

Listen to the ocean

Coral Communities: Building Socio-Ecological Resilience to Coral Reef Degradation in the Islands of the Western Indian Ocean

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Coral Communities – who are we?

- 9 month Global Challenges Research Fund funded project (NERC, ESRC, AHRC)
- Interdisciplinary partnership between:
 - Academic partners (PML, UoE and Cardiff University)
 - NGO partners (Reef Conservation Mauritius, Islamic Foundation for Ecology and Environmental Science (IFEES) and Mwambao Coastal Communities Network)
 - Independent development consultant (Indeva Consulting)
 - A creative art and film-making team (freelance designer and Truro College)



Coral Communities – why?

- Millions dependent upon coral reefs for essential ecosystem services.
- Coral reefs contribute significantly to national economies
- Reefs in decline
- Response - improve resilience
 - Of reefs
 - Of dependent communities

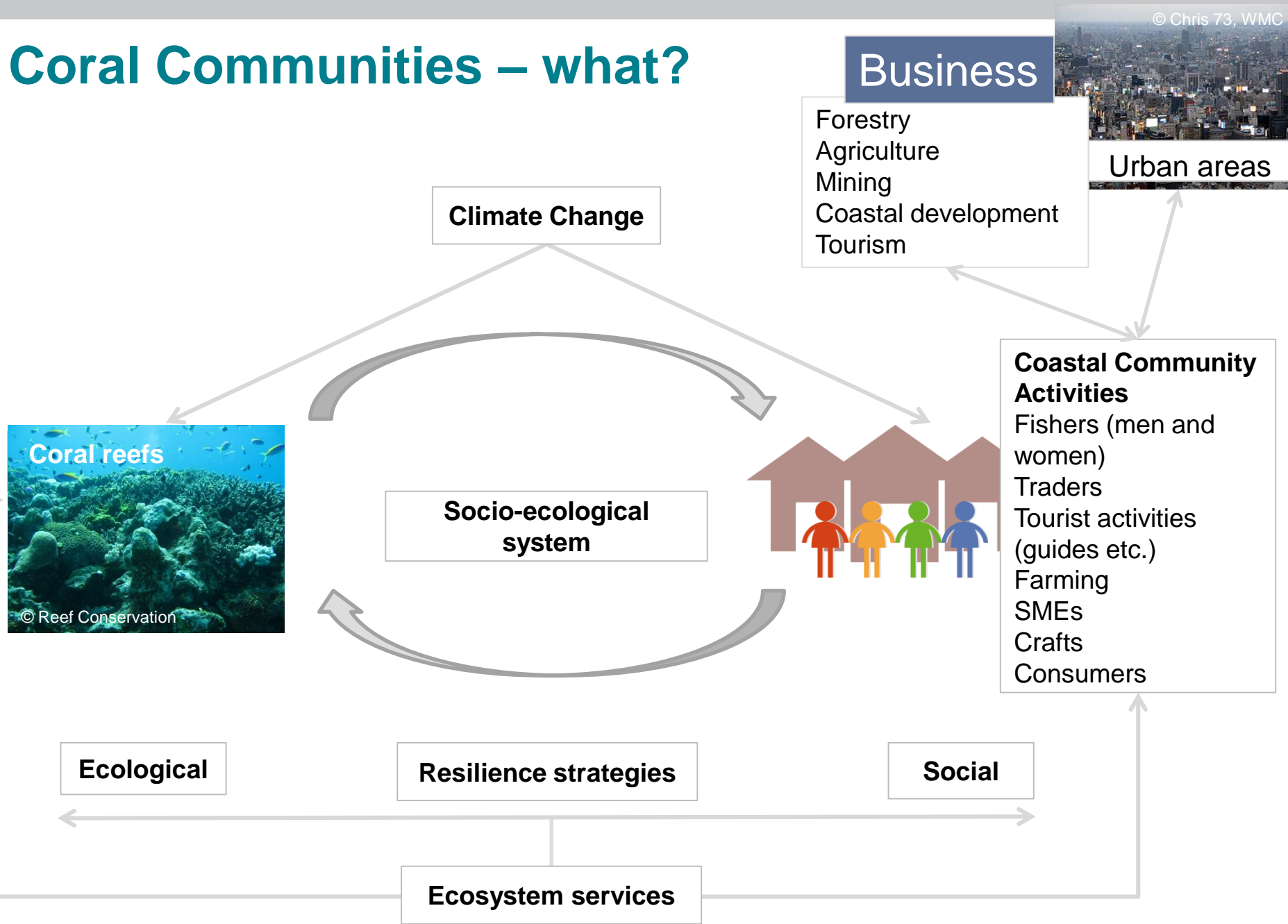
Aim: draw together a network of UK-WIO collaborators to address evidence gaps and support the development of resilience strategies across the WIO

