Sustainable Forest Management for Climate Change Adaptation of Rural Vulnerable

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Outline

- Context
- Evidence of Climate Change
- Impact on Forest and Ecosystem
- Impact of Socio-Economic Development
- Adaptation Measures and Chain Effects
- Recommendations
Cambodia - Context

- 80% of the population live in rural areas
- Vast majority of rural population depends on agriculture mostly rain fed rice cultivation
- Forest, a main source of dietary need (Equivalent to 17,000 US$/community) such as food, fibre (vegetables) and protein; energy and wood sources especially for the poor
- Example of annual harvesting requirement: timber 94 m³, firewood 315 m³ and 700 poles for a community. A large number of cattle graze in forest (around 1,000/community).
- Slight alteration in supplies (Rice+ Forest products) could jeopardise the livelihood of the poor
Inextricable linkage
Evidence of CC Effects

- More frequent hot days and nights
- Increase in the frequency of heavy rainfall but short duration: increased flooding
- Prolonged drought
- Seasonal variations in weather cycle
Impact on Forest and Ecosystem

- Limits to the natural regeneration capacity in degraded forests
- Limits yield of timber, NTFPs and grasses
- Drying out of waterholes and sources
Impact of Socio-economic to Forests

- Studies have shown that poverty has direct two-ways relations to forest (more poverty = more dependency on forests + more exploitation and deforestation risk)
- Higher demand for timber, poles and energy for increasing populations brings pressure to forest
- Raw materials for construction – mining for sand, gravel and laterite
Possible Adaptation Measures and Chain Effect-1

- Community Forestry
  - establishes and ensures the rights of local people on the management and use of forest
  - ensures protection of the forest from land use change and illegal cutting

- Adoption of Sustainable Forest Management Practices
  - increases CC resilience capacity of forest & people
  - Increased and continuous supply of forest products for daily dietary complements and energy reduces the vulnerability of rural people
Possible Adaptation Measures-2

✓ Income generated from surplus products (evidence: thinning (creating gaps between trees) provided 500$/ha in a Community Forest in Siem Reap) and forest carbon trade (REDD+) can be used to buy goods and services to increase adaptation capacity - such as health services, fans, nets and so on.

☐ Planting of suitable fast-growing species (could be native or exotic) in degraded land and replacement with preferred species after micro-climate has been developed: short-term products and increase in forest quality and biodiversity in the long term
Possible Adaptation Measures-3

- Digging pits for planting three months before planting maximise the survival rate (up to 90%) in drought prone areas.
- Enrichment Planting of bamboos in degraded land especially forest boundary areas
  - Land recovery through soil stabilisation, greater forest cover, provision of wildlife habitat etc.
  - Increase the income opportunities of rural people in short term
- Introduction of alternative livelihoods activities such as Home garden, aquaculture reduce pressure on forests
Income Activities (Cambodia HARVEST Project)
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Recommendations

- Promotion of Community Based Forest Management as one of CC adaptation measures
- Implement Sustainable Forest Management Practice under the CBFM to increase adaptive capacity and resilience of local communities and the forest itself
- Introduction of alternative livelihoods activities at household level increase income opportunity which reduces pressure on forests and increase adaptive capacity
Thank you