

CORAL REEFS

NATURE-BASED SOLUTIONS IN ACTION

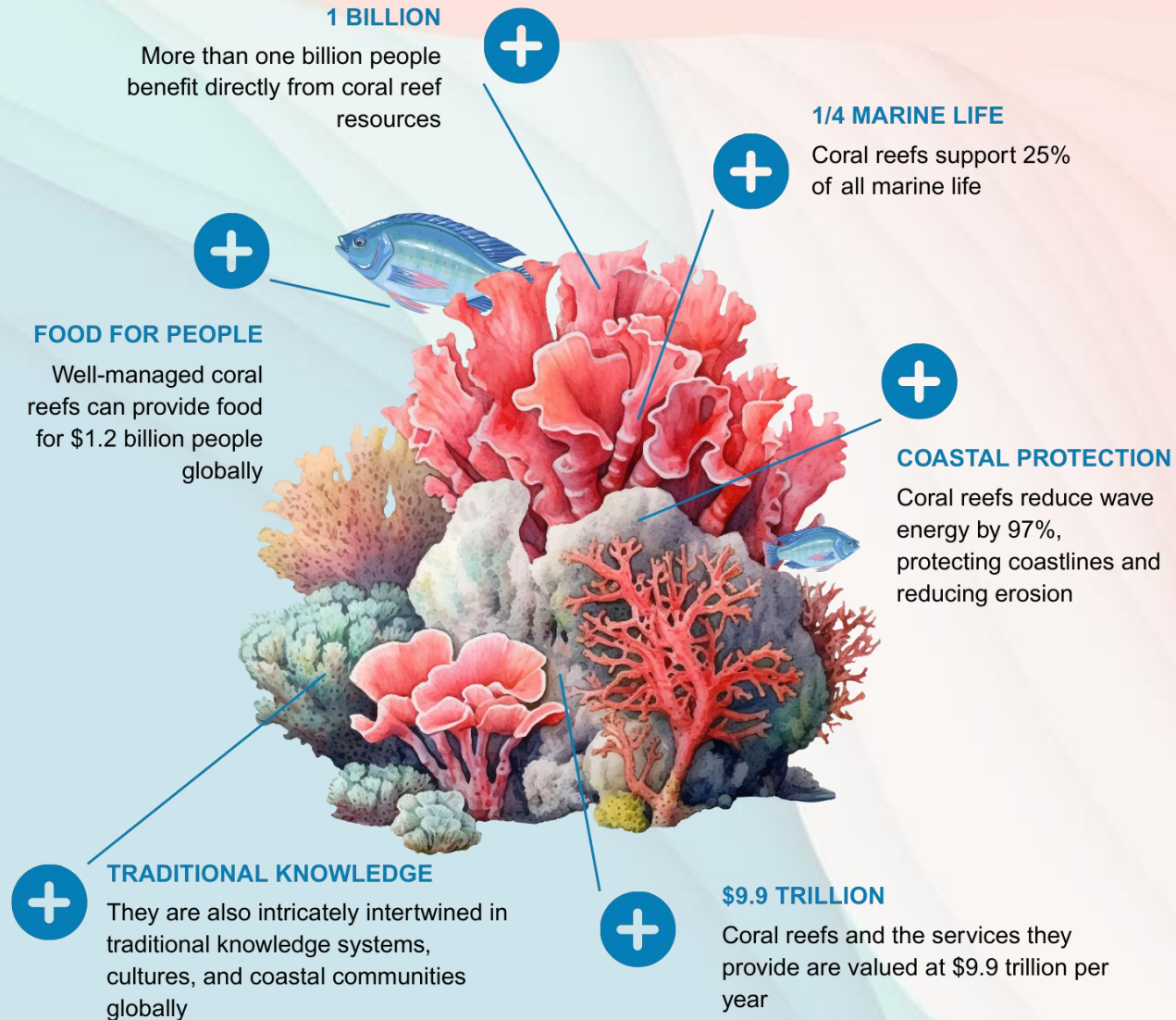
Ecosystem-based Adaptation for Coastal Resilience: In-depth Workshop on Stocktake and Finance Perspectives

