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# Experiences in Ibero-America: *A 15-Year Journey*





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## Ibero-American Model Forest Network's partners



Turrialba, Costa Rica. February 2011

# Contents

Acronyms .....	iii
Message from the Director .....	v
1. Introduction.....	1
2. More than forests: the Model Forest concept .....	3
3. Model Forest principles .....	9
4. The Model Forest approach: creating new opportunities .....	21
5. Lessons learned from Ibero-America.....	29
6. A look toward the future.....	35
References .....	38

## Acronyms

<b>CATIE</b>	Tropical Agricultural Research and Higher Education Center (Spanish acronym)	<b>IDRC</b>	International Development Research Centre
<b>CBD</b>	Convention on Biological Diversity	<b>IMFN</b>	International Model Forest Network
<b>CEBEM</b>	Bolivian Centre of Multidisciplinary Studies (Spanish acronym)	<b>IMFNS</b>	International Model Forest Network Secretariat
<b>C&amp;I</b>	Criteria and indicators	<b>KEDLAP</b>	Knowledge for Effective Learning and Development project
<b>CMFN</b>	Canadian Model Forest Network	<b>NGOs</b>	Nongovernmental organizations
<b>COCODES</b>	Community Development Councils (Spanish acronym)	<b>NTFPs</b>	Nontimber forest products
<b>CONAF</b>	National Forest Council, Chile (Spanish acronym)	<b>PNBM</b>	National Model Forest Program (Spanish acronym)
<b>CYTED</b>	Ibero-American Science, Technology and Development Programme	<b>REDD</b>	Reducing Emissions from Deforestation and Forest Degradation
<b>FAO</b>	Food and Agriculture Organization	<b>RIMAP</b>	Ibero-American Landscape Management Network (Spanish acronym)
<b>FCBC</b>	Foundation for the Conservation of the Chiquitano Forest (Spanish acronym)	<b>SFM</b>	Sustainable forest management
<b>FSC</b>	Forest Stewardship Council	<b>UNDP</b>	United Nations Development Programme
<b>IAMFN</b>	Ibero-American Model Forest Network		

## ***Message from the Director, International Model Forest Network Secretariat***

Since the first Model Forests were created in Canada in 1992, the Model Forest approach has been adopted and applied at over 50 sites, in more than 23 countries around the world. This publication celebrates 15 years of Model Forest experiences in Ibero-America where a consolidated regional network of 25 Model Forests and 13 member countries now collaboratively works toward the sustainable management of large forest-based landscapes and natural resources using diverse partnerships to translate policy into practice.

As this publication reveals, a Model Forest is as much about the people who sustain themselves from the forest, the effects they have on its resources and their human development, as it is about trees and forest products. With global environmental change transforming the way natural resources are understood, and ultimately managed for multiple, intersecting values and goals, *Model Forest Experiences in Ibero-America: A 15-Year Journey* documents a wide range of lessons learned that reveal innovative processes in the advancement of sustainable natural resource management that are adapted to respond to local, regional and global challenges. These processes are focused on collaborative learning, doing, and sharing. They are intended to improve resource management and ecosystem health in ways that directly benefit communities while also informing higher level policy making processes so that innovations can be more broadly applied.

The International Model Forest Network, as a global community of practice, is delighted to share with you some of the Model Forest experiences in the Ibero-American region. In the coming years, we look forward to continued growth of the Network, the strengthening of alliances and partnerships, and the opportunity to share Model Forest experiences, successes and lessons learned on critical aspects of sustainable natural resource management.

Peter Besseau  
Director, International Model Forest Network Secretariat  
Natural Resources Canada, Canadian Forest Service

February 2011

1



# Introduction

We live in a world of change, and today climate change is one of the greatest global drivers of that change, affecting local and global environmental, economic and social sectors, thereby impacting and transforming the forest sector and natural resource management. As new conditions and needs arise, people must be informed and prepared to address them. By better understanding the drivers of change and their possible manifestations, strategies for responding to the changing global environmental, political and economic climate become easier to develop. This document proposes the Model Forest concept as a valuable mechanism for a landscape-level, long-term process toward sustainable forest management and human development.

The Model Forest concept is a process grounded in a social base, where stakeholders representing different interests work together toward a common vision for the sustainable development of a large landscape in which forest ecosystems play an important role (IMFNS, 2008a). These multistakeholder platforms convene stakeholders having an interest in the sustainable management of forest-based landscapes and good governance. They also represent a suitable system to carry out research, inform, promote awareness and organize action that addresses global change.

Each Model Forest is unique, defined by the conditions found within a particular country or area. Different local conditions and needs lead to diverse Model Forests (IMFN, 2009a). Though there are differences in their program of activities, landscape physiography, governance structures, population and cultural characteristics, all have in common the commitment to comply with the six fundamental Model Forest principles (IMFN, 2009b).

This document focuses on the experiences of Model Forests in Ibero-America to demonstrate leadership in sustainable management of forest-based landscapes.





**More than forests:**  
the Model Forest concept

Model Forests were first developed in Canada in the early 1990s to advance the concept and practice of sustainable management of forested landscapes and natural resources (Hall and Bonnell, 2004). At that time, there were increasing conflicts between various natural resource uses and calls for greater public participation in the management planning process. The government of Canada developed the Model Forest concept as a mechanism to

1. Bring a diversity of stakeholders together to discuss their respective goals and challenges
2. Examine resource management issues at a landscape scale
3. Allow for the generation of innovative ideas grounded in local circumstances to advance toward sustainable forest management (Forestry Canada, 1991)

Since that time, more than 50 Model Forests have been developed in 25 countries. These sites are linked through the International Model Forest Network (IMFN). The IMFN is an efficient mechanism for transferring knowledge and lessons learned from one part of the world to another, thereby accelerating progress toward sustainability goals. It is supported by a small secretariat based at Natural Resources Canada-Canadian Forest Service in Ottawa, Canada.

A Model Forest encompasses both a geographical area as well as the populations residing in that area who use the goods and services provided by its forests. The stakeholders involved seek to advance the sustainable management of the landscape in a cooperative and coordinated manner. Many people initially perceive a Model Forest to be a specific forest management unit where high-quality technical forest management is practiced and demonstrated in compliance with international standards, such as the Forest Stewardship Council (FSC) or other certification system, or where the Food and Agriculture Organization (FAO) model code of forest harvesting practices is applied. While a forest area with these standards could be a Model Forest, an area with these standards does not automatically constitute a Model Forest.

Central to the Model Forest concept is the voluntary participation of diverse stakeholders representing the different sociopolitical and economic sectors of the area. This includes local, regional and/or national government agencies, academic and research organizations, industry, civil society, nongovernmental organizations, indigenous people, youth and others interested in the sustainable

management of the area. The governance structure is established by the participants and is defined by the local context, resulting in differences for each Model Forest.

Model Forests do not have jurisdictional authority over the landscape or the resources found therein; however, individuals or institutions with administrative or other authority are actively involved in the process. A Model Forest provides a forum for participants, particularly those that have traditionally been left out of the decision-making process. Around the Model Forest table, landowners, administrators and other stakeholders can discuss issues related to the sustainable management of forest resources, develop collaborative activities to address those issues and then implement solutions.

