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IUFRO international symposium: Integrated management of neotropical rain forests by industries and communities Applying research results, involving stakeholders and defining policy



The IUFRO international symposium was held in Belém do Pará, Brazil, 4-7 December 2000 and was organized by the Brazilian agricultural research corporation (EMBRAPA), the Center for International Forestry Research (CIFOR) and the Tropical agricultural center for research and higher education (CATIE), and sponsored by Divisions 1 and 3 of the International Union of Forestry Research Organizations (IUFRO), the Center for international cooperation in agricultural research for development-forestry sector (CIRAD-Forêt), the United States Forest Service (USFS) and the German agency for technical cooperation (GTZ).

Examples of good forest management in tropical rain forests by industries or communities are still considered rare in the world. Nevertheless, over the last decade, some progress has been observed as a response to demands made by society for the conservation of these forest resources. In the neotropics it is estimated that currently around 0.3% of the land or 2.7 million hectares is under sustainable forest management (SFM). Ten years ago, the corresponding area was negligible. The concerns for the future of tropical rain forests and the multiple benefits they can provide have generated initiatives such as the certification of forest products or the encouragement of participatory processes in forest management. These improve the opportunities for the different stakeholders to influence the decisions made concerning the management of the forest.

Objectives and program

In this context, the symposium intended to contribute – by providing information and recommendations – to the efforts underway at different levels (local, national, regional) to improve the perspectives for a wider adoption of sustainable forest management in the neotropics. The specific objectives of this symposium were to review current knowledge and the experience acquired concerning industrial and community management of neotropical rain forests; to review the application of small-scale research results in operational forest management, identifying the main constraints and opportunities for policy and research, and to present methodological approaches, tools and policies with the potential to improve the prospects of sustainable forest management by industries and communities in the neotropics. The symposium program was divided into three main themes: industrial forest management, community forest management and means to promote the adoption of sustainable forest management.

The meeting was attended by 170 persons from 22 countries of the Americas, Europe and Asia. During the three and a half days of technical sessions, a total of 60 presentations were delivered including keynote speeches, invited papers and voluntary papers. In addition around 30 posters were exhibited. A satellite meeting on Software toolbox for forest managers was also held during the evening. A post-meeting field excursion to visit two timber companies implementing commercial-scale sustainable forest management operations (Juruá Florestal Ltda. and CIKEL Brasil Verde SA) was attended by 46 participants.

Main conclusions and recommendations

The main conclusions and recommendations of this symposium may be listed as follow.

Research results are inadequately applied at the operational level. There is a need to be more proactive in focusing our research on critical problems for SFM implementation. Researchers have very few opportunities to influence decision-makers and it is absolutely critical to assume a more proactive role here (good examples were given from Guatemala, Bolivia, Honduras and Brazil). It is also necessary to increase efforts to widely and more efficiently disseminate research results and to highlight policy implications.

Industrial forest management

Several presentations addressed the technical aspects of harvesting planning and execution, yield regulation, silvicultural practices and long-term monitoring (e.g. on growth and yield). The development and application of practical tools and computer-based software received special attention. The idea of developing a software toolbox for forest managers was mentioned.

The experience gained in Bolivia illustrated some of the conditions and limitations of forest management. Political will and clear political decisions are perhaps the most critical factors when introducing SFM, whereas the capacity to industrialize new species, legal safety (against encroachment), and administrative capacity for management were mentioned as important limitations.

Some of the proposals put forward during the presentations and discussions, and intended to promote effective actions towards industrial-scale SFM, included: improve managerial skills in forest enterprises; promote better forest-industry-market integration; take more consideration of the needs of the timber market and the requisites imposed on product quality and processing, and implement adequate planning and marketing schemes.



