

# Green Coast

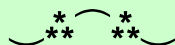
For **nature** and **people**  
after the tsunami

## POST TSUNAMI ENVIRONMENTAL CHALLENGES: A POLICY PERSPECTIVE

15<sup>th</sup> June 2007, Chennai, India



## POLICY WORKSHOP REPORT



## **BACKGROUND**

Sound coastal area planning and fisheries management are key factors influencing the success and sustainability of rehabilitation and reconstruction in areas affected by the 2004 Indian Ocean tsunami. In many places, unsustainable land management practices had degraded lands and vegetation prior to the tsunami and to “build back better”, improved land and resource management systems are required. This is something that can only be achieved through analysis, consultation and a policy process that involves all relevant stakeholders. Such processes also facilitate rationalization of policy and eradication of conflict and overlap.

As post-tsunami reconstruction and rehabilitation picks up pace, it is imperative that environmental aspects of this issue should not be ignored. In the past two years, many goals have been achieved, while some challenges are being tackled in the reconstruction and rehabilitation effort, one largely neglected area is ensuring the use of environmentally friendly practices by various stakeholders during the relief, reconstruction and rehabilitation phases. The need is to promote an exchange of ideas on best practice and policy reform amongst and between the various sectors involved including environment, livelihoods, housing, water and sanitation.

## **MAINSTREAMING ENVIRONMENTAL SUSTAINABILITY**

Soon after the tsunami, some agencies undertook Rapid Environmental Assessments (REA) of the damages. Environmental sensitive guidelines were also developed in the hope that their implementation would yield a sustainable rehabilitation of the affected. However, in the rush to achieve project goals, environmental concerns were marginalized. Consequently, environmental sustainability is yet to be integrated into the mainstream tsunami response so that the long term well-being of local communities, who are dependant on and affected by local environmental conditions, is not compromised.

The majority of the available information indicates that environment related issues arising out of the post-tsunami reconstruction and rehabilitation projects had largely remained unaddressed, the response was not systematic and the on-ground implementation of these standards was poor. In the majority of cases, no Environmental Assessment (EA) seemed to have been undertaken. Environmental considerations were added on quite late during the construction processes and were often not adequately followed up.

It was acknowledged that the limited knowledge and technical know-how on possible environmental damages and their links with livelihoods on the part of donors and implementing agencies could be a reason for these lapses. The poor enforcement of national environmental standards by relevant government agencies along with the pressure to complete the permanent shelters as soon as possible were cited as reasons for environment being sidelined during tsunami reconstruction.

Environmental considerations also need to be examined in the light of the planned and ongoing actions and policies related to coastal defences, fisheries and livelihoods as well as CRZ management guidelines. It is important for the agencies and sectors involve

in these areas to share knowledge and build a common understanding on these issues as implementation proceeds.

### **ABOUT THE WORKSHOP...**

The workshop held on the 15<sup>th</sup> of June 2007 and hosted by WWF on behalf of Green Coast had participants from NGOs like Citizen consumer and civic Action Group [CAG], Tamil Nadu Tsunami Rehabilitation Centre, Dhan Foundation, Ashoka Trust for Research in Ecology and the Environment, Foundation for Ecological Research Advocacy and Learning [FERAL], and Plant Trust as well as representatives of the UN, UNDP, FAO/UNTRS, BOBP along with officials from the PMU and the Director of the Dept of Environment.

This was an effort to bring together representatives from various sectors involved in the post tsunami relief, rehabilitation and reconstruction phases. The focus of the meeting was to discuss **policy implications** related to the coastal environment and community livelihoods and to highlight and discuss key policy issues with the government.

The immense knowledge gained in the post tsunami scenario also needed to be shared in order to enable stakeholders to work together to better face the environmental challenges that arise as project implementations continue and policy decisions are made. Therefore the workshop was organised with following objectives and agenda.

#### **Workshop Objectives**

- ▶ Share findings related to environment and policy issues in critical areas such as coastal defences, fisheries, livelihoods and reconstruction
- ▶ Provide a platform for promoting and exchanging ideas amongst various sectors on post-tsunami environmental challenges
- ▶ Identify areas for future collaboration and information exchange on environmental and sustainable development of coastal areas.