Tom Dallison

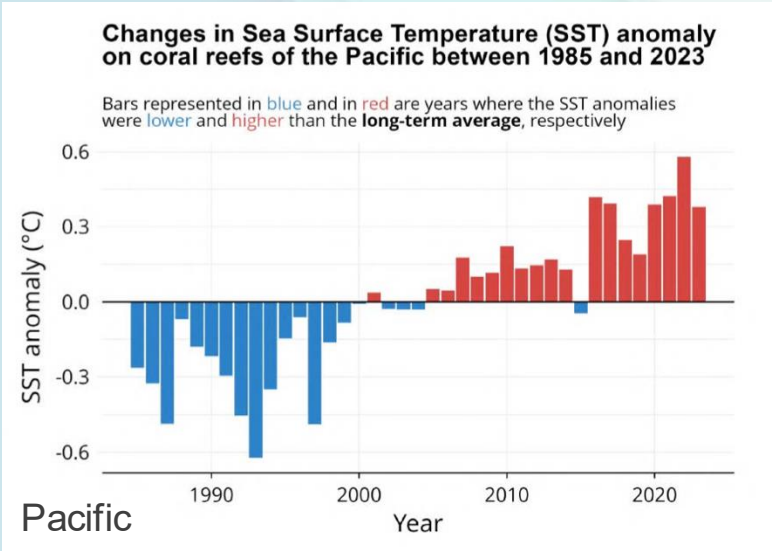
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CORAL