

3. Sustainable forest management and related approaches for effective climate change responses

SUSTAINABLE FOREST MANAGEMENT

SFM is a universally accepted concept that guides forest policies and practices around the world. It constitutes an overarching approach to forest management, and its implementation requires, at the national or subnational levels, enabling policies, laws and institutions and, on the ground, the application of sound management practices based on good science and traditional knowledge. SFM can be applied in all types of forest, regardless of the objective(s) of management (e.g. production, conservation, protection and multiple use). In 2007, the United Nations General Assembly adopted language on SFM that describes the concept and lists the elements it encompasses (see Box 4).

Efforts worldwide to advance towards SFM have provided a wealth of knowledge, experience, best-practice guidance, tools, mechanisms and partnerships that can be applied to help meet climate change challenges. Using SFM as an overall framework helps to ensure that adaptation and mitigation measures are synergistic and balanced with other forest management objectives and take into consideration the economic, social and environmental values of forests.

BOX 4

Sustainable forest management

In Resolution 62/98, the United Nations describes SFM as a dynamic and evolving concept that “aims to maintain and enhance the economic, social and environmental values of all types of forests, for the benefit of present and future generations”.

It recognizes the seven thematic elements of SFM as:

- extent of forest resources;
- forest biodiversity;
- forest health and vitality;
- productive functions of forest resources;
- protective functions of forest resources;
- socio-economic functions of forests;
- legal, policy and institutional framework.

Recognizing that countries manage their forest estates for multiple socio-economic, productive and environmental functions, forest-related climate change adaptation and mitigation efforts on the ground require a comprehensive approach, sound policies, and appropriate legislative and governance frameworks.

Adaptive management

Adaptive management is a dynamic approach to forest management in which changing conditions are monitored and practices adapted accordingly. Adaptive management combines planning, implementation, monitoring and the modification of resource management in response to monitoring. It explicitly addresses complex and uncertain situations and is widely seen as part of an appropriate response to climate change and other environmental change.



Forest officers at work in forest in the United Republic of Tanzania. Monitoring individual trees, not just forests as a whole, is important for understanding species-specific sensitivity to climate change.

Landscape approaches

As integral parts of broader landscapes, forests and trees contribute to the stability and vitality of ecosystems and to meeting societal needs. Integrated approaches to landscape management can increase synergies among multiple land-use objectives. By considering the perspectives, needs and interests of all stakeholders, including local communities and individual land users, landscape approaches can be instrumental in developing sustainable land-use and livelihood strategies. Stakeholder dialogue is especially important as adjustments are made to land uses and management.

Some impacts of climate change require managers to look beyond their management units. Thus, adopting a landscape approach can help to identify forest adaptation and mitigation measures that will provide the best economic, social and environmental outcomes.

Partnerships and participatory approaches

Partnerships and participatory approaches recognize the importance of involving all forest stakeholders in the management or co-management of forest resources. Forest stakeholders comprise all people who depend on or benefit from forests and those who decide on, control or regulate access to forests. Partnerships and participatory approaches can operate at a range of levels, from national to local, and may include state and local authorities, forest extension agencies, forest-dependent communities, non-governmental organizations (NGOs), private-sector entities, research and academic organizations, and forest managers.

Partnerships and participatory approaches will be essential for successful management responses to climate change. Chapter 4 indicates the level of participation required for the implementation of recommended management actions. More than ever, forest managers will need to cultivate and participate in existing and new forest partnerships.

GLOBAL, REGIONAL AND NATIONAL POLICIES ON CLIMATE CHANGE

Forest managers are affected by climate change policies made at the subnational, national, regional and global levels. The United Nations Framework Convention on Climate Change (UNFCCC), which has been ratified by 195 countries, sets global climate change policy. Some regional political entities (e.g. the European Union) have set regional policies on climate change, and there are also regional cooperative programmes to support national action on climate change.³ National climate change policies are influenced by global and regional policies but are tailored to national circumstances. Forest managers should be aware of policy developments that will affect them directly or indirectly.

Parties to the UNFCCC have agreed to undertake adaptation and mitigation actions and to report on their actions through periodic national communications and on their GHG emissions and removals through national GHG inventories. Parties to the UNFCCC are negotiating a new legal instrument designed to supersede the Kyoto Protocol that will be applicable to all parties and will take effect in 2020.

³ For example, on REDD+ in the Congo Basin.



A forest officer talks with community members in the municipality of Samaipata, Bolivia (Plurinational State of). Partnerships and participatory approaches will be essential for successful management responses to climate change.

In 2010, the Conference of the Parties to the UNFCCC adopted a decision on reducing emissions from deforestation and forest degradation and on the conservation of forests, sustainable management of forests, and enhancement of forest carbon stocks, usually known as REDD+. REDD+ is designed as a national (or in some cases subnational) mechanism that would provide positive incentives to countries achieving verified emissions reductions or carbon removals in forests at the national level. The accessibility of benefits from REDD+ activities to individual forest managers would depend on the arrangements in place in the country for REDD+ benefit-sharing.

Another important decision made by the Conference of the Parties to the UNFCCC in 2010 was to establish the Green Climate Fund, which is designed to provide financial support to developing countries to undertake adaptation and mitigation actions. A number of other financial mechanisms have also been established to support such actions.

Voluntary carbon markets offer a means by which forest managers can sell carbon credits for carbon sequestered by their forests. The scope for voluntary market projects in the forest sector is wide, including not only afforestation and reforestation but also, for example, forest restoration and avoided deforestation (i.e. preventing a forest from being deforested). Forestry projects are favoured by the voluntary carbon market because of their additional social and environmental benefits (known as co-benefits).



Community members engage in a participatory rural appraisal of local resources in Cambodia. The goal of vulnerability and risk assessments is to identify which groups, ecological systems and infrastructure are most vulnerable to climate change.