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Green Road to Kunming

Planning Environmentally Sustainable Infrastructure

WORKSHOP SERIES 2022 28 April / 19 May / 23 June / 21 July



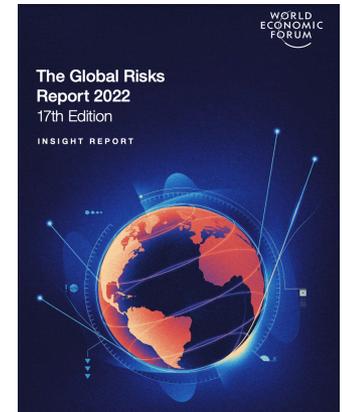
Taking the blue road

Resilience, restoration and regeneration in coastal development

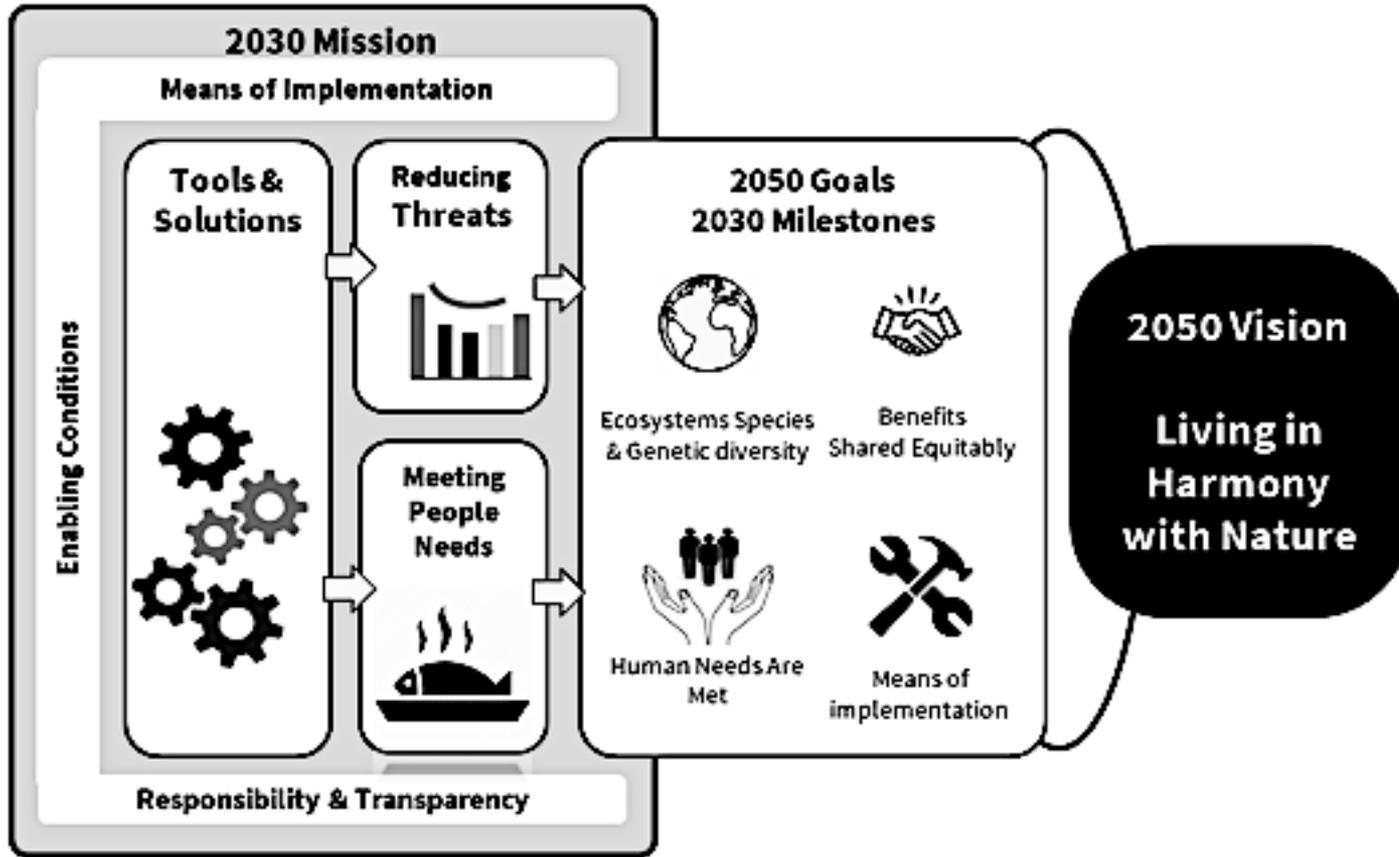
Mat Vanderklift

CSIRO Oceans & Atmosphere, IORA Blue Carbon Hub

How do we get from here...



