MODEL FOREST NETWORK
RÉSEAU DE FORÊTS MODÈLES

THE MODEL FOREST NETWORK BULLETIN FOR ONTARIO

Nexus

Volume 1, Number 1, 1996

Welcome to Nexus

You have received the debut issue of a new information source on model forests, an initiative intended to showcase Ontario model forests within the context of Canadian and international efforts in sustainable forestry. The intent of this bulletin is to inform decision makers and other stakeholders about important achievements of the model forests, and stimulate the adoption of new knowledge beyond the boundaries of these large scale experimental areas.

As an introduction to the activities and goals of this initiative, an account of a recent meeting of the Canadian and international network of model forests is featured in this issue. Relevant comments from meeting participants are highlighted throughout. Future issues will focus on specific project results of value to those individuals having an interest in Ontario's forests. Subscription to this regular bulletin is free of charge.

Nexus is an English word meaning a connected group; it was chosen for the title of this newsletter as it expresses the fundamental premise of the Model Forest Network.

Natural Resources Canada | Ressources naturelles Canada
Canadian Forest Service | Service canadien des forêts

Model Forest Network Meeting an Effective Information-exchange Forum

Each model forest is a relatively autonomous association of partners, with a board of directors, task-specific committees, and office staff. Partners include a gamut of individuals and groups having an interest in the management and well-being of the forests and its inhabitants. These partners make generous commitments of time, services, and resources to the model forests. Indeed, partners are the foundation upon which the model forests are built. The boards of directors are tasked with keeping the organization focused on its broad goal of establishing effective working scale models of sustainable forestry. Committees take on such responsibilities as overseeing all science-related or communications activities. Staff carry out the day-to-day administrative activities, and ensure the delivery of end products to users.

The achievements of individual model forests take on added value when they are shared with others and put into practice outside the confines of the local model forest site. Thus, an important component of the Model Forest Program is a tightly woven network, which ensures that innovations are shared quickly, both at home and abroad. A Model Forest Network Committee, formed to meet this need, consists of representatives of each of the Canadian and international model forests, the Canadian Forest Service, and the International Model Forest Secretariat. The committee meets face-to-face once or twice a year at a different model forest.

Since 1992, seven Model Forest Network Committee meetings have been held at venues across the country. The gatherings typically consist of a series of business meetings of the Canadian and international networks and plenary network, a workshop or conference of importance to delegates, and a field tour of on-the-ground activities in the host model forest. In Cochrane, in February 1996, the workshop was replaced with three concurrent full day issue-oriented sessions in which model forest delegates focused on public participation and community involvement, on wildlife and habitat management, and on the impacts and effects of clear-cutting.

More than 150 delegates from the ten model forests in Canada; other Canadian forestry officials; and representatives from Russia, Mexico, and Japan helped to make a meeting in the Lake Abitibi Model Forest an unqualified success. In addition to

In this issue....

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Each model forest has a manager/coordinator and staff. In addition, the Canadian Forest Service has a coordinator at each of its five establishments across Canada. In Ontario, you may contact the following people to learn more about a specific project.

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Canada

model forest delegates, a plenary session was well attended by regional industry and provincial government forestry staff, and by several groups of local high school students. Besides highlighting local activities in the field, Lake Abitibi Model Forest members made presentations on various aspects of their projects. These included careful logging, successional forest habitats and their use by forest-dependent birds, an inventory of Wahgoshig First Nation's culturally significant sites, and outdoor education for school-aged children.

Local organizers ensured that evenings and the field trip were filled with plenty of winter activities, including curling, snowshoeing, dog sledding, and snowmobiling. Participants from abroad took full advantage of the northern hospitality to experience the Canadian winter at its finest.

Typically, minutes of meetings and workshop proceedings are produced in four languages: English, French, Spanish, and Russian. A detailed summary of presentations and discussions from the issue-oriented sessions held in Cochrane is anticipated for public distribution.