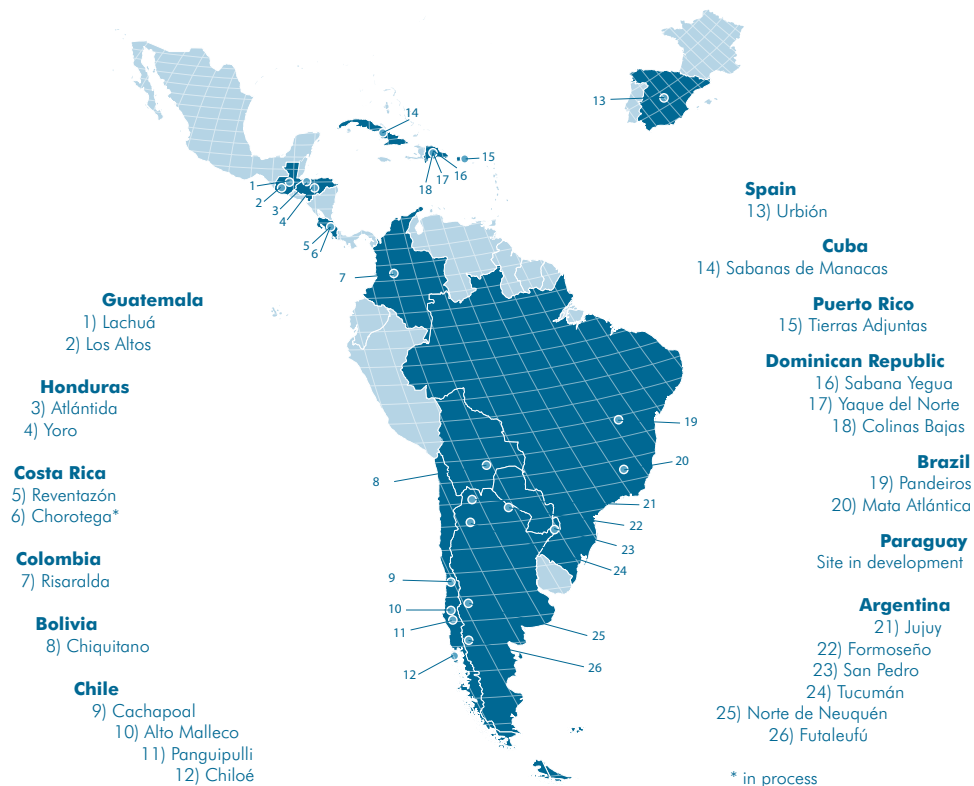
Each Model Forest develops a program of activities that reflects local needs, issues and resource management challenges. In general terms, Model Forests focus their work on activities such as

- Enhancing the sustainable management of forest-based landscapes and associated natural resources through research and the exploration of innovative management practices
- Identifying opportunities and implementing initiatives for economic diversification, including the assessment of ecological goods and services in the forest
- Capacity building through formal and informal education opportunities
- Gathering and using traditional knowledge
- Strengthening participative governance of the landscape
- Participation in national, regional and international-level Model Forest networks to exchange information, knowledge and experiences

One of the primary obstacles faced by Model Forests is the dissemination of the concept, both within and outside of the territory. During the 2005 IMFN Global Forum, keynote speaker Gary Hartshorn, president and chief executive officer of the World Forestry Center, referred to the Model Forest concept as the “world’s best kept secret” (Carrera and Corrales, 2006), implying that the concept is of notable interest and relevance, but that in practice awareness of it is not widespread. Many Model Forests have not achieved high visibility for their initiatives, on which the long-term sustainability of Model Forests heavily depends.

The creation of regional Model Forest networks was intended to partially address this issue. The main purpose of the IMFN regional networks is to define, articulate and manage a regional program of work related to the sustainable management of forest-based landscapes that reflects the priorities, strengths and opportunities unique to the region. They also facilitate regional communications and knowledge exchange, capacity building and funding opportunities for existing Model Forests, as well as those expected to join the network.

The Ibero-American Model Forest Network (IAMFN), established in 2002, is one of six IMFN regional networks. It currently consists of 25 Model Forests and 13 member countries (Figure 1). The first Model Forest in the region was developed in 1996 on the island of Chiloé, Chile.



**Figure 1.** Model Forests of the Ibero-American Model Forest Network

The vision of the IAMFN is to be the regional benchmark for the sustainable management of natural resources on a landscape scale, a management based on widespread social participation. Its mission is to promote cooperation among

Model Forests in the region, institutions and countries based on knowledge exchange and innovative experiences and to contribute to public policies related to the sustainable management of natural resources. The objectives of the IAMFN are as follows:

- To consolidate existing Model Forests and growth of the network while connecting Model Forests with one another
- To strengthen the capacity of the IAMFN to provide support to its members as well as to achieve its own financial sustainability
- To disseminate and transfer technological know-how through the fostering of horizontal technical cooperation, the transmission of information on practical improvements and other similar activities
- To contribute to sectorial and intersectorial processes for the formulation, implementation and evaluation of public policies linked to sustainable forest development in Latin America

A formal governance structure consisting of a board of directors and a regional management team has been established for the IAMFN. In 2002, the offices of the regional network management team were established at the United Nations Development Program (UNDP) in Chile. In 2004, it moved at the Tropical Agricultural Research and Higher Education Center (CATIE) in Costa Rica. The management team is responsible for the operations of the IAMFN and for executing the decisions of the regional board of directors. The regional board currently has 29 members: (1) one representative from each member country, as appointed by the government institution that is signatory to the network, (2) one Model Forest representative per member country regardless of how many Model Forests are in a country and (3) one representative from partner institutions contributing to the objectives of the IAMFN and the IMFN. Partner institutions currently include CATIE, the Canadian volunteering agency CUSO-VSO and FAO. The IMFN Secretariat also sits on the regional board as a nonvoting member.

The regional board is the supreme governing entity of the IAMFN and generally holds two board of directors meetings per year, rotated among member countries. Each member country has to demonstrate an annual investment equivalent to US\$10,000 (in cash or in kind) in networking activities and demonstrate interest in developing or supporting regional Model Forest networking activities within the country or between countries. Members report on their networking activities at each board meeting.

Argentina is the only country within the IAMFN to have formally established a national Model Forest network. The National Model Forest Program (PNBM) is active in fostering information exchange and collaboration between Argentina's six Model Forests.

In addition to the Ibero-American Model Forest Network, other regions of the IMFN include:

- The Regional Model Forest Network-Asia is based in Beijing, China.
- The Mediterranean Model Forest Network is under development and includes countries in southern and Eastern Europe, the Middle East and North Africa. Its regional secretariat is based in Valladolid, Spain.
- The African Model Forest Network supports the development of at least two Model Forests in Cameroon, which represents the beginning of a Congo Basin-wide Network. Its regional secretariat is based in Yaounde, Cameroon.
- The Canadian Model Forest Network, originally established in 1992 and legally incorporated as a nongovernmental organization in 2007, includes 14 Model Forests.



# **Model Forest** principles

There are six principles that define a Model Forest: (1) partnership, (2) landscape, (3) commitment to sustainability, (4) governance, (5) program of activities and (6) knowledge sharing, capacity building and networking. These principles provide clear and focused guidance in defining a Model Forest while maintaining the flexibility for local application that is a fundamental feature of the Model Forest concept.

## Principle

# 1

**Partnership:** A neutral forum that welcomes the voluntary participation by representatives of stakeholder interests and values on the landscape

A Model Forest is as much about people whose livelihoods are sustained by the forest and its resources as it is about trees and forest products. Each Model Forest is built on a foundation of accountability, consensus, participation, cooperation, transparency, trust and respect between organizations representing a wide range of values that have agreed to work together toward a common vision related to the sustainable management of the landscape (IMFNS, 2008b). The construction of trust between the partners is crucial and is often achieved through the development of concrete actions and a transparent and accountable decision-making system based on broad participation and sound financial project management. This is why Model Forests are best thought of as a process rather than a project.

