

COBSEA

COORDINATING BODY ON
THE SEAS OF EAST ASIA



Integrated management of critical coastal habitat in East Asian Seas

Building International Partnerships to enhance Science-based Ecosystem Approaches
in support of Regional Ocean Governance: Asia-Pacific

Jerker Tamelander, COBSEA Secretariat, UN Environment

East Asian Seas

East Asian Seas Action Plan 1994: Development and protection of the marine environment and coastal areas

Countries: Cambodia, China, Indonesia, Republic of Korea, Malaysia, Philippines, Singapore, Thailand, Vietnam

Intergovernmental body: Coordinating Body on the Seas of East Asia (COBSEA)

Secretariat: hosted by Thailand, administered by UN Environment

Strategic Directions (final draft): Land-based marine pollution; Marine and coastal planning and management; over-arching Governance theme

UN 
environment

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EAST ASIAN
SEAS
Action Plan
COORDINATING
THE SEAS

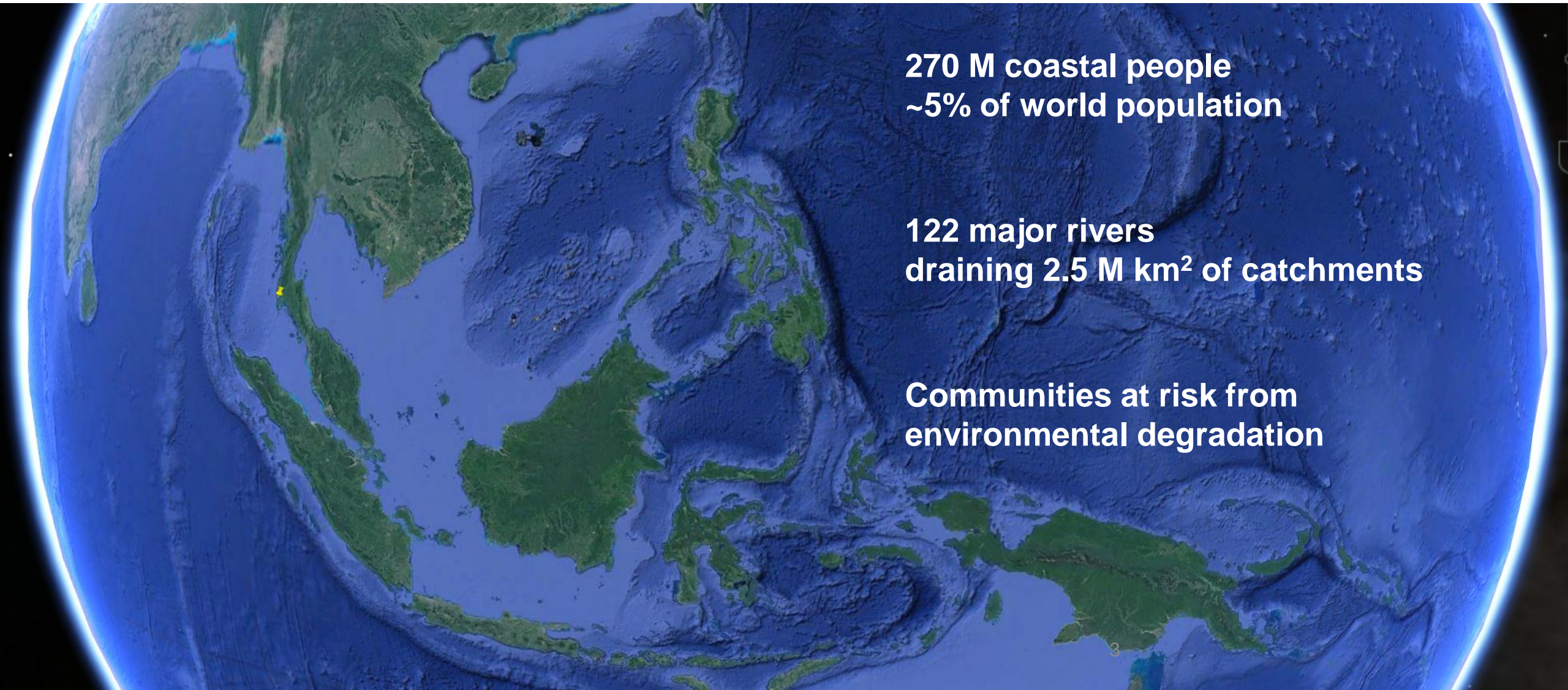
Two LMEs: South China Sea and Gulf of Thailand



