

Environmental and fisheries science has now pinpointed many of the problems facing the coastal zone and identified the interventions most likely to remedy them. For example, restoration of over-exploited fish stocks requires removal of excess fishing capacity, declaration of marine protected areas and, for some species, restocking with cultured juveniles; maintaining the supply of seafood while stocks recover will be assisted by development of sustainable aquaculture; and arresting the degradation of coral reefs and nursery habitats will depend on reducing sediment and nutrient loads from agriculture and forestry, and abolition of destructive fishing methods.

The major challenge associated with restoring inshore habitats and improving the productivity of coastal fisheries is no longer “what to do”, but “how to do it”. Integrated coastal zone management training programs, and public awareness campaigns, have been a great help in this regard – many managers, planners and policy makers now understand the problems facing our coasts, and how to correct them. Nevertheless, serious hurdles remain to reversing degradation of the coastal zone and increasing the productivity of fisheries resources in the developing world. Chief among these are the establishment of property rights and identifying the appropriate scale for governance.

Where fisheries are heavily over-exploited there is little hope of restoration without managing access to these resources. Groups of fishers will be more willing to accept the costs and investments needed to rebuild stocks to more productive levels if the future benefits are allocated to them rather than dissipated among unlimited entrants to the fishery. Otherwise, the well-known “tragedy of the common” will prevail.

Governing the allocation of fisheries resources should not be done just to suit existing institutional arrangements or provincial boundaries: it should match the stock structure of the fishery. Where stocks are comprised of multiple small units, as appears to be the case for several inshore species, effective governance is possible when local communities and stakeholders are involved and participate actively with government in managing the resource.

The article by Krunchmann in this issue reports the concerted effort made by many partners in Western Sumatra to raise awareness of the degraded status of coastal ecosystems in the province. Their initiatives to implement MPAs, and to encourage appropriate aquaculture and eco-tourism to provide alternatives to destructive fishing practices, are to be applauded. The article finishes with a salutary caution, however. The well thought-out measures for improved management have recently lost momentum due to changes in key positions within the agencies responsible for implementing the interventions. The lesson is clear – for improved coastal management to yield the desired results, participants at all levels must remain engaged with the goals of the long-term measures needed for effective reform.

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Why Naga?

The Naga is an underwater creature from Asian mythology. Superior to humans, it inhabits sub-aquatic paradises, living at the bottom of rivers, lakes and seas in resplendent palaces studded with gems and pearls. It is the keeper of the life-energy that is stored in the waters of springs, wells and ponds. It is also the guardian of the riches of the seas – corals, shells and pearls. Naga represents the very focus of ICLARM - The World Fish Center, namely protecting the wealth and productivity of tropical waters.



Cover photo by A. Kunzmann: Diver of the joint Indonesian-German Monitoring team performing a line-intercept-transect at one of the reefs of the Padang Islands.