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Update: Ad Hoc Committee on Resilience-Based Management

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Brief recap and context…

- Formed at 34th ICRI General Meeting (December 2019)
- Committee extended at 36th ICRI General Meeting (December 2021)
- ICRI Plan of Action 2021-2025 (May 2022)

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Brief recap and context…

- Formed at 34th ICRI General Meeting (December 2019)
- Committee extended at 36th ICRI General Meeting (December 2021)
- ICRI Plan of Action 2021-2025 (May 2022)

Several achievements..

RBM Policy Brief (November 2021), Resilience Hub (ICRI website), comms, means of sharing experiences and resources

Key collaboration with restoration committee..

Shaver *et al* (2022) A roadmap to integrating resilience into the practice of coral reef restoration (April 2022)

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Key output: RBM Policy Brief

A Policy Brief for Decision Makers: Building Resilience into Coral Reef Conservation

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ICRI · International Coral Reef Initiative

Building Resilience into Coral Reef Conservation

A Policy Brief for Decision Makers

Why are coral reefs so important?

Coral reefs are one of the most biologically rich and productive ecosystems on earth, as well as being beautiful underwater seascapes that have intrinsic value. They support at least 25 per cent of all marine life[1] and provide coastal protection, wellbeing, cultural value, food and economic security for approximately 1 billion people[2]. The value of goods and services provided by coral reefs is estimated at (US) $2.7 trillion per year[3], including (US) $36 billion[2] in coral reef tourism.

However, coral reefs are also amongst the most vulnerable ecosystems on the planet. Coral reefs are under intense pressure from human activities including land-based pollution from agricultural and urban areas, unsustainable exploitation of marine resources, destructive fishing practices, marine plastics and more. The cumulative impact of these pressures is compounded by human-induced climate change.

Coral reefs around the world are rapidly deteriorating. As global average temperatures continue to rise, reefs will continue to degrade and this will have significant impacts on the communities that depend on them. It is estimated that 70-90 per cent of the world's coral reefs could disappear by mid-century if no action is taken[4]. The next decade is critical if we are to secure their future. We must urgently reduce global greenhouse gas emissions to limit the increase in global average temperature to 1.5°C and ideally less to minimise the loss of coral reef habitats[4]. Meanwhile, fast-tracking management actions to build reef resilience will help buy time for reefs to cope with the changing climate.

With the increased awareness of the vulnerability of coral reefs and the vital role that they play in supporting nature and people, there is an urgent need to build coral reef resilience into marine conservation efforts globally, including in global policy frameworks. The purpose of this briefing is to support decision makers to prioritize actions that build reef resilience and deliver on global biodiversity and sustainability commitments.

Building the resilience of coral reefs delivers on global biodiversity and sustainability targets, such as the UN Sustainable Development Goals and the proposed CBD Global Biodiversity Framework.

What is ecosystem resilience and why does it matter?

Resilience refers to the capacity of a system to resist and recover from impacts and return to a healthy state.

'Resilience-based management', (RBM), identifies and prioritises management actions that build the capacity of coral reefs to withstand and recover from external disturbances. Building coral reef resilience helps to maintain a healthy reef ecosystem, as well as supporting the well-being of communities[5].

RBM is forward-looking and cost-effective in the long run. It empowers reef managers and communities to address current and future threats. Taking RBM action now will help secure a future for our valuable coral reefs.

Actions for decision-makers

There is an urgent need to accelerate actions to support the resilience of coral reefs and coral reef-dependent communities globally. RBM builds on conventional management approaches – for example, establishing marine protected areas, integrating watershed and coastal zone management, and ensuring fisheries and other extractive uses are sustainable. However, RBM requires us to consider the whole system (community, governance, ecosystem) and anticipate future impacts in the context of climate change.