A Model Forest goes well beyond traditional cooperative management approaches to encompass a diverse range of organizations representative of the various uses and values found on the landscape. The concept is not restrictive in terms of the type of groups that can be involved and does not compete with other initiatives taking place in an area. It seeks, instead, to strengthen and complement them. It is a forum based on consensus, transparency and voluntary participation that seeks to integrate the diversity of forest values and interests of participants to foster the creation of a common vision of sustainability, to agree on specific activities to support that vision and to share ideas, knowledge and experiences. Not all of the people living in a Model Forest are necessarily aware of the concept. Initially, the focus is primarily on the involvement of key sectors and specific actors. Then, other stakeholders progressively become involved. The involvement of all the stakeholders in an area is not required, but involvement of a diversity of organizations and sectors is a fundamental principle.



In some instances, the organizations are grouped into federations or associations that represent the interests of their members. In areas where there are indigenous populations, representatives are involved in the Model Forest. An outstanding example of this is the Araucarias del Alto Malleco Model Forest in Chile, in which 10 of the 27 people on the board of directors represent local indigenous inhabitants and farmers. These local indigenous representatives are elected by their communities. In the Lachuá Model Forest, where the majority of the population is indigenous, the board of directors includes, among other members, representatives from the Community Development Councils (COCODES) from the northern and southern zones of the Lachuá ecoregion, which, in turn, are elected and represent 55 local COCODES and three producer associations involving more than 4,000 families.

Considering that the participation in a Model Forest is voluntary, situations can arise where not all of the relevant actors choose to participate (Vides-Almanacid, 2008a). Model Forest members are aware that this forum provides opportunities to address and reduce conflicts surrounding natural resource management as well as to address environmental challenges. In addition, participation can enhance cooperation in activities by focusing on each partner's strengths and on a leveraging of resources that could help achieve mutual goals. In addition, the lack of understanding of the role and functions of the stakeholders in the structure of the Model Forest can sometimes affect their empowerment and participation in the process, which, consequently, can weaken the impact of governance in the Model Forest (Duran, 2010). When new partners become involved, it can often take time for them to understand the objectives, structure and functioning of a Model Forest (Elmúdesi, 2008). Usually, however, through observation of the process over time and through support provided by other organizations involved in the Model Forest, the stakeholders are able to identify and clarify their roles and responsibilities.

For example, when the Jujuy Model Forest in Argentina was in its development phase, a local cement company that caused deforestation and other environmental impacts through its extraction activities decided to observe and evaluate the approach of the Model Forest for six months. Once they realized the spirit of cooperation among the other stakeholders, they decided to become more directly involved as a partner. This company has become an example of good forest management and forest restoration in the area, applying recommendations provided by the Model Forest (Outon and Escalier, 2008), recently receiving important recognition by FAO.

**Landscape:** A large-scale biophysical area representing a wide spectrum of forestry values

Model Forests differ in size and character. One of the first questions when discussing the concept of “area” is “How large should a Model Forest be?” In the IMFN, Model Forests range in size from 14,400 ha to more than 20 million ha, with most averaging 300,000–500,000 ha. The Tierras Adjuntas Model Forest of Puerto Rico covers 14,400 ha, which is substantial for a country of less than a million hectares. The Chiquitano Model Forest of Bolivia covers 20.4 million ha of the Chiquitano forest region (Table 1). In some cases, the geographical definition of the area of the Model Forest is based on watershed boundaries (e.g., Jujuy Model Forest of Argentina). In other areas, a Model Forest may follow political and administrative boundaries (e.g., Risaralda Model Forest of Colombia and the Atlántida Model Forest of Honduras). The Reventazón Model Forest of Costa Rica is defined by the province of Cartago, and the Cachapoal Model Forest of Chile corresponds to three municipal boundaries. There are also cases such as the Lachuá Model Forest of Guatemala where the boundary corresponds to the Lachuá ecoregion and the Chiquitano Model Forest of Bolivia that covers the Chiquitano dry forest ecoregion.

The area covered by a Model Forest is determined by the local stakeholders and can vary over time as experience evolves, issues change and new stakeholders participate. There is no standard that specifies a minimum or maximum size or the percentage of forest cover that should be considered. However, the area should be large enough to incorporate all the region’s forest uses and values—including the social, economic and environmental values—and be appropriate for the country or region within which it is found.

**Table 1.** General information about the Model Forests of Ibero-America

Country	Model Forest	Year of affiliation to IAMFN	Area (Hectares)	Population
Argentina	Formoseño	2000	800,000	27,400
Argentina	Futaleufú	1998	738,000	33,000
Argentina	Jujuy	2002	130,000	100,000
Argentina	Norte de Neuquén	2005	2,482,000	17,329
Argentina	San Pedro	2007	443,514	35,000
Argentina	Tucumán	2008	180,000	1,336,664
Bolivia	Chiquitano	2005	20,400,000	130,000
Brazil	Mata Atlántica	2004	2,250,320	68,208
Brazil	Pandeiros	2005	750,000	70,000
Chile	Araucarias del Alto Malleco	2002	396,320	27,207
Chile	Chiloé	1998	300,000	33,000
Chile	Panguipulli	2005	329,200	33,273
Chile	Cachapoal	2008	105,000	53,386
Colombia	Risaralda	2008	360,000	863,673
Costa Rica	Reventazón	2003	312,000	495,249
Cuba	Sabanas de Manacas	2008	171,700	81,620
Dominican Republic	Sabana Yegua	2003	166,000	77,000
Dominican Republic	Yaque del Norte	2007	83,000	47,000
Dominican Republic	Colinas Bajas	2010	909,200	1,422,624
Spain	Urbión	2006	120,000	18,436
Guatemala	Lachuá	2008	53,523	18,277
Guatemala	Los Altos	2008	50,000	252,620
Honduras	Atlántida	2006	440,000	315,041
Honduras	Yoro	2007	321,219	132,679
Paraguay	In process	2008	N.A	N.A
Puerto Rico	Tierras Adjuntas	2007	14,368	231,081
<b>Total</b>			<b>31,653,976</b>	<b>7,814,556</b>

A Model Forest represents a mosaic of land uses within the landscape, covers more than one ecosystem type and includes a variety of natural resources and tenure systems. A Model Forest may include population centres, protected areas, productive farming and livestock zones, natural forests and plantations. Under this diversity of landscape elements a variety of human activities are evident that reflect the different interests and values of the stakeholders as well as uses of the natural resources of the area.

## Principle 3 Commitment to sustainability

In a Model Forest, stakeholders define for themselves what sustainability means in their particular context. They then work together to design and implement local applications to global and national sustainable development initiatives. In addition to conservation and other protected areas that may be found within a Model Forest, stakeholders are encouraged to implement a conservation ethic in all their resource management activities. A Model Forest is a “working forest” where stakeholders use the resources to derive a range of economic, social and cultural benefits. The partnership is encouraged to apply and demonstrate natural resource management practices that are environmentally sound, socially acceptable and economically viable.

## Principle 4 Governance: A representative, participative, transparent and accountable management process

As highlighted under Principle 1, each Model Forest has a stakeholder group, referred to as the partnership, comprised of different societal sectors and organizations. The creation of spaces for participation and inclusion of relevant actors associated with the use and value of forest resources is fundamental to a Model Forest (Elmúdesi, 2008; IMFNS, 2008c). Establishing the collaborative relationship between the organizations, many of which may have been in conflict, is not easy to achieve. Internal disputes may arise, especially early in the establishment of the Model Forest when the objectives of each stakeholder are not fully known or understood by the others. A Model Forest therefore requires the building of a collaborative and negotiating spirit that allows participants to adapt to changing situations.

