

Institutional framework

In recent years, the forest sector has undergone a fundamental transformation, largely as a result of restructuring, downsizing, changes in ownership and increased recognition of the multiple benefits that forests provide. One of the most significant trends is increased management by groups of people and by individuals. In addition to the 22 percent of the world's forests that are now privately owned, community ownership accounts for about 11 percent, a figure expected to reach 40 percent by 2050. Consistent with this pattern, the number of partnerships among governments, organizations and agencies is growing, especially at the local level. However, what may not be keeping pace is the amount of support that community groups receive to increase their human, physical and financial capacity to take full advantage of current and emerging opportunities.

Institutional questions are multidimensional and can be complex, as can the solutions required to address them. This chapter touches on recent developments and key issues in forestry education, decentralization of public forest administrations, benefit-sharing arrangements, prevention of illegal logging and cross-sectoral linkages. These are presented as some of the examples of the many components that are critical to the successful implementation of sustainable forest management.

FORESTRY EDUCATION: COPING WITH NEW DEMANDS

Education concerning forests and trees is crucial to achieving sustainable management and national sustainable development goals.

Fundamental changes in forest policies, in the role of foresters and, hence, in approaches to forestry education are needed as a result of trends such as increasing demands for forest goods and services; growing recognition of the contributions that trees outside forests make in rural and urban areas; the active participation of multiple

stakeholders in forestry; the recent emphasis on food security and poverty alleviation; and the need to comply with legally binding commitments.

For the most part, however, education is not adequate to cope with today's needs. At all levels, curricula must be updated to include such topics as the role of trees outside forests, collaborative management, gender equity, access and benefit sharing, the potential impact of certification schemes on forest practices, and participatory learning. By the same token, if education is to respond to current social aspirations and challenges, foresters must be given the opportunity to move beyond the realm of forestry to learn about such fields as communication skills, business administration and management sciences. Equally important, efforts are needed to enable institutions to monitor and assess their efficiency in responding as demands evolve.

Meeting of experts proposes ways of strengthening institutional capacity

Ways of addressing these needs were discussed at a meeting of experts on forestry education organized by FAO in Rabat, Morocco in 2001 (FAO, 2001a). Participants affirmed that the capacity of institutions for all levels of forestry education and programmes needed strengthening and updating, especially in developing countries. They also noted that donor support to education was declining, partly because of the decrease in hiring by public services and non-governmental organizations (NGOs), and partly because increasing numbers of non-traditional foresters are managing lands that include forests as part of the mix of uses.

On the basis of their discussions, the experts identified some potential ways forward:

- regional networking to support forestry education institutions and more interinstitutional exchange of knowledge and experience;

- improved coordination among forestry education, research and extension so that needs become better known to all and knowledge becomes more accessible to the wider population;
- more use of innovative and interactive methods of teaching and learning, for example approaches that enable communities to use their own knowledge and to experiment with new management techniques;
- greater attention to distance learning and the use of new information technologies;
- raising awareness of the importance of trees and forests, for example by increasing access to knowledge about forests and forest-related issues for students at the primary and secondary levels.

Responding to changes in how forests and forestry are perceived is also one of the most important challenges for forestry education in developed countries. This was confirmed at the Meeting of International University Forest Education Leaders, held in Vancouver, Canada, in 2001, organized by the Faculty of Forestry, University of British Columbia and FAO (University of British Columbia and FAO, 2002). Among the various concerns raised, the declining number of forestry students and the dwindling support to forestry education in developed countries were stressed. One explanation was the lack of competitive employment opportunities.

Consortia could fill significant gaps in curricula

Many universities are unable to introduce specialized forestry programmes because of financial constraints, a shortage of staff with the required expertise, or potentially limited enrolment. At the moment, for example, little is

being taught about how forest policy decisions made in the international arena influence actions at the national and local levels. To address such shortcomings and foster collaboration with international research organizations, intergovernmental organizations and others, groups of universities are taking steps to set up consortia to provide issue-driven programmes that build intellectual and professional capacity for sound forest management. The objective is to have a knowledgeable faculty from various institutions deliver courses, workshops, seminars and conferences economically throughout the world. The University of British Columbia, Canada, for example, is leading an effort to establish a consortium for international forestry education (University of British Columbia and FAO, 2002).

