Coral Communities Resilience Report Cards

The Coral Communities project engaged with stakeholders from across the Western Indian Ocean (WIO) and from the UK to discuss the concept of resilience and the strategies used in practice to help build social and ecological resilience in coastal locations. The Coral Communities team also undertook a review of the (English language) literature to assess the evidence available on the social and ecological implications of 14 strategies that have been used in the WIO region to help build both social and ecological resilience to the drivers of coral reef decline. These strategies include:

• Environmental education
• Ethics, faith-based and customary practices
• Population, reproductive health and environment
• Alternative livelihoods
• Micro-finance
• Payments for ecosystem services (PES)
• Eco-labelling of fish and fish products
• Fisheries management: fishing gear and effort restrictions
• Fisheries management: fish aggregating devices (FADs)
• Fisheries management: community-based management of small-scale fisheries
• Post-harvest improvements in fisheries
• Marine protected areas (MPAs)
• Mangrove restoration
• Coral reef restoration

As a result of these activities, summary report cards have been created for each of the strategies. These have been written with a practitioner or non-academic audience in mind. The report cards provide a brief introduction to the different strategies and the assumptions for resilience that underpin them. They provide information about the social and ecological impacts that have been documented or suggested for each strategy and the implications arising from these impacts for resilience. A case study has been included in each report illustrating how the strategies have been applied in the WIO region. The sources of information used to create the report cards, plus some additional reading are provided. Where possible open access resources are included.

Building on the discussions held with stakeholders and for the purposes of these report cards, resilience is described as the ability of communities or ecosystems to bounce back, adapt, resist or recover from any kind of pressures but not necessarily to the same state. Stakeholders noted that the word "resilience" was rarely employed in outreach activities however the concept was fundamental to marine management and development activities.

There was recognition by stakeholders that resilience strategies should encompass the whole socio-ecological system and not just components of the system. The split between social and ecological resilience is therefore artificial, but when reviewing the literature it became a useful way to examine how some strategies could lead to unintended consequences. There are often tensions and conflicts between social and environmental objectives.

For many strategies and case studies, evidence is lacking and it has not always been possible to say categorically whether the strategy (or even the individual case study) has successfully built social or ecological resilience. Furthermore, in many cases, single strategies are not applied on their own, but form part of a programme of efforts introduced to build social and ecological resilience. The report cards are therefore illustrative, but will hopefully stimulate thought about activities employed to build the resilience of coastal communities facing social and ecological change.