



RESEARCH  
PROGRAM

FISHERIES AND  
BIODIVERSITY  
IN THE WESTERN  
INDIAN OCEAN



# UNDERSTAND BRIDGES



## MISSION STATEMENT AND TARGETED PROJECTS





# MISSION STATEMENT

How to best design **area based management interventions**, including **marine protected areas** to **benefit both biodiversity conservation and sustainable and just fisheries?**

\*They are used to frame uses and practices in a targeted geographical area, particularly the use of natural resources.





# SUBJECTS OF STUDY

## The fisheries social-ecological systems\*:

- SES associated with reef resources (fish, invertebrates, etc.), the associated habitats (coral reefs, seagrass beds, mangroves, etc.) and interfaces: **mainly artisanal fishing and also small-scale and inshore fishing.**
- SES associated with large pelagic resources like tuna and bycatch species groups and coastal and offshore habitats: **offshore, small-scale and industrial fishing.**

\*A social-ecological system is an interconnected system in which human societies and ecological environments interact and influence each other.

# SPREAD ACROSS 6 STUDY SITES

1. SWIO regional site

2. The Comoros and their 4 marine protected areas

Glorieuses

3. Mayotte and its Marine Nature Park

Juan de Nova

Tromelin

4. Réunion Island

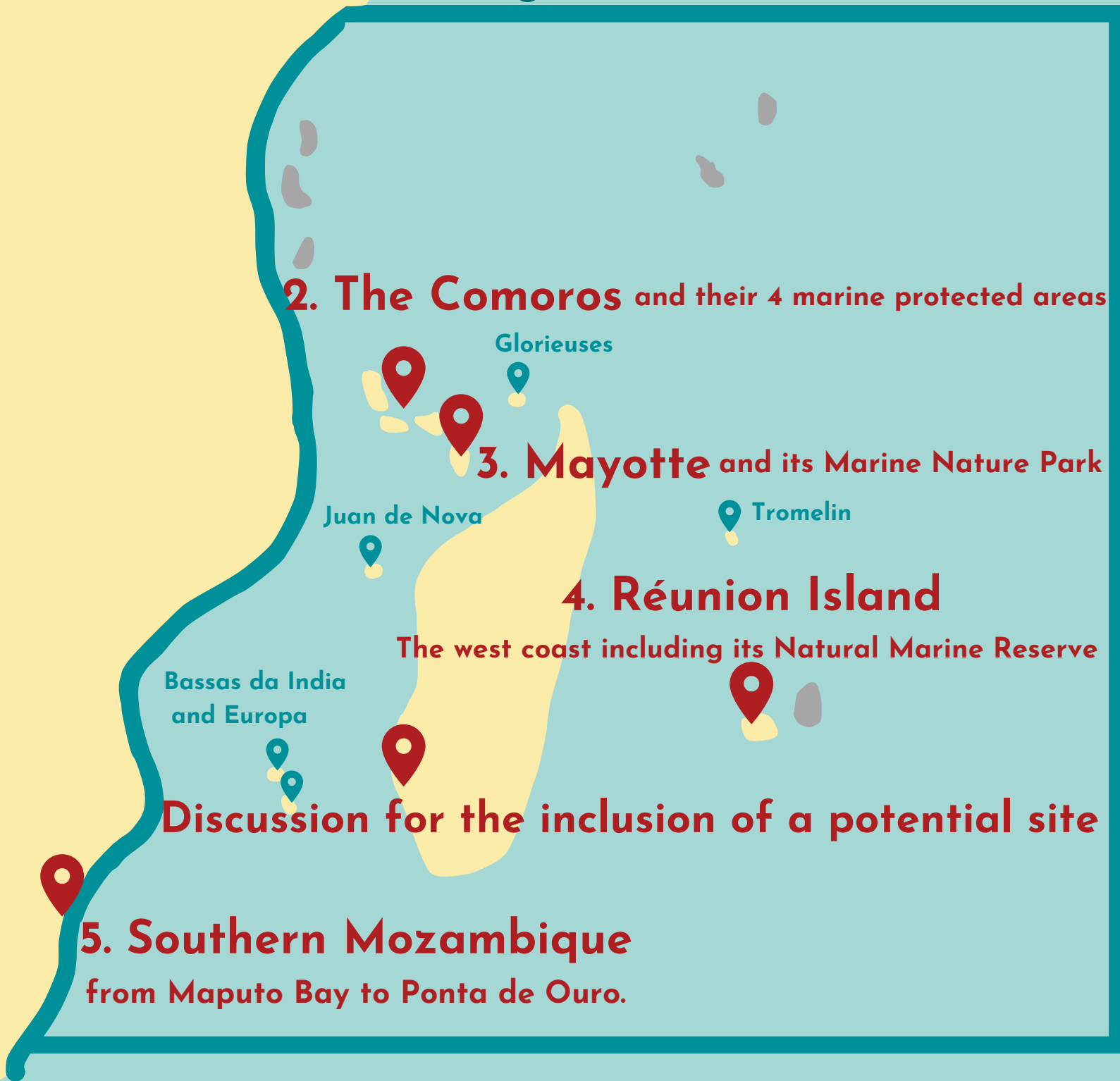
The west coast including its Natural Marine Reserve