DECENTRALIZATION OF PUBLIC ADMINISTRATION OF FORESTS

National governments and international organizations are increasingly favouring the decentralization of authority and resources to local governments as a means of fostering development. While decentralization takes place regardless of the level of development, it is generally a more prominent issue in developing countries. A World Bank study in 1999 estimated that more than 80 percent of all developing countries and countries with economies in transition were experimenting with some form of decentralization (Manor, 1999). While this

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trend is less marked in the forest sector, its importance is expected to grow considerably in the near future.

Local governance can provide a unique opportunity to combat poverty while fostering better management of the environment and the forest resource, because authorities living close to the many people who depend on forests are in a good position to address local needs. Successful efforts have enhanced participation, increased the regional share of income from forests, resulted in better delivery of services and improved the sustainability of forests (Hitchcock, 2001). However, there can also be drawbacks (see Box below).

To build on the positive aspects, international organizations are helping countries to improve decentralization policy and implementation and the conditions for success. Efforts include analysis of accountability processes, exploration of ways in which national forest programmes can make decentralization more effective and equitable, and development of methodologies to assess which institutional capacities are needed in the forest sector to put the concept into practice.

Decentralization brings risks and raises new issues

- Lack of accountability and institutional capacity on the part of local governments could result in breaches of authority.
- The critical need for financial resources could increase the rate of deforestation.
- The cost of externalities (with activities from one sector having a negative impact outside the sector) could fall on a particular region or group of communities rather than on society as a whole.
- New laws could interfere with customary rules and local models of resource management.
- Decision-making might not be passed effectively to the local level.
- The interests of some groups might not be adequately taken into consideration.

Decentralization is a long-term process and in many cases conclusions cannot be drawn from the results to date. However, successful implementation will likely require substantial building of local skills in organization, negotiation, management and accounting. It is also necessary to develop clear regulatory frameworks, to define responsibilities and competences, to transfer decision-making powers and to secure access to resources. The capacity to support an effective central monitoring and accountability system is also critical to ensuring that decentralized administrations are indeed providing the expected services.

Although progress is being made, gaps in information prevent an accurate global assessment of the changes taking place. Work is therefore under way by FAO and others to compile information on the number of countries that are decentralizing their forest sectors, the extent and type of resources transferred, the nature of responsibilities involved, the status of implementation and the relationship with decentralization models in other sectors. As a more complete picture becomes available, it will help shed light on the conditions that favour or hamper decentralization.

SHARING BENEFITS FROM FORESTS

In addition to supplying wood and non-wood products and services to individuals, forests provide common benefits to all or part of society. Over time, institutional and regulatory arrangements have resulted in a greater degree of shared utilization and have generally also fostered a wider and more equitable distribution of benefits. Where forest land is still predominantly State-owned in developing countries, such arrangements are less common.

While local communities often rely on forest goods and services for subsistence and income generation, ways of sharing the common benefits are not as well defined. For example, the collection and sale of unprocessed forest products may yield fewer benefits to local populations than to other parties. To improve such situations, monetary and non-monetary

Support to private and community forestry in Central and Eastern Europe

Since 1990, when privatization began in Central and Eastern Europe, new forest ownership patterns have called for:

- significant numbers of private owners to organize themselves;
- State forest services to respond to new demands;
- the institutional framework to adapt to current realities.

In response, FAO and the World Conservation Union (IUCN), in consultation with country partners, have developed two projects that share a vision of sustainable forestry in the region. The FAO initiative focuses on strengthening private and community forestry, while that of IUCN addresses biological diver-

sity within the same context. Taking the collaborative approach one step further, FAO and IUCN are jointly developing a programme to strengthen State forest services, to support forest owners' associations, to assist with improving policy, legislative and institutional frameworks, and to enhance the role of civil society in policy formulation and in the political debate on sustainable forest management. The project will also benefit from the technical support of the European Confederation of Forest Owners, whose network is expanding in Central and Eastern Europe.

arrangements, covering the short, medium or long term, attempt to balance the interests of those involved and to promote fair and equitable sharing.