REEFS | VALUE & THREATS

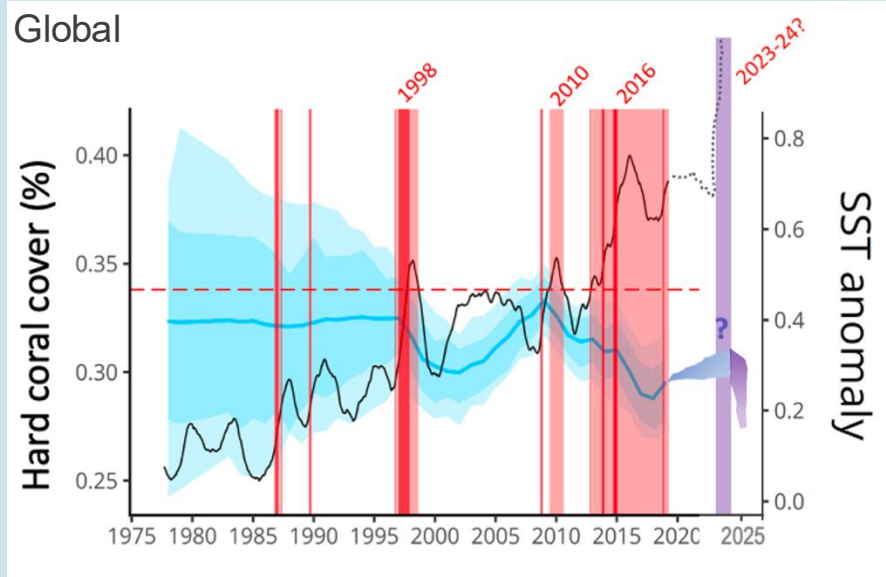
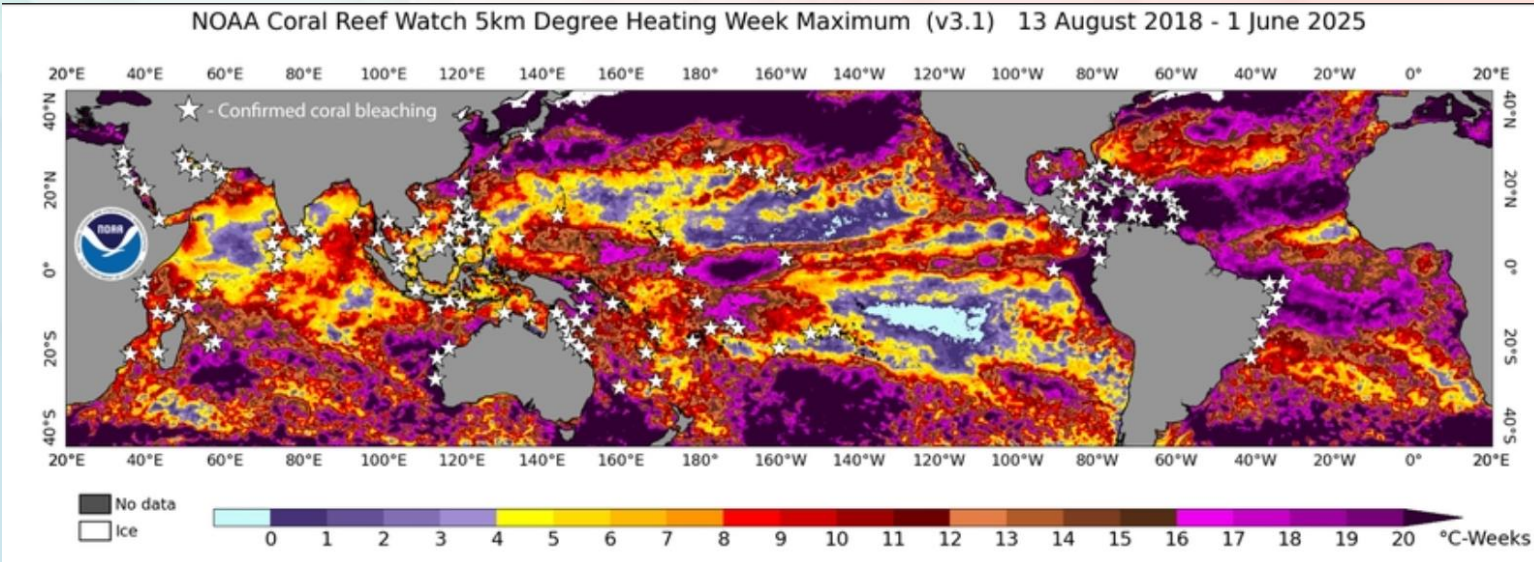