**270 M coastal people
~5% of world population**

**122 major rivers
draining 2.5 M km² of catchments**

**Communities at risk from
environmental degradation**



LME projects



Reversing environmental degradation trends in the South China Sea and Gulf of Thailand 2002-2008:

SAP and NAPs with solid basis in science and in economic analysis of costs and benefits

Implementing the Strategic Action Programme for the South China Sea, USD 15M

System of Fisheries Refugia in the South China Sea and Gulf of Thailand, USD 3M

- reducing coastal habitat degradation and loss
- improving management of critical habitat for transboundary fish stocks
- strengthening knowledge-based action planning for management
- facilitating regional and national integration and cooperation

Target sites: 26 mangrove, 82 *coral*, 21 seagrass, 19 coastal wetlands, 23 *fishery refugia*

Fisheries Refugia



Regional Working Group on Fisheries: national experts +
UN Environment, SEAFDEC, FAO, WorldFish, IUCN

Criteria for identification and inter-governmentally approved
guidelines, as part of ASEAN-SEAFDEC Regional Guidelines
for Responsible Fisheries in Southeast Asia

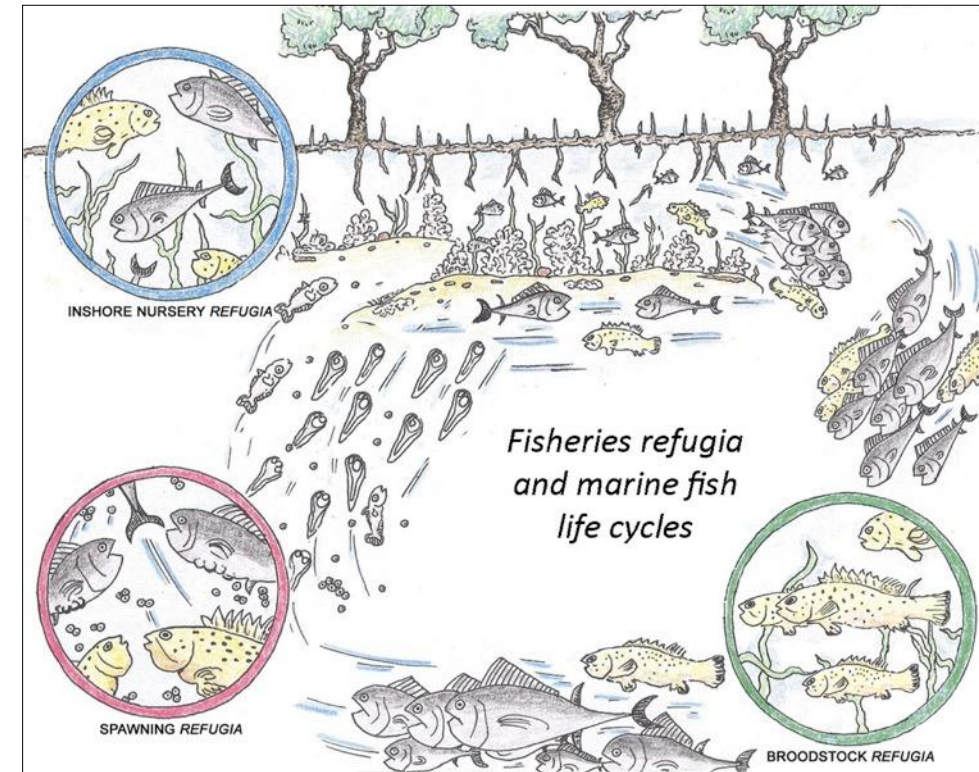
Identification of priority species and locations in SCS



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“Spatially and geographically defined marine or coastal areas in which specific management measures are applied to sustain important species during critical stages of their life cycles, for their sustainable use”

Fisheries *refugia*: A novel approach to integrating fisheries and habitat management in the context of small-scale fishing pressure

Christopher J. Paterson^{a,*}, John C. Pernetta^{a,1}, Somboon Siraraksophon^b, Yasuhisa Kato^c, Noel C. Barut^d, Pirochana Saikliang^e, Ouk Vibol^f, Phaik Ean Chee^g, Thi Trang Nhung Nguyen^h, Nilanto Perbowoⁱ, Trian Yunandaⁱ, Nygiel B. Armada^j