... to here?



From updated zero draft of the post-2020 global biodiversity framework
<https://www.cbd.int/article/zero-draft-update-august-2020>

We need to transform

Unsustainable

- destructive
- unproductive



Sustainable

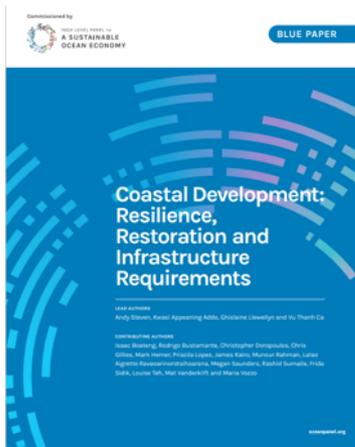
- regenerative
- productive



Nature-based solutions as part of the transformation

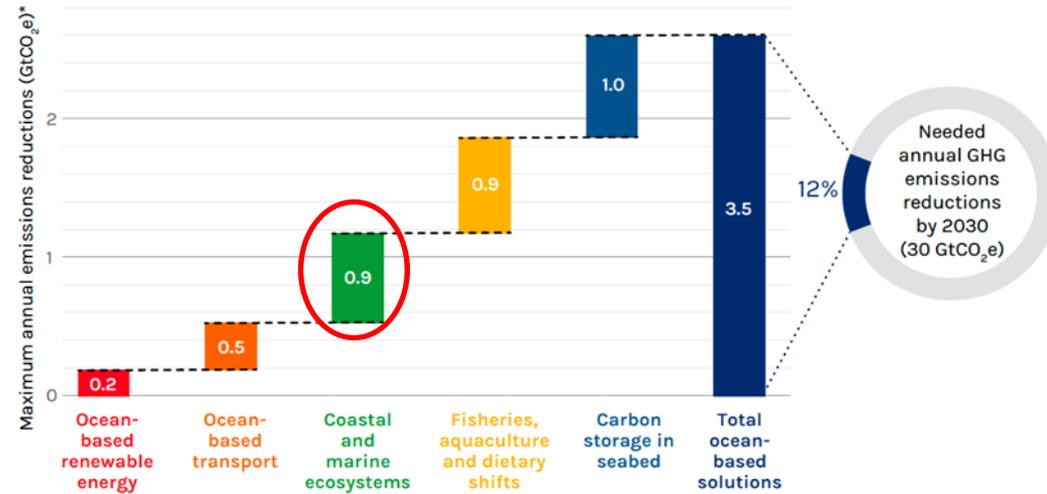
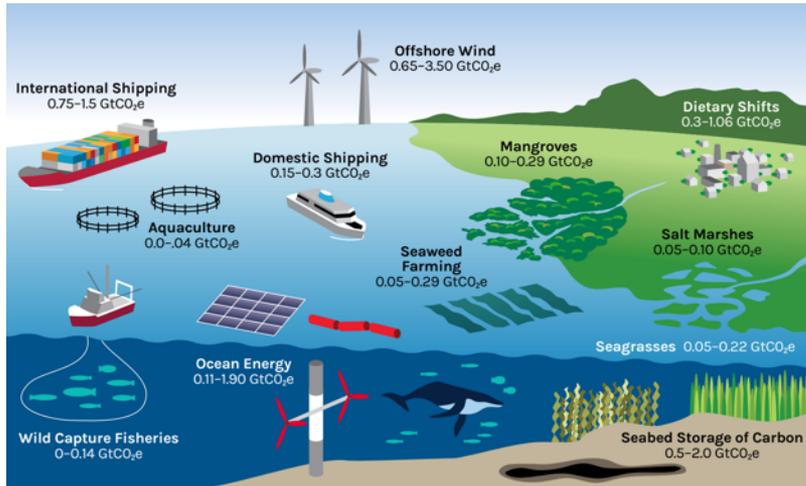