#### **Workshop Agenda**

- ▶ Overview of key policy issues and findings based on the Green Coast Project analysis
- ▶ Presentation on CRZ issues, policies and guidelines followed by a facilitated discussion (ATREE)
- ▶ Presentation on environmental and social issues related to coastal defences/shelterbelts followed by a facilitated discussion (FERAL)
- ▶ Presentation on environmental and social issues related to fisheries/livelihoods followed by a facilitated discussion (FAO)
- ▶ Presentation on environmental and social issues related to post-tsunami reconstructions followed by a facilitated discussion (CAG)
- ▶ Summing up and Next Steps

The workshop helped to share knowledge, exchange ideas and build a common platform among the various participants. Assessment / Fact-findings were individually presented

through ppt by each of the participating organization that had attended the Policy Workshop on 15<sup>th</sup> June.

## Highlights of the presentations

### [1] Post Tsunami Environmental Challenges: A Policy Perspective by WWF India

Various strategies were drawn up and implemented:

- ▶ Adaptation of work undertaken in other tsunami-affected countries (e.g. Green Reconstruction Guidelines)
- ▶ Major sectors for policy focus in the first phase were identified based on discussion and dialogue with key stakeholders and opportunities/partners
  - 1] Shelterbelts/coastal defences
  - 2] Fisheries/livelihoods
  - 3] Reconstruction
- ▶ Desktop analysis and field studies to provide background information for identifying key policy issues in these sectors
- ▶ “Road shows” to share and validate findings with local communities, administration, NGOs
- ▶ Linkages with SGF supported projects to feed back into policy analysis

Community Feedback from Road shows brought out several points for further action:

- ▶ Reduction in fish catches due to the use of inappropriate fishing gear
- ▶ Due to the non availability of investments fishermen are not using the FRB boats. Therefore FRB boats never replaced catamarans
- ▶ No direct correlation between post tsunami rehabilitation and reduction in the fish resources. There are other reasons for degradation of fishery resources, which have been known and evident for a long time
- ▶ No rehabilitation work was comprehensive. It is not correct to say that the fishermen are supported excessively as part of tsunami rehabilitation
- ▶ Many communities do not welcome dense planting of casuarina on beaches but would like alternative ideas for effective bio-shields.

Recommendations through community participation:

- ▶ More consultation with communities needed on site/species selection, tenure, etc.
- ▶ Building design should take into consideration requirements of children, physically challenged and the elderly.
- ▶ Joint monitoring committee including community members, PRIs, local NGOs to be empowered to monitor tsunami rehab activities.
- ▶ Total prohibition of coastal sand mining should be put in place.
- ▶ Fishing ranges need strict protection from foreign fishing vessels.
- ▶ Setting up of a separate department/ministry for fisheries to address the needs of fishing communities
- ▶ Certain coastal stretches need to be demarcated for the exclusive use of fishing communities (protect from erosion, mining, port development, tourism)

- ▶ Committee made up of fishermen to be set up for monitoring effluent/sewage discharge into sea

## **[2] Post Tsunami Environmental and Social issues in Fisheries: by **FAO/UNTRS****

Several milestones achieved and at the same time glaring loopholes emerged during the post tsunami rehab. programme. To highlight a few are:

- ▶ Forced fishing holidays during the rehabilitation period of approx. six months (upto June 2005) proved to have resulted in good catches immediately after, but this phase did not last long. The catches came back to normal by 2006.
- ▶ Most of the Post tsunami interventions were stand alone interventions without adequate forward and backward linkages
  - Resources , skills and capacity
  - Market
  - Credit access
- ▶ Post tsunami investment from World bank and ADB also allocated for fishing harbor improvement and landing centre improvement
- ▶ Govt. takes the stand that it is more for increasing the quality and thereby returns from Fishing rather than creating base for new crafts.
- ▶ Limitations in Marine Fishing Regulation Act (MFRA):
  - Top down regulations than stake holder consensus and logic based
  - More theoretical than practical
  - No holistic education on MFRA
  - Enforcement through policing rather than through participatory and self regulatory
  - Dept. of Fisheries has inadequate personnel for community reach-out.
- ▶ Community based management to be built up into Co- management
- ▶ Some positive direction in the SIFFS initiatives in Allapad and Nagapttinam with FAO/UNTRS support
- ▶ Study on fleet reduction possibilities in Palk bay area
- ▶ New initiative in Cudallore and Villupuram through FERAL local NGOs and Govt.
- ▶ Initiating project in Tamil Nadu and Pondicherry with World bank support and FAO facilitation,

## **[3] Environmental and social issues related to post-tsunami Reconstruction: by **Citizen Consumer and Civic Action group (CAG)****

CAG's focus was to provide housing and infrastructure. Findings are preliminary in nature – detailed assessments ongoing.

