework that allows an MPA to function as a learning organization. It acknowledges that our knowledge of the ocean is incomplete and that climate change, pollution, and economic shifts are constantly moving the goalposts.

It is a social-institutional process that coordinates the actions of diverse stakeholders to navigate uncertainty. Unlike traditional command-and-control models, AG treats every management action as an experiment and every policy as a hypothesis.

1. Management vs. Governance: The Functional Difference

To understand Adaptive Governance, we must distinguish it from Adaptive Management. While they are related, they operate at different levels of the organizational hierarchy.

- Adaptive Management: Focuses on activities (e.g., The fish are declining, so we should change the mesh size of the nets). It is a technical, iterative process.
- Adaptive Governance: Focuses on power and institutions (e.g., The fish are declining, so we need to create a new council that gives local fishers more voting power to decide on new rules quickly).

Feature	Adaptive Management (The How)	Adaptive Governance (The Who and Why)
Focus	Technical interventions and biological targets.	Power sharing, institutional rules, and social trust.
Activity	Changing gear restrictions or monitoring coral cover.	Reforming a Board of Directors or drafting a new Law.
Goal	Biological efficiency and habitat health.	Institutional resilience and social legitimacy.
Trigger	The fish size is decreasing.	The fishers no longer trust the management agency.

2. The Role of Institutional Memory

In the Caribbean, high staff turnover in government agencies often leads to a loss of knowledge.

- The AG Solution: Adaptive Governance formalizes Learning into the institutional structure. It ensures that when a manager leaves, the Co-management Agreement or the Advisory Council retains the lessons learned from past hurricanes or bleaching events. It turns individual knowledge into institutional knowledge.

3. Managing for Surprise

Traditional governance assumes a Steady State, the idea that the reef will stay roughly the same if we just stop overfishing. Adaptive Governance assumes Complexity and Change.

- The Reality: A sudden influx of Sargassum, a new cruise ship pier proposal, or an outbreak of Stony Coral Tissue Loss Disease (SCTLD) are surprises.
- The AG Response: Because the governance structure is already participatory and polycentric, the MPA doesn't have to wait for a new Act of Parliament to respond. The existing stakeholders (scientists, fishers, and rangers) have a pre-approved mechanism to meet, analyze the surprise, and shift resources immediately.

4. Building Social Capital

The engine of Adaptive Governance is Trust.

- The Mechanism: By involving stakeholders in the process of learning, AG builds Social Capital. When fishers see that their observations (Local Ecological Knowledge) are being used to change a rule that wasn't working, their trust in the system increases.
- The Result: This trust creates a Buffer. During a crisis (like an economic downturn where poaching might normally rise), a high-trust governance system relies on the community to maintain rules because they value the long-term resilience of the system.

5. The Adaptive Governance Mindset

Adaptive Governance moves the MPA from being a Police Force to being a Learning Community. It acknowledges that the Caribbean Sea is a complex, unpredictable system, and the only way to manage it is through a flexible, inclusive, and evidence-based institutional framework.

8.3.2 The Four Pillars of Adaptive Governance

1. Polycentricity (Multi-layered Governance)

In a polycentric system, power is not concentrated in one central office in the capital city. Instead, it is distributed across multiple, overlapping centers of authority.

- The Structure: Think of it as a nested hierarchy. A local Fishing Beach Committee manages immediate daily conflicts; a National MPA Authority manages broad policy and funding; and a Regional Body (like the OECS) manages transboundary issues like migratory lobster stocks.
- The Benefit: If one level of government fails or is slow to act, the other levels can still function. This redundancy makes the governance system highly resilient to political changes.

2. Participation and Collaborative Networks

Adaptive governance replaces the Expert-Led model with a Networked model.

- The Mechanism: It involves the creation of Bridging Organizations, entities like CANARI or C-CAM that act as translators between government officials, scientists, and local resource users.
- The Benefit: These networks facilitate Vertical Collaboration (community to government) and Horizontal Collaboration (fisher to fisher). This ensures that when a crisis like a Sargassum influx occurs, everyone is already in communication and can coordinate a response without waiting for a formal decree.

3. Learning-Based Issue Management

Adaptive governance treats every management plan as a living document.