There are many opportunities



Building resilience

Ocean solutions for climate mitigation



- Marine decarbonization a key component of the Blue Economy
- Potential contribution of 12% annual GHG emission reduction by 2030
- Protecting and restoring coastal ecosystems could contribute 0.9 Gt per year



Building resilience

Solutions for coastal protection

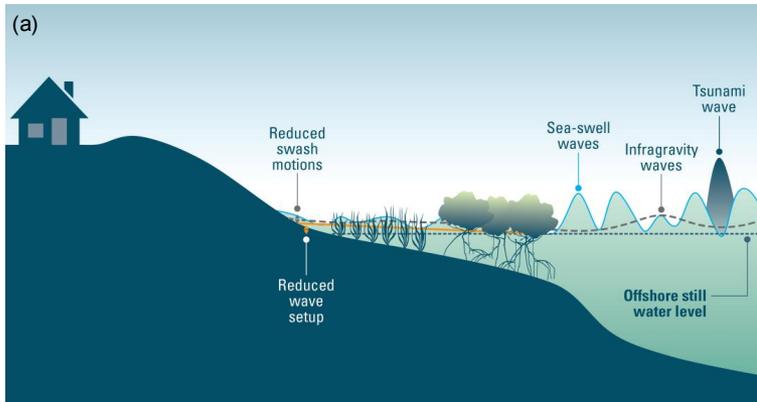
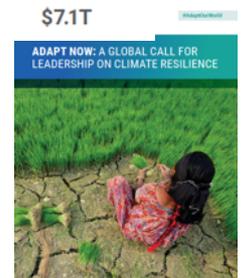


FIGURE ES.1 Benefits and Costs of Illustrative Investments in Adaptation



- Mangroves provide more than \$80 B per annum coastal flooding and protect 18 M people
- Benefits from mangrove preservation and restoration are up to 10 times the costs