Bassas da India  
and Europa

Discussion for the inclusion of a potential site

5. Southern Mozambique

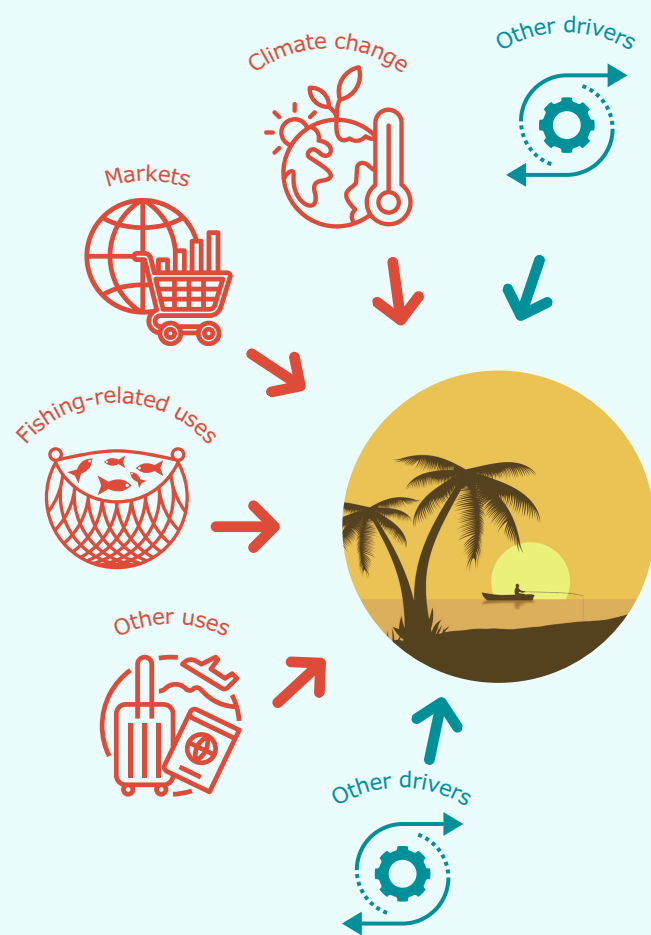
from Maputo Bay to Ponta de Ouro.