- The Mechanism: It uses Continuous Feedback Loops. Instead of evaluating an MPA every 10 years, the system uses Real-time indicators. If a specific No-Take zone is showing no signs of recovery after 2 years, the governance structure allows for an Experimental Revision to investigate why, rather than blindly sticking to the failing plan.
- The Benefit: It integrates Local Ecological Knowledge (LEK) alongside satellite data, ensuring the science of the park is grounded in the daily observations of those on the water.

4. Preparing for Surprise and Transformation

Traditional governance seeks to prevent change; Adaptive Governance seeks to navigate it.

- The Mechanism: This pillar focuses on Transformability, the ability of a system to completely reinvent itself if the current state becomes untenable.
- The Benefit: If a hurricane destroys a reef so severely that it can no longer support tourism, an adaptive governance structure has the flexibility to quickly pivot the MPA's focus toward Reef Restoration and blue-carbon credits, rather than collapsing because the tourism-based rules no longer apply.

Pillars in the Caribbean Context

Pillar	Example in Action	Failure if Missing
Polycentricity	Belize: Managed by Fisheries Dept + local NGOs + Village Councils.	Decisions are top-down and ignored by locals.
Participation	St. Lucia (SMMA): Stakeholder councils for divers and fishers.	High conflict and social sabotage of gear/buoys.
Learning	Soufrière Marine Management Area (SMMA): Uses a Technical Advisory Committee to rapidly adjust diving buoy locations based on the real-time spread of Stony Coral Tissue Loss Disease (SCTLD).	Rules remain static while the reef dies; the MPA continues to allow heavy anchoring in areas where coral is already under extreme heat stress.
Surprise	Regional: Coordinating a rapid response to SCTLD (Coral Disease) outbreak.	The disease spreads while agencies argue over jurisdiction.

8.3.3 Case Study: Adaptive Capacity in the Eastern Caribbean

In this region, adaptive capacity is not just about having more money; it is about having flexible institutions that can survive political changes and environmental shocks.

1. The Institutional Rigidity Challenge

In many Caribbean nations, MPA laws were written in the 1980s or 90s. These laws often centralize all power in a single Minister.

- The Issue: If a new coral disease appears, the MPA manager often lacks the legal authority to change a No-Take zone boundary without a full Cabinet-level amendment, which can take years.
- The Status Quo: This creates Static Governance, which is the opposite of adaptive.

2. The Bridging Organization Strategy

A key finding is that Non-Governmental Organizations (NGOs) often provide the glue for adaptive governance.

- The Example: Sustainable Grenadines Inc. (SusGren).

- The Role: SusGren acts as a Bridging Organization between the governments of St. Vincent and the Grenadines and Grenada. Because they are an NGO, they can move faster than a government ministry. They facilitate the MarSIS (Marine Resource and Space-use Information System), which allows fishers to input real-time data that the government can then use to make decisions.

3. The Advisory Committee as a Shortcut

To bypass rigid laws, several Eastern Caribbean MPAs use Multi-Stakeholder Advisory Committees (MACs).

- How it Works: While the Minister holds the legal power, the law is interpreted to say the Minister shall consult with the Committee.
- The SMMA (St. Lucia) Example: The Soufrière Marine Management Area (SMMA) uses a stakeholder board that includes divers, fishers, and hotel owners. When conflict arises between divers and fishers, the board negotiates a solution internally. This Social Learning allows the MPA to adapt its rules through consensus rather than waiting for a new law.

Adaptive Capacity Indicators

Indicator	Poor Adaptive Capacity	High Adaptive Capacity
Connectivity	Managers never talk to managers in neighbouring islands.	Formal networks (like MPAConnect) share lessons and gear.
Data Use	Reports are filed in cabinets and never read.	Data is shared on public Report Cards to trigger management changes.
Trust	Fishers view rangers as The Police.	Fishers and rangers conduct joint patrols or monitoring.
Legal Flexibility	Rules can only be changed by Parliament.	The Management Plan allows for Emergency Closures by a local board.

4. The Learning Trigger: Stony Coral Tissue Loss Disease (SCTLD)

The arrival of SCTLD in the Eastern Caribbean has been the ultimate test of adaptive capacity.