Model Forests work toward the development of a participative and collaborative governance structure that strives to establish a horizontal relationship among the stakeholders whether they be representatives of government entities, the private sector, communities, nongovernmental organizations or individuals. In this sense, all of those involved are equal within a Model Forest. Differing from other approaches, Model Forests usually develop structures and mechanisms for decision making, discussion and action that promote the involvement and participation of traditionally marginalized groups (Duran, 2010).

Because Model Forests are neither government-run nor private entities but rather are voluntary and apolitical associations, stakeholders work together using consensus-based processes to define and achieve the vision and goals of the Model Forest. Not all stakeholders participate simultaneously in the same projects, but they usually cooperate in the activities or projects that are of greatest relevance to them in terms of their interests and needs and in relation to their strengths. This allows them to advance toward the achievement of their own objectives and to provide support and/or resources that ensure progress and shared benefits in Model Forest projects.

Model Forests usually have four levels of governance: (1) a governing body that provides direction and approval on strategic issues and budgets, (2) a partnership or stakeholder committee that includes representatives of all stakeholders, elects a president or chair and a board of directors from among the members and oversees the projects, (3) technical and advisory committees that offer expert input and guidance to the governing body and/or stakeholder committee in function of the needs of the Model Forest and (4) staff who oversee project development and implementation.

The development and implementation of the Model Forest concept does not represent an expansive process for the stakeholders. The governing body and the committees are composed of organizational representatives who participate on a voluntary basis and who cover their common basic operative costs (such as transportation costs to participate in meetings) as a counterpart to the process. Other joint activities may require additional funding and payment of these costs are negotiated among the organizations. The general approach is to promote partnerships and to share project costs (including staff and administration costs).

All Model Forests require a minimum of funds to cover basic operational costs (office space, phone line, Internet service, computer and local transportation costs, among others) unless provided by a partner organization that may provide these facilities. For example, CATIE in Costa Rica hosts and covers the cost of the office of Reventazón Model Forest while the National Forest Council of Chile (CONAF) covers it for the Chilean Model Forests. In Bolivia, it is the Foundation for the Conservation of the Chiquitano Forest (FCBC) that provides similar support to the Chiquitano Model Forest. In other cases, these costs are covered through projects receiving funds from national or international donors, such as in Lachuá Model Forest in Guatemala and Sabanas de Manacas Model Forest in Cuba.

In terms of staff, the approach to cost sharing based on strategic partnerships is ideal; however, it usually represents a complex challenge. In some cases Model Forests have come up with innovative solutions in order to secure personnel and core funding, either through support received from partners or, for example, through project implementation. Nonetheless, these solutions are generally temporary in nature and limit the longevity of a dedicated full-time work team, thus reducing the impact and support provided by the initiative. On the other hand, complete dependence on one source of funding can also be risky when changes in institutional or donor priorities occur. Model Forests must work to diversify funding sources to adapt to the changing political and economic climate.

In Chile, Argentina and Colombia, for example, Model Forests have a management team headed by a general manager who is funded by a government agency either at the national or state level. In other cases, a local counterpart provides funding for a general manager or coordinator and possibly even other team members—examples are the Lachuá Model Forest in Guatemala, Reventazón Model Forest in Costa Rica and Urbión Model Forest in Spain. Other Model Forests, such as those in the Dominican Republic and Brazil, rely on a person in the lead organization to oversee project management and implementation, who does so part-time as one of the functions of his job in the organization. However, experiences have demonstrated that it is better to have at least one person dedicated permanently to the Model Forest to ensure effective management and administration of projects and to strengthen the governance structure.

## Principle 5 Program of activities reflecting the needs, values and challenges of the stakeholders

Once the stakeholder committee and the governing body are defined, one of the first tasks that a Model Forest undertakes is the preparation of a strategic plan that helps identify a vision and a broad strategy for achieving that vision and provide direction for the Model Forest and its stakeholders. The strategic plan covers a period from three to 15 years depending on the political, economic and social context of each Model Forest. This process can assist in clarifying the focus of a Model Forest, increasing the active participation of interested groups, developing organizational capacity, improving work planning and facilitating a monitoring and evaluation process (IMFNS, 2008b). A Model Forest strategic

plan is not the same as an integrated watershed or forest management plan, which outlines the actions needed to meet landscape management objectives. A Model Forest strategic plan, on the other hand, may include developing an integrated watershed or forest management plan as a key program area to assess a new or proposed planning process.

The IAMFN provides technical and, occasionally, financial support to Model Forests for strategic planning workshops. In 2004, the Araucarias del Alto Malleco Model Forest in Chile undertook a participatory approach in the development of its strategic plan. The process lasted nine months and allowed development of the Model Forest's lines of action based on local needs. The strategic plan 2005–2008 was then distributed throughout the IAMFN, becoming an exemplary document for the rest of the network. In 2008, the Model Forest evaluated its strategic plan with the aim of validating its strengths and determining how to address its weaknesses. This analysis was incorporated into the preparation of a new four-year plan (2009–2012). The new plan maintains the same vision, mission, values and strategic lines of action (participation and citizenship, local economic development, sustainable natural resources management, land use planning, improvement of institutional management) as defined in the 2005–2008 version, based on their maintained relevance (AAMMF, 2009). However, the objectives and actions were redefined to reflect the progress or the need to manage a theme distinctly. The experiences in the planning process were shared with other IMFN members at both the 2005 and 2008 IMFN Global Forums.

These strategic plans are put into operation in an annual work plan that considers their relationship to national forest programs and other municipal or state plans. The annual work plan provides the link between the strategic directions and implementation strategy in the strategic plan and the day-to-day activities of the Model Forest. The work plan outlines the activities to be undertaken in that year to achieve the Model Forest's strategic directions and contains more detail and more specific budgets for each project than does the strategic plan.

These plans help stakeholders focus their efforts on common issues and on the challenges that impede progress toward the sustainable development of natural resources. They also provide a tool stakeholders can use to identify opportunities for collaboration and support for specific activities.

## Knowledge exchange, capacity building and networking

A Model Forest is a network of stakeholders that works from the principle that sharing knowledge creates a net benefit for participants. Networking, especially at the local level, strengthens the Model Forest partnership and increases its effectiveness in introducing positive landscape-level changes.

Model Forests undertake activities that build up the capacity of local people—who often have little or no access to resource management planning and decision making—so that they can participate actively in the sustainable management of natural resources. Training activities through educational outreach programs in schools, workshops, short courses, field trips and exchanges between Model Forests or with other organizations provide new tools to Model Forest members that improve their ability to respond to local needs and interests.

For example, the technical and scientific terminology often used in debates on climate change makes it difficult for the general public to fully comprehend the discussion. As a result, while governments are keen to implement climate change mitigation and adaptation projects, there is a lack of understanding on the ground of what such projects entail. In the case of the Reducing Emissions from Deforestation and Forest Degradation (REDD) and REDD+ (which includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks) mechanism, Model Forests may be good platforms for implementing REDD and REDD+ pilot projects in the region. The IAMFN facilitates a communication and technical support network that can help promote understanding of the REDD concept and through which concrete action can be taken to adapt to and mitigate climate change. Similarly, international conventions or agreements often face implementation challenges at the ground level—Model Forests can be the platform that translates policy into practice.

