

MPA Short Course

4. MPA Identification and regulation

MPA Course Overview

- ~~1. Introduction to MPAs~~ ✓
- ~~2. MPAs around the world~~ ✓
- ~~3. MPAs in Ghana~~ ✓
- 4. MPA identification and regulation**
5. MPA management planning & management
6. MPA monitoring
7. MPA & Marine Spatial Planning
8. Your Voice

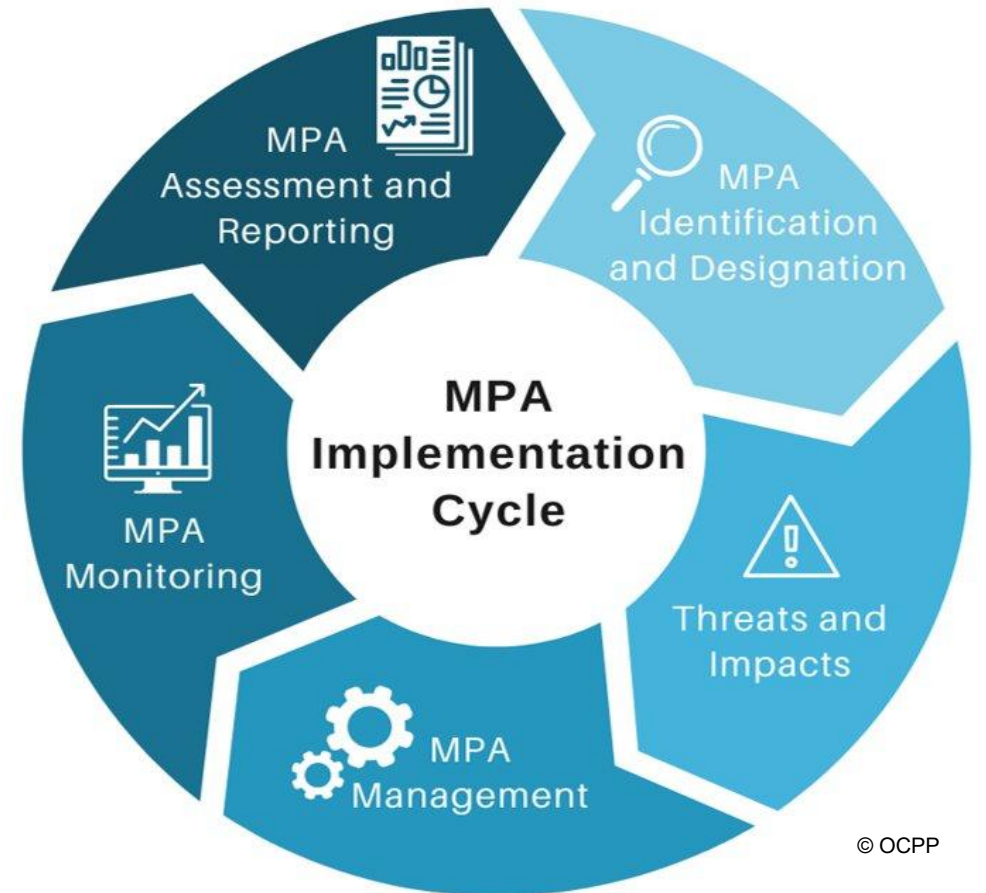
You are here!



