



Post Tsunami reconstruction in Sri Lanka: case example of multi-hazard risk based coastal planning

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Coastal regions will always be focal points for society's uses, including for commerce, tourism, recreation, housing, fishing, and many others. Unfortunately not only do multiple geological and atmospheric hazards tend to occur in such regions; virtually all occur in the same places and exacerbate the effects of each other, thus increasing the risk of repetitive loss from all hazards. This exposure is the fundamental reason it is important to use science-based criteria when making decisions impacting coastal regions.

The recovery process from the 2004 tsunami has generated awareness of the need for an integrated approach to decision making in the coastal hazard zone. The Sri Lanka participatory coastal management program which has been developed to guide recovery from the 2004 tsunami is a scientifically based planning framework to guide land use decision making in the coastal zone to:

- Minimize risk to people
- Minimize risk to buildings and infrastructure
- Minimize risk to natural ecosystems

Integrated coastal management balances disparate and seemingly conflicting requirements. The Sri Lanka Disaster Management Act, certified in May, 2005, provides a

framework for multi hazard disaster risk management which is leading to a policy shift from a primarily response based approach to a proactive approach of disaster risk management. Two of the key reforms suggested under the Disaster Management Act:

1. A Systematic Multi-hazard Mapping and Disaster Risk Assessment.

Conduct risk assessment and decide on priority areas for risk management based on criteria such as frequency of events, multiple exposures; importance of the sector and others

2. Systems for Integrating Disaster Risk Concerns in Development

Develop specific mechanisms to incorporate disaster risk reduction in the planning processes

The integrated approach developed for four prototype communities in Sri Lanka consists of five primary phases:

Part I: Hazard Identification and Characterization

Part II: Vulnerability Assessment

Includes land use and infrastructure as well as analysis of institutional factors impacting vulnerability, and identifies priorities of stakeholders

Part III: Risk determination (correlation of the hazard with vulnerability)

Part IV: Mitigation Strategies

Alternative strategies are proposed and cost benefit analysis is conducted to assist stakeholders and decision makers to evaluate programs in relation to social, economic and environmental priorities.

Part V: Preparedness and Education