The sharing of profits from the sale of wood products can be partly addressed through collaborative approaches to forest management in which responsibilities are transferred to local communities, for example through community forestry, social forestry or joint forest management. However, such transfers do not automatically increase the benefits to local inhabitants. In the past, many revenue-sharing initiatives took place in forests where timber production was limited, so that the main benefits shared were from non-wood products. However, recent examples, such as those in Chattisgarh, India (Sharma, 2002), are demonstrating that returns from forests are being shared successfully, resulting in better management of the resource. New mechanisms based on enforced regulations and decentralized fiscal systems are also encouraging, in that local populations obtain a larger share of revenue from the sale of fuelwood and other activities.

Benefit-sharing arrangements also cover a wide range of non-wood forest products

(NWFPs) used by the botanical medicine, personal care, cosmetic and food industries. Some trade initiatives strengthen local communities by focusing on a fair return, adequate benefits, tenure and customary rights, and healthy work environments.

Various benefit-sharing arrangements have also been negotiated between pharmaceutical companies and certain governments to cover the search for trade opportunities in commercially valuable natural biochemical and genetic resources (bioprospecting). Arrangements covering bioprospecting aim to ensure that the property rights of the providers of genetic resources and traditional knowledge are respected, and that the benefits are equitably distributed among members of the partnership, including local communities, governments and private companies. Other arrangements cover the increasing trade in environmental services, such as credits for carbon sinks, and in wildlife products, including photo safaris and trophy hunting.

These approaches have good potential for strengthening local communities and contributing to the socially equitable, environmentally friendly and economically viable use of forest products and services. However, implementation is still a challenge, and additional efforts are required to

strengthen political stability and establish appropriate legal and institutional frameworks. As a first step, more information is needed on how benefits are shared, as a basis on which to build political will – a prerequisite for implementation of the concept. Benefit sharing also needs to be linked to democratic decision-making at the national, regional and local levels.

THE FIGHT AGAINST ILLEGAL LOGGING AND ILLEGAL TRADE

Illegal activities in the forest sector were highlighted as a key issue in the *State of the World's Forests 2001* (FAO, 2001b). Attention to forest crime has grown in the past two years, and it is being discussed more openly than ever before. While there are still too few data on illegal forest activities, the World Bank estimates that illegal logging results in annual losses of between US\$10 billion and \$15 billion of forest resources from public lands. The international trade in illegally extracted timber is also a serious problem.

Governments and NGOs are continuing their efforts to curb forest crime, while international agencies and policy research institutions are stepping up their analyses of its extent and impact. Several meetings have recently taken place around the world and discussions are generating further interest and additional pressure to take action.

The following are some of the key events of the past two years.

- Ministers from countries in East Asia and the Pacific met in Bali, Indonesia at the Forest Law Enforcement and Governance (FLEG) East Asia Ministerial Conference and, for the first time, committed their governments to improving law enforcement and governance in the forest sector (September 2001).
- The International Tropical Timber Council (ITTC) proposed to undertake, in collaboration with others, a global study to assess the extent, nature and causes of the illegal trade in timber and timber products and to conduct studies to devise ways for countries to enhance forest law enforcement (November 2001).
- FAO organized a meeting with representatives from governments, the International Tropical Timber Organization (ITTO), the World Bank, NGOs and the forest industry to exchange ideas on compliance and policy options to reduce forest crime, and to identify themes for international action (January 2002). FAO is now examining ways of enhancing the contribution of forest corporations in the prevention, monitoring and suppression of illegal forest acts, and is also analysing options for establishing partnerships to improve governance in the sector.