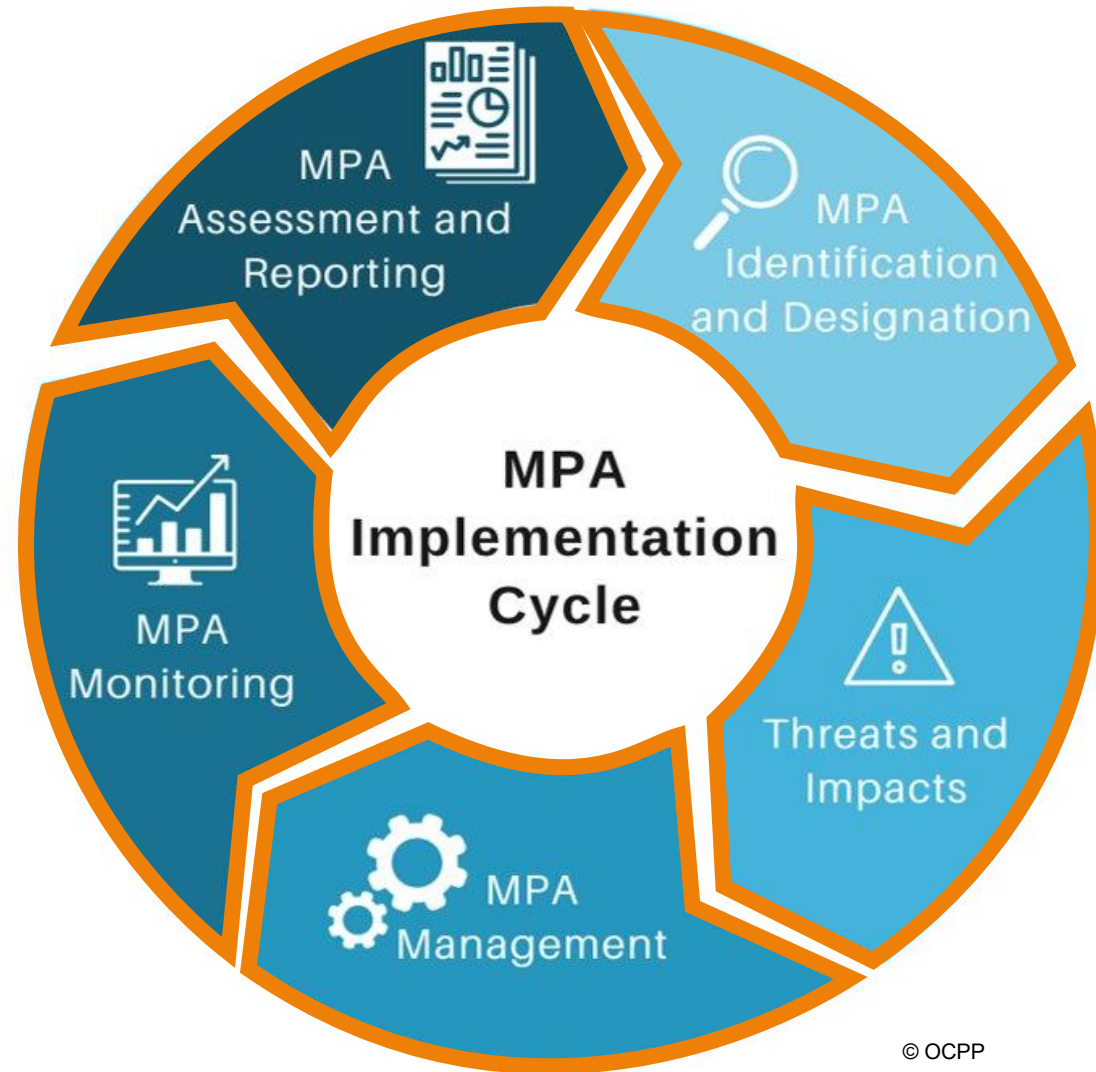
Learning Objectives

In this module you will:

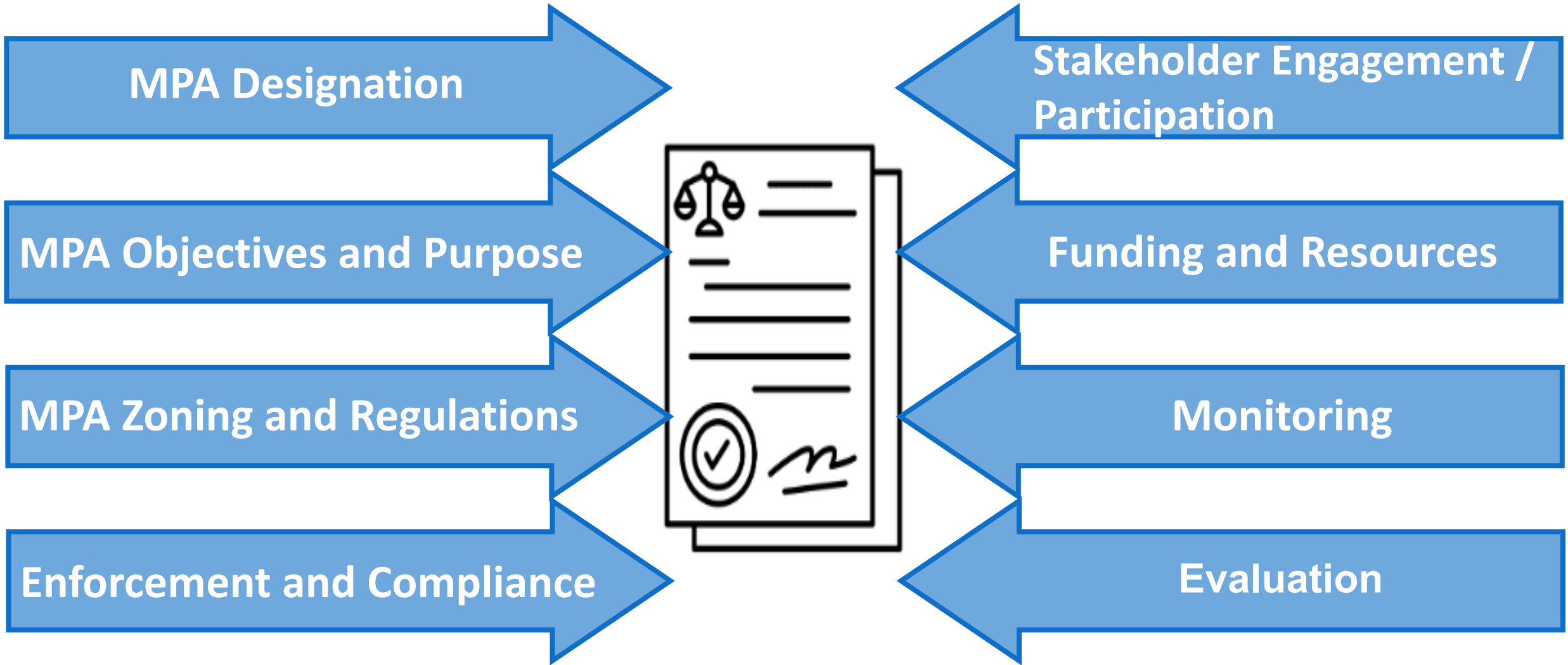
- Become familiar with the MPA Implementation cycle
- Recognise the importance of stakeholder engagement
- Consider steps for MPA identification and selection
- Further understand the benefits and principles of MPA networks



MPA Implementation Cycle



Legislation



Importance of Stakeholder Engagement

Stakeholder engagement is the most important factor affecting MPA success, and its absence is the most important factor influencing failure¹

