BRIDGES
“Enhancing climate resilience in the southwestern Indian Ocean through a shared social-ecological vision.”

Exploratory priority research program and equipment (PEPR) 2023-2032

The southwestern Indian Ocean, a need to foster adaptation of marine social-ecological systems

- Coastal and marine resources are vital for human societies
- Rich biodiversity
- Risks of conflicts due to biodiversity loss and fisheries mismanagement
- Fishery and food security
- Highly vulnerable to climate change impacts

A program for the southwestern Indian Ocean using a diversity of partnerships and tools

- Targeted projects
- Regional doctoral networks
- Capacity building and education
- Collaborations with stakeholders
- Regional and international partnerships
- Research infrastructures

Building bridges between stakeholders to:

▷ DEVELOP interdisciplinary and multi-sectoral research collaborations
▷ INCREASE knowledge, anticipation, joint management exploited marine natural resources and conservation of biodiversity.
▷ PROMOTE an innovative shared governance framework of common pool resources
▷ FOSTER environmental security and improved quality of life
5 SCIENTIFIC CHALLENGES FOR HUMAN SOCIETIES AND BIODIVERSITY

**1 OBSERVE**
by developing new observatories and strengthening existing ones, to collect, analyze, and share data required to sustainably manage complex social-ecosystems

**2 MODEL**
dynamic social-ecological systems accounting for multi-level and multi-scale interconnections and feedback loops

**3 ANTICIPATE**
livelihood vulnerability and emergent hotspots of conflict risks to support operational and flexible responses to marine resource-dependent sectors of society to degradation of marine resources

**4 TRANSFORM**
by supporting capacity building and training to foster the transition towards a new holistic, equitable and multi-sectoral governance of resources for climate-resilient societies

**5 SOLVE**
by co-constructing pathways to mitigate future tensions and increase the resilience of social-ecological systems to these tensions as part of a living lab approach

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**A DIVERSITY OF**

**Outcomes**
- Monitor integrated systems
- Manage connectivity
- Maintain marine resources diversity
- Foster social-ecological adaptative systems thinking
- Manage slow variables and feedbacks
- Broaden participation and cooperation

**Impacts**
- Identify sustainable development pathways
- Conserve biodiversity
- Mitigate global change
- Increase social-ecological resilience
- Improve integrated ocean observing systems and data sharing systems
- Promote sustainable marine fisheries

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**OVERARCHING OBJECTIVE**
co-construction to strengthen the resilience of fisheries and biodiversity to climate change and reduce the risk of conflicts over shared marine resources