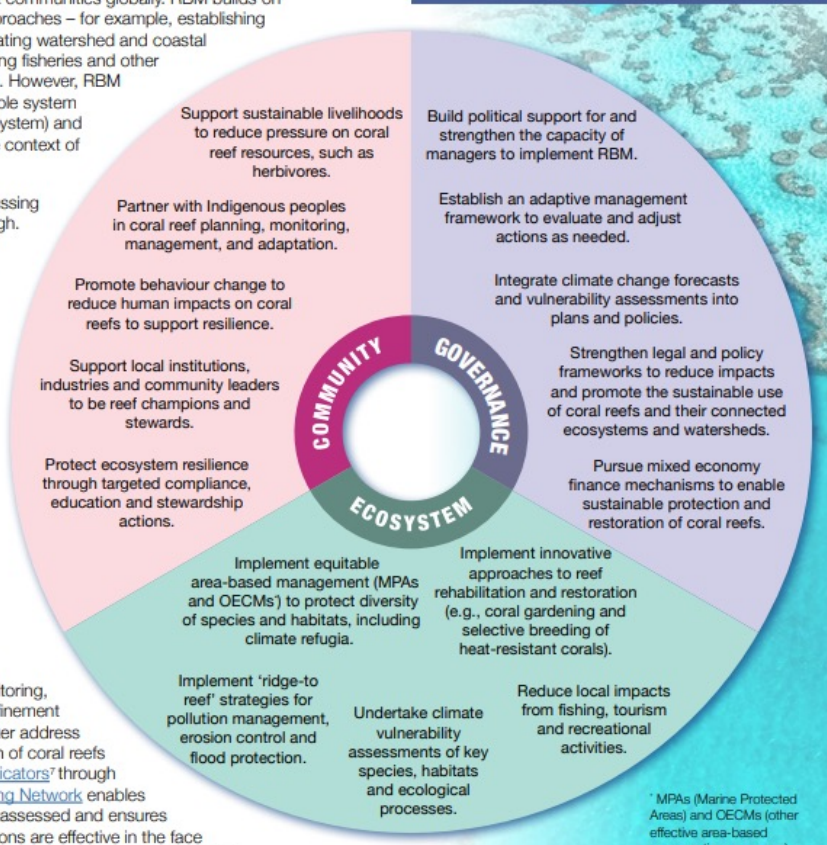
It is important to note that focussing on resilience alone is not enough. To secure a sustainable future for coral reefs and the people who depend on them we need to:

- Decrease global greenhouse gas emissions to limit the increase in global average temperature to 1.5°C; and
- Fast-track actions to build resilience to maximise the ability of coral reefs to resist and recover from external impacts.

RBM is most effective when applied within an adaptive management framework that involves experimentation, monitoring, evaluation, and subsequent refinement of management actions to better address impacts. Tracking the condition of coral reefs using ICRI's recommended indicators[7] through the Global Coral Reef Monitoring Network enables progress against targets to be assessed and ensures empowering management actions are effective in the face of future changes. RBM must include participatory approaches, co-management regimes, and engagement with Indigenous Peoples and local communities to ensure effective and equitable reef management.

Governments, scientists, industries and communities must come together to take action on climate change, reduce impacts and build coral reef health and resilience.

Figure 2: Proactive measures to strengthen governance, reduce pressures and help the reef and community bounce back[5]



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Since July 2022..

- Discussions with members to understand needs and future directions
- Two principles for committee
  1. Implement the RBM Policy Brief
  2. Build on what is there already; don't duplicate
- Ideas for deliverables:
  - Webinars
  - Consolidate and make resources accessible
  - High-level policy guidance (e.g. RBM and CBD Post-2020 Global Biodiversity Framework)
  - Case studies