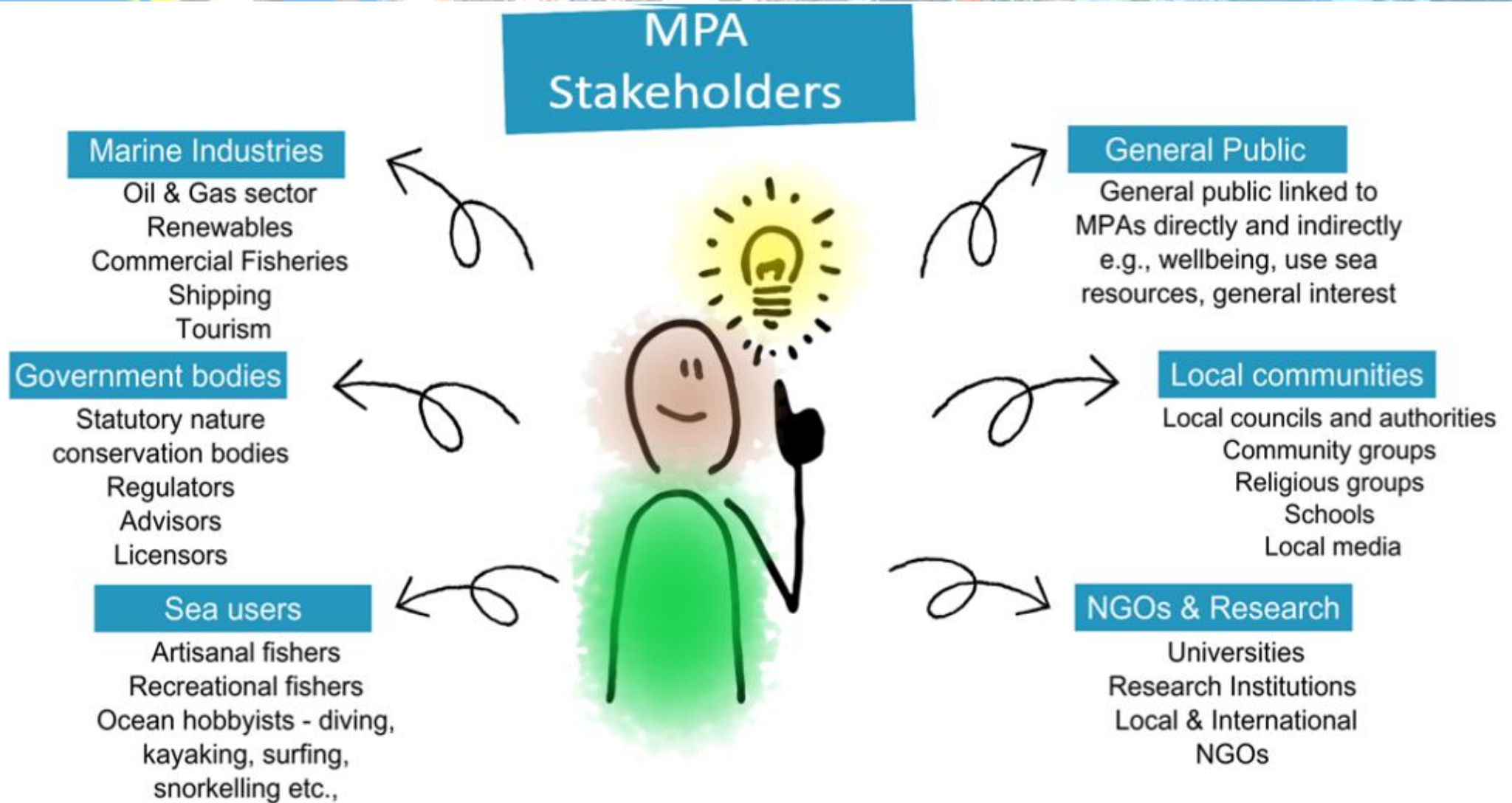
- Raising awareness and understanding the need for MPA governance
- Collecting and sharing information
- Gathering views on proposed management
- Sharing decision-making (including advisory groups)
- Ensuring stakeholder buy-in
- Reduce conflict and mistrust



Stakeholder engagement with fishers and Fisheries department, Belize.

¹Giakoumi, S., McGowan, J., Mills, M., Beger, M., Bustamante, R.H., Charles, A., Christie, P., Fox, M., Garcia-Borboroglu, P., Gelcich, S. and Guidetti, P. (2018). Revisiting “success” and “failure” of marine protected areas: a conservation scientist perspective. *Frontiers in Marine Science*, 5: 223

Who are the stakeholders?



Example of Stakeholder Engagement in Ghana

Play video - <https://youtu.be/hmBj-2sWQ7M?si=AhgutlINmQDR5xWX>



Principles of MPA Design

Define objectives & goals of the site

- Threatened species/ critical habitats/ ecosystems
- Breeding, recruitment and nursery grounds
- Protect cultural values e.g., areas of recreation
- Maintain or restore



Principles of MPA Design

Scientific basis

- Best available evidence
- Biodiversity surveys, habitat mapping etc

Ecological representation

- Protect areas that best represent the range of habitats and species in the region

Connectivity

- Links to other MPAs and ecologically important areas



Principles of MPA Design

Climate change

- Assess vulnerability to climate change impacts
- Identify key climate change threats
- Select resilient sites

Boundary

- Guided by conservation objectives
- Distribution of habitats / movement patterns of species
- Are there natural geographic features to help delineate the site?
- Buffer zones



Principles of MPA Design

Stakeholder engagement

- How is the site currently used – feasibility of success
- What are the current threats?
- Socioeconomic impacts

Legislation

- What regulation can the site be designated under
- Take into account existing management



Why set MPA objectives?