Through the Ibero-American and International Model Forest Networks, Model Forests pursue joint projects and training, identify collaborative projects and secure political support to create more opportunities for effective site-level activity. Since 2008, three network-level projects have been implemented in the IAMFN. The first is biodiversity restoration and community development through the Analog Forestry Project, which ran from 2008 to 2010 with participation by Atlántida Model Forest in Honduras, Reventazón Model Forest in Costa Rica and Colinas Bajas Model Forest in the Dominican Republic. It was coordinated by the IAMFN, CATIE and Falls Brook Centre. The project promoted the establishment of demonstration areas and capacity building in the three Model Forests, as well as information and knowledge sharing among them. The demonstration sites, along with the capacity built among local organizations and farmers, may led to the



creation of national analog forestry training centers. In addition, knowledge and experience may be shared with other Model Forests interested in this restoration mechanism.

The second network-level project is the Knowledge for Effective Learning and Development project (KEDLAP), which involves five Model Forests: the Jujuy Model Forest in Argentina, Araucarias del Alto Malleco Model Forest in Chile, Chiquitano Model Forest in Bolivia, Reventazón Model Forest in Costa Rica and Lachuá Model Forest in Guatemala. It is coordinated by the Canadian international cooperation organization CUSO-VSO, together with the International Development Research Centre (IDRC), the Bolivian Centre of Multidisciplinary Studies (CEBEM), the IAMFN and the IMFN Secretariat. From 2008 to 2011 participants built a collaborative knowledge network among key strategic organizations and volunteers involved with the IAMFN. The project aimed to validate the importance of a knowledge sharing and collaborative learning processes as a key determinant for effective development practice. In order to enhance knowledge management, a culture of systematization of experiences in the Model Forests and knowledge sharing among the network, participants found that it may be necessary to offer capacity building at the local level and provide the tools and a facilitator to support the systematization of relevant experiences as well as the local benefits and to share their knowledge with members of other Model Forests. Technological infrastructure and the availability of an adequate Internet connection for e-mailing and VOIP conferencing do represent challenges to good communication among the Model Forests.

The third is the Ibero-American Landscape Management Network (RIMAP), a research network that links Model Forests in eight countries (Argentina, Bolivia, Colombia, Costa Rica, Dominican Republic, Honduras, Puerto Rico and Spain) to disseminate research results and share knowledge related to landscape management. Project funding for 2008 to 2012 is from the Ibero-American Science & Technology Development Programme (CYTED).

In 2008, the first Ibero-American Model Forest Congress was held in Soria, Spain. The congress provided opportunities for regional network members to share information on their research and other initiatives and begin the process of building more formal relationships with each other.

Model Forests of Ibero-America also participate in joint projects with individual Model Forests from across the IMFN as an additional opportunity to enhance networking and knowledge exchange based on technical, social and cultural interests associated with sustainable development. For example, in 2008, the Araucarias de Alto Malleco Model Forest in Chile and the Prince Albert Model Forest in Canada signed a memorandum of understanding identifying topics of common interest for bilateral collaboration in 2008: bioenergy, intercultural health,

strategic planning and governability, and value-added forest production. Since then, visits and expanded discussions were organized by both Model Forests in order to share knowledge and learn from technical and cultural experiences in the areas of governance, value-added forest product development and technology, indigenous involvement in the forest sector, wood-based bioenergy developments, and sustainable plantation forestry (Stanley, 2009). Support was provided for collaboration on research projects undertaken in both territories.

The Canadian Model Forest Network (CMFN) also signed an agreement of collaboration with the National Model Forest Network of Argentina to assist them in establishing local-level criteria and indicators (C&I) for sustainable forest management (see box 1), including the following general objectives:

1. To build, through a participatory process, a common framework for C&I for the implementation of a monitoring and evaluation system for Model Forests of the National Model Forest Network of Argentina, within the principles and attributes framework for Model Forests, the Montreal Process and the progress achieved in Argentina
2. To strengthen local capacity for active participation in the development and application of C&I processes within Argentina's Model Forests
3. To contribute to knowledge management on C&I at the local, national and international levels as well as to the orientation of policies directed at improving natural resource management

The Reventazón Model Forest in Costa Rica and the Manitoba Model Forest in Canada work in partnership on an ethnocultural tourism program aimed at developing collaborative ties between indigenous communities in the two sites. This collaboration promotes the exchange of knowledge and cultural experiences between the Ojibway Cree First Nations of Canada and the Cabecar indigenous peoples of Costa Rica. In addition to receiving support for construction of tourism infrastructure in the Cabecar indigenous territory, youth and other members of the Cabecar community visited their counterparts in Canada, shared their experiences and culture, and received training in business administration, customer service and the English language.

Once every three years, Model Forest members from Ibero-America have the opportunity to meet face-to-face with other members of the international network at the IMFN Global Forum. The primary focus of the forum is to increase networking among Model Forests, promoting discussion on progress and lessons learned and enabling new and candidate members to better understand the Model Forest concept and its application. The forum also allows participants to build links across regional boundaries and to take an active part in shaping the future direction of the network.

4



## **The Model Forest approach: creating new opportunities**

Model Forests provide an opportunity for creating a culture of collaboration and a favorable political environment among stakeholders. They also enhance local and regional capacity to address challenges while considering local interests and priorities. The application of Model Forest principles can be difficult but has also brought many benefits to those involved and greatly assisted in responding to and overcoming local, regional and global challenges facing natural resource managers. Among the most important global changes are climate change, changes in global and local markets for forest products, increasing demands for forest conservation and the use of forests as a source of bioenergy. Evidence from across the IAMFN clearly indicates the Model Forest approach helps address the challenges and achieve the objectives of the region's Model Forests while maintaining the fundamental principles outlined above. This section presents examples describing how Model Forests respond to these challenges through the creation of opportunities in governance, sustainable economic development, science and best practices, and conservation and stewardship.

## **Governance**

Model Forests have brought together a wide range of organizations and people to work jointly toward a common vision for the sustainable management of natural resources. When stakeholders understand the Model Forest concept and its potential for achieving their objectives and landscape-scale benefits, they usually begin to participate and collaborate in projects and activities of common interest with shared resources.

While a relatively simple concept in theory, a Model Forest can prove complex in practice. Model Forests are sometimes formed to address a specific conflict over a particular land base or unsustainable land-use practice. This inherently requires the involvement of participants that have not traditionally worked together or have often come into conflict. However, to usefully engage local participation and expertise, each stakeholder needs to recognize that the various points of view around the table have common elements and have a place in the decision-making process.

For example, in Araucarias del Alto Malleco Model Forest of Chile, the resolution of a historic conflict between two indigenous groups and the participation of representatives of both groups on the board of directors has been a key achievement. The directors are now fully participating in decision-making processes under a shared vision of sustainable forest management. The 2009–2012 Model

Forest strategic plan demonstrates stakeholder priorities through specific lines of actions that were defined through a participative process. These actions orient the development of local and regional activities based on local conditions and interests as well as on global challenges such as the changes in local and global markets for wood products, bioenergy, climate change and climate-change mitigation mechanisms.

In Tierras Adjuntas Model Forest in Puerto Rico, many local stakeholders led by Casa Pueblo, a local community-based organization, came together to rally against a large open-pit mining proposal. In 1995, after 15 years of conflict, conservation of the landscape was secured after a change in policy by the government (Massol et al., 2008). This resulted in the development of a strong locally and regionally based governance structure focused on the sustainable management of its territory. Stakeholders had and continue to have a high interest in influencing public policy at the national level by bringing to negotiation issues related to the sustainable management of natural resources and particularly to forest conservation. This successful process led this local and landscape-based initiative to become recognized as a member of the IAMFN in 2007.