CORAL REEFS | VALUE & THREATS



Wicquart et al. 2025

NOAA CRW



Souter et al. 2021, Obura (ND)

Climate Change

Land-based Pollution

Marine Pollution

Destructive Extraction & Physical Damage

Overfishing & Trade

CORAL REEFS | MANAGEMENT

RESTORATION

Design policies that support effective coral reef restoration through integrated strategies that address local threats and build long-term resilience.

Ensure restoration projects are paired with local threat reduction policies, such as water quality improvement and sustainable fishing, and management efforts to build coral reef resilience to climate-induced disturbances.

Employ best-practice, climate-smart guidelines for intervention and engage in targeted, strategic efforts to address coral bleaching, and repair degraded coral reef ecosystems, supporting natural recovery with innovative new techniques where appropriate.

Advance standardised monitoring of restoration efforts and guidelines for measuring ecosystem-level impacts of restoration activities.

Ensure ownership and community buy-in to address local pressure and mobilise traditional knowledge and practices, supported by national frameworks and policies, for effective and sustainable restoration efforts.

Download the Key Policy Asia

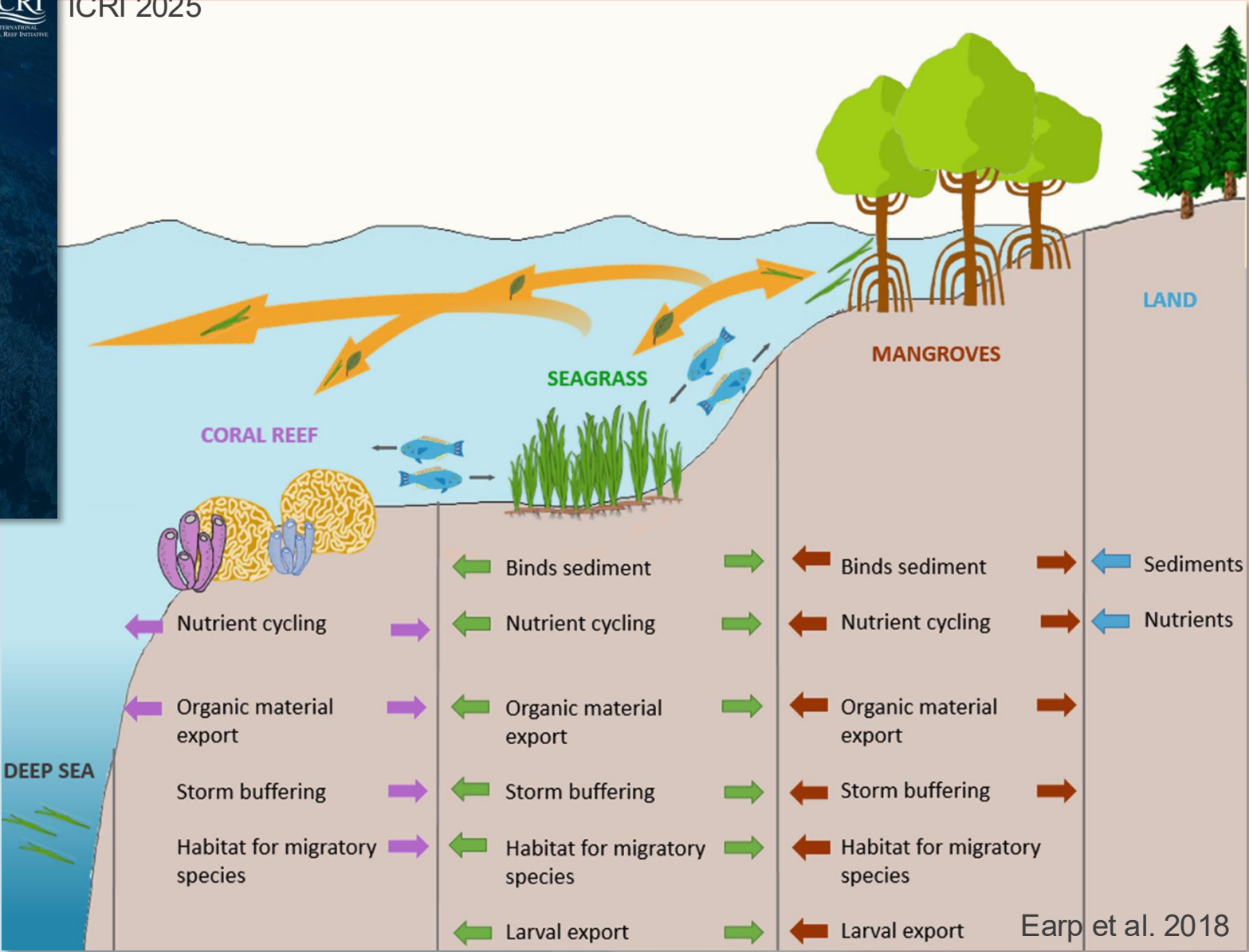
#ForCoral

The key policy asia were produced by the International Coral Reef Initiative (ICRI) Secretariat, members and partners. Photo: Matt Corcoran / iStockphoto.com - Graphic design: Julia Fox / iStockphoto.com