- Low Capacity Response: Agencies waited for national Action Plans to be signed while the disease spread.
- High Capacity Response (The Adaptive Model): In places like the Virgin Islands and St. Kitts, dive operators were trained as First Responders. They were given the authority to apply antibiotic treatments immediately. This is Pillar 4 (Self-Organization) in action—the system transformed its users into its defenders.

8.3.4 Dynamic Ocean Management: The Future of Adaptive Governance

This represents the technological and operational frontier of adaptive governance. While traditional MPAs are static (fixed lines on a map), dynamic ocean management allows for management that changes in space and time to track the actual movement of fish, protected species, and environmental threats.

In the Caribbean, where climate change is rapidly shifting thermal boundaries, dynamic ocean management is the key to ensuring that protected areas actually contain the species they are meant to save.

1. The Static Box Problem

Traditional MPAs are defined by longitudinal and latitudinal coordinates.

- The Conflict: If a No-Take zone is designed to protect spawning snapper, but a marine heatwave causes the snapper to spawn 5 miles to the North, the MPA becomes a Paper Park for that season.
- The Waste: Conversely, if a large area is closed to fishing year-round to protect a migratory turtle that only passes through in April, the governance system is unnecessarily hurting the local economy.

2. How dynamic ocean management works: The Three-Step Loop

It relies on the Learning Pillar (Pillar 3) of adaptive governance, powered by real-time technology:

- Data Acquisition: Satellite telemetry (sea surface temperature, chlorophyll levels) and Electronic Monitoring (EM) on fishing vessels.
- Predictive Modelling: AI or statistical models predict where a high-risk event is likely to happen (e.g., a coral bleaching hotspot or a shark bycatch area).
- Rapid Regulatory Response: Managers issue a temporary Notice to Mariners or a Mobile Closure via SMS or radio, shifting the protected zone for a matter of days or weeks.

3. Caribbean Application: Thermal Refugia and Bleaching

The Caribbean is a global leader in using dynamic ocean management principles for coral reef health through systems like NOAA Coral Reef Watch.

- The Strategy: When satellite data shows Degree Heating Weeks (DHW) reaching a critical level over a specific reef in Belize or Barbados, the governance system can trigger a Bleaching Response Plan.
- The Action: This might include temporary closures to divers (to reduce physical stress) or a suspension of herbivorous fish harvesting (to ensure grazers like Parrotfish can keep the reef clean of algae while the coral is weak).

Static vs. Dynamic Governance

Feature	Static Governance (Traditional)	Dynamic Governance
Spatial Scale	Fixed boundaries.	Fluid, mobile boundaries.
Temporal Scale	Permanent or seasonal (months).	Real-time or weekly updates.
Data Reliance	Historical surveys.	Satellite and Real-time sensors.
Cost	Low tech, high enforcement (patrols).	High tech, efficient enforcement.

8.3.5 Summary: Traditional vs. Adaptive Governance

In the Caribbean context, this shift is often described as moving from Command and Control to Cooperate and Connect.

1. The Philosophical Shift

Traditional governance is built on the idea of Stability. It assumes that if we draw a line and enforce it, the ecosystem will remain the same. Adaptive Governance is built on Resilience. It assumes the ecosystem (and the economy) will change, and the Social System must be ready to change with it.

Comparison of Key Governance Drivers

Feature	Traditional Governance (Static)	Adaptive Governance (Flexible)
Primary Authority	Central Government / Lead Agency.	Polycentric: Multiple hubs (NGOs, Communities, Gov).
Communication	Top-down (Directives/Laws).	Networked: Continuous dialogue and feedback.
Knowledge Base	Historical scientific data.	Real-time: Satellite + Local Ecological Knowledge.

Feature	Traditional Governance (Static)	Adaptive Governance (Flexible)
Rule-making	Rigid (Years to change an Act).	Agile: Can adjust via Advisory Boards/MOU.
Role of the Public	Subjects to be policed.	Partners in monitoring and enforcement.
Success Metric	Number of arrests/patrols.	Social-Ecological Health and Compliance levels.