Some benefit-sharing arrangements enable local communities to obtain a fair return from the increasing trade in environmental services and wildlife products, such as photo safaris (United Republic of Tanzania)

- Ministers responsible for forests agreed on the need to act urgently and issued a declaration at the second session of the United Nations Forum on Forests (UNFF), asking the World Summit on Sustainable Development to call for “immediate action on domestic forest law enforcement and illegal international trade in forest products” (March 2002).
- A technical session was held in Cambodia to discuss ways of recording the custody of harvested wood so that ownership could be tracked and compliance determined (March 2002).
- The sixth Conference of the Parties to the Convention on Biological Diversity adopted an expanded Programme of Work on Forest Biological Diversity that includes activities to improve forest governance and law enforcement (April 2002).
- The European Commission organized an international workshop to identify several proposals for future action, including verification mechanisms, import controls for illegally extracted wood and ways of criminalizing related international trade (April 2002).
- As a follow-up to the East Asian ministerial meeting held in September 2001, a regional task force met to discuss implementation of the Ministerial Declaration (May 2002).
- ITTC decided to assist with efforts to improve knowledge about forest concessions and protected area management in the Central African Republic, the Democratic Republic of the Congo and the Congo (May 2002).
- The World Bank and the Government of the Congo co-hosted a meeting to plan a ministerial session on forest law enforcement and governance in Africa (June 2002).
- The G8, concerned with illegal logging since 1998, declared at its meeting in Kananaskis, Canada, that it will work to monitor and address the illegal exploitation and international transfer of natural resources from Africa which fuel armed conflicts, including timber (June 2002).

Many developing countries are making efforts to improve compliance with forest legislation. In

International Council of Forest and Paper Associations: a forum for global dialogue

The International Council of Forest and Paper Associations was formed in April 2002 to promote sustainable forest management and sustainably produced forest goods. Its members are national organizations committed to forest practices that meet sound environmental, social and economic objectives. As a forum for global dialogue, coordination and cooperation among forest and paper associations, the council facilitates discussion on matters of common concern, develops positions on issues of mutual interest and collaborates on the exchange of statistics. As the need arises, task forces are established to address specific issues and to provide advice to members.

addition, consumer and producing/exporting countries are undertaking joint initiatives to combat the illegal trade in forest products, which could serve as a basis for broader international arrangements. Private industry is showing its concern over the fact that illegal forest products place legally produced ones at a competitive disadvantage. For this and other reasons, the recently established International Council of Forest and Paper Associations issued a formal statement committing members to work with all interested groups to find solutions to the growing problem.

The fight against forest crime, once the exclusive domain of national governments, has expanded to include business concerns, international agencies and major NGOs. Indeed, international NGOs are at the cutting edge of the global campaign against illegal logging and trade, and their efforts are meeting with increasing success. Progress is also being made on several other fronts, including the establishment of regional and bilateral agreements in various parts of the world. The extent to which the situation improves over the next few years will be an indication of the commitment of governments and their partners to bringing about positive change in this area.

Current trends are expected to continue as countries, institutions and organizations step up their collaborative efforts to curb illegal activities. In all probability, private corporations will adopt more stringent policies to differentiate between honest and dishonest operators, translating this into market advantages. These efforts, combined with pressure exerted by informed consumers, will make it increasingly difficult for illegally extracted forest products to find a place on the market.

IMPROVING CROSS-SECTORAL LINKAGES WITH REGARD TO FORESTS

Government policies and development objectives can have a profound impact on forest management, often in unexpected ways. While policies in the forest sector shape results on the ground, those outside the sector can have an even greater impact. In the face of globalization, these effects are no longer limited to national action. Policy-makers have shown growing interest in assessing the effects of external factors on the forest sector, and vice versa, based on the idea that a better understanding of the impact of changes across sectors can help reduce

uncertainty, maximize synergies and minimize undesirable effects.

Currently, the debate on cross-sectoral linkages in forestry tends to focus on those influencing deforestation in the tropics. However, many other important linkages affect a variety of forest functions. At the same time, the positive effects of forest policies on other sectors are often treated as external benefits rather than as part of a cross-sectoral dialogue. The multiple functions of forests and the positive effects of non-commodity outputs must therefore be carefully considered, both nationally and internationally.