Fisheries Refugia Project



Operationalize the concept of fishery refugia

1. establish and manage fisheries refugia
2. enhance understanding of linkages between fish stock and habitat, and implications for policy
3. ensure uptake of good practices in integrating fisheries management and biodiversity conservation

Executed through regional fishery organization, SEAFDEC: tech transfer, research, info dissemination, CB

Embodies an ecosystem-based approach: regional scale, bringing together environmental and fishery science, management and policy as well as economic context

Anchoring in regional intergovernmental mechanisms of COBSEA as well as SEAFDEC and ASEAN strengthens transfer of experiences, scaling, and longer-term sustainability

Coral reef climate refugia

Downscaled climate model projections of future coral bleaching conditions

- Business as usual vs successful mitigation
- High-resolution, 4km

All reefs vulnerable, high local-scale variation

SCS sites with/near climate refugia e.g.
Ninh Hai; Koh Chang and Phu Quoc; Belitung

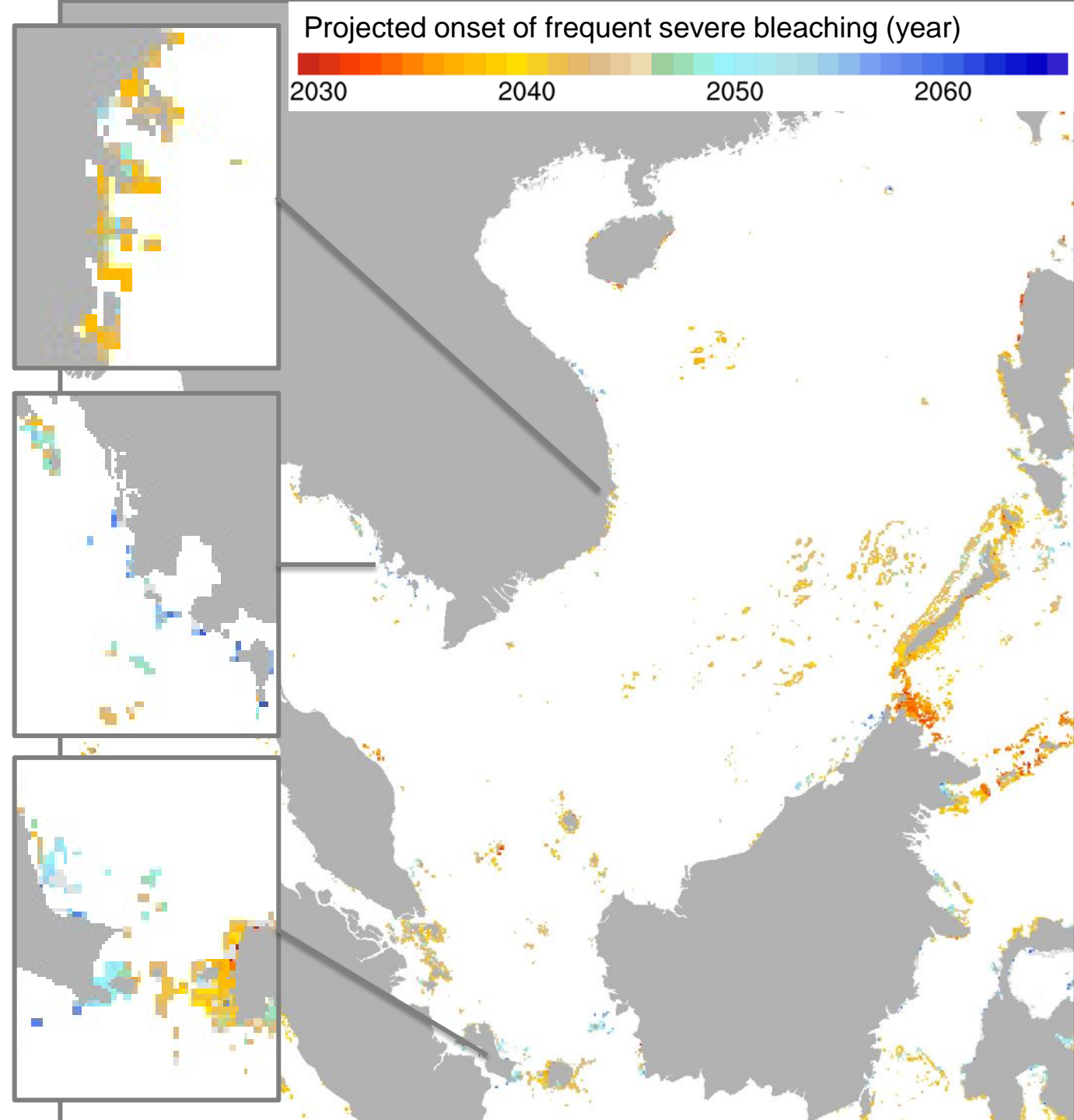
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Local-scale projections of coral reef futures and implications of the Paris Agreement

