

International Model Forest Network

LANDSCAPES • PARTNERSHIPS • SUSTAINABILITY



Model Forest Profiles 2005





The International Model Forest Network (IMFN) is a voluntary association of partners from around the world, using a shared approach to address the common goal of sustainable forest landscape management (SFM) and use. The IMFN is based on an innovative approach that combines the social, cultural and economic needs of local communities with the long-term sustainability of forest landscapes.

What is a Model Forest?

A model forest is both a geographic area and a specific partnership-based approach to SFM. Geographically, a model forest must encompass a land-base large enough to represent all of the forest's uses and values—it is a fully working landscape of forests and farms, protected areas, rivers, and towns.

In addition to being a specific place, a model forest is also a voluntary, partnership-based approach for moving toward SFM within a given landscape. The partnership is broad enough to fully represent the economic, social and economic values within the landscape. The Network represents a community of practice whose members are committed to sharing their innovations, expertise, and know-how in order to accelerate progress toward SFM.

All model forests share a core set of six attributes that give the international initiative coherence and provide

the basis for networking to take place:

- An inclusive and dynamic partnership: those with an interest in their area's natural resources agree on a process for defining SFM in locally relevant terms, prioritize goals, then work together to achieve those goals
- A commitment to sustainable forest management
- Scale: a landscape large enough to represent an area's diverse forest uses and values
- A governance structure that is representative, participative, transparent, and accountable
- Scope: a program of activities reflective of partner needs and values
- A commitment to knowledge-sharing, capacitybuilding and networking, from the local to international level

The IMFN Secretariat

The model forest approach was first brought to the world's attention at the 1992 United Nations Conference on Environment and Development (UNCED) where Canada announced the IMFN based upon early success with its innovative Model Forest Program. To support this effort, the International Model Forest Network Secretariat was established at the International Development Research Centre (IDRC) in Ottawa, Canada, in 1995.

The Secretariat provides the central day-to-day coordination of support and development services

to the Network, works to strengthen and expand the IMFN, and facilitates the exchange of knowledge and expertise among sites. As it has grown the IMFN has formed regional and national networks that are fully part of the IMFN but largely self-directing—Russia, Canada and Latin America and the Caribbean (the latter based at CATIE in Costa Rica). The Secretariat also supports a regional program for Asia and pilot projects in Cameroon. Two sites are operational in Sweden with others proposed, while Spain and France are each developing a site.

© 2006

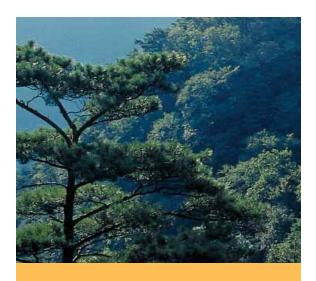
International Model Forest Network Secretariat
PO Box 8500, Ottawa, Ontario, Canada K1G 3H9
courier address: 250 Albert Street, Ottawa, Ontario, Canada K1P 6M1

tel: +1-613-236-6163 fax: +1-613-234-7457 email: imfns@idrc.ca



The 34 model forests profiled in this document represent the majority of the IMFN membership as it stood in 2005. They were created as posters for the November 2005 IMFN Global Forum, which was sponsored by the IMFN Secretariat and hosted by CATIE, headquarters of the IMFN's Regional Model Forest Network for Latin America and the Caribbean (LAC-Net). In preparation for the 2005 IMFN Global Forum each model forest was asked to take two of five possible themes—governance, sustainable economic development, science and best practices, knowledge generation, capacity-building and networking—to highlight areas of particular focus and success for the model forest.

In addition to cataloguing important successes in these sites, the exercise registered two other important points: first, that sustainable forest management is not a developed developing country issue—these themes represent challenges across all landscapes. Working together through the International Model Forest Network, we can accelerate innovation and progress in addressing these shared challenges. And second, they showed that broad, locally-based partnerships are a very powerful tool, not only for finding solutions, but in putting them into practice.



Model Forest Profiles

Africa page 1

Campo Ma'an Model Forest, Cameroon

Canadian Model Forest Network

pages 2 - 13

Bas-Saint-Laurent Model Forest, Canada • Canadian Model Forest Network • Eastern Ontario Model Forest, Canada • Foothills Model Forest, Canada • Fundy Model Forest, Canada • Lake Abitibi Model Forest, Canada • Manitoba Model Forest, Canada • McGregor Model Forest, Canada • Nova Forest Alliance, Canada • Prince Albert Model Forest, Canada • Waswanipi Cree Model Forest, Canada • Western Newfoundland Model Forest, Canada

Europe and Russia

pages 14 - 17

Gassinski Model Forest, Russia • Komi Model Forest, Russia • Kovdozersky Model Forest, Russia • Vilhelmina Model Forest, Sweden

Regional Model Forest Network, Asia

pages 18 - 22

Kodagu Model Forest, India • Lin'an Model Forest, China • Margowitan Model Forest, Indonesia • Ngao Model Forest, Thailand • Ulot Watershed Model Forest, Philippines

Regional Model Forest Network for Latin America and the Caribbean

pages 23 - 34

Araucarias del Alto Malleco Model Forest, Chile

Republic • Seco Chiquitano Model Forest, Bolivia

- Argentina's National Model Forest Program
- Chiloé Model Forest, Chile Formoseño Model Forest, Argentina
- Futaleufú Model Forest, Argentina
 Jujuy Model Forest,
 Argentina
 Mata Atlántica Model Forest, Brazil
 Pandeiros Model Forest, Brazil
 Panguipulli Model Forest, Chile
 Reventazón
 Model Forest, Costa Rica
 Sabana Yegua Model Forest, Dominican



CAMPO MA'AN MODEL FOREST

Established in 2005, this humid forest located in southern Cameroon covers an area of 770 000 ha

THEME

Sustainable economic development

ACTIVITIES

- · Establishment of community forest by local actors
- Ecotourism process that enhance other development initiatives, such as conservation of the Campo Ma'an national park. Required collective advertising and training in service oriented operating methods



KEY OUTCOMES

- Local communities trained in the establishment of the community forest; handbooks translated into local languages
- About 30 community forests to be attributed (pending government authorization)
- Development of community forest management plans
- Forest royalties to council (40%) and the local population (10%)
- Sustainable farming, fishing, hunting, gathering of non timber forest products, etc.
- Ecotourism/tourism is increasingly becoming an important industry; several ecotourism sites identified and coastal management plan in process