Cross-sectoral linkages

A recent evaluation by the World Bank (2000) of its forest project portfolio revealed that interventions in other sectors affected forests and trees to a greater degree than the World Bank's interventions in the forest sector itself. For example, this and other studies show that:

- structural adjustments to reduce government salary expenditure may have been desirable from a fiscal viewpoint but resulted in a reduced capacity to carry out regulatory functions;

New forest sector policy and strategy of the World Bank

In October 2002, the Board and Executive Directors of the World Bank approved a new strategy and operational policy for the forest sector. These recognize that forests are critical in alleviating poverty and developing sustainable economies and environments. They are thus built on three interdependent components.

- **Harnessing the potential of forests to reduce poverty.** Studies, field experience and consultations all confirm that forests are crucial for alleviating poverty in many of the World Bank's client countries – those with ample forest resources as well as those with few. Future World Bank involvement in this area and its broader economic engagement are delineated in the strategy.

- **Integrating forests into sustainable economic development.** In client countries, forests are often mismanaged and suffer from poor governance and illegal activities, which reduce their value and potential contribution to sustainable economic development. The strategy proposes various approaches to address these issues.
- **Protecting vital local and global forest services and values.** The new strategy is closely linked to the World Bank's new environmental and rural development strategies. It acknowledges the importance of cross-sectoral impacts, the need to incorporate ecosystem protection issues into broader national programmes and the need to work more effectively with development partners.

- improved roads to stimulate economic growth have attracted land-poor migrants who then clear forests for agriculture;
- an increased demand for power has resulted in pressure to clear forest land to build more dams.

Conversely, forest policies have a direct impact on other sectors, particularly agriculture (in terms of soil and water conservation).

Sectors are also linked by issues of common concern, including poverty alleviation, food security, social equity, freedom of choice and access to resources. Problems in these areas cannot be resolved unilaterally, but forestry can provide an entry point, as a recent seminar on forestry and poverty alleviation concluded (see Box on p. 69). Collaboration to tackle common

problems and to use the comparative advantages of each sector requires coordination. Recent international attempts in this direction include the decision of major donors to help to alleviate poverty through sectoral interventions and structural adjustments, and the improvement of linkages through regulatory and legislative measures, as reflected in efforts by global treaties and conventions to deal jointly with related issues. This trend is consistent with that towards globalization.

Decision-making processes for resource allocation

Most countries rely wholly or in part on market forces for the allocation of resources and the linking of economic activities among sectors

The forestry–poverty alleviation nexus

The interface among agriculture, forests, water and food security is central to achieving sustainable development, and both the positive and the negative aspects of these links should be taken into account. In the process of bringing agricultural and forestry policies closer through constructive discussion, two key points need to be considered.

First, agricultural and livestock expansion to feed growing populations is the main reason for deforestation. However, such expansion is often the result of food insecurity and poverty. This widespread problem justifies establishing stronger integrated policies, that will:

- improve control over resources, opportunities to earn a living and food security;
- remove perverse subsidies that encourage large-scale expansion of commercial ranching and agriculture;
- develop new technological and institutional packages that increase productivity within the context of sustainable agriculture and agroforestry to relieve pressure on forests.

Second, forests can help to reduce food insecurity, alleviate poverty, improve the sustainability of agricultural production and enhance the environment in which many impoverished

rural people live. Evidence shows that rural people are aware of the opportunities to incorporate trees and forests into their livelihoods and farming systems, justifying stronger policies that will:

- increase support for agroforestry with a focus on research and extension of technology that promotes income generation and sustainable supplies of the food, fibre, fodder and fuel required by local rural populations and by those in cities who can purchase them;
- strengthen local participation in decision-making and sharing of the benefits of forest conservation, including benefits from forested watersheds, where the involvement of local people is often a key to success;
- strengthen the ability of poor farmers to obtain needed credit, to have access to markets, to use the most appropriate technology (including post-harvest technologies) and to participate in training and extension services to spread technologies that often sit on researchers' shelves;
- strengthen institutional, market and financial mechanisms that expand opportunities for off-farm employment, for example in forest- or tree-based enterprises.



through prices that reflect supply and demand, especially if the market is open and competitive. Indeed, the market is well placed to regulate commodities that have a market price. On the other hand, social and environmental public services related to such activities as carbon sequestration, biological diversity conservation, erosion control and watershed protection are not normally traded. There have been many studies on evaluating these services, which could be a basis for marketing, although little use has been made of them so far. Even if a value is calculated for public services, neither the public nor governments have demonstrated a willingness to pay or provide the full cost for environmental services, as they are doing for such other services as health and social welfare. There are, however, a few cases in Europe where public services are supplied to local markets, e.g. municipalities, at rates that beneficiaries are willing to pay.