3. Why the Caribbean can lead this Shift

Caribbean Small Island Developing States (SIDS) have a natural advantage for adaptive governance: Scale.

- **Short Feedback Loops:** In a small island like Grenada or Antigua, a fisher can talk directly to a Fisheries Officer. The distance between The Sea and The Office is small.
- **Necessity of Cooperation:** Because resources are limited, no single agency can afford to do it all. This forces the creation of Collaborative Networks (Pillar 2).

4. The Maturity Model of MPA Governance

- **Level 1 (The Paper Park):** Traditional laws exist, but there is no management and no stakeholder engagement.
- **Level 2 (The Managed Site):** A lead agency is active, but governance is Top-Down and conflict with fishers is high.
- **Level 3 (The Co-Managed Site):** Formal boards exist (Participation), and some power is shared with NGOs.
- **Level 4 (The Adaptive MPA):** The site uses dynamic ocean management, has high adaptive capacity, and operates as a learning network.

Key Takeaway

The Best governance is not the one with the most rangers; it is the one with the most Legitimacy. By moving toward the Adaptive model, Caribbean MPAs ensure that even when the climate changes or the economy shifts, the community remains committed to the conservation of their Sea of Seven Colours.

8.4 Further Reading

8.4.1 Foundations of Adaptive Governance

- [Adaptive Governance, Ecosystem Management, and Natural Capital \(PNAS\)](#): This is the seminal scientific paper that defines Polycentricity and explains how adaptive systems build resilience in social-ecological environments.
- [IUCN: Governance of Protected Areas - Guidelines for Managers](#): Refer specifically to Chapter 4 (pages 45–69) for a breakdown of how to move from rigid management to a flexible, multi-actor governance system.

8.4.2 Caribbean Case Studies and Adaptive Capacity

- [UWI CERMES: Adaptive Capacity for Marine Governance in the Eastern Caribbean](#): The primary research hub for the Lesser Antilles. It includes technical reports on the Grenadines MarSIS project and governance audits for St. Lucia (SMMA) and Grenada (MBMP).
- [Sustainable Grenadines Inc. \(SusGren\): Transboundary Marine Space Use](#): A practical look at how an NGO acts as a Bridging Organization to coordinate governance across two sovereign nations (St. Vincent and Grenada).

8.4.3 Dynamic Ocean Management and Technology

- [NOAA Coral Reef Watch: Caribbean Regional Virtual Stations](#): The actual Real-Time dashboard used by Caribbean managers to trigger adaptive bleaching response plans based on sea-surface temperatures.
- [Science: Dynamic Ocean Management as a Climate Solution](#): This article explores the transition from Static Boxes to Mobile MPAs and how technology allows governance to track shifting species distributions.

8.5 Assessment

This assessment is designed to test the learner's ability to move beyond static management and apply the principles of Adaptive Governance to a rapidly changing Caribbean environment.

Part A: The Four Pillars of Adaptive Governance

Match the pillar of Adaptive Governance to its real-world Caribbean application.

Application Scenario	Adaptive Pillar
1. A local NGO (SusGren) acts as a bridge between two national governments and local fishers.	A) Learning and Innovation
2. St. Lucia's SMMA uses a stakeholder board to resolve gear conflicts in weeks, not years.	B) Polycentricity
3. Barbados uses real-time satellite heat maps to trigger a temporary diving ban on bleached reefs.	C) Participation and Collaboration
4. After a hurricane, an MPA in Dominica pivots its staff from tourism to Blue Carbon restoration.	D) Self-Organization / Transformation

Part B: Multiple Choice

5. What is the primary difference between Adaptive Management and Adaptive Governance?
 - A) Management is for fish; Governance is for coral.
 - B) Management is about technical activities; Governance is about power-sharing and institutional rules.
 - C) Management is only for governments; Governance is only for NGOs.
 - D) There is no difference; the terms are interchangeable.
6. Why is Polycentricity considered a strength in Caribbean MPA governance?
 - A) It allows one person to make all the decisions.
 - B) It creates redundancy, so if one level of government fails, others can still function.
 - C) It reduces the number of stakeholders involved.
 - D) It ensures that only international scientists provide data.
7. Dynamic Ocean Management (DOM) is particularly useful for climate change because:
 - A) It keeps MPA boundaries fixed forever.
 - B) it allows protected areas to move in space and time as species migrate.
 - C) It replaces the need for any fishing regulations.
 - D) It is cheaper than using traditional paper maps.