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Ruben van Hooidonk^{1,2}, Jeffrey Maynard^{3,4}, Jerker Tamelander⁵, Jamison Gove⁶, Gabby Ahmadi⁷, Laurie Raymundo⁸, Gareth Williams⁹, Scott F. Heron^{10,11,12} & Serge Planes⁴



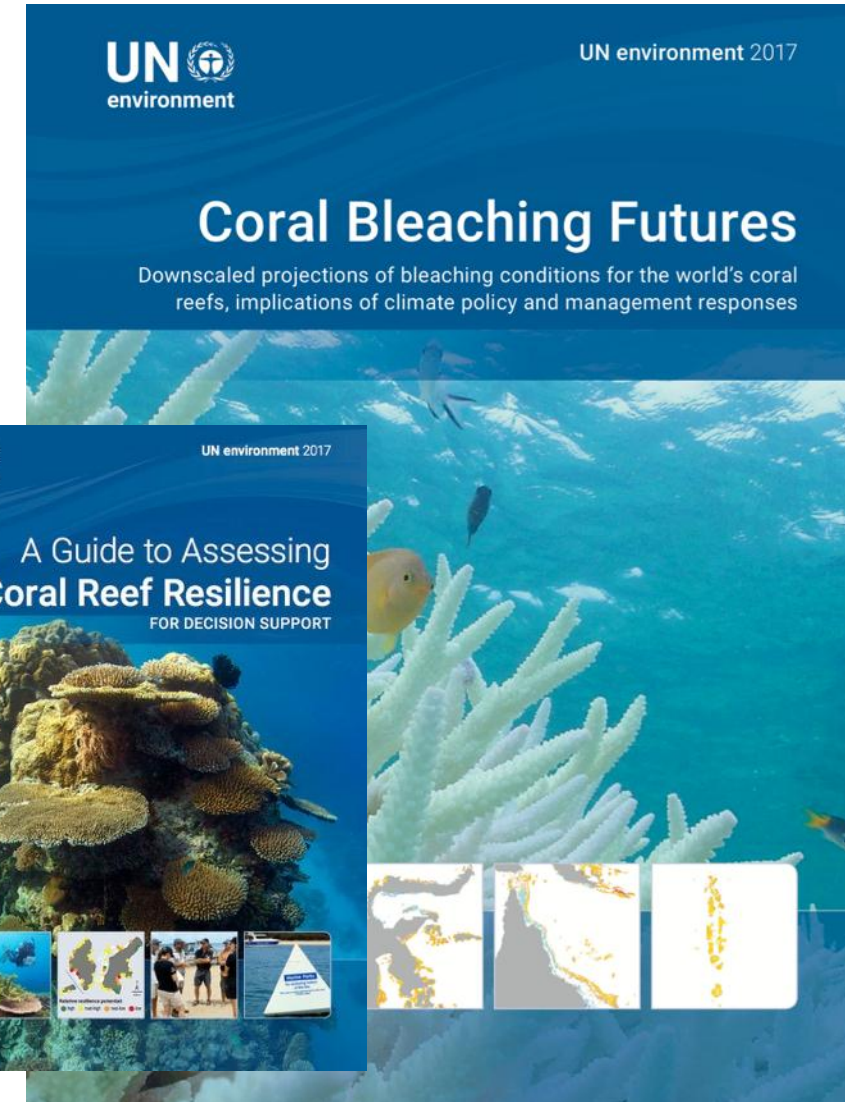
Coral reef climate refugia

Minimize direct pressures on refugia while mitigation gains pace

- protect through MPAs
- identify, prioritize and address pollution upstream

Application

- ⇒ additional data layer for SAP implementation project
- ⇒ COBSEA strategic priorities: network of MPAs; addressing CC in planning and management; address land-based marine pollution
- ⇒ coastal vulnerability assessment and reduction