THEME

Governance

ACTIVITIES

- Training and sensitization of stakeholders in good forest management practices
- Involvement of local people in forest management networking process
- Involvement of other marginalized groups (women and Bagyeli-pygmy) in SFM activities

KEY OUTCOMES

- Transparency of process
- Total participation of stakeholders
- Collaboration and harmony among stakeholders









BAS-SAINT-LAURENT MODEL FOREST

Established in eastern Québec, Canada in 1992, the Model Forest covers an area of 112 000 ha

THEME

Sustainable economic development

ACTIVITY

Use of a forest tenant farming system developed in Bas-Saint-Laurent Model Forest that could lead to a new option to manage public forests. The solution was developed to support rural communities that are dependent on, and located in close proximity to, the forest

- The tenant farming formula consists of allocating forest parcels to individuals who agree to manage the forest in a sustainable manner and pay the landowner rent in the form of stumpage dues on timber sales



- 23 forest tenant farmers operating since 1993
- Annual income of approximately CDN 40 000
- Forest tenant farmer degree of satisfaction : 90%



THEME

Conservation, habitat protection and stewardship

ACTIVITY

Publication of the *Guide to Wildlife Habitats*; using watersheds as the reference unit, the guide is intended to sensitize landowners to the importance of having a single woodlot management plan that integrates habitat protection and management strategies



KEY OUTCOMES

- Facilitation of wildlife management at a landscape scale in private forests
- Encouragement of woodlot owners to become involved in forestry decisions on their private land
- Promotion of a feeling of belonging and sense of place
- Analysis of 20 watersheds to date
- Adoption of the approach by numerous regional organizations









CANADIAN MODEL FOREST NETWORK

Established: 1992

THEME

Beyond the Boundaries

OBJECTIVES

- To increase the development and adoption of innovative sustainable forest management (SFM) systems and tools within and beyond model forest boundaries
- To disseminate the results and knowledge gained through Canada's Model Forest Program at local, regional, and national levels
- To strengthen model forest network activities in support of Canada's SFM priorities
- To increase local-level participation in SFM

FUNCTIONS

- To maintain broad partnerships that bring diverse perspectives and a full range of forest values together
- To develop comprehensive and credible SFM knowledge
- To undertake projects that move SFM research into practice. These projects include the research and development of better forest management tools, education and communication

KEY OUTCOMES

- CMFN has successfully developed a partnership model where knowledge, skills and resources from all partners combine to achieve best practices for SFM
- CMFN has developed many new, on-the-ground approaches and solutions for SFM. These
 innovations are being increasingly adopted by those with land management responsibilities
- Canada's Model Forest Program offers opportunities for indigenous communities to participate in SFM decision-making

OUR NATIONAL NETWORK INCLUDES

- · Bas-Saint-Laurent Model Forest
- Eastern Ontario Model Forest
- Foothills Model Forest
- Fundy Model Forest
- · Lake Abitibi Model Forest
- Manitoba Model Forest
- McGregor Model Forest
- Nova Forest Alliance
- Prince Albert Model Forest
- Waswanipi Cree Model Forest
- Western Newfoundland Model Forest











EASTERN ONTARIO MODEL FOREST

Established in 1992 in eastern Ontario, Canada, EOMF covers an area of 1.5 million ha

THEME

Sustainable economic development

ACTIVITIES

- The Eastern Ontario Model Forest Private Woodlot Certification project, begun in 2000, brings private woodlot owners together under group certification by the Forest Stewardship Council of Canada (SmartWood)
- Presently 46 woodlot owners and model forest partners are enrolled, representing more than 6 000 hectares of well-managed woodlands
- Current activities are directed toward expanding enrolment throughout eastern Ontario, as well as investigating the feasibility of applying a similar system to county-owned community forests



KEY OUTCOMES

- Workshops, management planning, tree marking, and access to markets for certified material
- Woodlot owners are gaining knowledge, experience, and connections needed to ensure their woodlots are sustainably managed

THEME

Science and best practices

ACTIVITIES

- trac pec in p • Sin
- The propagation and establishment of black ash (used extensively in traditional basket-making by Mohawks and other eastern indigenous peoples) is being undertaken by the Mohawk community at Akwesasne in partnership with the Eastern Ontario Model Forest
 - Since the early 1990s experiments to determine the optimum growing conditions for the black ash have been undertaken
 - Black ash seed is being collected and researchers are developing a process for stratifying seeds, and planting and fertilizing seedlings

KEY OUTCOMES

- Production of the Handbook for Black Ash Preservation, Reforestation/Regeneration
- Information will continue to be added to the handbook as more
 is learned, making it a "living document" one used by Canadian
 indigenous and non-indigenous communities alike to ensure
 sustainable levels of black ash persist for generations to come









Established in 1992 in Alberta, Canada, the Model Forest covers 2.75 million ha

THEMES

Science and best practices; Conservation, habitat protection and stewardship

ACTIVITIES

- Tracking movement and habitat use of grizzly bears using global positioning system (GPS) collars
- Development of management tools that illustrate how grizzly bears use and move on the landscape. These tools include resource selection function models, graph theory movement models, risk mortality models

KEY OUTCOME

Forest companies and oil and gas companies are starting to use management tools in their planning resulting in less impact on prime grizzly bear habitat by resource development



THEME

Governance

ACTIVITIY

Foothills Model Forest involves companies, governments, communities and associations that are actively involved in, and affected by, resource management decisions. These organizations are represented on the Board of Directors as well as on activity teams for individual program or project areas

KEY OUTCOME

Input by partners at various levels within the organization results in relevant and practical research and the increased likelihood of this research being applied on-the-ground









Established in 1992 in southeastern New Brunswick, Canada, the Model Forest covers an area of 420 000 ha

THEMES

Governance; Knowledge generation, capacity building and networking

ACTIVITY

Developed the Watershed-Based Woodlot Management Planning project, providing a method for addressing both the need for landscape-level biodiversity conservation and local participation in decision-making across the fragmented ownership regime of the southern New Brunswick landscape



KEY OUTCOMES

- Nearly 40 private woodlot owners, owning 3 400 ha of land within the Pollett River Watershed have agreed to manage their land according to the landscape level biodiversity plan for the watershed
- Developing means to ensure financial sustainability to landowners who engage in landscape-level biodiversity
 conservation (such as the sale of firewood to educated consumers who are willing to pay more for sustainably
 harvested wood, conservation easements, forest certification, and taxation benefits)
- Education programs focusing on the importance of landscape-level planning

