

Session 8. Socio-economic functions and livelihoods

Summary report

Participants identified a number of examples of recent changes in forests ecosystems and the forest sector that can be attributed to climate change.

- In arid and semi arid lands, increased deforestation, forest degradation and desertification in ecosystems that have low adaptive capacity have been caused by land-use change, livestock fodder, fuelwood foraging and illicit harvesting that have resulted in major sand storms, reduced irrigation water, dropping water table, reduced agricultural productivity, invasive species, migration and urbanization.
- Greater incidence of human-wildlife conflicts due to altered ecosystems, water access and feeding patterns.
- Land degradation, unpredictable rainfall, shrinking glaciers, water shortages, population growth.
- In Scandinavia there is a general acceptance of climate change as a reality that impacts forests and forest management.
- Increase in drying or falling levels of watercourses, lakes and rivers due to droughts.
- Changes in forest ecosystems are exacerbated when combined with increasing population growth and pressure.
- Impacts of climate change are not the only drivers of land-use and social change; these are interlinked with other environmental, social and economic factors that are difficult to isolate.
- Impacts of severe drought in forests and agricultural systems continue several years following the event.
- Changed demand for tourism and recreational services and patterns will cause changes in economic benefits, in some instances positive and negative in others.

It was noted that reduced agricultural productivity resulting from extreme weather events (e.g. drought) in the future may cause farmers to encroach on forests to maintain their livelihoods which in turn can cause deforestation and forest degradation. They also noted the following future impacts on people and institutions.

- There will be increased vulnerability of forest dependent communities in response to changes in quantity and quality of wood, fibre, fuelwood, food, fodder, medicines, and social and ecosystem services.
- Change in temperatures and rainfall will change forest ecosystems, forest health and vitality, forest cover, incidence of biodiversity, streamflow and snow cover patterns that will impact the provision of forestry goods (wood and non-wood forest products) and services, such as tourism, recreation and ecosystem services, that will impact communities.
- The negative economic impact of climate change can be severe in rural communities, particularly when the community forest governance is not functioning properly.

Forestry institutions need to change to include climate change and subsequent adaptation to the problem in their forests and forest management policies, strategies and practices.

Adaptation to climate change can vary based upon demographics (age), perceived risks and opportunities, level of uncertainty of adaptation options and spreading risks (e.g. mixed species). Some potential management actions recommended by session participants to maintain the socio-economic benefits of forests included:

- community plantings, school programmes, partnerships with the private sector, village woodlots, agroforestry systems, shelterbelts, awareness campaigns through the media and field demonstrations, childrens education;
- opportunities, greening campaigns, nursery development, research to monetize environmental and socio-economic benefits of urban forestry and investment in environmental management;
- greater involvement in joint forest management for wood and non-wood forest products, deeper wells, migration to cities;
- use of irrigation systems to overcome water shortages in agriculture to maintain productivity.

In countries with high population pressures, land use issues and vulnerability to drought and extreme weather events, agroforestry can provide diversification in spreading risk to climate change, particularly with drought resistant species.

Through presentations and discussions, session participants noted that there is a need for:

- supportive policies to promote greater joint forest management, community forest management, afforestation, reforestation including agroforestry (smallholders), availability of microfinance, training in non-wood forest product management, marketing and manufacturing;
- greater role for women;
- support to community forest management with sound governance, strengthening institutions, greater participation and education, greater accountability, reinforced monitoring, and community access to benefits;
- promotion of agroforestry, afforestation and reforestation, Clean Development Mechanism (CDM) projects for developing countries;
- harmonized and consistent land-use policies, supported by strengthened institutions;
- climate change adaptation education, training and public awareness;
- recreational and tourism policies that will adapt to new recreational “norms”, diversification of recreational activities, use of new technology and new individual behavioural changes;
- consideration of insurance cover options against the impacts of climate change;
- support for more research into drought tolerant species for agroforestry, afforestation and reforestation;
- clear and consistent migration policies.