ICRI 2025



ICRI & GBRMPA 2022



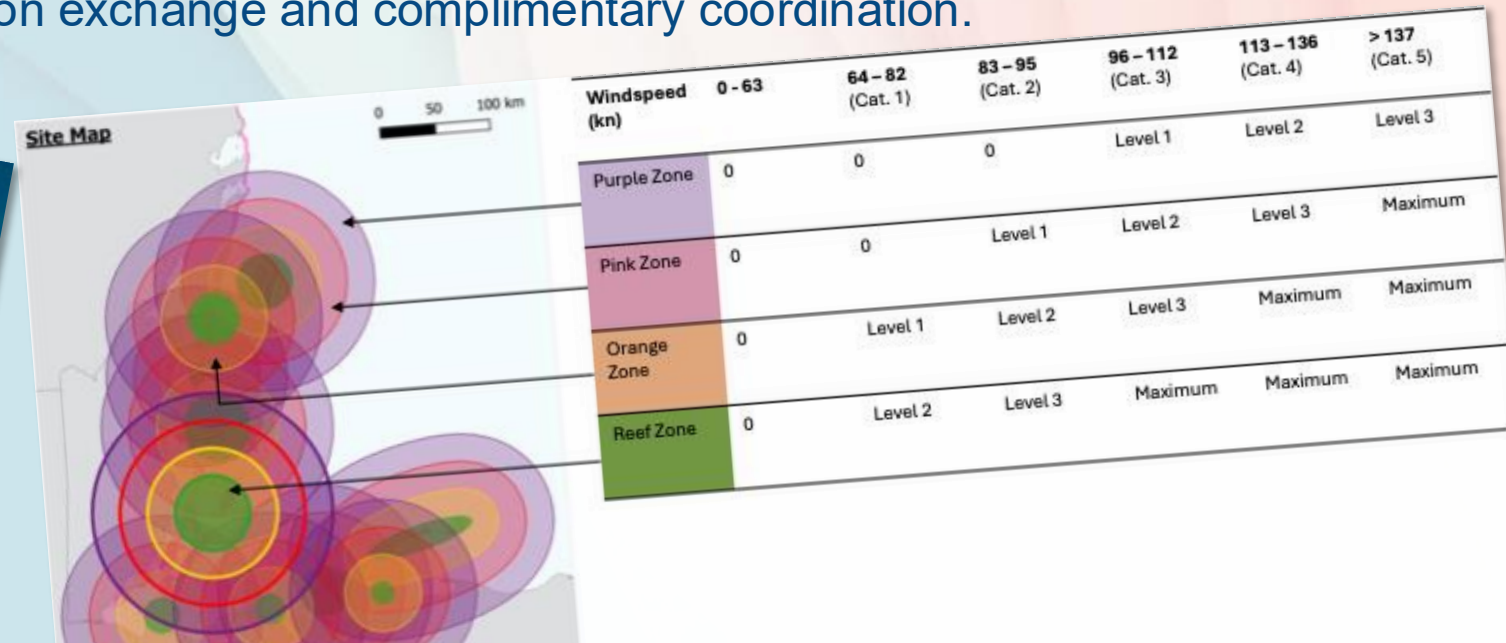
Earp et al. 2018

CORAL REEFS | MANAGEMENT: SUCCESSES

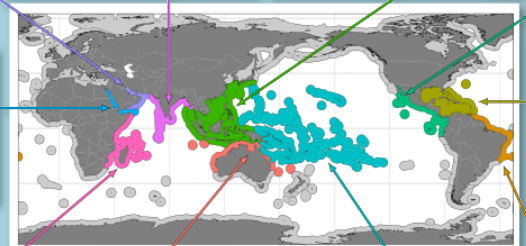
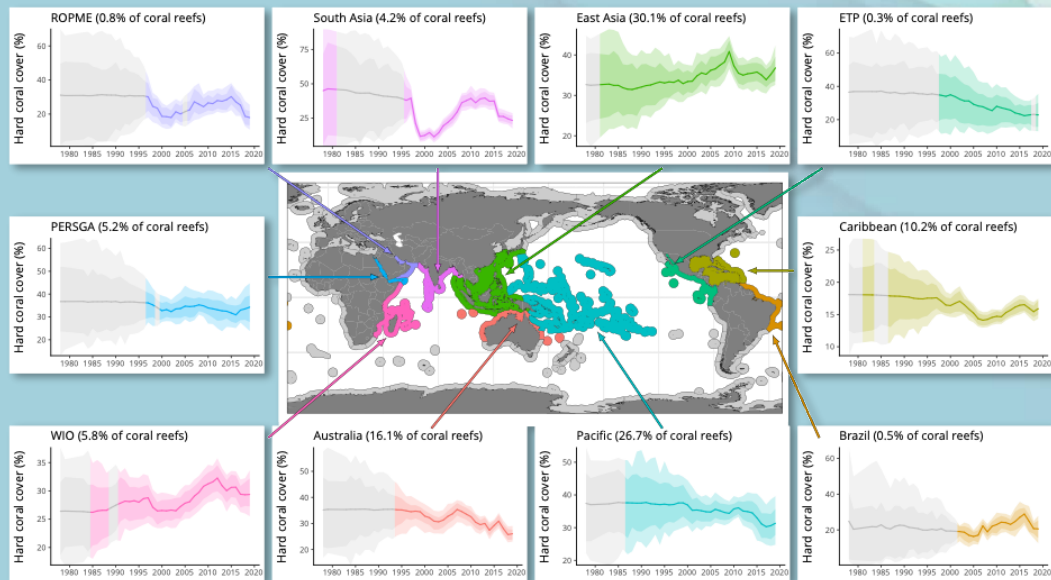
Case	EbA	Impact	Lesson
Building Bleaching Resistance through Coral Restoration – South Pacific Corals for Conservation	“super corals” that survived mass bleaching - fragments of heat-tolerant corals into gene-bank nurseries and out-planted into NTZ	- Gene-bank nurseries established across seven Pacific nations - Natural larval recruitment “seeding” wider reef recovery - Created a trained local “coral gardeners” + Tourism	Impossible to replant entire reefs; dense resistant patches = banks for natural recovery and spread heat-tolerant symbionts. Long-term guidance and community training are essential to maintain success
Protecting Herbivorous Fish to Restore Natural Grazing – Kahekili Herbivore Fisheries Management Area (KHFMA), Hawai‘i	To counter algal blooms linked to nutrient pollution and overfishing of key grazers KHFMA created (2009). Harvest of herbivorous fishes and urchins was banned; fish feeding was prohibited	- Parrotfish biomass increased over 5 years, with CCA up and MA down = improved coral recruitment conditions - Coral cover stabilized – preserved ecosystem services	Challenges in poaching disrupted recovery process, requiring stronger compliance Greater community engagement needed, especially around the benefits of the KHFMA
Reef Insurance to Finance Rapid Post-Storm Recovery – Mesoamerican Reef, Caribbean	Parametric insurance to promote coral resilience (pre & post-disaster management) and disaster financing to repair storm-damaged reefs and re-stabilise coral rubble, preserving their coastal-protection function	- Payout in 2020 (Delta) enabled funds to re-attach corals and stabilise reef structure - Recognised as national infrastructure – aligning EbA with adaptive finance	Requires robust pre-event training and realization insurance is not the complete solution Requires premiums and the establishment of complex financing (CTFs)