Background on the Model Forests

The Model Forest Program was initiated in response to concerns expressed by Canadians about their environment during a nationwide consultative process carried out in 1990. At the same time, the Canadian Council of Forest Ministers signed Canada's Forest Accord. This included a specific commitment to establish working models of sustainable forest management. In response, the Canadian federal government announced the establishment of the $100 million Partners for Sustainable Development of Forests program under Canada's Green Plan for a Healthy Environment. A central element of the program was a national competition to establish a network of model forests across the country.

The Model Forest Program was designed to promote the creation of local partnerships and to encourage these partnerships to formulate and implement their own working vision of sustainable forest management. These grassroots partnerships include representatives from environmental organizations, native groups, industry, educational and research institutions, all levels of government, community-based associations, recreationists, and landowners. Ten working-scale forests (*see* Fig. 1) were set up across the country. The model forests do not have jurisdictional control over the forest lands; this remains with the provincial government and private stewards. Rather, the model forests support all stakeholders in the development and adoption of improved techniques.

Objectives of the Model Forest Program are:

- To accelerate the implementation of sustainable development in the practice of forestry, in particular the concept of integrated resource management.
- To apply new and innovative approaches, procedures, techniques, and concepts in the management of forests.
- To test and demonstrate the best sustainable forestry practices utilizing the most advanced technology and forestry practices available.

During the establishment of the model forests, it was recognized that the Canadian sites might form the basis for international collaboration. An international extension of the model forests would serve Canada's interests in continuing efforts toward definition of international criteria for sustainable forest development. At the United Nations Conference on the Environment and Development (UNCED) in Rio de Janeiro in 1992, the Prime Minister announced the internationalization of the model forest program.

Mexico was the first country to join Canada in establishing model forest projects. Three Mexican model forests, Calakmul, Chihuahua, and Michoacan, are now part of the international network. Russia was next to join, setting up the Gassinski Model Forest near the eastern city of Khabarovsk. The United States has since identified three model forest sites in the Pacific Northwest. Malaysia is working on the development of a model forest and Japan sent two delegates to a recent network meeting, sponsored by the Lake Abitibi Model Forest, to learn more about the concept in anticipation of starting two model forests in that country. Many other countries have expressed interest in the program, thereby resulting in the establishment of an International Model Forest Secretariat under the auspices of the International Development Research Centre in Ottawa.