Model Forests have also provided an effective platform for local stakeholders to improve communication among themselves and articulate their vision for the landscape. The initial leading organizations of the Model Forest process, the management committee and then the board members, work toward progressive involvement of a diversity of stakeholders that were able to identify common interests. Stakeholders also identify priorities based on their own needs, interests, opportunities and challenges at the local and global levels and make decisions regarding how to address them on a collaborative basis. As a result, a variety of partnership-based projects are designed, co-funded and implemented by stakeholders, bringing about opportunities for strengthening local capacity and identifying new sustainable economic alternatives related to issues such as water, forest conservation and co-management, ecotourism, climate change and local and global markets.

Because the Model Forest does not have legal authority over the land base, tenure holders and governments play an active role. Their support is necessary for the partnership to establish an effective program of activities. Each Model Forest governs and administers itself and its activities according to the norms of its country and region. For example, Yoro Model Forest in Honduras is structured as a legal, not-for-profit public association. In other cases, the Model Forest may

decide to use the legal status of one of its members to manage financial and administrative tasks.

The governance structure that characterizes a Model Forest has supported the empowerment of local groups. For example, by participating in the Lachuá Model Forest, the Community Development Council (COCODES) of Guatemala became involved in various projects aiming to fulfill different needs and interests of the communities and producers they represent. These projects built capacity and provided economic alternatives to members, increasing their ability to respond to changes and opportunities in terms of product markets, climate change mitigation mechanisms, bioenergy and forest conservation. The associations became a key partner for the management of the Salinas Municipal Protected Area and the development of a tree nursery. Members of the communities and producers are directly involved and receive benefits from these activities. Through the Model Forest initiative, they built an alliance with the National Protected Area Council (a member of the Model Forest Board of Directors), which gave them the opportunity to become responsible for the co-management and administration of the Lachuá National Park. This is providing employment for many members of the surrounding area.

While there are numerous successes, there have also been a number of challenges related to governance in Model Forests. The Chiloé Model Forest in Chile is an exemplary case of public-private cooperation and community participation that has received numerous accolades for its work in sustainable forest management. Conflict within the board of directors, however, impeded its ability to make decisions with respect to the inclusion of new partners and to the diversification of funding sources. This led to a loss of legitimacy from the stakeholders' perspective. The board of directors was dissolved and all projects suspended for more than a year until the national government intervened to reactivate the Model Forest for a second phase in 2009. As a part of this process, the area of the Model Forest was reduced.

In some cases, nongovernmental organizations have taken the lead in promoting the formation of Model Forests and managing the process. In some instances, these NGOs have not involved a strong, multisectorial base of stakeholders in the governance of the Model Forest, thereby limiting the ownership of the process by local actors, which is contrary to the inclusive concept of a Model Forest. The few Model Forests that have faced this dilemma have usually taken corrective

action by seeking to create a board of directors that is representative of the different interest groups within the territory and jointly preparing a strategic plan.

### ***Toward sustainable economic development***

Model Forests help communities explore economic opportunities while they maintain an appropriate balance between social and ecological values. One of the priorities defined by stakeholders in Araucarias del Alto Malleco Model Forest in Chile is local economic development. For more than five years, various activities geared toward achieving sustainable economic use of resources have been undertaken. During 2009–2012, this Model Forest will pursue specific activities in relation to climate change mitigation mechanisms and nontimber forest products (NTFPs). The Land Innovation Program supports the development, diversification and productive linkage of three NTFPs (pine nuts, nutmeg and morel mushrooms). This program was selected because of the diversity of interests, capacity and expertise associated with them, their high economic potential and the Model Forest's experience (Bustos, 2009). A wide variety of stakeholders participate in the program, including universities, municipalities and private enterprises.

Microcredit programs are implemented in many Model Forests, allowing the allocation of resources to small-scale projects aligned primarily with Model Forest objectives and secondarily with local and regional trends. This type of support, along with technical assistance to local groups and producers, is a cost-effective strategy to strengthen local capacity, offer sustainable economic alternatives and connect stakeholders to regional opportunities. Ultimately, these projects help improve quality of life and natural resource management in the area. For example, Madera Verde, a partner organization in the Atlántida Model Forest in Honduras, helps build the capacity of local artisans in the production of furniture, musical instruments and other wooden products made from nontraditional wood species, NTFPs and waste from forest harvesting activities (Cruz, 2008). This initiative supports local communities in forest management, production of handicrafts and marketing of products through the use of affordable tools while minimizing the use of valuable wood species, which can then be more effectively diverted to value-added processing.

Through the organization and promotion of local sustainable economic activities, Model Forests demonstrate leadership and commitment in response to changes in local and global markets as well as to local and global trends associated with the mitigation and adaptation of climate change. With representatives

from different stakeholder groups organized and connected through a Model Forest, future challenges can be more easily confronted. This integrated network of stakeholders has the potential to facilitate communication, organization and decision making before, during and after a crisis affecting the territory.

The Tierras Adjuntas Model Forest in Puerto Rico, as another example, organizes a weekly fair allowing local farmers and producers to promote and sell products such as fruit and vegetables, coffee and NTFP handicrafts in the town of Adjuntas. The fair is accompanied by cultural and educational activities such as musical performances and art exhibits. The activity allows local producers to build a closer relationship with community members and visitors, increase their incomes and reduce the carbon footprint associated with transportation of products over long distances to supply global markets.

### ***Using science and best practices***

Many Model Forests undertake research activities leading to knowledge generation and sharing about ecological and socioeconomic processes at the landscape scale. In addition, Model Forests are instrumental in providing a platform for the application of research and the demonstration of best practices: the participation of researchers from universities, technical schools and government research centers is important to the achievement of a Model Forest's goals.

Monitoring sustainable forest management is an important research activity undertaken in diverse forest-based landscapes. To that end, researchers established a network of permanent sample plots in the Urbión Model Forest in Spain. Data collected under this project led by the National Research and Education Institute, a Model Forest partner has improved knowledge on the production and management of target tree species (Del Río et al., 2008). The relationship between climate, forest growth, forest health and silvicultural treatments is also being studied. This research contributes to improved sustainable management of forest resources in the area. In other Model Forests, studies are underway to determine alternative practices aimed at reducing the negative impact of specific production systems. For example, in Formoseño Model Forest in Argentina, local goat producers are increasingly feeding their animals with native forest fruit that has been proven to increase milk production, improve their physical condition and help with resistance to drought. This has also improved the conservation of vegetation by reducing excessive grazing (Arsenio, 2008).



Other Model Forests promote demonstration systems to create awareness about sustainable activities, climate change and green technologies. In Tierras Adjuntas Model Forest in Puerto Rico, a solar energy system runs the local community radio station that promotes cultural and environmental topics. It also provides most of the energy to the building hosting the Model Forest office. Model Forest members also use this demonstration system and promote research on solar energy at the regional level, stimulating discussions for changes in Puerto Rico's energy policies.

Information gained from targeted research provides a valuable contribution to effective planning and decision making in the Model Forests. For example, results from research projects in the Reventazón Model Forest in Costa Rica assisted in the creation of a biological corridor within the Model Forest territory. Model Forest should promote the involvement, commitment and proactivity of academic and research institutions as actors in their processes in order to increase their impacts in the areas of influence

The regional and international Model Forest networks also offer a platform for the implementation of regional-level research activities. For example, the University of Puerto Rico-Mayaguez, a partner of the Tierras Adjuntas Model Forest, is preparing a soil biodiversity monitoring program in other countries of the region that focuses on capacity building, participation and linkage of local schools located in participating Model Forests.