Restoring the coast at scale



Saltmarsh restoration
South Australia



Mangrove restoration
West Bali, Indonesia

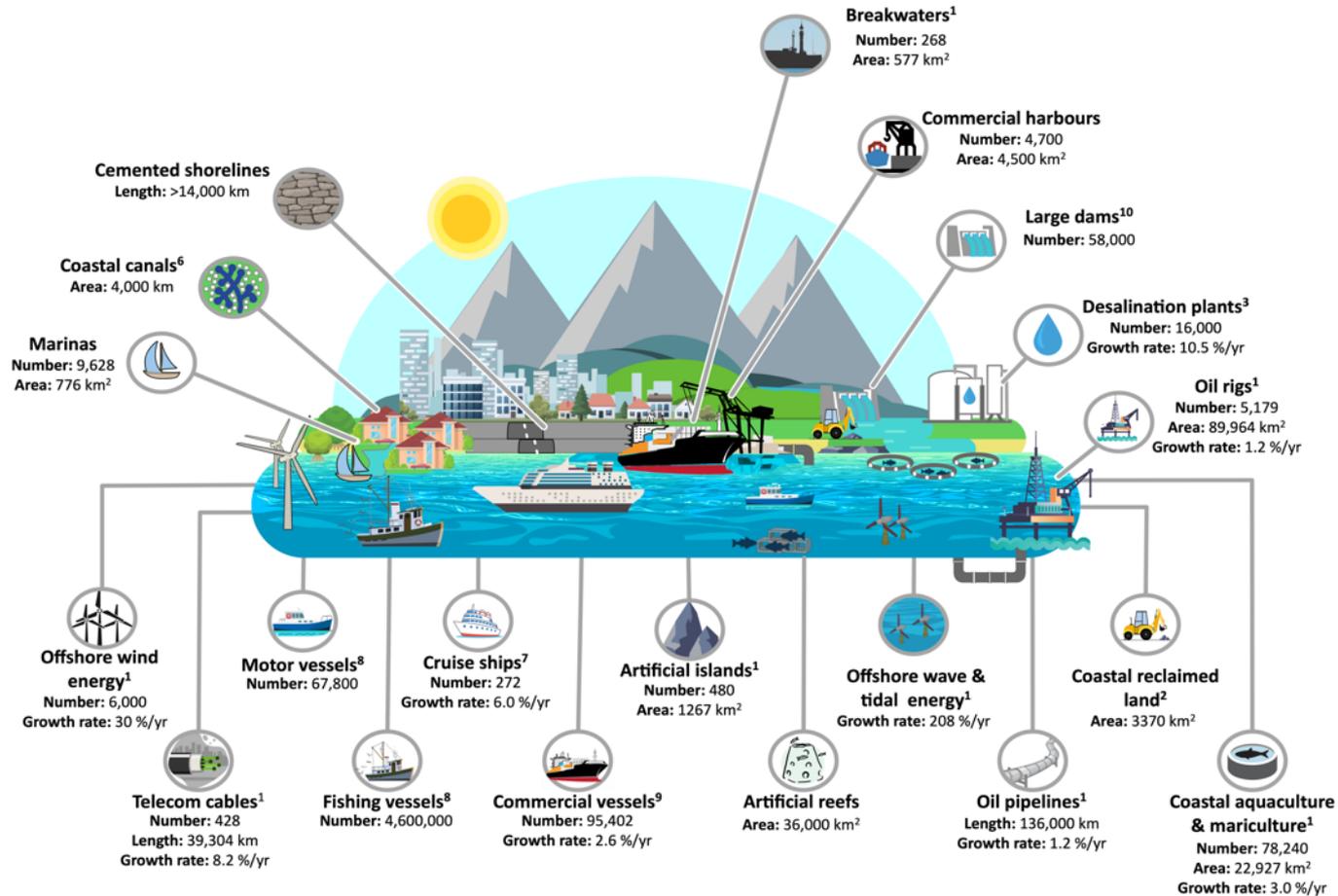


Coral reef restoration
Great Barrier Reef, Australia



Oyster reef restoration
South Australia

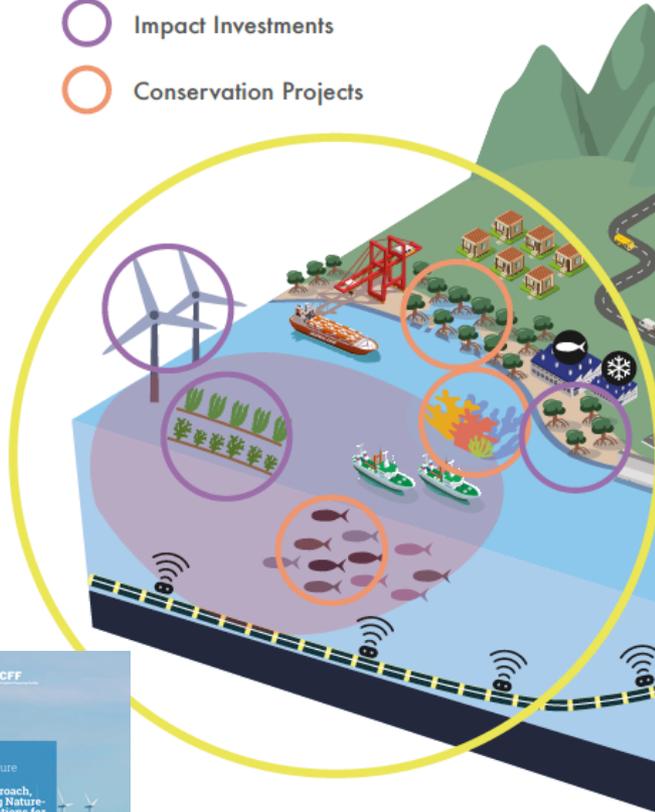
Coastal infrastructure



