



Best Practices in Coral Reef Management



Checklist 1 Project Design

- 1.1 Identify possible challenges that may arise during the implementation of CRM and create anticipatory frameworks and strategies to meet them.
- 1.2 Use participatory processes during the design phase, make sure the project makes sense in a local context, and select appropriate agencies and levels of expertise to carry out activities.
- 1.3 Ensure capacity is available before proposing the project and in place at inception and make contingencies for the project to adapt and respond to changes in political/economic/administrative contexts or natural disasters.
- 1.4 Ensure flexibility in timelines to reflect contingencies such as delayed delivery of funds, equipment, or infrastructure.
- 1.5 Make institutional arrangements for sustaining the project and/or activities after the initial source of funds has been exhausted.
- 1.6 Include peer review and data management from the design phase throughout the project.
- 1.7 Use small-scale, pilot, and demonstration projects to test feasibility before attempting large, complex projects.
- 1.8 Ensure projects are marketable not only to donors but to stakeholders and government also.
- 1.9 Create regional mentoring programs, peer networks, attachments and exchanges to support and accelerate development of operational capacity.
- 1.10 Create expert advisory groups to support development of capacity and program management but clearly define their roles to avoid issues of control of project management.



Best Practices in Coral Reef Management

✓ Checklist 2 Project Management

- 2.1 Establish clear roles and responsibilities for each component of the project including the advisory committees.
- 2.2 Establish all partner agreements prior to implementation.
- 2.3 Explore and test sustainable financing mechanisms before the start of the project.
- 2.4 Conduct frequent assessments to allow for flexibility and rigorous monitoring of progress, but do not allow assessment to detract from implementation of project activities.
- 2.5 Create and utilize effective indicators of progress to allow for objective evaluations.
- 2.6 Avoid reporting that detracts from project core activities, such as to multiple donors that require different formats which may exact management costs.
- 2.7 Where appropriate, include IT tools and GIS as useful methods for integrating multiple factors and agencies.
- 2.8 Engage municipal/local governments, non-governmental organizations and the private sector to achieve effective implementation.
- 2.9 Continually assess partnerships and rationalize project objectives to align with national and regional priorities.
- 2.10 Give adequate time to evaluate projects especially large, complex and regional projects.
- 2.11 Commission external peer reviews of reports to increase the profile, transparency and respect for the project.





Best Practices in Coral Reef Management

✓ Checklist 3

Community Participation

- 3.1 Translate the goals and objectives of the project such that they are understandable to the target audiences and the community context.
- 3.2 Create a forum for stakeholder interaction, query, and debate to provide opportunities for collaboration and mediation within the context of social interactions and conflicts.
- 3.3 Involve marginalised user groups (gender and ethnic equality) and functional community leaders to promote good will, improve project management, and ensure equitable distribution of benefits.
- 3.4 Explore bottom-up and co-management approaches, recognising that varying management structures and strategies improves project outcomes.



Partnerships & Linkages

- 3.5 Develop cross-sectoral linkages and multi-stakeholder collaboration and integration to build capacity, sustainability, and a more effective implementation approach, creating a more comprehensive project.
- 3.6 Evaluate costs and benefits of private sector involvement early in the development to assure buy-in and long-term engagement.
- 3.7 Clearly identify and communicate economic and other incentives to maintain stakeholder interests and manage expectations.



Legislation & Enforcement

- 3.8 Identify the level of controversy around legal options and legislate the least controversial actions first. Where possible, have alternate options for persons whose livelihoods may be subsequently impacted.
- 3.9 Ensure clarity of boundaries or jurisdiction to prevent slow or impeded implementation of transboundary management.
- 3.10 Plan for cultural, geopolitical, and language differences where management involves multiple jurisdictions.
- 3.11 Laws, permits, zones, etc must be consistently enforced to build confidence and avoid disenfranchisement of users.

Zoning

- 3.12 Collect and integrate indigenous knowledge to avoid conflicts in zoning.
- 3.13 Use GIS and participatory mapping tools for zoning and rationalising roles and responsibilities among government organisations and other stakeholders.
- 3.14 Educate people about the zone boundaries and permitted uses, alongside training in ways to reduce human threats.