Community forest management

Forest extractivism is a component of the production systems used by traditional populations in the Amazon. It is important for food safety and for the adaptation of domestic economies to regional or national socioeconomic conditions. The presentations devoted to extractivism included the experience of indigenous groups with the use and management of useful plants such as the "babaçú" palm (Orbignya phalerata), the development of methodologies based on traditional knowhow for monitoring non-timber forest products-illustrated by the palm "tucumã", Astrocaryum aculeatum—, and researchoriented trials with silvicultural treatments to improve production in Brazil nut trees (Bertholletia excelsa). It was recognized that a need has arisen to develop forest management techniques for extractive species and to better understand indigenous models for extractivism and the impact of technological innovations on these models. It was also pointed out the need to better integrate scientific and traditional knowledge and to develop mechanisms to circulate information, experience and research results concerning this important production system.

Community forest management (CFM) was recognized as an important component of any strategy for sustainable development in Latin America. Interest in CFM has grown dramatically over the past few years, particularly in the Brazilian Amazon. Studies in Bolivia, for instance, highlighted as (potential) benefits of CFM the more profitable use of forest resources (e.g. better prices for forest products), improved cooperation between communities to use forest resources in a sustainable manner and to protect their communal area.

In Middle America, where most broadleaved forests are under community management, CFM is an effective instrument to check forest conversion in the agricultural frontier. Studies conducted in Guatemala (community concessions in Peten), Honduras and Mexico highlighted the importance of defining and reconciling the changing roles of key actors (government, communities-concessionaires, NGOs) in shaping the process and outcome of CMF.

Several presentations addressed CFM constraints or its critical issues, particularly: lack of clarity concerning land tenure; lack of experience and skills in (business) management; inflexibility and bureaucracy of the legal framework and regulations; poor organizational structure and mechanisms; insufficient information and local capacity to prepare, legalize and implement forest management plans; lack of training; poor access to information (e.g. on appropriate technologies for timber harvesting, on management and processing of non-timber forest products); poor access to credit (under favorable conditions) and to markets.

Some of the actions proposed to overcome these constraints included: strengthen community self-governance and empowerment; pay more attention to social, managerial and participatory aspects (with less focus on solely the silvicultural aspects); create and maintain functional hierarchical structures (e.g. more stable functions) in community organization; encourage horizontal cooperation and establish strategic alliances or partnerships with the private sector; simplify bureaucratic processes (e.g. for forest management plans); increase competitiveness of forest production; diversify production by promoting less-known species in CFM operations; promote greater effi-

ciency in resource use (i.e. waste reduction or its use to generate energy); introduce changes in university curricula (e.g. introducing anthropology, participatory planning, conflict management).

Emphasis was placed on the need to find a way to structure and systematize CFM experiences and processes in order to initiate the learning process. This will help provide a better understanding of the actors involved, the factors influencing them and interrelations with forest resources, as well as identify and define principles, draw lessons and establish recommendations for a much wider audience.

An important message and recommendation was also to be proactive in inserting key forest management themes in the political and social context. We need to improve communications between the forest sector and society (a good example being forest certification).

Adaptive collaborative management of forests (ACM) is an important approach and was brought into this broad theme. ACM was defined as a process based on the hypothesis that a high level of collaboration and adaptability will result in the improvement of human well-being and ecological sustainability. ACM uses participatory methodologies and regards communities as the main actors interacting with other actors. Recent experiences using ACM in the Brazilian Amazon (states of Acre and Para) as well as in Guyana were presented. It was highlighted that changes at the political and institutional level are needed to create opportunities for integration among different actors involved in forest management.

Means to promote SFM

The following means to promote SFM adoption received some attention: forest concessions, legal framework, forest certification, selling of environmental services and the use of forest residues.

Forest concessions can be an important mechanism to achieve sustainable management of tropical humid forests in Latin America. However, such concessions should be granted by governments in a transparent manner, enabling fair participation of all interested parties and possibly with economic incentives to provide long-term security to the concessionaire. The granting of forest concessions must be based on on-the-ground inspection and continuous monitoring of planning and implementation of forest activities.

Criteria and indicators (C&I) are appropriate tools to assess and monitor the implementation of forest management. Different actors in the region, and for different purposes, are showing an increasing interest in the use of C&I. The interest in C&I in Latin America is also in accordance with the international conference on the subject held at CATIE, Costa Rica, in November 1999, which led to the recent establishment of a new IUFRO Working Party: 1 07 20 dealing with this matter.