### ***Conservation, habitat protection and stewardship***

The large size of a Model Forest land base allows for the examination of issues that cut across ecosystems and administrative boundaries. Operating at this scale provides a mechanism through which a site can become a model for others to follow and helps local stakeholders see how they fit into a much larger picture of sustainable development and resource management.

Model Forests assist in effective conservation efforts and the stewardship of natural resources by facilitating collaboration and supporting sustainable alternative production activities in protected areas, buffer zones and other forested landscapes. In 2008, stakeholders, including indigenous communities living adjacent to two protected areas in the Reventazón Model Forest in Costa Rica, were involved in the first participatory process in the country for the preparation of a national park management plan. The creation of employment and income (tour

guides, ecotourism activities, local handicraft sales), the strengthening of relationships between communities and park officers, the creation of agreements to give priority to the provision of services and activities, and the increase in stakeholder perception of the importance to protect these areas are benefits from this process. This participative process is now being promoted by national authorities as a model for the preparation of the management plans of other protected areas of Costa Rica. In Lachuá Model Forest in Guatemala, indigenous communities are involved in co-management of the Lachuá National Park. The identification of alternative economic activities for local producers has been one of the strategies to reduce pressure on the park's natural resources. Small landowners living within the Model Forest also receive support to formalize their land tenure and access the national forest incentives system.

## Box 1

### Criteria & indicators of sustainable forest management in the Model Forests of Argentina: An example of knowledge sharing with the Canadian network

**By Monica Gabay**

Coordinator, National Model Forest Program of Argentina

The concept of criteria and indicators (C&I) has been widely adopted by the forest sector to conceptualize and evaluate sustainable forest management (SFM). Indicators can be formulated to assess management at different scales: international, national and local management units.

C&I is a key tool for the successful development of the management model proposed by the Model Forest approach, in which multiple actors with different interests create a shared vision regarding natural resource use and conservation needs. The monitoring of the indicators offers relevant information that is easily understood by the community about the impacts of the planning and management decisions as well as global changes on natural resources and the community.

At the international level, several countries use this tool to deal with the issue of forest management. The work of the Montreal Process, of which both Argentina and Canada are active members, is extremely important in this sense. Using the results generated

by this process and the knowledge and experiences of the Canadian Model Forest Network (CMFN), the National Model Forest Program of Argentina developed an initiative to encourage the use of local level C&I in the monitoring of SFM in the country's Model Forests. Support for the project was provided by Natural Resources Canada-Canadian Forest Service and the CMFN.

The success of this initiative resulted in an interest to extend and adapt this experience to all Model Forests in the Ibero-American Network. A joint side event between the National Model Forest Network of Argentina, the Canadian Forest Service and the CMFN was organized for the XIII World Forestry Congress in Buenos Aires, Argentina, in 2009 with the purpose of presenting a summary of the process and examples of the application of C&I in three Model Forests of Argentina. In February 2011, a regional workshop designed to initiate the transfer of the experience to the other Model Forests in the IAMFN took place in Buenos Aires, Argentina.

5



**Lessons learned  
from Ibero-America**

After 15 years of Model Forest development in Ibero-America, a number of lessons learned can be highlighted.

- Model Forests should be understood as a process and not as a project.

A Model Forest is a concept based on a landscape-level, long-term process for the sustainable management of forest-based territories. It also aims to support sustainable human development. Informal monitoring and continuous knowledge management processes are carried out, supporting reflection, learning and the diffusion of findings and lessons learned.

Model Forests are a process without a defined period or duration, unlike a development project that has an established life and generally culminates when its financial support concludes. Research by Duran (2010) has shown that the credibility, stability and continuity of the process depends on the activities taking place, the visibility of the quantitative and qualitative impacts as well as the capacity of the actors to diffuse information outside and inside the Model Forest boundaries.

- By having local Model Forest stakeholders define their priorities framed by a realistic strategic plan, they gain a sense of belonging and a better sense of the potential for long-term success.

Essentially, the construction of an effective social basis and decision-making process in a Model Forest is determined by the definition of common objectives, the vision and the empowerment of the partners (Duran, 2010). The common elements that orient a Model Forest allow the establishment of stronger relations with local partners and also between the Model Forests and society.

A key function of a Model Forest is the development of a participatory governance structure that is based on consensus and respects stakeholder priorities; not one imposed by external interest groups or a particular organization. A high variability in the representation of different sectors or interests enhances discussion and participation, thereby increasing the success of projects that are grounded in local needs.

- Model Forests need to leverage resources from a wide range of sources and partners to ensure operational management and reduce vulnerability.

To function effectively, each Model Forest needs at least a general manager and a small technical team working with local communities, facilitating communication

between partners and providing support. Yet this staff and a minimal operating budget can be the most difficult resources to leverage. Complementary support by Model Forest members can provide basic elements to ensure the coordination and realization of activities. Some countries, such as Argentina and Chile, provide basic operational funds for their Model Forests. However, opinions are divided regarding the level of dependency on governments for the provision of core economic support.

- Model Forests do not compete with other participatory and landscape-level processes for natural resource management; they complement them.

## Box 2

### Model Forests as landscapes for sustainable human development

**By Ronnie de Camino**  
President, IAMFN

The concept of Model Forests as landscapes for sustainable development proposes the use of Model Forests and their territories as effective areas for undertaking sustainable human development by optimally using all available livelihood capitals through an integrated planning strategy.

In contrast to other landscapes, a key element of this approach is the central role of the forest in the livelihoods of the population residing within the Model Forest territory. Consequently, the management of the forest has repercussions at a greater level, therefore requiring sustainable management of its resources.

The Model Forest approach offers the following advantages:

1. It places an emphasis on the forest-dominated landscape as an area within which planning occurs and action is taken.
2. It depends on social capital represented by associations and organizations within the landscape.
3. The population and its organizations are committed to sustainability, not only in the reductionist sense in terms of the management of natural resources but also in terms of economic and social sustainability.
4. The landscapes are governed inclusively (with no group marginalized) and in a participatory manner (in the sense that local actors take initiative).
5. It is presupposed that these landscapes have a strategy and development plan for natural resources and other livelihood capitals.
6. The strategy is founded on a solidarity-based approach at both national and international levels in that it is based on the exchange of knowledge, capacity building and work in partnership.

There are various participative management models for managing natural resources that differ in focus and breadth from the Model Forest concept. Biosphere reserves stress the conservation of representative areas of land or aquatic environments and are generally headed by government entities. Biological corridors aim at connectivity between protected areas; the emphasis of river basin management is on water and its area of intervention corresponds to the limits of hydrographical basins. In the Reventazón Model Forest in Costa Rica, the Central Volcanic-Talamanca Mountain Range biological corridor has been promoted through research and the participation of intersectorial partnerships (Jiménez and Canet, 2008). These areas of connectivity represent priority areas to develop coordinated activities by diverse stakeholders promoting ecological restoration and conservation of biodiversity.

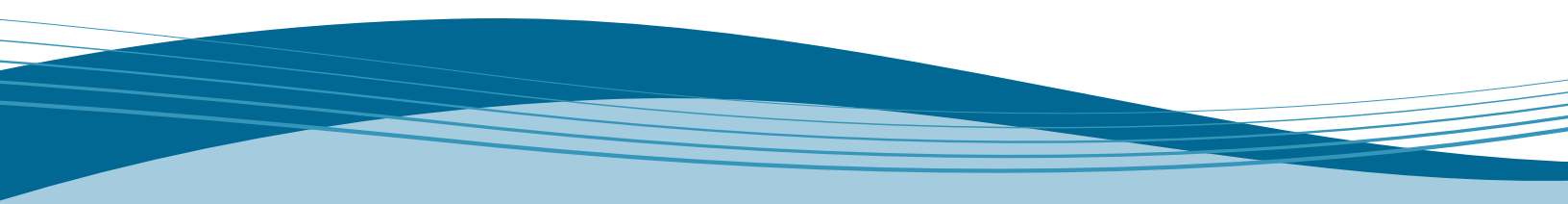
A Model Forest can complement these different management systems, but they do not replace them. Model Forest stakeholders define their boundaries based on political or administrative lines, a watershed, an ecoregion or other rationally defined area. Through participation in or coordination with a Model Forest, other initiatives gain access to a wide range of stakeholders and perspectives they might not otherwise be able to engage.