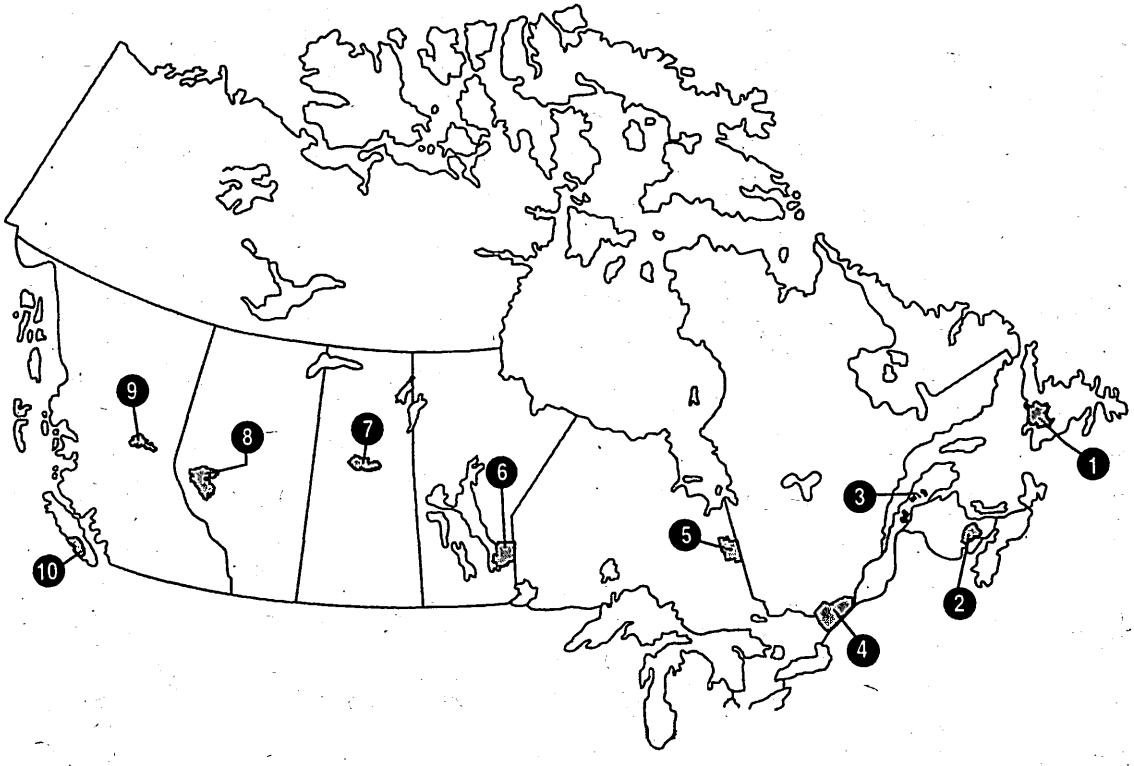


Figure 1. Ten working-scale forests were set up across the country.

Canadian Model Forests	Date formally joined	Area (hectares)	Forest Region	Province
1 Western Newfoundland	May 31, 1993	707,060	Boreal	Newfoundland
2 Fundy	April 29, 1993	419,266	Acadian	New Brunswick
3 Lower St. Lawrence	May 6, 1993	112,634	Great Lakes-St. Lawrence	Quebec
4 Eastern Ontario	February 18, 1993	1,534,115	Great Lakes-St. Lawrence	Ontario
5 Lake Abitibi	June 4, 1993	1,094,690	Boreal	Ontario
6 Manitoba	June 3, 1993	1,047,069	Boreal	Manitoba
7 Prince Albert	April 1, 1993	314,649	Boreal	Saskatchewan
8 Foothills	March 1, 1993	2,500,000	Boreal, Montane, Subalpine	Alberta
9 McGregor	April 2, 1993	181,000	Montane, Subalpine	British Columbia
10 Long Beach	September 15, 1994	400,000	Coast	British Columbia

EDITOR'S NOTE: The Lake Abitibi Model Forest Network Meeting held in Cochrane and Iroquois Falls, Ontario in February featured heated sessions that were in direct contrast to the sub-zero temperatures outside the meeting halls. For the first time, contentious issues were put on the program and the desired results were obtained. Delegates came down on various sides of each issue — showing themselves to be a microcosm of the forest industry and of the public at large.

We are pleased to offer you some of the opinions that came out of the "issue-oriented" sessions, but to be fair to all concerned, we must issue a word of caution: **the following opinions are not an official stand taken by the delegates to the model forest conference, but merely a representative sample of the lively points of discussion that arose.**

Public Participation and Community Involvement — Summary of Discussions

Meaningful public participation is essential for the continuation of model forests. If local people are not moved and affected in a way that involves them in plans for the future, model forests will not be viable. This was one of the conclusions reached at the Lake Abitibi Model Forest Network Meeting, where about 50 delegates chose the "Public Participation and Community Involvement" session as their workshop of interest.

Public participation workshop sparked enthusiastic discussion.

Facilitated by Guy Smith of the Canadian Forest Service, Great Lakes Forestry Centre, session participants also concluded that the Model Forest Network and International Secretariat should develop mechanisms for the continuous posting of ideas, suggestions, approaches, and case examples. This would enable all model forests to benefit from the collective experiences of the network on an ongoing basis, rather than waiting for the semiannual meetings. Electronic media were suggested as likely mechanisms for this information dissemination and exchange function.

A number of worthwhile presentations got the session off to a rousing start. Peter Etheridge, General Manager of the Fundy Model Forest, presented a summary of a workshop held in Ottawa last October that examined public participation experiences from the Canadian Model Forest Network. Public participation was described as a planned process with clear objectives. There is a need for different participation programs for individual projects and varying publics.