Conservation Objective - A trajectory of desired condition to work towards for each protected feature of an MPA.

Biodiversity Conservation - Guide the design and management of MPAs, helping to identify key species, habitats, and ecological processes that require protection.

Ecosystem functioning – Contributes to the maintenance of ecosystem functions and services.

Threat mitigation and management – Provides a framework and management strategy to mitigate threats.



© JNCC

Why set MPA objectives?

Sustainable resource use – Supports livelihoods of communities whilst ensuring long-term viability of resources.

Monitoring and evaluation – Relevant indicators and metrics provide a basis for monitoring and evaluating the effectiveness of MPAs.

Stakeholder engagement - Clear objectives help communicate the purpose and value of MPAs to different stakeholders, as well as facilitating meaningful participation, collaboration, and support for MPA initiatives.



© JNCC

SMART Objectives



Specific

S

Specific objectives provide **clarity and precision** in defining the specific conservation targets of an MPA.



Measurable

M

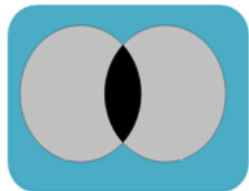
Measurable objectives allow for the use of **quantifiable indicators and metrics** to assess progress and success.



Attainable

A

Attainable objectives are **realistic and achievable**.



Relevant

R

Relevant objectives **align with broader conservation strategies, policies, and priorities**.