Challenges and Opportunities

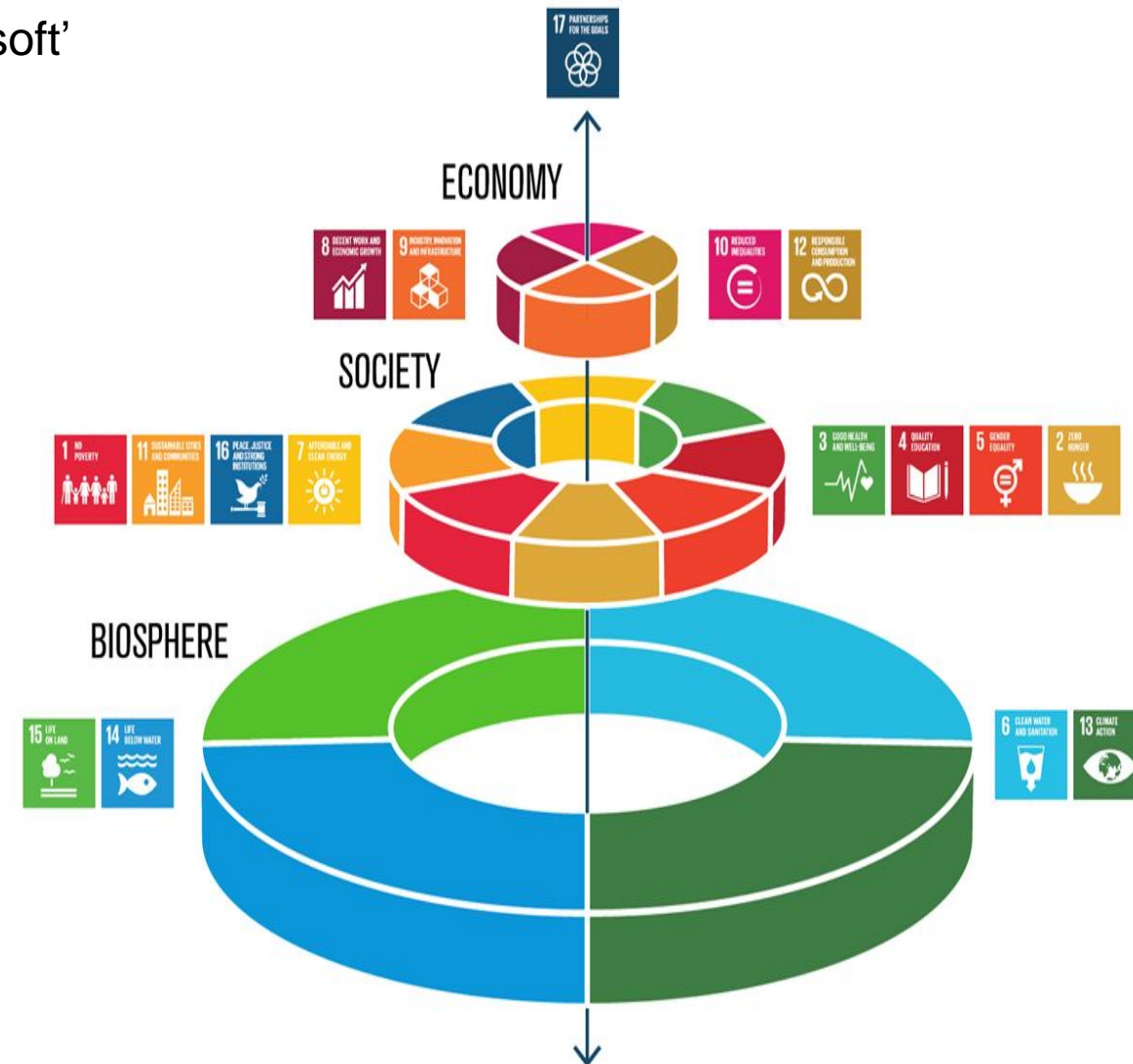
Regional ocean governance framework is predominantly 'soft'

Multiple entities with differing geographic remit and partially overlapping substantive remit

Often reflecting national sectoral silos

Good examples of integrated approach based on national capacity, regional networking and partnerships

Universal 2030 Agenda requires convergence



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Thank you

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