### **Hurdles:**

- ▶ Rising prices of raw materials (e.g. bricks) is the immediate impediment
- ▶ No criteria on the environmental aspect for selecting sites other than land availability

- ▶ Lack of understanding of coastal environment
- ▶ Groundwater withdrawal for water supply and shelter belts
- ▶ Faecal contamination
- ▶ Extraction within 200m (not permitted by CRZ)
- ▶ Increased waste generation – dumping in coastal waters
- ▶ No system of collection in village panchayats (local governing body)
- ▶ Number of houses increased exponentially
- ▶ Carrying capacities strained
- ▶ New coastal legislation regime
- ▶ Create unrest for evacuation
- ▶ Increased ecological costs
- ▶ Fatigue amongst donor/NGOs
- ▶ Many programmes coming to an end in 2007 — an uncertain future.

### **Recommendations**

- ▶ Mainstreaming environmental sustainability
- ▶ GO 172 induced complex issue needs to be addressed immediately in the context of coastal regulations
- ▶ EIA G.O to be enforced and env. checklist to be reviewed and expanded to be made holistic
- ▶ Infrastructure and sanitation critical for the short-term
- ▶ Developing and implementing holistic coastal planning approaches for habitations
- ▶ Site, settlement, building, and community spaces, settlement patterns & bio-engineering solutions to be looked at in totality
- ▶ An urgent need to develop strong understanding on drainage and sub soil water conditions for coastal regions and develop a set of measures for salinity control, flood control and drainage (In general and in particular for deltaic regions)
- ▶ Consolidation of resources and development of environmentally sustainable coastal zone management plans based on a clear land use policy for coastal regions
- ▶ Need for long-term approaches to empowering & prepare communities for future coastal ‘development threats’

### **[4] Coastal Regulation Issues and the Tsunami: by ATREE (Bangalore)**

Keeping in view the clause of **Coastal Regulations Zone (CRZ)** under the Environment Protection Act of 1986, ATREE recapitulated several findings that have led to issues and loopholes in implementing the CRZ. Before getting to details of the later, an overview of the CRZ clause was presented and subsequently post tsunami issues were presented.

### **Post tsunami issues**

#### **Issue of fishing rights:**

- ▶ The CRZ recognised fishing settlements and permitted certain rights for the same and is the only legislation that does so. However, no state government has implemented this spirit of the legislation by means of granting legal *pattas* to fishing communities. While it has protected the fishing community and their rights in many ways

this basic fundamental right recognised by the CRZ legislation was never actually implemented.

**Issue of reconstruction / rehabilitation:**

▶ The free zone of CRZ I was resisted by fishers in Tamil Nadu. Federation of Fishermen declared it as 'coast belongs to us'. The State Chief Minister conceded that housing would be allowed here, but there were no follow-up documentation.

**Issue of relocation:**

▶ Availability of suitable land for housing reconstruction and guidelines on the designing of housing is major problems; in most cases additional land or sites were required for housing.

▶ This resulted in some ex-situ sites (completely relocated) for reconstruction as well as villages being split into different locations. This, despite the fact that almost all communities feel that relocation will affect their livelihoods.

**Issue of built-up area:**

▶ The built up area of settlements exceed the pre-tsunami level.

▶ Spatial information on the habitat reconstruction, details of the extent of relocation and area of settlement reconstruction are not available.

▶ With the new norms in built-up area — reduced no. of dwelling units, covered area not exceeding 33 per cent of the plot size, overall height of construction not exceeding 9 meters and limit of construction up to 2 floors (ground floor plus one floor) — has led to overcrowding.

**Issue of groundwater:**

▶ Lack of guidelines and awareness material for NGOs on groundwater extraction has resulted in mechanical extraction of groundwater.

▶ Although areas beyond 200 mts the scale of water supply and reconstruction is considerable, it might have negative impact on the groundwater levels and quality in the long term.

▶ The type of water supply and extraction under the reconstruction in all areas of the CRZ is not known.