THEME

Science and best practices

ACTIVITY

Researchers at the University of New Brunswick generated new computerized depth-to-water maps and piloted them with local model forest stakeholders. Depth-to-water-table mapping is important for the formulation of best forest management practices as, historically, forest managers have not had the tools to systematically locate wet soils across forested and non-forested landscapes with reasonable resolution

KEY OUTCOMES

- Production of maps for the entire province
- Information sharing: the mapping tool is now being adopted in Nova Scotia and Alberta, Canada, and in the US state of Maine. It can also be applied in other jurisdictions where appropriate data exist
- Creation of new drainage maps throughout New Brunswick, leading to the development of new species suitability maps for planting trees
- Forest companies and provincial staff are using the maps as base for detailed field reconnaissance of wet areas and unmapped flow channels, and for operations planning
- Potential to use the maps are for province-wide soil erosion assessments, stream and shoreline stability mapping, and visualizing likely source-sink pathways of pollutants









Located in the Great Claybelt region of northeastern (south of James Bay), Canada, the 1.2 million ha Model Forest was established in 1992

THEME

Science and best practices

ACTIVITY

Multi-cohort Forest Management, involved:

- Achieving a better understanding of the ecology and the sustainable management of older aged forest stands
- Introducing partial harvesting as a silvicultural tool along side clear cutting in the emulation of natural disturbances in Boreal forests that have longer fire cycles (greater than 100 years)
- Developing a memorandum of understanding between scientist organizations in Québec and Ontario and the sharing of knowledge between these two provinces

KEY OUTCOME

Development of a landscape level forest management approach designed to maintain forest age structure and composition that more closely emulates natural patterns





THEME

Sustainable economic development

ACTIVITY

Development of a Regional Community Constellation Impact Model which involved:

- Measuring the spatial and industrial impacts of resource management systems in northeastern Ontario (area of influence of the Lake Abitibi Model Forest)
- Exploring mutual dependencies and benefits between communities
- Providing a framework for analyzing alternatives to gauge the effects of economic projects and programs that are not typically identified by qualitative analysis

KEY OUTCOMES

- Better understanding of the community's economic interdependence; tracking the means by which positive and negative social economic impacts are transmitted throughout the region
- Greater opportunity for those communities directly impacted by resource management decisions to provide input into resource management planning processes









MANITOBA MODEL FOREST

Established in 1992 in central Canada, the Model Forest covers an area of 1 100 000 ha

THEME

Conservation, habitat protection, and stewardship

ACTIVITY

Undertook a Woodland Caribou Research and Habitat Management study; GPS and GIS technology used to determine woodland caribou movements and habitat use; data analysis and mapping of core use areas

KEY OUTCOMES

- Consensus on forest management activities by a multi-stakeholder group including industry, provincial government, indigenous peoples, environmental organizations
- Report: A Landscape Management Strategy for the Owl Lake Boreal Woodland Caribou Herd, Eastern Manitoba
- Video: Shadows of the forest : Managing Woodland Caribou
- Educational curriculum supplement





THEME

Science and best practices

ACTIVITIES

- Natural Disturbance Regime project: research historical natural disturbance (i.e. fire) impacts and patterns
- Design and implementation of harvest systems to emulate natural disturbance impacts and patterns
- Monitoring of forest succession in harvested areas vs naturally disturbed areas

KEY OUTCOMES

- Report : A guide to harvesting practices to regenerate a natural forest
- Report: Site, Cut-Block And Operating Area Indicators Of Sustainable Forest Management
- On the ground operational trial

Legend









Formed in 1992, the McGregor Model Forest encompasses 7.7 million ha of land in the north central interior of British Columbia, Canada

THEME

Science and best practices

ACTIVITY

The current outbreak of mountain pine beetle (*Dendroctonus ponderosae*) in British Columbia (BC) is the largest in Canada's known history. Through a community project, the Model Forest is supporting the development of an urban forest management plan for Prince George, a northern forest-dependent city

KEY OUTCOMES

- The development of guiding principles for urban forestry in Prince George
- Reducing or preventing the destruction of millions of lodgepole pine (*Pinus contorta*), affecting
 industry, private landowners, indigenous peoples, wildlife habitat and tourism opportunities
- Linking forest stakeholders and building the capacity of local governments to deal with this critical issue



THEME

Knowledge generation, capacity building and networking

ACTIVITY

Researching the existing programs and incentives in place in BC that support indigenous youth as they seek education and training in resource management disciplines

KEY OUTCOMES

A report that outlines the success factors and key recommendations to support indigenous youth. The recommendations focus on improving the connections between secondary school and post-secondary programs in terms of:

- Facilitating academic preparedness in sciences
- Summer semester learning opportunities
- Step by step help in entering post-secondary programs
- Parental involvement









NOVA FOREST ALLIANCE

Established in 1998 in Nova Scotia, eastern Canada, the Model Forest covers an area of 453 000 ha

THEME

Science and best practices

ACTIVITIES

- Development of Forest Best Management Practices Manual
- Training and implementation of the Manual at forest management level
- Incorporation of Forest Ecosystem Classification into forest practices

KEY OUTCOMES

- Adoption of Best Management Practices Manual and training by forest industry
- Measurable increase in best management practices by forest contractors and workers







THEME

Conservation, habitat protection and stewardship

ACTIVITIES

- Facilitation of expansion of Protected Areas Network
- Workshop by forest industry and environmental community
- Establishment of an initiative focused on the expansion of Protected Areas Network in Nova Scotia
- Exchange of geographic information system (GIS) data among stakeholders

KEY OUTCOMES

- A Memorandum of Understanding between the Nova Scotia forest industry and the environmental community
- Technology transfer between Provincial government, forest industry and environmental communities.
- Synergy among diverse forest sectors
- Recognition of model forests (Nova Forest Alliance) as an effective facilitator









PRINCE ALBERT MODEL FOREST

Established in 1992 in central Saskatchewan, Canada, the Model Forest covers 367 000 ha

THEME

Science and best practices

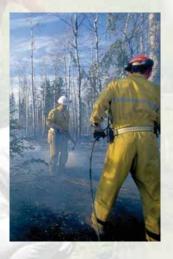
ACTIVITIES

- Woodland Caribou Habitat Connectivity Research: Involved fitting 20 caribou with GPS collars, tracking caribou distribution and movement using a new landscape connectivity analysis system, and using DNA analysis to measure genetic diversity and estimate population size
- Hydroacoustics Lake Trout Research: Using equipment that emits sound pulses and then detects sound waves reflected from fish and other organisms in the water column, researchers are recording fish sizes, population numbers and positions in the water column in a non-invasive way