Javier Mas reported on the progress of the new Mariposa Monarca Model Forest in Michoacan,Mexico, where protection of the monarch butterfly is an integral part of the model forest. There are regulations to protect migration and there are regions where timber management is permitted. Alternative economic development projects such as ecotourism and mushroom production are being encouraged to stimulate local enterprise and employment.

Oscar Estrada described four major areas for public participation in the Chihuahua Model Forest in Mexico. These include education and dissemination of information, identification and promotion of local values, fostering of a conservation culture (education), and training to help people benefit from various forest resources. The model forest aims to have projects adopted by local people who can eventually operate them and transfer them to other communities.

In an entertaining demonstration, Gloria Tavera showed off some of the forest-related products made by local artisans from Mexico's Calakmul Model Forest. These projects involve women and children, groups which sometimes are neglected in natural resources initiatives. The model forest is promoting traditional crafts and recipes that come from numerous cultural groups.

Children are targeted through teachers. The model forest has conducted successful teacher workshops that stress environmental education approaches. To help assure success, board members and staff live in the communities where the projects are undertaken.

Evgeny Zabubenin, who offered a progress report on Russia's Gassinski Model Forest, indicated that with a high level of unemployment in the region people are trying to use the forest for a variety of products. Zabubenin also touched on efforts to maintain the culture and traditions of various nationalities in the area. A problem exists, he said, in developing an effective communication system. Specialized writers are needed to bring forest principles from scholars down to a level where they can be read and understood by the average person. He added that many people do not understand the concept of the model forest and do not see how they can influence their own future. This presents a challenge in terms of fostering public participation.

"Coming to an international conference like this gives us the opportunity to share our long history in forestry with our Canadian colleagues and to take back word of their experiences to the people we work with."

Dr. Valentin Strakhov, Russian Forest Service, Moscow

The issue of community economic development was central to the day-long discussion. While consensus was not achieved, due largely to time constraints, it was apparent that the group recognized that the short-term and long-term impact of the model forests would concern the material livelihood of people within them. The welfare of people cannot be separated from that of the non-human components of the forest area.

Opinions were offered on how model forests could serve to effect changes in the management and control of forest resources. One suggestion was that tenure over forest resources be given to communities. The communities would then be responsible for negotiating terms with industries for the use of forest resources. This could lead to sustainable management that would meet the long-term interests of the community. However, the definition of "community" would need to be specific to account for widely different factions. For example, native interests would have to be reconciled in a satisfactory manner.

It was pointed out that model forests do not usurp existing jurisdictions, and that this is an attractive feature to potential partners and stakeholders. Furthermore, model forests have been as inclusive as possible. This has been achieved by respecting the rights and values of various publics. Consequently, the model forests have avoided political power plays and this is seen as contributing to the favorable track record of the program.

In all model forests, there is a degree of economic hardship facing people, and a recognition that the forest landbase contains resources that could be utilized for the betterment of living conditions. The socioeconomic aspect is a significant part of the public involvement process in all model forests. Traditional wood-based industries and emerging enterprises, such as ecotourism, fish culture, and mushroom production, are bringing wider public representation into the model forests.

It was pointed out that there are many different ownership patterns represented across the model forest network. In all cases, public participation is a necessity. It begins with trust and respect so that various publics — be they landowners, governments, industries, or private citizens — believe that they can have a say in their future without losing rights.

Wildlife and Habitat Management — Summary of Discussions

The definition of wildlife has been expanding as our understanding of ecosystem processes grows. That was one conclusion reached in the "issue-oriented" session on wildlife management. No longer is wildlife considered in the historical sense, i.e. large and small game that can be trapped or hunted. Rather, species such as Neotropical migrant birds, many of which overwinter in Central and South America, are receiving increasing attention.

Wildlife is recognized as an essential component of the forest ecosystem.