**Issue of Aquaculture:**

▶ Shrimp farms - one of the most common CRZ violations exist in stretches of the Coramandel coast. There is lack of procedures for selection of sites with a high number of conversions of agricultural land.

▶ Most of this establishment are unauthorised.

**Proposed Directions after Swaminathan Committee Report / Tsunami**

▶ CMZ, setback lines

▶ Problems not in the concept of setback lines but in Classification of zones.

▶ Large no of CRZ II Rural Areas to be moved into area of particular concern with emphasis on development activities

▶ 0-200 mts. No development zones in rural areas to be removed

▶ Lack of emphasis on access and rights of fisher folk

- ▶ Certain regression on protection to ecologically sensitive areas
- ▶ Management and regulation have to go together. Poor emphasis on regulations in new approach is problematic
- ▶ No reference to Ground Water

**[5] Environmental and Social issues related to coastal Defences/shelterbelts:  
by FERAL**

Presentation by FERAL touched upon the following points:

▶ **Threats to coastal areas:**

Natural	Anthropogenic
1. Beach erosion 2. Cyclones <ul style="list-style-type: none"> <li>▶ Wind Speeds</li> <li>▶ Surges</li> </ul> 3. Tsunamis	1. Beach erosion 2. Ground water contamination 3. Modification of natural coastal habitats

▶ **Natural coastal defences:**

1. Wind-breaks through:
  - ▶ Vegetation
  - ▶ Dunes
  - ▶ Topographical features such as hills
2. Barriers to inundation
  - ▶ Dunes
  - ▶ Topography

▶ **Value of sandy beaches**

For fishers	For others
1. Landing boats 2. Basic boat maintenance 3. Drying/cleaning nets 4. Auction of fish 5. Drying of fish	1. Coastal defense <ul style="list-style-type: none"> <li>▶ Cyclonic surges</li> <li>▶ High winds</li> <li>▶ Tsunami</li> </ul> 2. Ground water recharge 3. Recreation 4. Habitat for endangered species

▶ **Value of coastal plantations**

Advantages	Disadvantages
1. Revenue 2. Fuel 3. Protection from high winds	1. Depletion of ground water 2. Destruction of dune habitats 3. Interference in dune dynamics – could lead to disappearance of dunes over a long term.



► **Re-examine the following:**

1. Desire to plant trees as wind breaks and for generating revenue.
2. Desire to protect coastal communities from natural disasters and man made problems such as coastal erosion.
3. Do plantations need to be on existing dunes, can they not be further back so they don't interfere with dune dynamics?
4. Are sea walls a solution or are they pushing the problem further North?

► **Recommendations:**

1. Recognise dunes as an important natural habitat with offers a range of goods and services.
2. Understand the dynamics of dune formation and ensure coastal interventions do not interfere with this.
3. Factor in the impact that plantations will have on ground water. Note that some plantation crops (including *Casuarinas*) are known to be phyto-toxic.
4. Learn from the Pondicherry experience that littoral drift is normal; interventions that modify near shore currents can be disastrous.

**Way forward...**

It was agreed among all the participants that the workshop was a useful step in the process towards influencing government policies. However, it was felt that while it was important to have a broad-based workshop, and it was important for different sectors (fisheries, forests, rural development, agriculture) to sit around a table and understand cross-sectoral linkages, there was also the need for sustained dialogue with key decision-makers in each sector (particularly fisheries and forestry). This would need collation and presentation of focused and hard-hitting data and recommendations that would grab their attention.

It was also felt that many organisations were in the process of collating experiences and examples of 'best practice'. There was a need for NGOs to work together to share information on these in order to have a stronger case for influencing government policies and to pursue joint advocacy efforts.

It was agreed that short, focused policy meetings like this one provided a useful platform for agencies and NGOs to exchange information and identify areas of mutual concern and collaboration. It was felt that such events could be organised more regularly by different organisations and the efforts of the GC project in this regard were appreciated.

**Next steps**

- 1) Continue knowledge sharing meetings and organise smaller, sectoral [Forests/Fisheries] meetings with key decision makers.
- 2) Work under a collaborative umbrella and collate existing findings on what has worked and what hasn't
- 3) Present findings to relevant people in the key govt. departments in order to strengthen policies and ensure effective implementation
- 4) More dialogues with and among NGOs, more education and awareness
- 5) Production of outreach material in Tamil

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