KEY OUTCOMES

- Identification of critical habitat and movement corridors for the woodland caribou
- Shared results with forest managers in order to make decisions that provide for sustainable woodland caribou populations
- In combination with netting or live trapping, lake trout populations at Crean Lake in Prince Albert National Park, Saskatchewan are being evaluated contributing to our knowledge of this important indicator of overall ecosystem health
- Technology and study results will be available



THEME

Knowledge generation, capacity building and networking

ACTIVITIES

- Fire Smart Program: Included developing a series of fuel breaks in central Saskatchewan forest communities and teaching individual homeowners how to protect their properties from forest fire
- Using fire behaviour models to test the effect of modifying the landscape to reduce the threat of wildfire to communities, commercial timber and other forest values through strategic harvesting, converting conifer and mixed wood stands to deciduous stands

KEY OUTCOMES

- Landscape modification models that can be applied by landscape managers to enhance their preparedness to manage wildfire
- Improved fire protection for communities and forest resources









WASWANIPI CREE MODEL FOREST

3.3 million hectares of boreal forest in northern Québec, Canada, located southeast of James Bay

THEME

Science and best practices

ACTIVITY

A 3-year study on the impact of large-scale harvesting of black spruce forest on moose habitat. Researchers aim to develop new moose habitat management strategies to fit within the socio-ecological context of the indigenous Waswanipi Cree people



KEY OUTCOMES

- More than 60 000 accurate moose locations have been tracked annually
- Enhanced protection of moose habitat, benefiting not only Cree hunters and land managers, but also the socio-cultural life of the community
- The findings are expected to help define moose habitat needs and assess the impact of forest operations over the last 30 years





THEME

Governance

ACTIVITIES

- Protecting areas of high cultural and wildlife value; analysis of their location and associated values
- Proposal of guidelines, indicators and forest management techniques for these areas

KEY OUTCOMES

- Management techniques and indicators to guide both forest company employees and the Cree
- Mutual understanding to ensure better operations planning
- Increased participation of Cree in a management process that respects their traditional values









Established in 1992 on the western side of the island of Newfoundland, Newfoundland and Labrador, Canada, the Model Forest covers an area of 923 000 ha

THEME

Conservation, habitat protection and stewardship

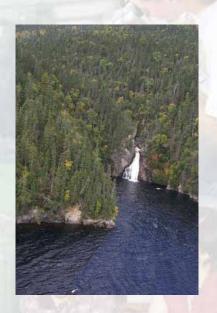
ACTIVITY

Development of a pilot project to addresses municipal watershed management; the project involves the town of Steady Brook and the Western Newfoundland Model Forest Partnership and examines:

- the balance between providing safe drinking water for municipal residents and the increasing demand for resource development
- factors such as recreation, forest harvesting, agriculture, development of pits and quarries, roads, transmission lines and other development activities

KEY OUTCOMES

- Management plan for the Steady Brook Watershed
- Template for other municipalities to develop similar plans







THEME

Science and best practices

ACTIVITY

The Newfoundland and Labrador Riparian Working Group is developing a two-part prescription key for managing riparian areas in the forests of Newfoundland and Labrador:

- part one: research to monitor operational activities within trial (riparian) zones and compare to non-treated zones
- part two: risk assessment to develop guidelines for wildlife, water and air quality, micro habitat and climate, and riparian zone/blow down characteristics

KEY OUTCOME

Riparian management prescription for Newfoundland and Labrador









GASSINSKI MODEL FOREST

Established in the Russian Far East in 1994, the Model Forest covers a 400 000 ha area

THEME

Sustainable economic development

ACTIVITIES

- Creation of value-added wood-processing enterprise, one owned and operated by indigenous peoples
- Tourism development related to international hunting, homestay arrangements and river cruises. Required collective advertising and training in service oriented operating methods



KEY OUTCOMES

- State interest in developing a wood-frame housing
- Increase in employment for indigenous Nanai and Udege peoples
- Tourism now considered an important and legitimate industry
- Report: Waterfalls of the Lower Amur as Objects for Tourism
- Report: Perspectives for Development of Ecological Tourism in the Nanai District of Khabarovsk Krai



THEME

Science and best practices

ACTIVITY

GIS software investment and training allowing for the creation of forest-fuel maps. The maps allow for different forest fire propagation scenarios to be examined based on forest type, density, and moisture content

KEY OUTCOMES

- Enhanced training for forest fire fighters
- Report: Findings of Experiments on Spring Prescribed Burning in the GMF
- Report: Arrangement of the Computer Code for the Prediction of Forest Fire Spread
- Report: Influence of Large Forest Fires on Migration of Nitrogen and Phosphorus in Waters of Small Rivers of the Sikhote-Alin Mountains









Established in 1997 in Komi Republic, northwestern Russia, the Model Forest covers an 800 000 ha area

THEME

Sustainable economic development

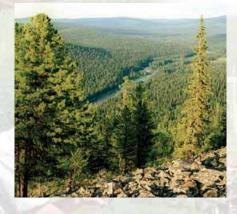
ACTIVITIES

- Developed method for economic evaluation of the forest
- Evaluated economic accessibility of remote forests
- Forest Stewardship Certification (FSC) of large forested areas
- Developed regional FSC standard



KEY OUTCOMES

- Stakeholders are equipped with a profitability assessment method
- State and industry have a clear picture of the economic value of different stands
- FSC certification is promoting wood products from Komi Republic on European markets
- FSC standard is adjusted to the regional situation and is becoming a useful tool for promotion
 of sustainable forestry



THEME

Science and best practices

ACTIVITIES

- Development of new logging approach using more profitable logging methods and selecting the most profitable stands depending on the market demand
- Introduction of sustainability issues into state forest planning

KEY OUTCOMES

- Demonstration of new logging system which is combining better economic and ecological results.
 The system is based on selective logging and imitation of natural dynamics
- Regional State Forest Planning is prepared to implement key aspects of sustainable management









KOVDOZERSKY MODEL FOREST

Established in 2005, this Model Forest covers a 400 000 ha area in the Russian northwest

THEME

Knowledge generation, capacity building and networking

ACTIVITY

Analyzing the possibility of the use of bioenergy and fostering its use

KEY OUTCOMES

- Changing attitudes: representatives from the forest service, thermal station, and the local population are more familiar and accepting of the possible use of bioenergy
- Local youth learned about alternative natural energy sources
- Possible entrepreneurial opportunity for region

THEMES

Sustainable economic development; Conservation, habitat protection and stewardship