- Model Forests constitute effective platforms for the local application of international commitments and agreements.

Model Forests offer a venue for the local application of national and international policies related to sustainable management practices for resources, such as National Forest Programs and the Convention on Biological Diversity (CBD).

Most of the characteristics of national forest programs are found in Model Forest initiatives: association and participation mechanisms, ecosystem contexts, interested local communities and indigenous peoples, and the preparation of C&I. Given that Model Forests have the support of national government agencies—an essential component in any national forest program—and broad-based organized local participation, they constitute a suitable milieu for the implementation of national and/or regional forest programs.

Model Forests also provide a platform for signatory's countries to comply with their international commitments such as the CBD. This convention uses the ecosystem approach as a primary framework and it gives emphasis to the



involvement of stakeholders associated with environment and natural resource management. A comparative analysis carried out in the Chiquitano Model Forest of Bolivia identified the complementarity of the Model Forest concept and the ecosystem approach (Vides-Almonacid et al., 2008a). The large range of common features identified suggested that the most convenient strategy would be to integrate the principles and indicators of Model Forests into the ecosystem approach, enhancing the importance of the economic context to progress toward appropriate management of natural resources.

- Academic representation should be involved in a Model Forest and research must be oriented toward commonly identified needs and interests.

Research is an important activity within a Model Forest. All Model Forests examine the impacts of activities on natural resources and work toward addressing global challenges—climate change, for example—at the local level. Student and apprentice activities in Model Forest initiatives have led to increased knowledge and the identification of development opportunities in various settings. CATIE, for example, is a key partner of the IAMFN and an important actor involved in the Costa Rica’s Reventazón Model Forest that brought several dozen students to carry out research on subjects relevant to Model Forests in the region. In Risaralda Model Forest in Colombia, a 32-member research group on environmental management, the largest group of its type in the country, prepared and implemented multidisciplinary research projects relevant to the Model Forest.

- Networking is the most economical and effective way to stimulate horizontal information exchange between Model Forests.

In essence, the IAMFN is a group of associations for horizontal information exchange where lessons learned can be shared directly between people from different organizations and regions, without any type of hierarchy or formal process, thereby allowing for the quick and efficient sharing of information and contacts (Segur, 2009, personal communication<sup>1</sup>). While each Model Forest is unique, the six principles form a common ground from which networking and knowledge sharing can occur. Common challenges and needs can be addressed through interaction with other Model Forests. For example, the Jujuy Model

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1 Miguel Segur, Regional coordinator of the Mediterranean Model Forest Network. May 2009

Forest in Argentina and the Reventazón Model Forest in Costa Rica shared their experiences related to corporate social responsibility as a mechanism to involve the private sector in the Model Forest, forest development and the strengthening of their boards of directors. Chile's Araucarias del Alto Malleco Model Forest shared its expertise in the management of small project funding programs and development of nontimber forest products with the Formoseño Model Forest in Argentina.



6



**A look toward the future**

Regional Model Forest networks such as the IAMFN are helping stakeholders face the challenge of sustainable management of forested landscapes through consensus-based, transparent and participatory governance. However, it is a difficult task at a time when environmental, economic and social needs are growing and resources are increasingly scarce. Model Forests are fostering the identification of common needs and interests, available resources and current local- and global-level opportunities and challenges. Those elements, along with stakeholder priorities, are transformed into specific lines of actions that orient the development of local and regional activities based on local partnerships. Model Forests are providing opportunities for stakeholders to reduce conflicts surrounding natural resource management and to explore local innovative solutions to address global and national issues. Through the support and creation of initiatives related to governance, sustainable economic development, science and best practices, and conservation and stewardship, Model Forests are increasing the understanding of forest-based ecosystems and the development of capacities to address local, regional and global challenges with regard to the sustainable management of natural resources. Networking at local, regional and global levels strengthens the Model Forest partnership and makes it more effective in introducing positive landscape-level changes.

Drivers of change are shaping and will continue to transform the way natural resources, forest ecosystems, the forestry sector and populations have been arranged and managed until now. By connecting stakeholders and facilitating collaboration over forest-based landscapes, these stakeholders may respond more easily to these future challenges, stimulating innovative solutions and increasing the capacity of adaptation to changing situations.

## Box 3

### Examining the future direction and opportunities for members of the IAMFN

By Virginia Outon

Coordinator, Jujuy Model Forest

In May 2009, the IAMFN Board of Directors identified a set of issues and priorities that should be considered by member Model Forests and the IAMFN, representing opportunities in both the short- and medium-term.

- **Land use planning and sustainable development.** Land use plans are extremely necessary for landscape-level management. It is essential to ensure that those plans reflect municipal or other government policies. They must be developed through broad stakeholder engagement in order for them to be effective. Based on their multistakeholder approach, Model Forests can play a role in enhancing both participation of different interest groups in the management process and legitimacy in the development and implementation of these plans.
- **Social responsibility.** Within many Model Forests are companies that include corporate social responsibility within their work plans. Model Forests could increase cooperation with the private sector and provide assistance in enhancing stakeholder capacity related to corporate social responsibility.
- **Vertical integration and regional blocks.** Establishing effective and clear ties among Model Forests in North America, Europe, Asia and Africa will benefit Central and South American Model Forests directly with respect to the issues identified as most important to them. Strengthening ties between northern and southern hemisphere Model Forests would be based on principles of solidarity and equity that are essential to the network. As a complement to this, the creation of regional or subregional blocks in Ibero-America could help identify common areas of interest. As a function of their relative geographic proximity and affinity in terms of biomes and problems, these sub-blocks could be comprised as follows: (1) Central America; (2), Paraguay, northern Argentina, Brazil; (3) Andean countries, Patagonia or others.
- **Microcredit, microentrepreneurships and competitive funds.** These and other similar services and approaches can promote personal and collective development initiatives in the communities within Model Forests. There are already many successful experiences within the IAMFN to build upon. It is particularly important when disseminating the message and the opportunity to potential users to explain that the purpose is not simply to assist financially but to promote the work and the innovative initiatives and ideas of the people or organizations that live in and around Model Forests.
- **Local leadership for sustainable development.** The creation of a School of Leaders within the network to train young people in a systematic manner could lead to the creation of a solidarity network to enhance collaborative leadership. During the initial stage, it would be necessary to train people who will prepare those leaders (train the trainers). It would also be important to develop abilities to correctly identify key leaders and be aware of different leadership styles within local communities. It is also important to have trained and qualified leaders who are democratic and sympathetic, know how to defend the rights of their people and communities, and are able to collaborate with others.
- **Research program with universities.** The creation of a research fund for the IAMFN would help strengthen cooperation with universities. There are different ways in which universities can participate in Model Forest activities and it is important to identify the most appropriate and mutually beneficial opportunities for collaboration.

A similar approach could be undertaken in other regions with common needs or interests, including innovative solutions to address the drivers of change with respect to forests and natural resources.

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