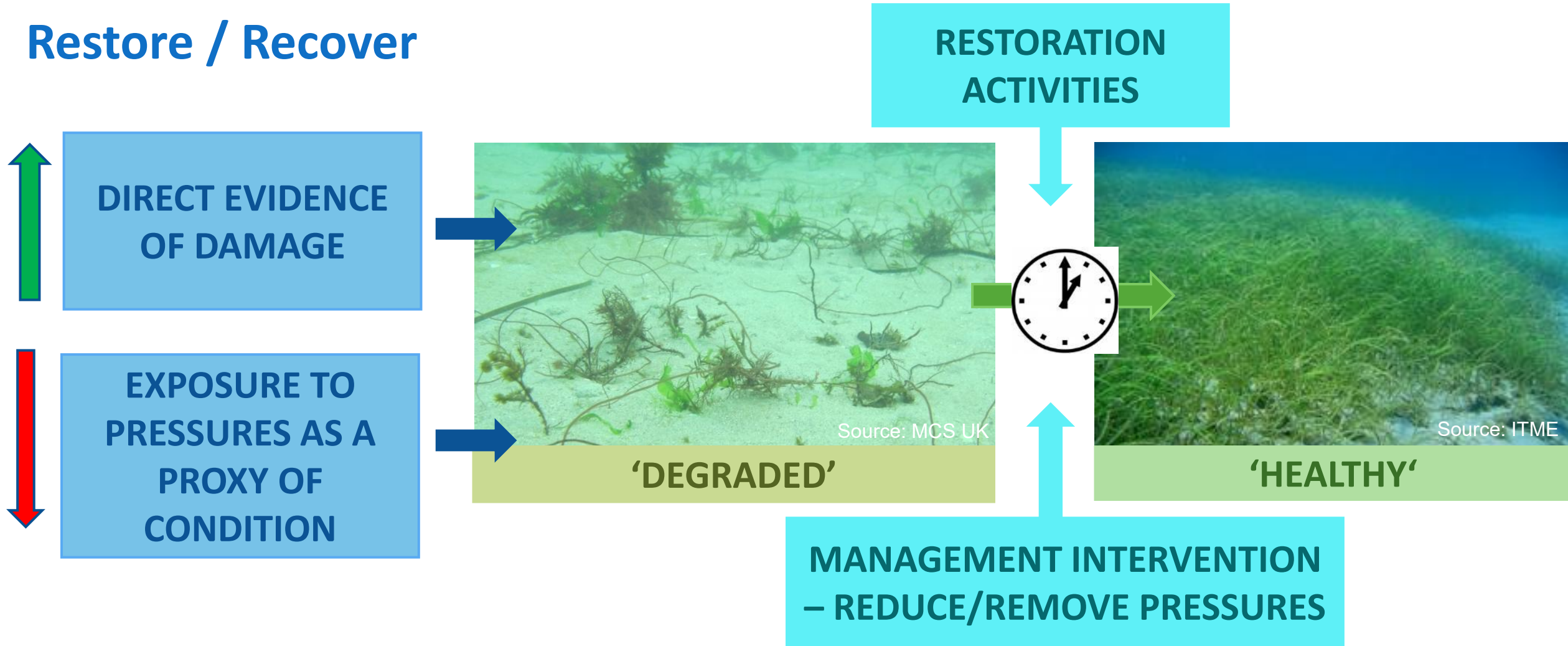
Time Based

T

Time-based objectives set a **clear timeline** for achieving the desired outcomes.

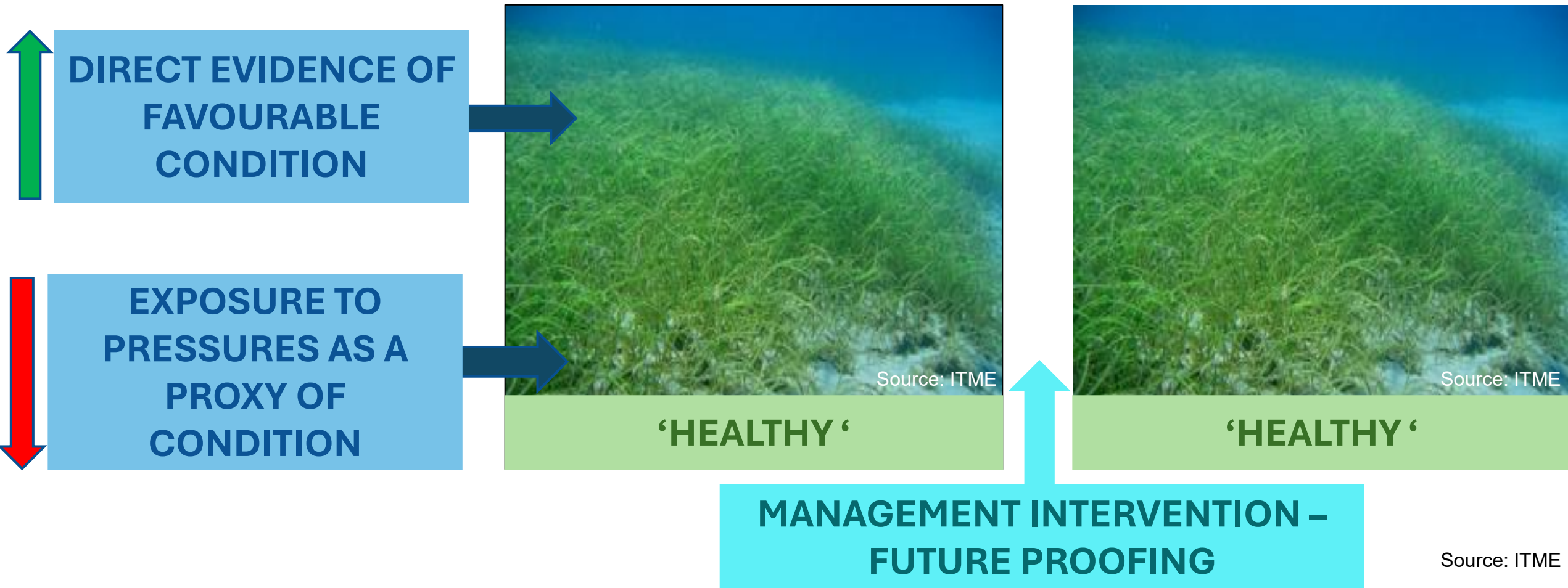
MPA Conservation Objectives: Trajectories