CORAL REEFS | MANAGEMENT: CHALLENGES

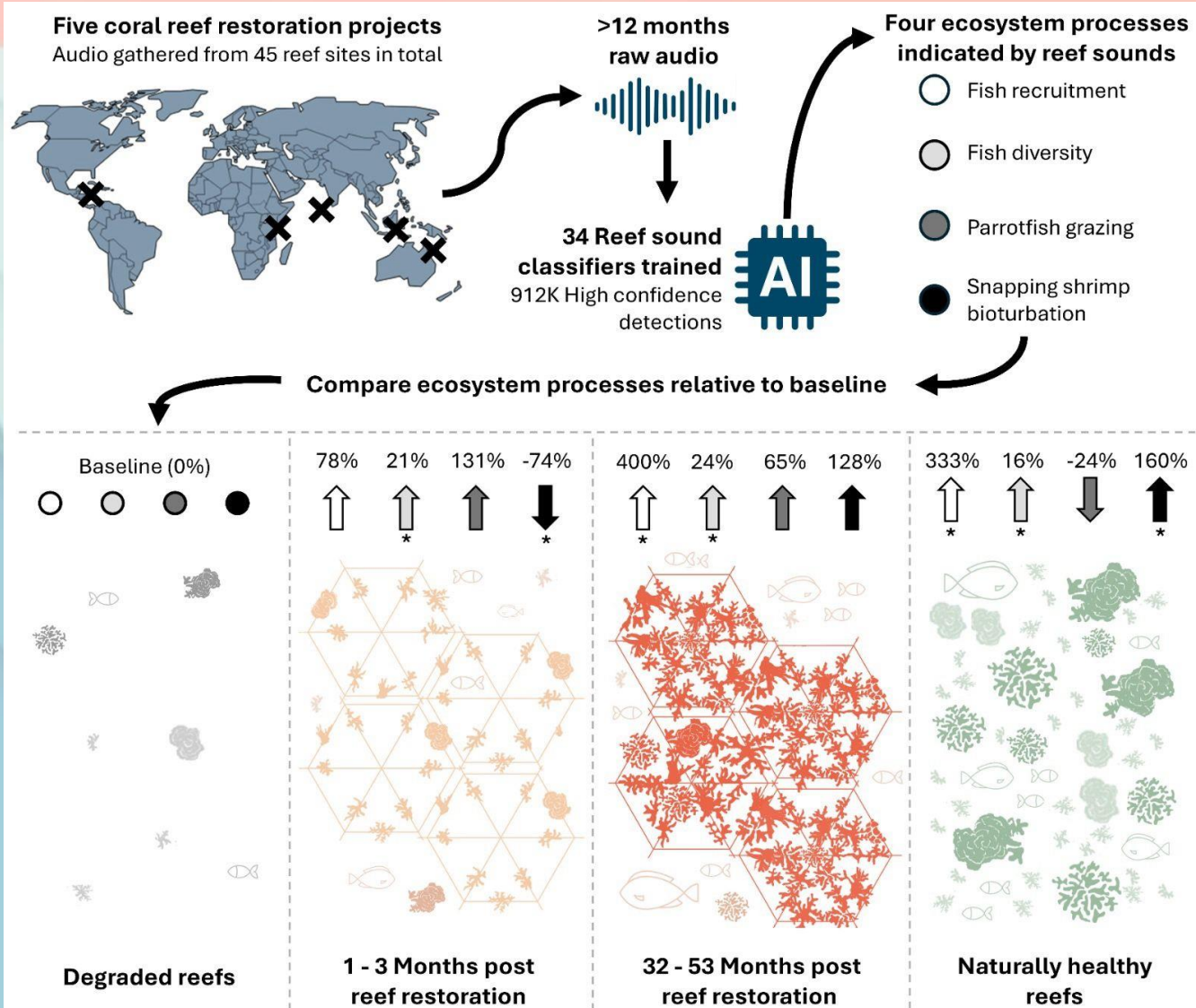
- **Funding Challenges:** Short funding cycles and lack of integration into national budgets hinder long-term monitoring, enforcement, and community engagement for effective reef management.
- **Economic Valuation:** The lack of quantification and valuation of coral reef ecosystem services in economic terms can lead to decisions that prioritise short-term gains over long-term sustainability.
- **MPA Effectiveness:** Many MPAs lack proper enforcement, coverage, and ecological design, limiting their effectiveness in protecting key reef habitats and supporting ecosystem resilience.
- **Siloisation:** Actions are often taken in isolation, impairing solutions, and calling for ecosystem-wide or landscape approaches for management (i.e. restoration should be integrated into wider management plans). There is need for cross-convention exchange and complimentary coordination.



CORAL REEFS | PROCESSES & MONITORING



Souter et al. 2021



Williams 2025

*Statistically significant difference to degraded baseline

INTERNATIONAL CORAL REEF INITIATIVE

- 102 MEMBERS | 45 COUNTRIES | 75% OF THE WORLD'S CORAL REEFS
- Founded in 1994 by 8 nations, Australia, France, Japan, Jamaica, the Philippines, Sweden, United Kingdom, and the United States of America.
- ICRI is currently chaired by the Kingdom of Saudi Arabia represented by The General Organisation for the Conservation of Coral Reefs and Sea Turtles in the Red Sea (SHAMS).
- The Global Coral Reef Monitoring Network (GCRMN), established in 1995, is an operational network of ICRI.
- www.icriforum.org



■ ICRI Member Country
■ ICRI Founding Member

CORAL REEFS

Coral reefs are proven Nature-based Solutions, protecting coasts, supporting livelihoods and biodiversity. Urgent action to scale management, finance and monitoring is vital to secure these benefits.

The window for action is rapidly fast, **but not yet closed**

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