There is a growing proliferation of coastal and offshore infrastructure

Climate-ready blue coastal infrastructure

- Infrastructure Investment Package
- Impact Investments
- Conservation Projects



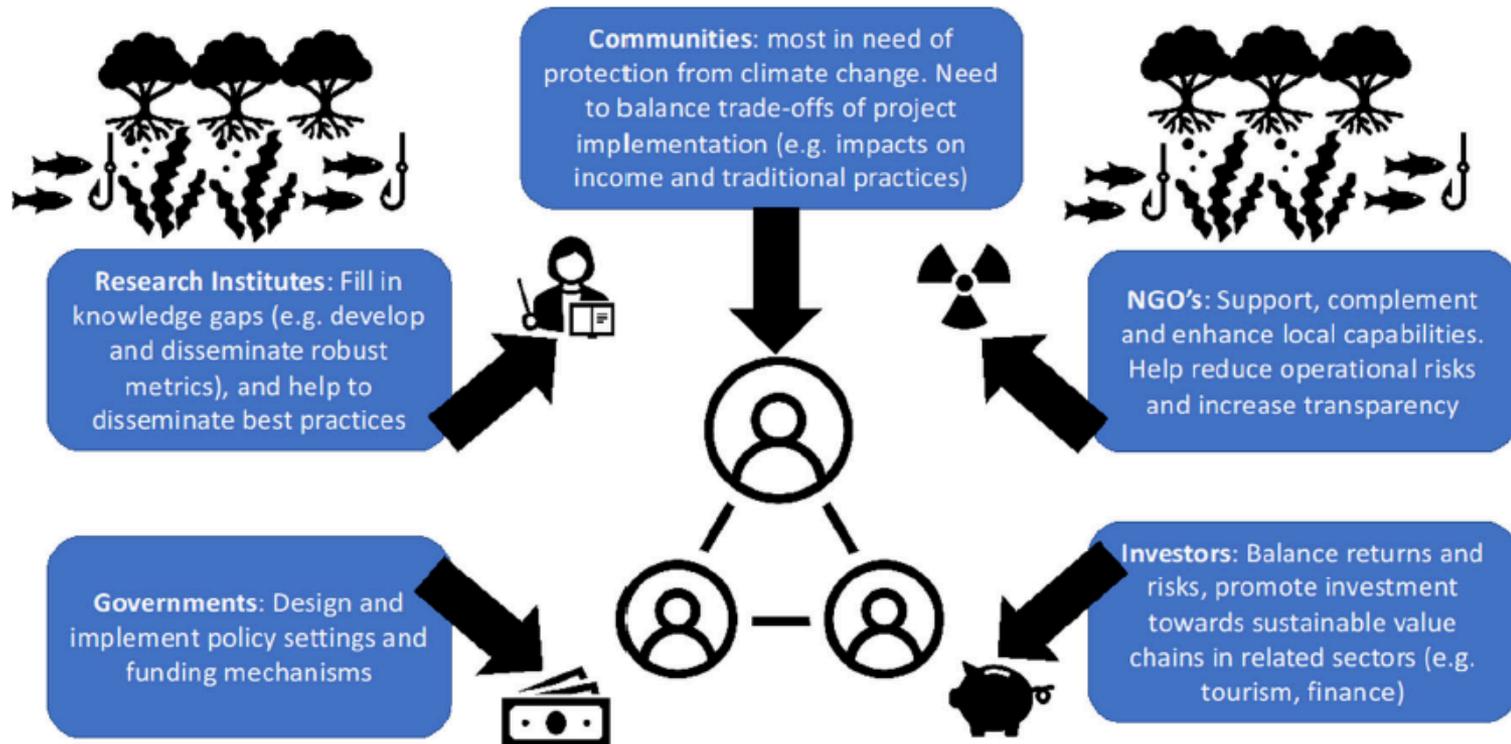
- We can move beyond hard grey infrastructure
- Productive, regenerative urban coasts