ACTIVITY

Promoting the multiple uses of forests

KEY OUTCOMES

- Possible recreation and tourism values of the forest mapped; forest sector representatives gained training in GPS and GIS mapping
- Training in multiple-use forestry
- Publication of a guide book
- Increased interest in establishing ecotourism businesses in the region









Established in 2003, the Model Forest covers an 850 000 ha area in northwestern Sweden

THEME

Governance

ACTIVITIES

- Establish a management board consisting of key local stakeholders, a steering and an evaluation committee
- Develop strategic approaches to model forest development and network structures in northern Europe
- Secure routes for dissemination, information and feedback to and from local stakeholders, as well as regional and national actors



KEY OUTCOMES

- Secured local, national and transnational governance structures, political support for the Model Forest Program and up-to-date approaches to SFM, rural and regional development
- Comprehensive analyses of proposed North-European Model Forest Network through ongoing research and regional development projects
- Action plans for further model forest sites in northern Europe

THEME

Science and best practices

ACTIVITIES

- Develop criteria and indicators (economic, ecological, socio-cultural) for SFM and rural and regional development
- Explore the potential interface (integration and communication) between key actors in the forest-sector arena in identifying innovative routes to local sustainability
- Promote scientific solutions for GIS-based strategic land-use planning, conflict management, forest management in riparian ecosystems, combined management objectives (e.g. forestry and reindeer husbandry) on stand- and landscape level, and options for increased forest and wood-fiber production
- Develop methods and approaches for landscape-based analyses of forest history for explaining current patterns in natural structures and biodiversity

KEY OUTCOMES

- Model forest action plan based on identified criteria and indicators, including principles to make best use of experience and knowledge among key actors in the forest-sector
- Innovative methods and solutions for managing conflicting interests (e.g. reindeer husbandry, forestry, tourism, nature conservation), including guidelines to maintain natural forest conditions
- Best practices for riparian forest management and forest management in ecosystems with high natural and/or socio-cultural values, and for increased forest and wood fiber production









Located in the state of Karnataka, India, the Model Forest covers a 410 800 ha area. Kodagu joined the IMFN in October 2005

THEME

Conservation, habitat protection and stewardship

ACTIVITIES

- Formation of greater Talacauvery Wildlife Sanctuary
- Eco-restoration of grassy banks of the Cauvery River in Talacauvery Wildlife Sanctuary
- Formation of Ecological Territorial Army Battalions (ETABS) for forest conservation

KEY OUTCOMES

- Conservation of rare species of flora, fauna and bigger catchment area for the River Cauvery, which nourishes a large part of southern India
- Reversal of some impacts of early destruction of vegetation at the source of the Cauvery River
- Voluntary efforts, compensation and ETABS, integrating all forests under a common protected area conservation program, are leading to a reduction in illegal logging and poaching activities







THEME

Knowledge generation, capacity building and networking

ACTIVITIES

- Publication of book on land tenure and forest rights of Kodagu
- Establishment of Kodagu Heritage Interpretation Centre (KHIC)
- · Environmental education and awareness programs

KEY OUTCOMES

- Increased awareness of rights and responsibilities among local population regarding conservation of species, sacred groves and water resources
- Showcasing the natural and cultural heritage of Kodagu through the KHIC
- Publication of book on the birds of Kodagu Feathered Jewels of Kodagu
- Children, youth and the general community, through their everyday activities, work to create a better environment for themselves and for future generations









Established in 1999, Lin'an Model Forest covers 312 000 ha in Zeijiang Province (west of Shanghai), China

THEME

Sustainable economic development

ACTIVITIES

- Through the Model Forest, an agreement was reached whereby local farmers provide a steady supply of hickory nuts and bamboo shoots to industry partners in exchange for a guaranteed market
- Provided training for disabled farmers in bamboo shoot, hickory and tea cultivation and processing techniques; offered free seedlings to disabled farmers as part of a larger forest management plan



KEY OUTCOMES

- Researchers at the partnering university have become involved in providing training in improved bamboo shoot and hickory nut production, further benefiting farmers and industry
- Generated alternative income opportunities for 600 disabled farmers
- Development of non-wood resources in Lin'an has helped protect forest resources
- Enhanced scenic value of the area has led to the development of ecotourism opportunities
- Lin'an's total bamboo processing, hickory, and ecotourism industries are now estimated to be worth more than USD 76 million



THEME

Knowledge generation, capacity building and networking

ACTIVITY

Since 2000, Lin'an Model Forest has hosted tours for more than 1 500 forestry and agricultural practitioners from 28 countries and another 6 000 from China. The tours are complemented by workshops where non-wood forest product cultivation (NWFP), particularly "green" cultivation related to reduced or non-pesticide use, is discussed

KEY OUTCOMES

- Enhanced capacity building for local farmers and visiting guests
- Increased interest in "green" cultivation locally as well as other areas of the country
- Production and distribution of a number of small technical manuals on various NWFPs. The most recent include, Technical Rules of Ginkgo (Gingko biloba) Production and Technical Rules of Red Bayberry (Myric rubra) Production









MARGOWITAN MODEL FOREST

Located in East Java, Indonesia, with 468 924 ha the Model Forest was launched in 2004

THEME

Governance

ACTIVITIES

- Forest Village Community participation in forest management involved participatory forest village assessment to develop sustainable forest management at the local level
- Collaborative based forest programs with benefits sharing (Pengelolaan Hutan Bersama Masyarakat = PHBM) in the areas of wood and non-wood forest product management



- Increased forest security (reduced illegal logging)
- Local forest community interest in forest management increased
- · Local forest community in forest management empowered





THEME

Science and best practices

ACTIVITY

Introduction of porang (*Amorphophalus sp.*) plantation cash cropping as a sustainable and promising source of income generation for rural farmers

KEY OUTCOMES

- Sustainable income for rural farmers
- Successes of porang plantation studied and replicated by other forest communities
- Training for rural people in the areas of handling, processing and maintaining expected quality (slicing, drying, thickness, cleanliness, water moisture content, etc.). End products include Konyaku (Japanese food), an adhesive, and other food products









Established in 2000, the Model Forest covers 175 159 ha in central Thailand

THEME

Knowledge generation, capacity building and networking

ACTIVITIES

- Meetings, study tours and seminars for Ngao Model Forest partnership group focusing on improved managerial and administrative skills
- Seminars to share experiences and lesson learned with the public concerning model forest development and forest conservation
- Support for tree planting, forest maintenance, and soil and water conservation
- Hosted Regional Model Forest Monitoring and Evaluation Workshop
- Development of the Ngao Model Forest strategic plan