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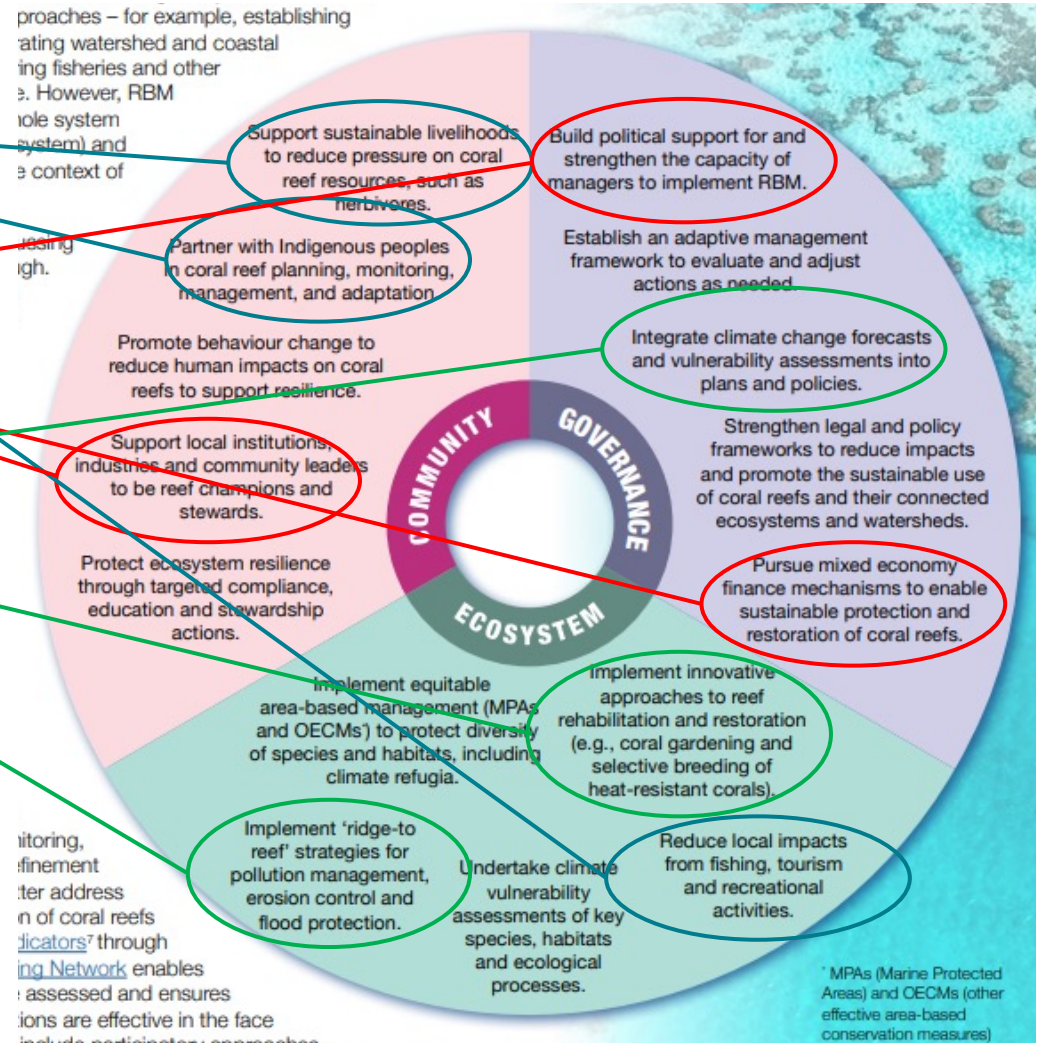
Case studies

Case study A

Case study B

Case study C



We're aiming for 5-8, we have around 15 potentials on the radar (USA, Taiwan, Mexico, Australia, global)