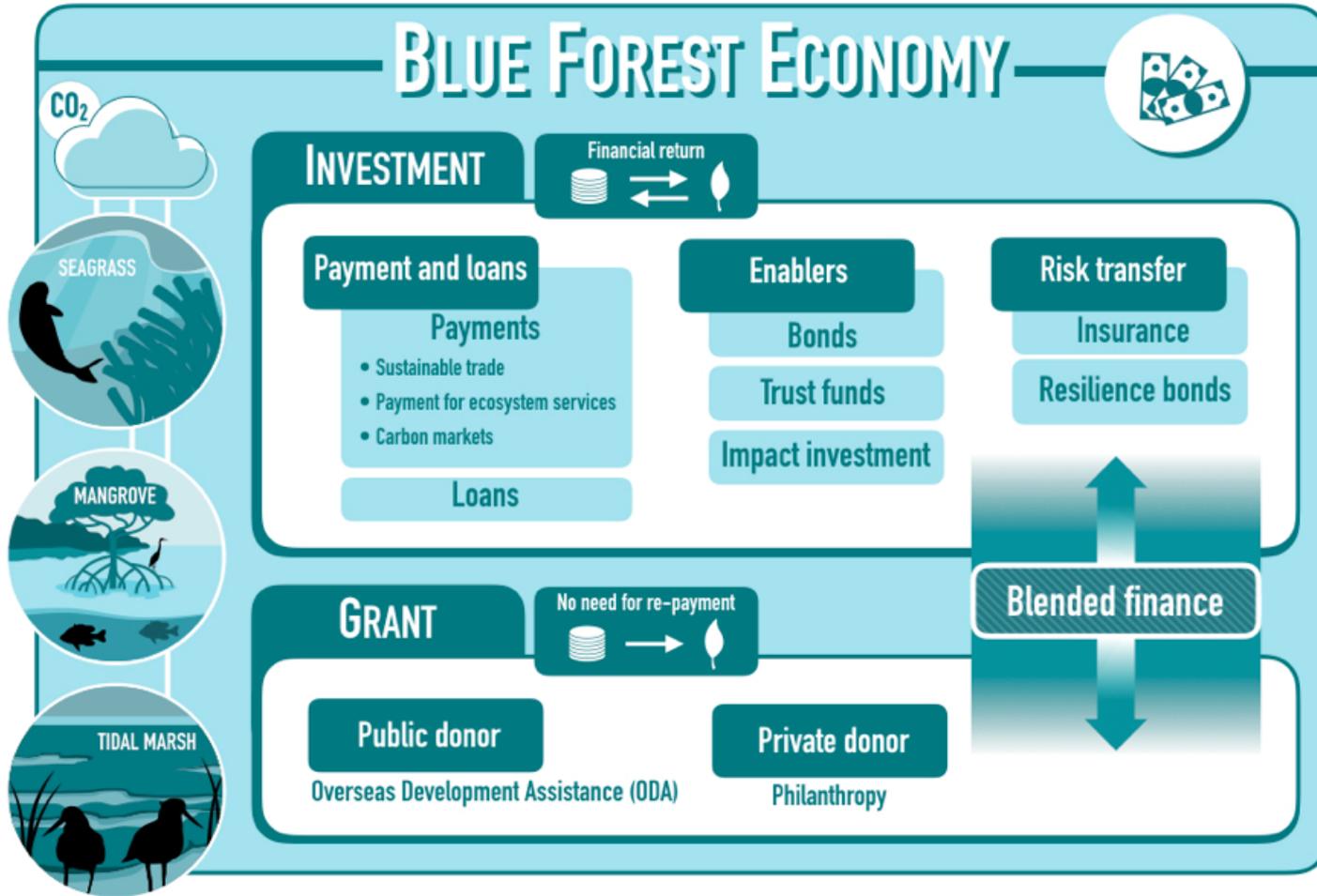
Hybrid Seawalls
Sydney, Australia



What are the different roles?