Best Practices in Coral Reef Management

Checklist 4 Coral Reef Monitoring

- 1 Identify the purpose of the data according to the end user or target audience.
- 2 Determine the acceptable level of change and the statistical power to detect it.
- 3 Monitor variables that will change on the timescale of management interventions (e.g., fish populations recover faster than coral cover).
- 4 Use methods that allow comparison with other findings and can be easily replicated.
- 5 Create appropriate data handling, analysis and storage systems before data collection begins.
- 6 Establish a baseline and control to assess the impact of activities.
- 7 Consider change in perceptions, attitudes and behaviour as important measures to monitor for determining success.
- 8 Adequately train and undertake trial runs before collecting data to familiarise observers with methods.
- 9 Use simple technologies where possible, but if high-tech equipment is needed, ensure service and spare parts are available.
- 10 Develop a system of double checking and create redundancy to find data errors early in the process.





Best Practices in Coral Reef Management



Checklist 5 Ecosystem-based Management of Coral Reefs

- 5.1 Address management of coral reefs through integrated and holistic management of related ecosystems and land uses.
- 5.2 Design management regimes to meet community goals and achieve greater compliance and subsequent conservation success.
- 5.3 Base local action plans on locally perceived threats/issues and sound data on local resource status.
- 5.4 Address all ecosystem components and processes to maintain the full range of ecological interactions, and to aim for resilience rather than for desired end-points.
- 5.5 Implement management at ecologically relevant scales such as watersheds, monitoring the status and trends of systems over long time periods and incorporate marine protected areas into management frameworks.
- 5.6 Provide fishing communities with accurate and realistic predictions of MPA benefits; avoid "overselling" MPAs on the basis that increased catches due to spillover and enhanced recruitment from spawning in the MPA will more than make up for lost fishing grounds, increased effort and higher costs of fishers displaced from the MPA.
- 5.7 Obtain comprehensive biological and biophysical datasets before designing MPA networks. If necessary, conduct research to determine critical spawning and nursery habitats, connectivity pathways, and resilience of habitats, ecosystems, and livelihoods.
- 5.8 Focus MPA management on the socioeconomic conditions and needs of communities. Incorporate formal workshops, participatory training exercises and community development to build trust and achieve stewardship of the MPA planning process.
- 5.9 Incorporate a range of fishery management tools and avoid reliance on MPAs only. Other methods of restricting catch and/or effort are valuable, do not displace fishers, and may cause fewer conflicts between fishers and other reef resource users.
- 5.10 Conduct annual underwater monitoring of fish stocks to detect inter-annual change in fish stocks.
- 5.11 Integrate issues of sedimentation and sediment re-suspension into coastal reef protection, or further declines in resources will continue to occur.
- 5.12 Monitor restoration projects to learn from past mistakes. Without monitoring, you can evaluate neither the success nor cost effectiveness of restoration, nor carry out adaptive management if needed.
- 5.13 Set up and monitor a few comparable "control" areas where no active restoration has been attempted. These provide a clear baseline against which you can evaluate the cost-effectiveness of your restoration interventions.
- 5.14 Determine how much monitoring can be feasibly undertaken (in terms of both detail and frequency).



gefll.reefbase.org



www.reefbase.org

This project has been funded by the Global Environment Facility (GEF) and the United Nations Environment Programme (UNEP),



and is carried out in partnership with International Waters Learning Exchange and Resource Network (IW:Learn), The Nature Conservancy (TNC), World Wildlife Fund (WWF), Conservation International (CI), Reef Check, International Coral Reef Action Network (ICRAN), Global Coral Reef Monitoring Network (GCRMN), National Oceanic and Atmospheric Administration (NOAA).



For further information:

Dr. Mark Tupper
m.tupper@cgiar.org

ReefBase Project
The WorldFish Center
PO Box 500 GPO
10670 Penang, Malaysia
reefbase@cgiar.org