The need to maintain suitable habitat for all living species as a means of ensuring the long-term ecological integrity of our forests was a clear point of agreement among the 25 or so delegates representing eight of Canada's ten model forests. For many delegates, the definition broadens to include both above- and belowground organisms.

It was clear that participants recognized the need for a detailed inventory of key plant species upon which wildlife depend. As the discussion evolved throughout the day, the delegates recognized that the title of their session implied too narrow a focus, and the new title of "ecosystem management" was developed. Participants related case studies from a wide range of ecosystems, many of which involved monitoring the impact of forest management practices upon particular fauna.

Wildlife species being studied in Canadian model forests include pine marten; woodland raptors, such as goshawks; fish, such as walleye; and small mammals, such as the red-backed vole, bats, snowshoe hare, moose, black bear, and caribou.

The Prince Albert Model Forest has taken a unique approach. Rather than studying classical wildlife management practices, researchers there are examining methods of maintaining biodiversity at three levels: within species, within habitats (sites, stands), and across a landscape.

Facilitator Wayne Fiset of the Ontario Ministry of Natural Resources, in presenting his group's report to the plenary session, praised the participants, saying that a tremendous amount of work had been done in preparation for the session.

His report pointed out a number of common concerns and included the following recommendations for future network-wide activities:

Common concerns	Recommendations
Lack of a common vocabulary among model forests (i.e., What is wildlife?).	A common general vocabulary is needed.
Difficulty in communicating ecosystem management (biodiversity) principles in a context that is understandable to resource managers, politicians, and the public.	There should be a workshop featuring a 5-year achievement review. Reports should be prepared for various groups, such as politicians and job creation agencies.
Assumptions exist in computer models (i.e., missing information).	A workshop should be arranged to focus on missing information in the decision support system (DSS). Model forests require full access to all data.
Natural succession processes are very poorly understood. Studies considering herb layer plants are lacking.	More studies are needed regarding plant succession and a successional model should be developed. Other organizations should be contacted for reports on their work on succession.
Progress reports of activities are lacking. These should be prepared on an annual basis. Insufficient use/dialogue on the Internet.	Further distribution/use of information should be undertaken. Summary of findings from each model forest should be made accessible to anyone interested.
Lack of planning for a repository for the data collected by model forests.	Each model forest may need to find its own archive site, for example, a university.
Verification of models is required.	The establishment of a common computer language is called for; this is important when considering computer models (UNIX or PC?).
Need to better respect and appreciate the goals of people in other disciplines.	Partnerships with others in the field of interest from many organizations should be established.
The need exists for a standard research methodology.	More Global Positioning System technology should be used in order to standardize investigations.

Clear-cutting: Impacts and Effects — Summary of Discussions

Attended by model forest staff and representatives of university, government, First Nations, and the forest industry from Canada, Mexico, and Russia, the diverse views expressed in this session were not unexpected. As one of the more than 20 delegates who participated in that particular debate suggested later, there were probably as many definitions of clear-cutting put forward as there were people at the workshop.

One delegate was so incensed by the report that came out of the discussion that he moved at the Wednesday plenary session to have the paper stricken from the record. A show of hands was taken by Model Forest Coordinator Steve Dominy, but the motion was soundly defeated.

Three questions were put forward to stimulate discussion:

- Who is clear-cutting and why are they doing it?
- What are the economic and biotic constraints of clear-cutting?
- What are the advantages and disadvantages of clear-cutting?

"I've noticed a lot of exchanging of information back and forth and that's really what network meetings are all about."

Brian Barkley, General Manager, Eastern Ontario Model Forest

A discussion ensued on the maximum limit of clear-cuts. These ranged from 260 hectares in Ontario to 32 hectares in Alberta. The major point was that size can be dictated by wildlife guidelines and fire control.

It was pointed out that there is a big push in Alberta to approximate the cut block size to the size of natural fires. Depending upon the area, cut size is made to reflect the natural fire history — it becomes a matter of silvicultural strategy. These views were echoed by experiences in Russia, as described by one of the Russian delegates.