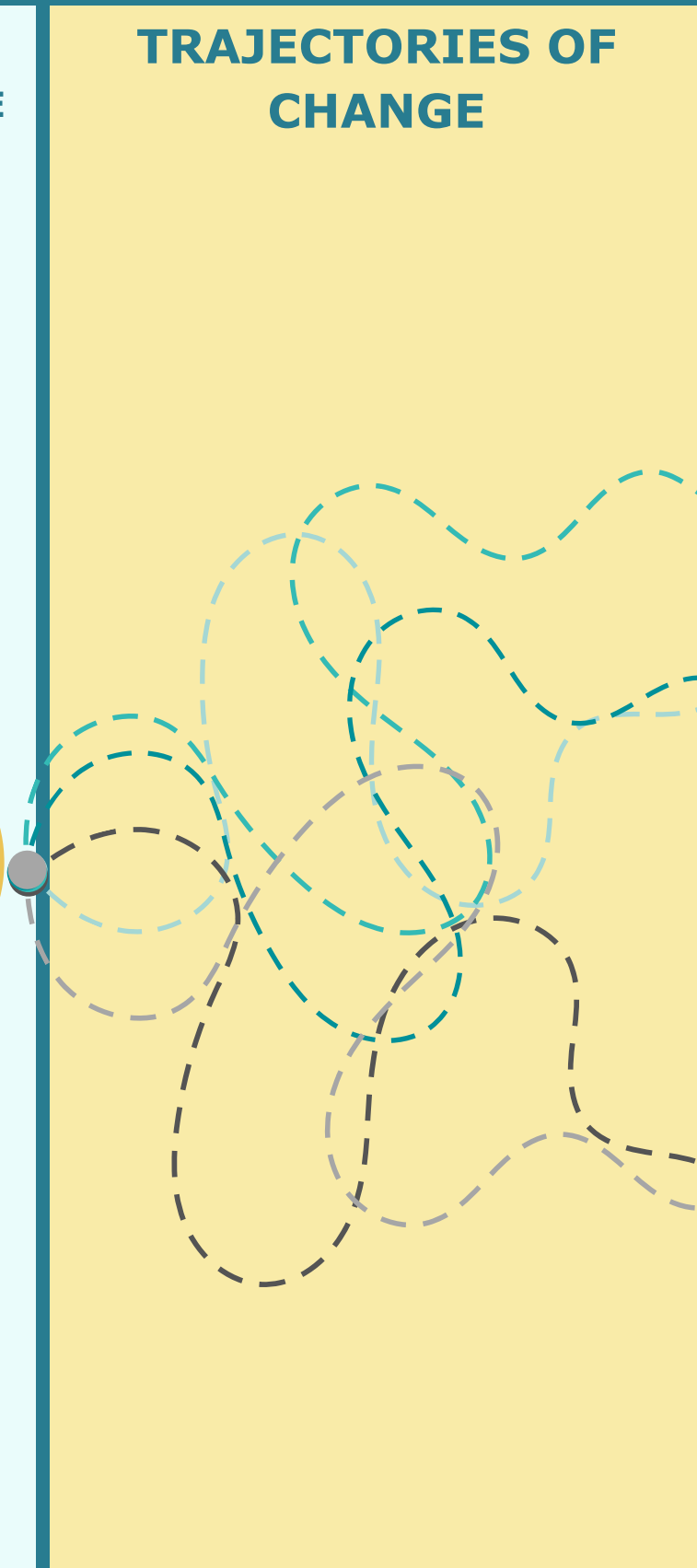
# SUPPORT THE TRANSFORMATION OF SOCIAL- ECOLOGICAL SYSTEMS

## INITIAL STATE OF THE COASTAL AND MARINE SOCIAL-ECOLOGICAL SYSTEM

AND ITS DIRECT AND INDIRECT DRIVERS



## TRAJECTORIES OF CHANGE



## TRANSFORMATIONS OF THE SOCIAL-ECOLOGICAL SYSTEM



# INTERCONNECTED TARGETED SCIENTIFIC PROJECTS



## **IMPACT**

Contribute to understanding, monitoring and amplifying socio-ecosystem transformations and their processes.

Maximise the impact of BRIDGES research.



## **CO-CONSTRUCTION**

Identify the stakeholders, tensions and power issues involved in the management of the social-ecological systems studied, in order to propose mechanisms for the co-construction of sustainable and equitable transformations.

Promote knowledge sharing.



## **RESILIENCE**

Understand the dynamics of social-ecological systems and their resilience in the face of global changes.

Seek solutions through the development and testing of intervention portfolios.



## **AVATAR**

Develop and implement digital avatars (models) of social-ecological systems to explore likely trajectories in the context of global changes.



## **INFORMATION**

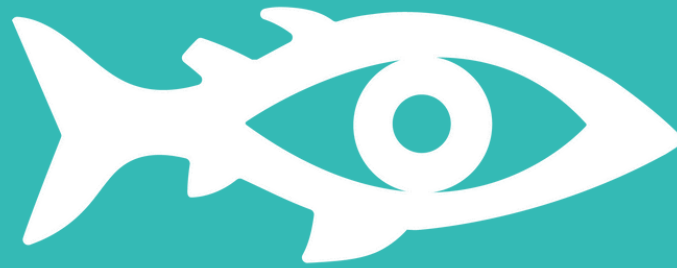
Identify, catalogue, organise and provide access to existing data on the region.  
Develop an information system.



## **OBSERVATION**

Define and implement an ideal long-term, interdisciplinary, multi-scale, spatio-temporal observatory.





# LEARN MORE ABOUT BRIDGES:



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