CONCEPT NOTE

Regional Technical Workshop

Coastal protection in the aftermath of the Indian Ocean tsunami: what role for forests and trees?

Khao Lak, Thailand
28-31 August 2006

Background

The Indian Ocean tsunami of December 2004, which killed over 200,000 people and damaged livelihoods and coastal resources in 14 Asian and African countries, highlighted the need for protection and sound management of coastal environments. The role of mangroves and other forests and trees as protective barriers received considerable attention after the tsunami. Observations and anecdotal reports indicated that intact and extensive areas of coastal forests reduced the loss of life and resources from the tsunami.

Although much of the coast of Asian countries was once covered by forests, significant areas have been cleared over the past few decades for, *inter alia*, urban expansion and the development of aquaculture, tourism and agriculture. As a consequence, large tracts of shoreline have been left without or with only limited coastal vegetation. This has deprived coastal communities of a first line of defence against coastal storms and erosion as well as of other forest benefits, including, among other things, wood and non-wood products and, in the case of mangroves, spawning grounds for fish and shellfish. There have been recent efforts to conserve coastal ecosystems in a number of Asian countries, but policies and laws have often been weakly implemented.

In addressing their rehabilitation and reconstruction needs after the tsunami, several countries have called for restoration of coastal forests to increase protection of the coastal areas. However, the capacity of mangroves and other coastal forests and trees to dissipate the energy of waves and wind depends on a number of variables, and their role in providing coastal protection is still poorly understood.

A rigorous assessment of the protective roles of coastal forests and trees would provide valuable information for effective coastal forest rehabilitation and management. The need for scientific studies on this matter has been highlighted in several recent meetings, including the Ramsar World Wetlands Day Forum on 'Natural Mitigation of Natural Disaster', held in Gland, Switzerland on 2 February 2005 and the FAO-supported "Regional Coordination Workshop on Rehabilitation of Tsunami-Affected Forest Ecosystems: Strategies and New Directions", held in Bangkok on 7-8 March 2005. Increased understanding of the vulnerability of coastal areas to various types of natural coastal hazards and the extent to which forests and trees can provide protection against those hazards could contribute to improved coastal area management and post-tsunami rehabilitation and reconstruction efforts.

The FAO Regional Office for Asia and the Pacific plans to convene a four-day regional technical workshop on the protective functions of forests. This activity will be

undertaken thanks to the generous contribution of the Government of Finland, through the FAO-supported project OSRO/GLO/502/FIN "Forestry Programme for Early Rehabilitation in Asian Tsunami Affected Countries". The workshop will bring together the best available expertise and knowledge on the role of coastal forests, trees and shrubs in protecting against the most common and destructive natural hazards affecting coastal areas of Asia, including cyclones, tsunamis, salt spray and coastal erosion. The workshop aims to provide scientifically based information of use to coastal planners and managers developing disaster mitigation measures and to forestry agencies implementing coastal reforestation and forest rehabilitation programmes.

Goal and objectives of the workshop

The overall goal of the workshop is to contribute to improved coastal area planning and forest management by increasing knowledge and understanding of the effectiveness and value of forests and trees (also including shrubs) in protecting coastal populations and assets from natural hazards and processes threatening Asian coastal areas.

Specific objectives are:

- To assess the effectiveness of coastal forests and trees in protecting populations and resources from various types of natural hazards in Asia.
- To increase understanding of the effectiveness and value of coastal forests and trees relative to other forms of coastal protection, e.g., hard (engineering) structures, sand dunes and other coastal vegetation in the region.
- To identify the variables that will determine the potential effectiveness of forests and trees in providing coastal protection

Expected outputs

The expected outputs of the workshop and pre-workshop activities are as follows:

- scientific papers on the protective roles of coastal forests and trees in Asia
- assessment of the status of scientific knowledge on the protective functions of coastal forests and trees
- an annotated bibliography on the role of forests and trees in coastal protection.
- a set of recommendations of actions that could be taken at national and international level to improve knowledge and access to information on means to improve coastal protection through forest conservation, rehabilitation and management
- a diagnostic tool that identifies the variables needed to assess the protective function of forests/trees (including variables related to the type and nature of the hazard, features of the site, and characteristics of the forest/trees).

Partners and participants

The workshop will seek to tap into the best existing knowledge and sources of expertise and to build upon recent initiatives in this area, including recently held workshops related to the topic.

Workshop participants will include Government representatives from Asian countries, including from forestry and land use planning departments and research institutions. The eight Asian tsunami-affected countries, whose tsunami rehabilitation programmes can directly benefit from the workshop are particularly encouraged to participate, but the workshop will be open to all Asian countries.


International and regional organizations and non governmental organizations involved in coastal land management, coastal forestry and related research will be invited to attend to contribute their expertise and to help lay the groundwork for future collaboration and action.

FAO is seeking partners interested in collaborating in the organization and contributing to the sponsorship of the workshop.

Venue and timing

The venue of the workshop is Khao Lak, Thailand. The dates are 28-31 August 2006.

Contact persons

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