The public services provided by forests are also maintained through regulations or incentives, such as laws on the use of riverine forests to ensure a stable source of clean water. State ownership and management of forests, especially in tropical countries, is another way of making services available to the public. This allows the government to decide on measures to control erosion and protect watersheds as well as to pay for such activities as tree planting in shelterbelts or along streams and maintaining forests that provide public services. Examples of efforts to provide environmental services at the global level include national implementation of the conventions on biological diversity and climate change.

When government interventions are used to provide public services in one sector, there may be undesirable impacts in other sectors if the effects have not been properly considered. In the past, consultation and coordination were carried out by intersectoral committees or specific sectoral agencies to avoid such situations. However, a new trend is emerging in which interested parties interact before decisions are taken. This is also a result of society's increased involvement in environment and equity issues and of the increased opportunities offered by new information technologies.

Sharing information and knowledge to foster links

In addition to deep-rooted institutional barriers, many problems associated with sectoral linkages stem from a lack of communication and transparency. Governments and organizations need to ensure that information and knowledge are neutral, objective and widely disseminated in a timely manner. Policy proposals and plans need to be made accessible before decisions are made, so that representatives from all sectors can contribute meaningfully to the dialogue and required interventions.

For those who have the resources to access and use modern technology, it can be a powerful tool for sharing information and knowledge. However, as technology becomes increasingly sophisticated, there is a real risk that decision-makers may be provided with an overabundance of information. What is needed, therefore, is a method of screening data for relevance, accuracy and timeliness. Formal and informal networks or communities of specialists and practitioners can be of assistance here.

While useful, new technology is not always available to a large part of civil society, particularly rural communities in developing countries. Traditional forms of communication must therefore supplement the digital flow of information. Another important consideration is the need to tailor information to specific audiences and sectors. For example, unless they are articulated in monetary terms, the environmental and social services provided by forests will not receive the attention they warrant from ministries of finance or financial institutions.

Perhaps the most important contribution that the forest community can make to narrowing the communication gap is to provide information on the significance and benefits of forests to other sectors and to society as a whole, so that policy-makers and the public will understand the need to support sustainable forest management. Quantifying the benefits will make it easier to reach agreement on cost sharing. Furthermore, capacity building, efficient institutions and a transparent policy dialogue could increase the availability and use of information and

knowledge. These are key objectives of the National Forest Programme Facility (see p. 55).

The way ahead

The forest community can complement more conventional means of addressing cross-sectoral issues by alerting other sectors to the need for precautionary and remedial action when their interventions are likely to have undesirable effects on forests and trees. Capacity building is needed so that forest institutions can provide decision-makers with evidence of such potential effects. However, not only must forestry professionals be sufficiently prepared, but civil society at large must also be empowered to act, so that public intervention can address cross-sectoral effects adequately, in particular those that market forces alone cannot dictate.

A number of initiatives have recently been launched to raise awareness of the importance of identifying and addressing cross-sectoral issues in a comprehensive manner and of the need to improve knowledge and capacity in this regard. Experience to date confirms the need to share information in a transparent and timely way and to collaborate closely among sectors. The various sectors must:

- identify sectors and players that have common rather than specific interests and goals;
- exchange information and knowledge on policies, emerging issues and plans;
- monitor progress and respond proactively to policy and legislation initiatives in other sectors;
- propose revisions to policies and legislation to address concerns;
- support cross-sectoral scientific policy analysis (quantitative, so far as possible);
- strengthen institutions;
- promote the full involvement of forest sector stakeholders and civil society. ◆

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