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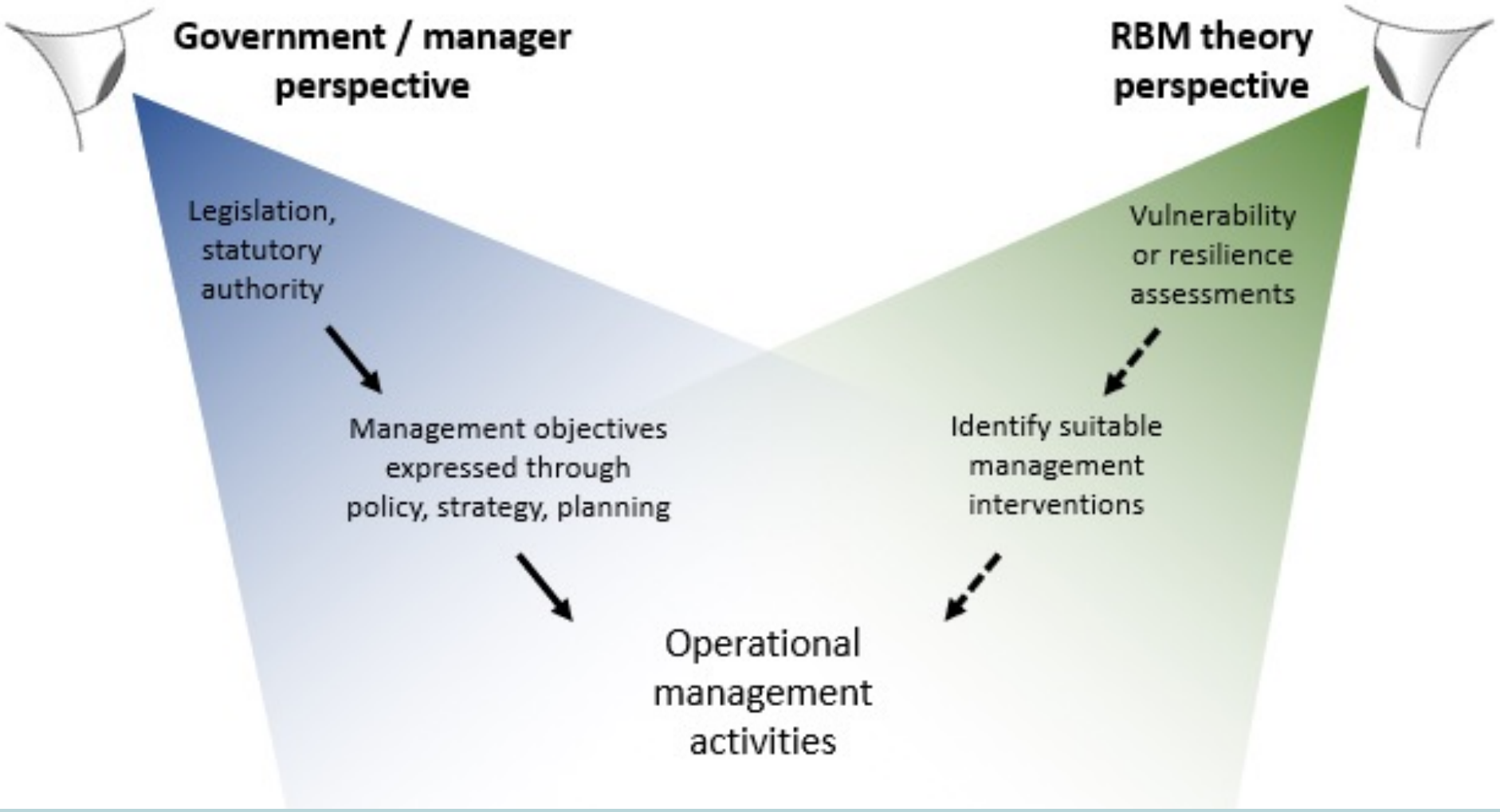
Future opportunities?



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Future opportunities?

Government / manager perspective

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Future opportunities?

