

Climate Impacts on Biodiversity and Livelihoods

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Climate Change Impacts on Biodiversity

- Changes in ecosystem boundaries
- Sharp increases in extinction rates
- Regional variation
- Small populations or those restricted to small areas vulnerable
- Coral reefs
- Shifts in the reproductive cycles and growing seasons
- Insect pests and diseases

Poverty, Climate Change and Biodiversity Links 1

- Poor people disproportionately vulnerable to climate change impacts
 - Location in vulnerable geographical regions
 - Vulnerable locations
 - Poor people also have the lowest capacity to cope
 - Poor people also directly depend more on climate sensitive sectors and natural resources
- Poor people disproportionately vulnerable to the loss of biodiversity and ecosystem services

Poverty, Climate Change and Biodiversity Links 2

- Biodiversity conservation and ecosystem integrity is central to improving the ability of poor groups to cope with climate change
- Ironically it is those who have done least to cause the problem of climate change that are suffering most from its impacts

Mitigating Climate Change – are Activities Pro-Poor and Biodiversity Friendly?

- Carbon markets: forest conservation, afforestation and reforestation
- Bio-energy plantations
- Large hydropower schemes
- Efficient stoves and biogas use can conserve carbon reservoirs and reduce pressure on forests.

Adapting to Climate Change – are Activities Pro-Poor and Biodiversity Friendly?

- Coastal protection: sea walls and infrastructure or mangroves?
- Increasing agricultural and rangeland productivity: more intensive farming methods or agroecological practices?
- Irrigation or indigenous biodiversity production systems in drought prone areas?
- Conservation: expanding protected areas or Community-Based Natural Resource Management and landscape management approaches?

The Way Forward

- Support projects which provide biodiversity benefits, poverty alleviation and climate change adaptation and mitigation benefits
- At the very least, climate change solutions should not damage biodiversity and ecosystem services or increase inequity and poverty
- Action at all levels: international, bilateral assistance, national planning
- Support for non-structural alternatives and ‘bottom-up’ approaches rooted in existing community-based strategies