This led to the question of social acceptance in terms of size, and the common perception that a clear-cut implies permanent loss of the forest. Both clear-cutting and fire suppression were considered to be human interventions in the normal successional processes that are characteristic of forests. In the Western Newfoundland and Fundy model forests, both clear-cut and heavy insect infestations ensure regeneration of coniferous forest; fire brings about classic succession of shade intolerant hardwoods.

Careful logging in the Lake Abitibi Model Forest helps to ensure forest sustainability. Photo courtesy of the Lake Abitibi Model Forest.

In reporting on the session, Dr. Gerard Courtin of Laurentian University, who served as facilitator, singled out three important thoughts that arose from the discussions:

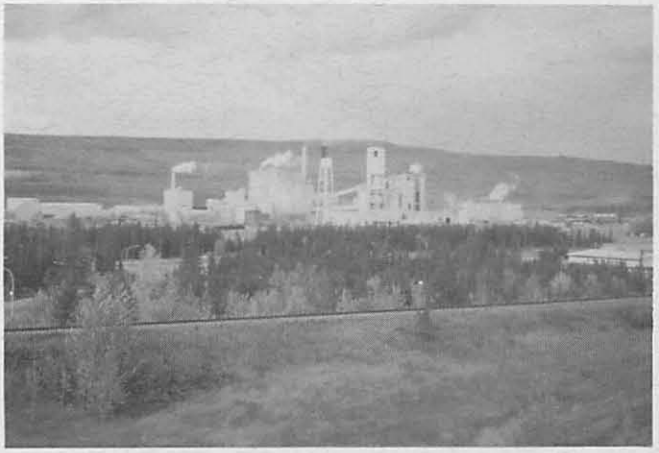
1. A clear-cut is a clear-cut no matter what you do to it. But what gets left behind as residual vegetation may significantly change the overall outcome.
2. The key drivers that govern development of a given forest may vary because each forest is unique and may react differently. Thus, in some places, clear-cutting is the only biologically reasonable thing to do.
3. A management strategy worth considering is to examine the historical record to determine the natural patterns of disturbance.

Buffers and fragmentation were also issues that came under discussion. Major points made were:

1. Buffers wider than what is called for legally are often left because there is less chance of a windthrow. This also allows an opportunity to selectively cut the larger trees without disruption of the buffer zone as a wildlife habitat/corridor, and to retain the protection of adjacent waterways.
2. Smaller cut blocks lead to greater fragmentation. They also result in more and better constructed roads, which, in turn, have a severe impact on wildlife because of the increased mobility of both natural and human predators.

A majority of the delegates accepted that an appropriate current description of clear-cutting is: "a silvicultural system to be applied on areas in which it mimics natural ecological disturbance regimes".

Dr. Courtin reported that the underlying theme of the session was that wood harvesting of any sort is a dirty word to some members of the public and that the removal of trees is a permanent intrusion on the



Clear-cutting practices of the forest industry have come under close scrutiny in recent years.

landscape. He said this had to be changed and the delegates agreed that a way to do this would be to teach the teacher and inform the media.

"Educate", "inform", "demonstrate", and "participate" were the watchwords put forward. But despite the sometimes heated discussion, the word demonstrate was not used in the sense of setting up picket lines but instead as a suggestion for bringing people out to the forest and showing them the benefits of proper wood harvesting.

While the delegates were able to agree that network meetings are a positive experience, they also suggested such opportunities could be enhanced by increased participation on Web site pages and recommended using the Internet for discussion working groups. In addition, they felt that model forests could host small, focused workshops involving specialists outside of the regular semiannual network meetings and that additional funding should be sought for public awareness programs.

The group identified several future activities, including:

- A need to develop tools — managers should adopt a toolbox approach to identify and assess alternative sustainable forest management scenarios;
- a need to educate the public; and,
- a need to enhance interdisciplinary linkages both within and between organizations.

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