Finance for a regenerative blue economy

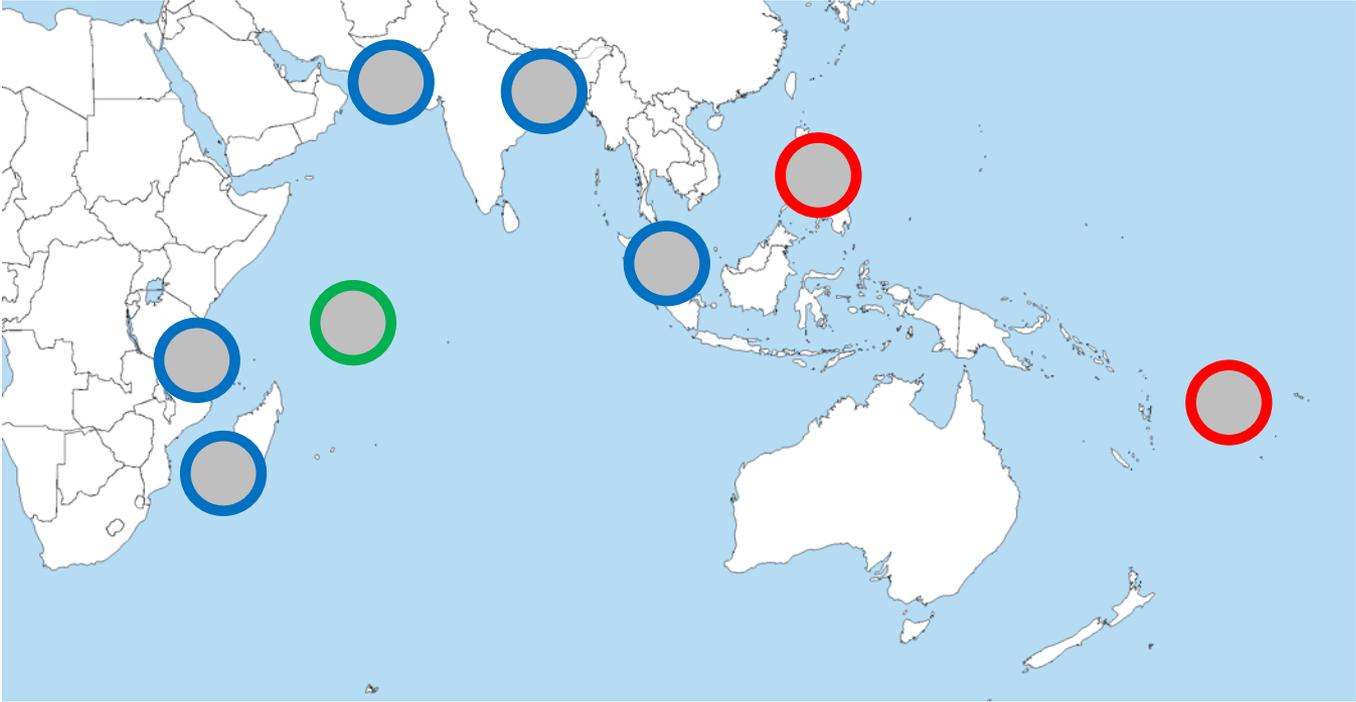


Existing and emerging blue forest finance options

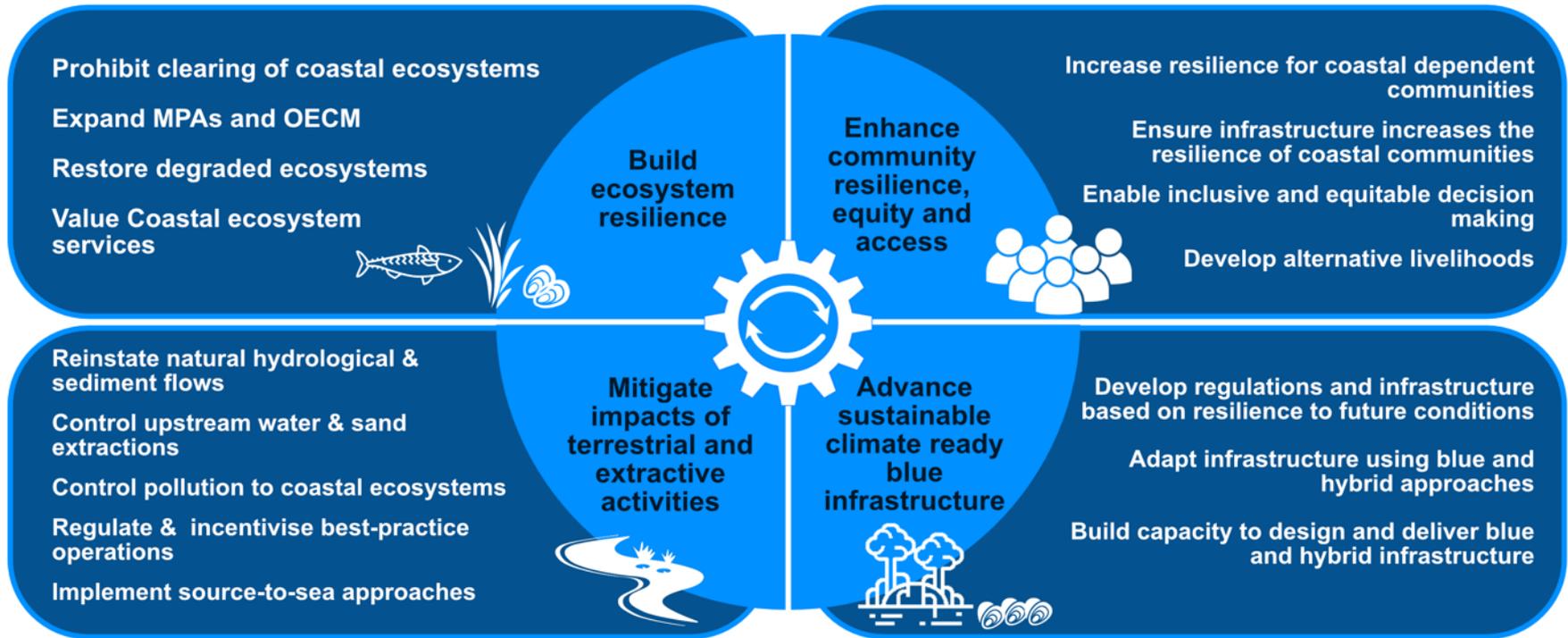
Blue carbon market

Blue bonds Trust fund

Others in development



OPPORTUNITIES FOR ACTION



Summary

From degradation to regeneration

Why:

- **Fundamental** to sustainability and equity
- **Foundation** for climate mitigation and adaptation, risk reduction, livelihood regeneration

How

- **Build better** through climate resilient blue/green and hybrid infrastructure
- **Expand** the rate and scale of ecological restoration
- **Stop** harmful subsidies and perverse uses of the coast
- **Empower** marginalised coastal communities to participate
- **Invest** in sustainable and regenerative infrastructure and activities

ADB

- Action Plan for Healthy Oceans
- The coasts and oceans of the Asia Pacific are well suited to NbS
- There are multiple opportunities to avoid making the same mistakes
- Support sectors/actors to enable and scale NBS implementation across the region





**THANK
YOU!**



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<https://research.csiro.au/iora-blue-carbon-hub/>