Restore / Recover

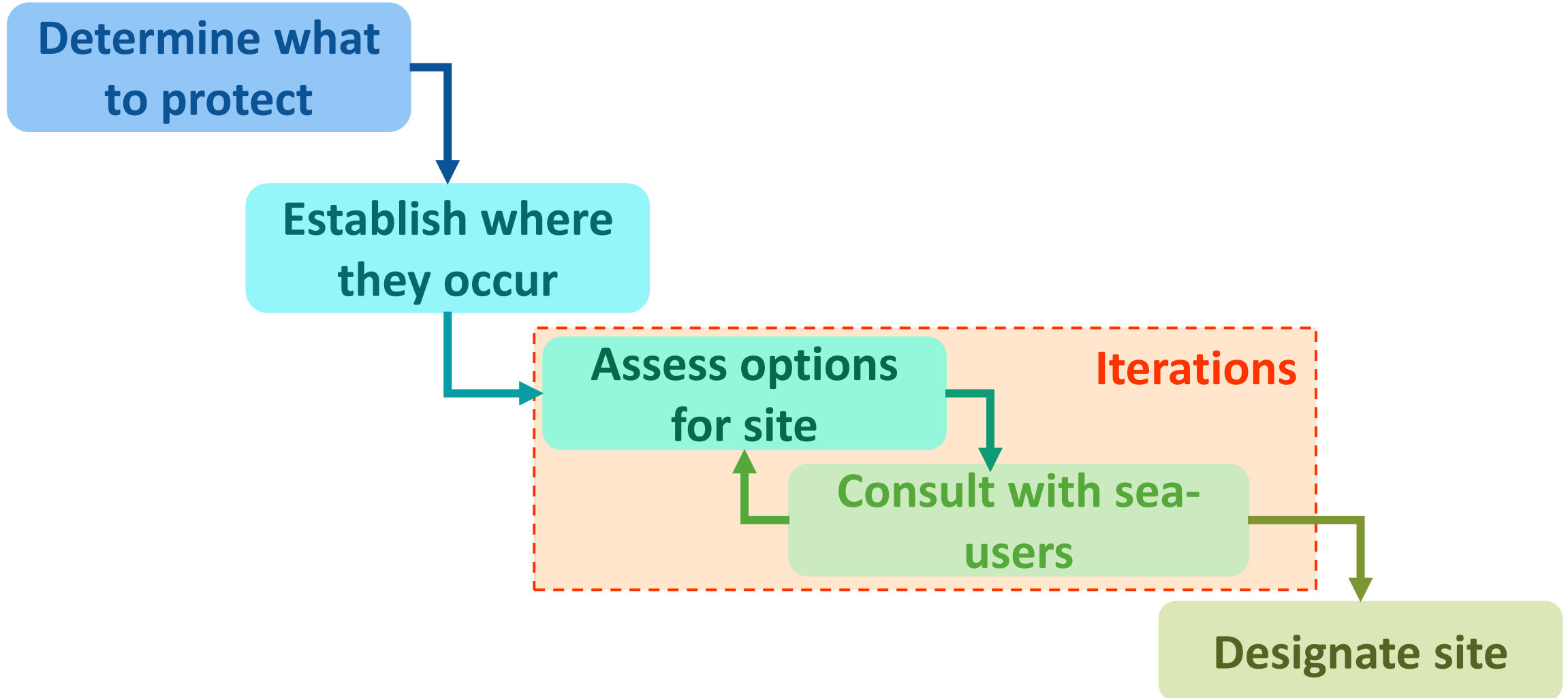


MPA Conservation Objectives: Trajectories

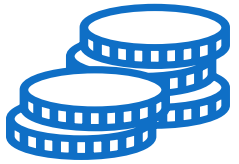
Conserve / Maintain



Designation Process Summary



Challenges to Designation



Resources – staff requirements, data collection and stakeholder engagement costs



Uncertainty - What is the most effective management measure? How do we measure progress?

