

Role of the World Bank in Post-Tsunami Rehabilitation : Environment /Disaster Mitigation- Coastal Bioshields



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World Bank and Tsunami

- significant amounts for reconstruction of the affected areas have been lent by the Bank.
- loans, targeted at long – term cross cutting themes/programs which attempt to bring convergence between disaster management/mitigation and the development process- ??????

Tsunami- Environment and Coastal Protection

- bank's role and interest in activities concerning plantations and "bioshields" under Emergency Tsunami Reconstruction Project (ETRP).
- bioshields' - coastal vegetation (both natural and planted) that contributes to protection of the coast from extreme events.

World Bank and Tsunami

- Emergency Tsunami Reconstruction Project with World Bank assistance of Rs.10.17 Crores
- 2000 hectares of shelterbelt plantations and 700 hectares of mangrove plantations in the coastal areas of Tamil Nadu for the year 2005-06.
- Following year same area

Ecological Aspects

- unwritten policy -shelterbelt plantations are a mix of 90% Casuarina and 10% other species (Narasimhan, 2005).
- Casuarina is an exotic species and it is ecological unsound to propagating it as plantations

Ecological Aspects



Casuarina plantations

Ecological Aspects



Ecological Aspects

- carried out despite repeated suggestions and concerns from many environment-based NGOs to at least reverse this proportion, if not stop *Casuarina* plantation.
- almost most of the sites plantation of only *Acacia planifrons* is being used as this “10 %” mix of the plantation

Ecological Aspects

- no prior site selection before the plantation activity in spite of a policy which made it mandatory to conduct site selection before plantation (Mukherjee et al, 2007)
- sites for the plantation are on sandy beach areas

Ecological Aspects

- Sandy beaches are also a habitat and have unique ecology and use values.
- They are natural formations and should be left alone.

Sandy beaches



Ecological Aspects





Ecological Aspects

- plantations have been carried out on sand dunes which are another unique ecosystem/habitat.
- affect the basic coastal geomorphology and natural processes and dynamics of the area
- Could interfere with natural dune formation in the area.



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Social Aspects

- Landing and storage of craft and gear
- Use of beach space for repair of nets
- Use of beach space for shore seine fishing
- Use of beach space for fish drying
- Access and visual linkage along shore crucial for livelihood, daily decision-making, traditional ecological knowledge such as mappu (sighting of fish from shore thereby deciding to go to fish or not, measurements of winds, currents and tides)

Social Aspects

- Well known that the communities do not want shelterbelts in front of their hamlet.

History of Conflicts

- Hence, understandably one finds that in none of the areas, shelter belts are executed directly in front of a settlement.

- Defeats the purpose and role of a bioshield in protection as well as the very justification of this programme.

World Bank and Tsunami

- Casuarina is favored because the economic returns of Casuarina plantations are high with a short crop rotation cycle of 8 years and yields US\$ 1500/acre after four years of plantation.
- “striking that the World Bank funding under the agenda of ‘coastal protection’ has promoted most of these plantation schemes in the past and continues to do so.” (Mukherjee et al, 2007).

Social Aspects

- Mixture of the Joint Forest Management & Social Forestry programmes
- PRA based on which a village level micro-plan is made and a Village Forest Committees (VFC) formed (Rajeshwary, 2006)
- Entry point activities - basically to build the trust of the community and get their cooperation in return

Social Aspects

- PRA format reveals that it is only a survey exercise (a socio-economic analysis form)
Most of the fields of the form are socio-economic in nature
- Processes are not true PRA exercises and lack true participation in the exercise.

Social Aspects

- “The response of the community been lukewarm and their understanding of the ETRP project is poor. “
- “Surveys were done in too short a time to ascertain the needs and aspirations of the community”
- “Poor participation of women in VFCs and in the PRA exercises.”

World Bank and Tsunami

- Elements of equity in process of choosing the entry point activities and its beneficiaries are not clear
- Use of the word PRA is misleading.
- In the Village Micro-plans, aspects on tenure of land, access, rights and benefits are not clear and in most cases are absent

Project Cycle Evaluation

- No evaluation process or review by the bank of this programme
- Needs to be done periodically at all stages of the project right from its conception in a consultative manner with multi-disciplinary groups working on ecological, social and legal aspects.
- Faulty models and approaches will have repercussions and impacts far beyond immediate project cycle.

Conclusion

- From the above study and review this paper concludes that vast areas have been converted to monoculture plantations
- Very little attention to the ecology of the species being planted in such “restoration efforts”.

Conclusion

- Very little science, social sciences, participation and legal elements have been used either in the formation of policies and guidelines governing bioshields, or in the design and implementation of the project
- Finally, what is the most implicating of this project is that it does not even come close to its very objective of “coastal protection’

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Casuarina plantations in Orissa