Coral Communities – what?

- Literature review
 - What strategies and how successful?
 - Links to ecosystem services
- Stakeholder workshop (Mauritius)
 - Additional evidence
 - Refinement of strategies
- Develop and pilot visual method for assessing resilience strategies
- Stakeholder workshop (UK)
 - Bringing together findings
 - Possibilities for future



Coral Communities – what?



Which resilience strategies?

Reef recovery:
e.g. Coral gardening/
transplanting

MPAs
including
VMCAs

Financing mechanisms
e.g. PES,
REDD+, Blue
bonds, debt for
nature swaps

Fisheries management:
Effort reduction
Gear changes (e.g.
selectivity)
New Technology
(e.g. fish
aggregating
devices)

Alternative livelihoods:
Seaweed culture
Mariculture
Eco-tourism
Crafts
etc.

Community development initiatives:
Technology (e.g.
solar, food etc.)
Microfinance
Health (e.g. female
repro, general
health)
Education (e.g.
environmental and
general)

**Ecosystem
based
management**

Certification schemes
e.g. MSC,
Fisheries
Improvement
projects (FIPs)

Property rights
e.g. Territorial use rights
in fisheries (TURFs)

**Water quality
management**



Lit review – example findings

- Strategy: microfinance
- Assumption: credit helps individuals respond to change
- Impacts on coral reef ES:
 - fishing pressure ↑ inc. destructive gears
 - reef resources ↓
- Impacts on coastal communities:
 - Support during hard times, access to markets
 - Fishers tied to middlemen
- Implications for resilience
 - Ecological: loss of ecological function = reefs less resilient
 - Social: buffers income but discourages diversification
 - Need for micro-credit to be linked to sustainable fishing practices (e.g. “Green micro-finance”)

Workshop

- Gather evidence of resilience strategies
- Lessons learnt about strategies already used
- Test visual method – with coastal communities and workshop participants
- ‘How to’ film on visual method
- Participants:
 - NGOs from Zanzibar, Madagascar, Seychelles, Rodrigues, Kenya. Comoros
 - NGOs, academics and government reps from Mauritius
- When: 8th May



Visual Method

- What?
 - Photographic exchange
 - Trail around the landscape
 - Creation of mini coast-scapes
 - Participatory film
- Why?
 - Based on co-production
 - Invites questions and communication
 - Supports alternative learning styles
 - Resilience is complex - help emergence of underlying issues and risks associated with resilience strategies
- Tested in Mauritius and Zanzibar

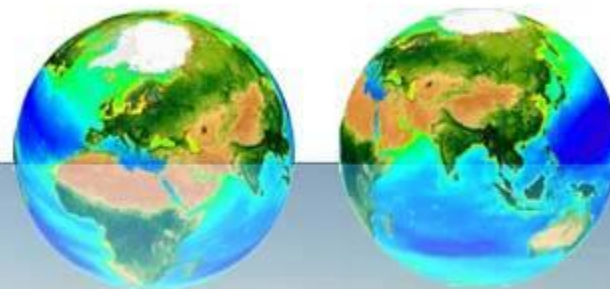


Key outputs

- Review of resilience strategies
 - Non-technical report (report cards?)
 - Peer reviewed article
- Pilot of visual methods focusing on issues of relevance to NGO partners
 - Non-technical report
- Visual methods toolkit
 - Including 'how to' film
 - Information on participatory video
- Gap analysis
 - Research/information needs
 - Opportunities for UK-WIO collaborations



Thank you



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#coralcommunities

http://www.pml.ac.uk/Research/Projects/Coral_Communities