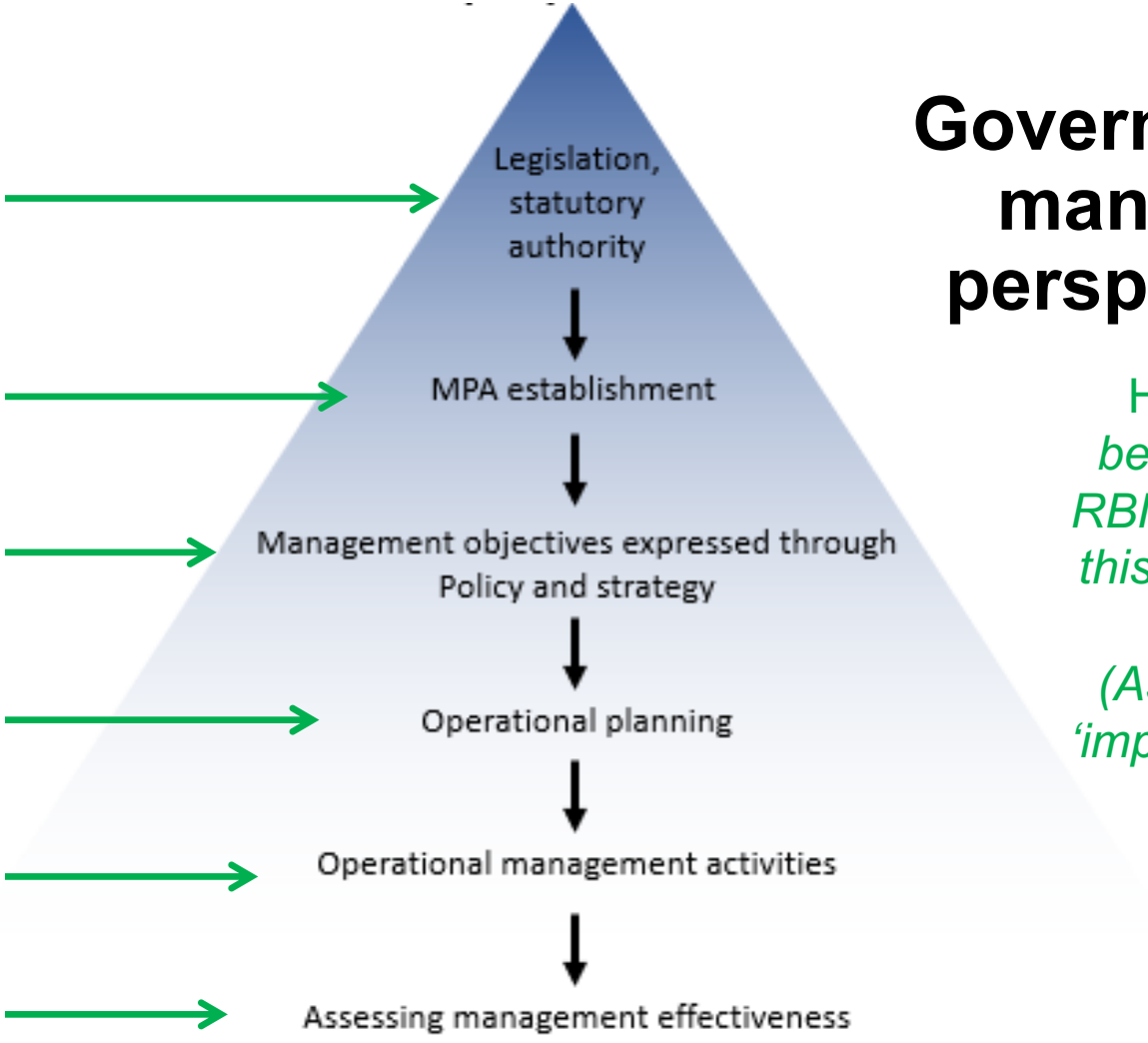
Resilience-based laws

MPA design optimizes resilience objectives

Resilience-based policy and strategy

Decision support (where, when, what)

Resilience-based evaluation



Government / manager perspective

How can we *better integrate RBM thinking into this perspective?*

(As opposed to 'implement RBM')