KEY OUTCOMES

- Increased knowledge and skills of Model Forest staff and partners in resource management
- Increased awareness and participation of local people in forest conservation activities
- Increased interest in tree planting, forest maintenance and soil and water conservation
- Decrease in illegal activities; improved forest condition and resource base



THEME

Science and best practices

ACTIVITIES

- Created a demonstration site for collaborative management of wild bamboo in cooperation with a local community
- Established a cultivation plot to demonstrate practical management of bamboo plantations
- Created a medicinal plant collection site, community forests and a food bank
- Promoted sustainable management of non-wood forest products
- Research and promotion of sustainable management of bamboo and mulberry paper trees, as well as edible insects and charcoal production

KEY OUTCOMES

- Improved local harvesting practices
- Increased interest in cultivating bamboo, rain and mulberry paper trees
- Report: Establishment and management of bamboo farms
- Report: Bamboo stick and charcoal production
- Report: Utilization and cultivation of mulberry paper tree (Broussonetia papyrifera)
- Report: Supporting local income by rearing some edible insects and scorpions









At 86 514 ha, the Model Forest was established on Samar Island in the Philippines in 2000

THEME

Sustainable economic development

ACTIVITIES

- Creation of value-added non-wood processing enterprise using coconut husks, and rattan poles and wicker; operated by Peoples Organization
- Expanding the economic base through the establishment of pill nut (Canarium ovatum/Canarium luzonicom) plantations and agroforestry farms



- Established 15 hectares of pili nut plantation and agroforestry farms
- Increased incomes without reducing current forest cover
- Added value to the coconut husk, that is considered waste, and other non-wood products
- Reduced reliance on unsustainable timber extraction





THEME

Knowledge generation, capacity building and networking

ACTIVITIES

- Conducted various training programs to enhance the knowledge and skills of stakeholders
- Information exchanges through the publication of quarterly newsletter, and other information, education and communication (IEC) materials; conducted workshops, dialogues and consultations
- Established linkages with local and international organizations, business sector, academia, and other government agencies

KEY OUTCOMES

- Enhanced knowledge and capacity in undertaking income generating activities such as coconut coir and coconut peat processing, rattan furniture and handicraft – making and almaciga resin collection
- Increased awareness and understanding on the model forest approach and Ulot Watershed Model Forest activities
- Pamphlet on Model Forest and brochures on almaciga resin collection and split rattan production
- Policy influence: the Model Forest's concepts and lessons learned were used as inputs in the preparation of the Department of Environment and Natural Resources' (DENR) new forest sector policy and guidelines
- Increased linkages and funding support by more than 100% based on the 2004 baseline









Established in 1999, the Model Forest covers an area of 364 958 ha in the Araucanía region of Chile

THEME

Governance

ACTIVITY

The creation of a Board of Directors whose members represent different sectors of society but share the same land-base (eight of the 22 members on the Model Forest's Board are indigenous). The Model Forest was the first and only organization to bring all stakeholders together



KEY OUTCOMES

- The Board has become a model of participation and democracy for the region
- Reduced conflict through collaboration and consensus
- In 2004, the Model Forest was presented with the University of Chile's National Prize for Citizenship Innovation (Civil Society category)

THEME

Knowledge generation, capacity building and networking

ACTIVITY

Participatory development of a strategic plan involving all stakeholders

KEY OUTCOMES

- Improved clarity and organizational focus
- More active participation by interested parties
- Development of organizational capacity
- Improved work planning
- Facilitation of monitoring and evaluation process









ARGENTINA'S NATIONAL MODEL FOREST PROGRAM

Established 1996

THEME

Knowledge generation, capacity building and networking

OBJECTIVES

- Promoting sustainable development within a comprehensive framework for managing natural resources in forests
- Developing innovative methods, procedures, techniques and concepts for managing forest ecosystems
- Promoting strategic planning and participatory management

FUNCTIONS

- To promote the free exchange of knowledge and experiences in sustainable forest management (SFM) and related issues among model forests in Argentina and with those in other countries
- To develop SFM criteria and indicators to be implemented in Argentinean model forests, taking into account Argentina's international commitments
- To promote technical cooperation with other national networks, the RMFN-LAC and the IMFN
- To foster joint activities for sustainable forest management

KEY OUTCOMES

- Strengthening the National Model Forest Program in Argentina in the context of conservation and sustainability of forest ecosystems
- Institutional and technical strengthening of Argentinean Model Forests
- Technical assistance for the development and implementation of Model Forest proposals
- Facilitation of technical cooperation and assistance between established and developing regional programs, as well as their integration and participation in the Regional Model Forest Network for Latin America and the Caribbean (RMFN-LAC) and the International Model Forest Network (IMFN)
- Developing the National Model Forest Program in Argentina in the year 2000

MEMBERS

- Futaleufú Model Forest
- Jujuy Model Forest
- Formoseño Model Forest
- Norte de Neuguén Model Forest (proposal soon to be submitted)













Established in 1998 and situated in the Archipelago of Chiloé in southern Chile, the Model Forest covers an area of 980 000 ha

THEME

Sustainable economic development

ACTIVITIES

- Co-financing of community projects for sustainable development in such areas as sustainable forest management, rural tourism, environmental education, non-timber forest products and cultural reclamation
- Enhancing design and sale of handicrafts products
- Generating income and promoting of small household enterprises
- Providing financial and training support to poor rural families

KEY OUTCOMES

- Design, implementation and monitoring of eight project contests (with 120 approved projects) on the sustainability of natural resources in rural communities
- Systematic learning opportunities for specific projects, a variety of projects, and projects related to partnerships with other institutions involved in the contests
- Implementation and management of the Biodiversity Store as a showcase of original products by some 400 artisans in Chiloé
- Implementation of the MINGA Fund in conjunction with other public institutions and civil society organizations for the granting of almost 200 micro-credits to poor rural families, giving preference to women



THEME

Conservation, habitat protection and stewardship

ACTIVITIES

- Strengthening of local capacities to become linked to the Chiloé National Park and establishing a win-win type of alliance
- Raising public awareness about the conservation and sustainable use of natural resources
- Sub-regional planning



- Group of Cordillera de Piuchén indigenous communities committed to the conservation of their natural resources
- Creation and implementation of the Huillín Centre for Environmental Education, a public-private partnership that applies governance lessons derived from the Chiloé Model Forest
- Development of the Chiloé Biodiversity Fair over 4 consecutive years with the involvement by more than 110 exhibitors of products manufactured in a sustainable manner in the context of Chiloé biodiversity
- Participatory design for the Integrated Conservation and Development Plan for Cordillera de Piuchén