Part C: Short Answer and Scenario Analysis

8. The Bridging Role: Explain why an NGO (like CANARI or SusGren) is often better at facilitating adaptive governance in the Caribbean than a traditional government ministry.

9. Local Ecological Knowledge (LEK): In an adaptive system, why is a fisher's observation of fewer snappers this month considered as important as a scientific survey conducted once a year?

Scenario Analysis (The Bleaching Event):

The Situation: A Marine Heatwave is predicted for the Virgin Islands next month. The current MPA law does not mention heatwaves or bleaching.

10. Using the Adaptive Governance model, describe how a manager could use an Advisory Committee (Pillar 3) to implement a temporary Stress Reduction Zone without waiting for a new Law to be passed.

8.6 Answer Key

- Answer 1: B

- Answer 2: C
- Answer 3: A
- Answer 4: D
- Answer 5: B
- Answer 6: B
- Answer 7: B
- Answer 8: NGOs act as Bridging Organizations. They are more agile, less hampered by bureaucracy, and often have higher levels of trust with local communities, allowing them to facilitate dialogue between Top-Down and Bottom-Up actors.
- Answer 9: Because it provides real-time feedback. Scientific surveys are snapshots, but LEK is continuous. In an adaptive system, this Early Warning allows for faster responses to ecological shifts.
- Answer 10: The manager convenes the Advisory Committee (including dive shops and fishers). They agree on a voluntary Code of Conduct or Emergency Protocol to avoid the stressed reef. Because the committee represents the users, Compliance is high even without a formal law, demonstrating the Flexibility of adaptive governance.

9 FINAL ASSESSMENT

Part 1: Foundational Concepts

1. Distinguish between Management and Governance in the context of an MPA.
2. Match the Governance Type to the correct description.
 - Type A: _____ | i. Indigenous Peoples and Local Communities (IPLC)
 - Type B: _____ | ii. Private individuals or NGOs
 - Type C: _____ | iii. Shared/Co-management between state and others
 - Type D: _____ | iv. Governance by Government
3. Define Polycentricity and explain why it is a core pillar of Adaptive Governance.
4. List the three Good Governance principles often evaluated in a SAGE assessment.
1. _____ | 2. _____ | 3. _____

Part 2: Assessment Tools and Methodologies

5. Compare GAPA and SAGE. When would a Caribbean manager choose one over the other?
6. Interpreting the Perception Gap: In a recent SAGE assessment for a fictional Barbadian MPA, the Government Rangers scored Transparency a 3/3, while the Local Fisherfolk Association scored it a 1/3.
 - A) What does this gap tell you about the governance of this site?
 - B) As a manager, what is one Idea for Action you would propose to close this specific gap?

Part 3: Caribbean Case Studies

7. The Seaflower MPA (Colombia/Nicaragua): Explain how the 2012 ICJ ruling highlighted a conflict between National Sovereignty and Ecological Stewardship. How did this ruling impact the customary rights of the Raizal people?
8. The Belize Barrier Reef: How did the application of governance assessments help lead to the removal of the Belize Barrier Reef from the UNESCO World Heritage in Danger list? (Mention at least one legal or institutional change).
9. The Grenadines MarSIS Project: Which Pillar of Adaptive Governance does the MarSIS project primarily represent, and why is a Bridging Organization (like SusGren) necessary for its success?

Part 4: Problem-Solving and Synthesis

Scenario: The Migrating Reef Crisis You are the Director of a Marine Park in the Eastern Caribbean. A massive marine heatwave is occurring. Scientific data shows that the Target Fish Species have moved 10km North of your fixed MPA boundary into an unprotected area. Simultaneously, the local community is suffering economically and wants to open the No-Take zone for emergency food security.