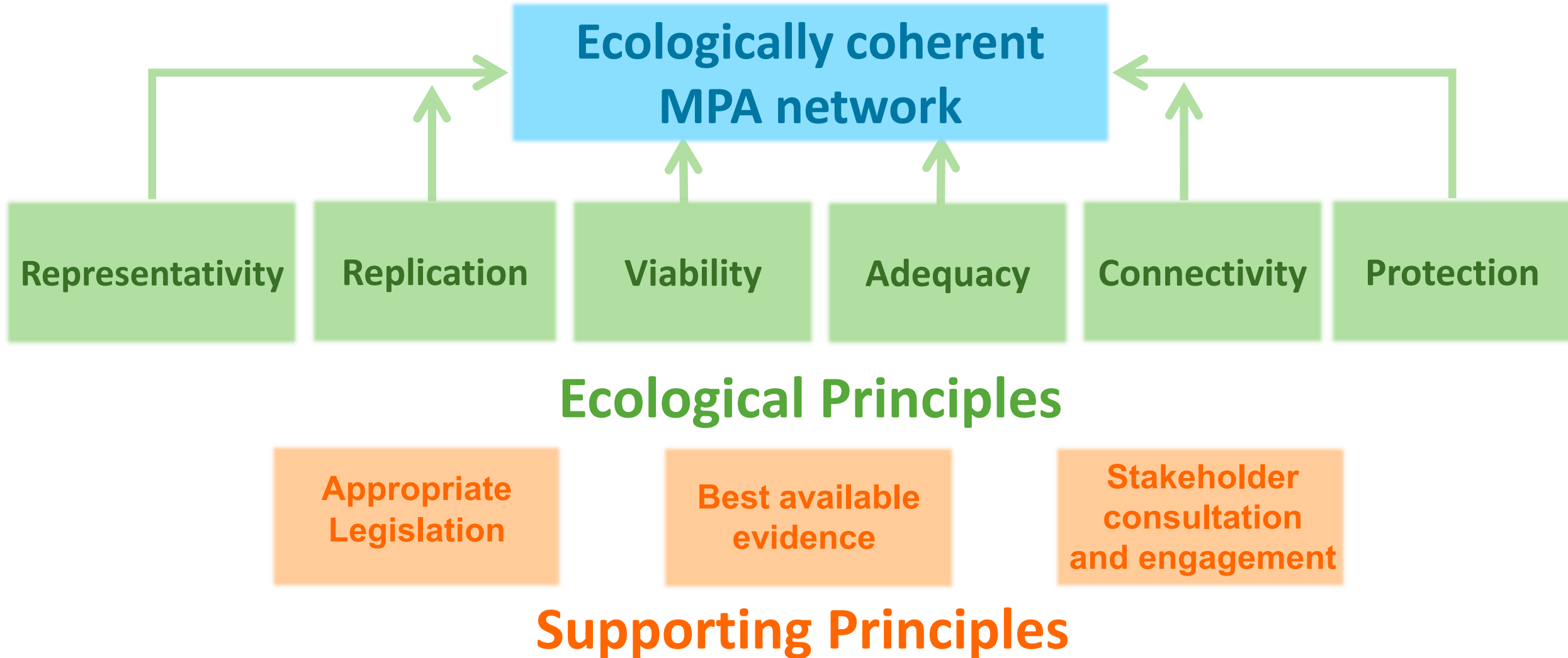


Lack of evidence - Knowledge and data gaps. Recognising data and evidence limitations.



Stakeholder attitudes - Public support or objection to plans can influence success.

MPA Networks: Key Principles



Ecological Principles



Representation - represent the range of marine habitats and species.



Replication - all major habitats should be replicated and distributed throughout the network.



Viability - incorporate self-sustaining, geographically dispersed component sites of sufficient size.

Ecological Principles



Adequacy – Adequate size to deliver its ecological objectives and ensure the long-term protection and/or recovery of populations, species and communities .



Connectivity - maximises and enhances the linkages among individual MPAs using the best science available.



Protection - the MPA network is likely to include a range of protection levels, ranging from highly protected sites to areas with minimal restrictions on activities.

Supporting Principles



Appropriate legislation - A comprehensive legal framework is essential to provide a solid foundation for MPAs, ensuring their functionality and effectiveness.



Best available evidence - Network design should be based on the best information currently available.



Stakeholder consultation & engagement – Involving different stakeholders in all stages of MPA network implementation ensures their knowledge and support are included, and therefore buy-in.

A vibrant underwater scene featuring a large yellow and white striped fish swimming over a diverse coral reef. Numerous smaller orange and blue fish are scattered throughout the clear blue water.

Summary

You should now:

- Understand the MPA implementation cycle
- Be aware of why stakeholder engagement is important
- Understand the theory of MPA identification and design
- Understand the need to develop networks of MPAs
- Be familiar with the key principles of MPA networks