FORMOSEÑO MODEL FOREST

Established in 2000, the Model Forest is located in northern Argentina and covers an area of 800 000 ha

THEME

Conservation, habitat protection and stewardship

ACTIVITIES

- Community Production Development Project (supported by JICA): a substantial research and recovery initiative aimed principally at the indigenous Toba peoples, but will hopefully be replicable in similar forest ecosystems in the region
- The project seeks to merge current activities livestock grazing, timber extraction, honey production, fuelwood collection, and others with the concept of sustainability

KEY OUTCOMES

- Recovery of degraded soils through construction of a 250-hectare area of native woodland where livestock have been fenced out
- Establishment of a tree nursery capable of producing more than 80 000 seedlings a year
- Eventual growth of native grasses, reforestation, and the elimination of less useful shrubs with the possibility of introducing more economically productive species to enhance the diversity of the woodland
- Increased local pride and interest in forest health and historical relationships with the forest ecosystem





THEME

Knowledge sharing, capacity building and networking

ACTIVITY

The community manages the funds for the Community Production Development Project as well as its activities planning. Members of the community work in groups based on their abilities or interest to learn a new activity. A permanent exchange of information has promoted horizontal feedback and learning, and increased local incomes

KEY OUTCOMES

- The establishment of a community tree nursery managed by young women of the community
- The creation of 40 home gardens
- A group of local artisans who organized for the fair trade of their crafts
- Potable water for humans and animals
- Apiculture









Established in the province of Chubut in the Patagonian region of Argentina in 1996, the Model Forest covers an area of 760 000 ha

THEME

Knowledge generation, capacity building and networking

ACTIVITY

Regional meeting of model forests from the Argentinean Patagonia and the Chilean Patagonia

KEY OUTCOMES

- Signing of a Memorandum of Agreement for continuing working together and for strengthening relations between model forests; the next regional meeting will be held in 2005
- Identifying common problems and promoting the implementation of joint projects







THEME

Sciences and best practices

ACTIVITIES

- Fire Management Program
- Ecotourism Development Program

KEY OUTCOMES

- Neighbouring producers organized into associations for preventing and contending with forest fires
- Transferring of simple techniques for rural producers (cow or goat milk cheesemaking, mushroom harvesting, making of sweets and preserves, pruning of fruit trees)
- Training for specialized technical staff (firefighters, factory workers, etc.)
- Raising awareness and providing environmental education in schools, other agencies and communities
- Integrated management of Esquel Communal Forests
- Coordinating of inter-institutional work at different government levels: National Plan for Fire Control, Directorate of Forests and Parks for Chubut Province, Municipality of Esquel, CIEFAP, INTA, Civil Defence – with the purpose of building social networks, using resources in a more efficient and effective manner, and applying a participatory approach to making decisions
- Developing interpretative trails in the Esquel Communal Forests









Established in 1999, the Model Forest is located in the northwest of Argentina and covers an area of 150 000 ha

THEME

Sustainable economic development

ACTIVITIES

- Creation and operation of a seed bank for native tree species in the north-west of Argentina, providing stable employment for individuals with different physical abilities
- Establishing and operating a native-tree nursery that provides training and employment for agricultural science students



KEY OUTCOMES

- Conservation of germoplasm with known quality and origin
- Training provided to staff selected on the basis of their different psycho-physical abilities for operating the seed bank
- A three-year business plan with financial assistance during the first two years and becoming self-sustainable from the third year
- Establishment of nursery installations with capacity for 100 000 trees and room for expansion, as part of an agreement with an agricultural sciences technical school
- Planned annual production of 100 000 seedlings, 20% of which are already placed on the market.
 Employment and training for young graduates from an agricultural sciences technical school; availability of trees in quantities and quality adequate for restoring native forests



THEME

Knowledge generation, capacity building and networking

ACTIVITIES

- Forest education in a rural school
- Forestation and natural resources management in woodlands (farms)
- Screening of household organic residues and production of worm compost material



KEY OUTCOMES

- Providing a complement to formal education; collection of samples of fruits and seeds and development of a Best Forest Practices Manual (Manual de Buenas Prácticas Forestales)
- 30 families screening residual organic matters. Primary health care workers from the local hospital helping with the training
- Production of red worm humus for gardening, seedbeds and household nurseries, thus discouraging removal of tree litter from the forest cover









MATA ATLANTICA MODEL FOREST

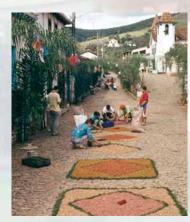
Spanning priority areas of the 'bioma' Mata Atlantica in Brazil, the developing Model Forest covers an area of 2 250 320 ha

THEME

Governance

ACTIVITIES

- Forming the Model Forest Board of Directors and putting it into operation
- Training the Sāo Bartolomeu, Ouro Preto, and Serro communities and those living in the border areas of the Mata Atlantica conservation units, so that they can work in partnerships, generating local capacity in the management and use of natural resources
- Carrying out studies on economic, human and environmental potential; identifying local leaders, using a participatory approach and organizing data and secondary information



KEY OUTCOMES

- Rural communities trained to work in partnerships, with the creation of an Association and/or a Cooperative
 in the São Bartolomeu and Serro communities during the first year of the project
- · The model forest working concept and approach were made known among the communities



THEME

Sustainable economic development

ACTIVITIES

- Creating demonstration units for the management and production of charcoal in the Uamii State Forest
- Training communities in management, forestry, processing and selling of ironweed (*Plathymenia benth*) by-products and in value-added forest products and services
- Supporting alternative sustainable production activities through microcredits (rural tourism and ecotourism, handicrafts, beekeeping and the raising of domesticated wildlife)
- Determining ways of measuring and assessing the value of natural resource-related services and how to pay providers of these services
- Supporting producers in projects related to the management of their properties and in the procedures for marking the boundaries of their properties and making them comply with agricultural regulations, and in the recomposition, enrichment and management of the Legal Reserve and Permanent Preservation areas

KEY OUTCOMES

- Forest management for sustainable production helping to reduce illegal logging by identifying and supporting compatible products and services, for effective production by the communities
- Communities aware of the importance and value of the forest environmental services and non-wood products









PANDEIROS MODEL FOREST

Currently under development in Brazil, the Model Forest covers an area of 210 000 ha