10. Using the principles of Adaptive Governance and Dynamic Ocean Management, draft a 3-step Emergency Response Plan:
 - Step 1 (The Data): How will you verify the movement of the fish?
 - Step 2 (The Authority): How will you use an Advisory Committee to ensure the response is legitimate and fair?
 - Step 3 (The Action): How will you move the protection in space and time?
11. Closing the Governance Gap: Identify three common reasons why Caribbean MPAs become Paper Parks and provide one Strategic Fix for each.

9.1 Answer Key

- Answer 1: Management: The What and How. It refers to the specific actions, resources, and technical tasks used to achieve goals (e.g., patrolling, monitoring coral, or installing buoys). Governance: The Who, Why, and Under what authority. It refers to the power structures, decision-making processes, and legal frameworks that determine who has a seat at the table and how rules are set.
- Answer 2: Type A: iv. Governance by Government. Type B: iii. Shared/Co-management between state and others. Type C: ii. Private individuals or NGOs. Type D: i. Indigenous Peoples and Local Communities (IPLC)
- Answer 3: Definition: A system where power is distributed across multiple, overlapping centers of authority (local, national, regional) rather than one central office. Why it's a Pillar: It provides redundancy. If one level of government fails or is slow to act, other levels (like a local fisher committee or an NGO) can still function, making the system resilient to political or environmental shocks.
- Answer 4: Recognition (Respect for rights and diversity). Procedure (Fairness and transparency in decision-making). Distribution (Equitable sharing of costs and benefits)
- Answer 5: GAPA: Best for a deep, system-wide diagnostic to reform national laws or institutional structures. Choose this when the entire governance system feels broken or needs a legal overhaul. SAGE: Best for a rapid, site-level health check on equity and stakeholder relationships. Choose this for regular monitoring of how local people perceive the fairness of the MPA.
- Answer 6: A) Analysis: A gap of 3 vs. 1 indicates a failure of transparency. The government believes they are providing enough info, but the fishers feel in the dark. This leads to a loss of legitimacy and potential non-compliance. B) Idea for Action: Establish a Beach-level Briefing or a WhatsApp-based data-sharing group where rangers post weekly updates in non-technical language to ensure fishers see the same data as the managers.
- Answer 7: The 2012 ICJ ruling awarded waters to Nicaragua while Colombia kept the islands. This decoupled the ecological space from the legal space. Impact: The customary rights of the Raizal people were ignored; they suddenly found themselves illegal in their traditional fishing grounds, violating the principle of Fairness and Rights.
- Answer 8: Governance assessments identified that Jurisdictional Clutter allowed for offshore oil threats. Change: The assessment led to the 2017 Offshore Oil Moratorium, a major legal shift that prioritized long-term governance over short-term industrial gain.
- Answer 9: It represents Learning and Innovation (Pillar 3). Bridging Organization: SusGren is necessary because it acts as a neutral party that can coordinate data between two sovereign nations (SVG and Grenada) where government-to-government communication might be slower.
- Answer 10: Step 1 (Data): Use Local Ecological Knowledge (LEK)—interview the fishers immediately to map the new fish locations and cross-reference with satellite sea-surface temperature data. Step 2 (Authority): Convene the Advisory Committee. Present the data and ask for a consensus recommendation to move the boundary. This ensures the fishers support the change because they helped identify it. Step 3 (Action): Implement a Dynamic Ocean Management approach: issue a temporary 30-day Mobile Closure via radio and SMS that protects the new spawning site while opening the old, empty one for emergency fishing.
- Answer 11: 1. Lack of Funding: Fix: Conservation Trust Funds (e.g., Caribbean Biodiversity Fund) to ensure staff are paid regardless of the national budget. 2. Jurisdictional Clutter: Fix: Formal MOUs or an Integrated Coastal Zone Management (ICZM) Act to define who is in charge of what. 3. Low Compliance: Fix: Co-management Agreements that give locals a legal stake and ownership, leading to self-enforcement.

10 USEFUL RESOURCES

- [IUCN Guidelines on governance of PAs](#)
- [Report of the first workshop on adaptive capacity for marine protected area governance in the eastern Caribbean](#)
- [Towards marine ecosystem-based management in the wider Caribbean](#)
- [UNEP MPA governance guide](#)
- [UNEP Case study compendium](#)