THEME

Sustainable economic development

ACTIVITIES

- Providing communities with kits for beekeeping, including the installation of five units for processing and selling honey
- Training of family members as managers and producers, involving 170 people
- Technical visits and monitoring activities performed in the target communities
- Training communities in the extraction of forest resources, profitability and business management
- Setting up community nurseries able to produce eucalyptus and native species; establishing supply stations for processing pequi fruit (Caryocar brasiliense), faveira (Dimorphandra molis) and other fruits from the cerrado (grassland)
- Promoting planting for the production of firewood, lumber and charcoal, and also the recovery and enrichment of degraded areas





KEY OUTCOMES

- Honey-production activities promoted in five communities in the Pandeiros River micro-basin
- Sustainable extraction of pequi fruit, faveira, and other fruits from the cerrado, generating working opportunities and income for five communities in the Pandeiros River micro-basin
- Increased availability of firewood and lumber for use on the properties and for charcoal production to be sold directly or for packaging

THEME

Governance

ACTIVITIES

- Installing a GIS program; monitoring the evolution of natural resources and mapping the main environmental concerns of the project area
- Forming the Model Forest Board of Directors and putting it into operation
- Training five communities in the micro-basin so they can work in partnerships, generating local capacity in the management and use of natural resources
- Carrying out studies on the economic, human and environmental potential; identifying local leaders, using a participatory approach and organizing data and secondary information

KEY OUTCOMES

- Rural communities trained to work in partnerships, with the creation and/or reorganization
 of an association and/or a cooperative, during the first year of the project
- The model forest working concept and approach were made known among the communities









This developing model forest covers 329 200 ha and is located in the X region of Chile

THEME

Governance

OBJECTIVES

- To include Mapuches, agricultural workers and business owners in a smooth process of sustainable development through consensus in environmental, political, social, cultural, and economic issues
- To provide political authorities, organizations, actors and local communities
 with proper and adequate tools for optimizing decision-making concerning
 government action plans for expanding production capacity, directing private
 investment and meeting the needs in technology, education and training

THEME

Sustainable economic development

OBJECTIVES

- To formulate a sustainable development model that would promote diversification of production activities in order to provide incentives for the rural population to remain in the area
- To identify and apply comprehensive systems for managing natural resources
- To foster the linking of production activities to local industry development
- To promote and increase the participation of women in the integrated development of their families and communities









REVENTAZÓN MODEL FOREST

Established in the province of Cartago, Costa Rica in 2003, the Model Forest covers 150 000 ha

THEME

Conservation, habitat protection and stewardship

ACTIVITIES

- Identifying, analyzing and strengthening existing institutional and community initiatives
- Integrating current initiative actions aimed at integrating the management of natural resources in the working area
- Training and integrating local human resources
- Developing technical information that is relevant for decision-making on the integrated management of natural resources

KEY OUTCOMES

- Strengthening of environmental, institutional and community management
- Development of technical matters for consolidating biological connectivity and improving biodiversity through the Turrialba–Jiménez Biological Corridor
- Promoting and increasing the effectiveness of actions for developing management plans (ecosystemic and participatory) in protected areas: Tapantí–Macizo de la Muerte, Volcán Turrialba, and La Carpintera
- Fostering land management initiatives for the sustainability of ecosystems and human activities

THEME

Governance

ACTIVITIES

- Strengthening operational coordination mechanisms between municipalities, private companies and local organizations in matters concerning natural resources
- Fostering coordination of land management and municipal planning among regional actors for the management of natural resources
- Contributing scientific and technical data relevant for decision-making by the government and other local actors
- Integrating the research needs with demands identified with the participation of local actors

KEY OUTCOMES

- Identification of technical support and training needs for the Cartago municipalities, in order to improve their regional environmental management
- Strengthening of the inter-municipal technical unit of the Cartago Federation of municipalities









Established in 2003 in Sabana Yegua, Dominican Republic, the Sabana Yegua Model Forest covers an area of 166 000 ha

THEME

Conservation, habitat protection and stewardship

ACTIVITIES

- Management of natural forests
- Reforestation and agroforestry
- Soil management for erosion control
- Forest fire control



KEY OUTCOMES

- Sustainable management of 40 000 ha of natural forest and establishment of forest plantations in 20 000 ha of public and private land
- Installation of 30 community nurseries for the production of fruit trees and forage
- In addition of soil conservation in farmland, 561 hollows and landslide areas have been identified for engineering work, to control streams, water absorption and loss, and/or for stabilization
- Mechanisms for the efficient prevention, detection and control of forest fires

THEME

Knowledge generation, capacity building and networking

ACTIVITIES

- Community development through small projects aimed at generating income, small units for raising livestock, and institutional strengthening
- Education and training for community groups in economic production and conservation

KEY OUTCOMES

- Development of local network for managing projects through local partnerships. Institutional strengthening through training, monitoring and evaluation of projects
- Training, exchange of information and experience among farmers in such matters as nursery management, agroforestry, forest plantations, animal-rearing and prevention and control of forest fires









SECO CHIQUITANO MODEL FOREST

Established in 2005 in eastern Bolivia, the Model Forest covers 20.4 million ha

THEME

Governance

ACTIVITIES

- Supporting model forest governance through the design of Municipal Land Management Plans (LMP) in 14 municipalities
- Providing Geographic Information Systems as a technical input for decision-making by local leaders in 14 municipalities within the Seco Chiquitano Forest
- Creating/expanding municipal and departmental protected areas



- Three LMPs completed in the municipalities of San Rafael de Velasco, San José de Chiquitos, and Roboré
- Two LMPs currently in process in San Miguel and San Ignacio de Velasco
- Eight GISs installed and technical staff trained in their municipalities
- Two new municipal protected areas created: the Reserva Municipal Valle de Tucavaca and the Reserva de Conectividad de San Miguel
- One protected area expanded: the Parque Nacional Santa Cruz La Vieja





Sustainable economic development

ACTIVITIES

- Eco-regional planning of the Seco Chiquitano Forest and the implementation of a Conservation and Sustainable Development Plan for the central area
- Voluntary forest certification of large forest concessions with long-term duration
- Management of private woodlots in the Seco Chiquitano Forest and surrounding areas

KEY OUTCOMES

- Development and publication of the Conservation and Sustainable Development Plan in four versions (full, abridged versions in Spanish and English, and a simplified version for communities)
- A full portfolio of priority conservation areas available
- 11 forest concessions certified to Voluntary Forest Certification standards, covering a total area of 1 238 426 ha
- 39 properties with land management plans approved by the Agrarian Supervisory Agency covering 270 000 ha





