SUSTAINABLE FOREST MANAGEMENT NETWORK
RÉSEAU DE GESTION DURABLE DES FORÊTS
Networks of Centres of Excellence
Réseaux de centres d'excellence

tomorrow's forests

SPRING 2009

THE SFM NETWORK NEWSLETTER
Research excellence through training, networking, partnerships and knowledge exchange

Spark Your Imagination!

Keynote Speakers / Network Workshops Provide Numerous Insights / Opportunities

The apogee of the SFM Network's 14 year research program will be celebrated at its upcoming fifth national conference April 21-23, 2009 at the Hilton Lac Leamy Hotel. You will have a unique opportunity to explore emerging issues and directions and discuss at length the future of the Canadian forest and the economies and societies that it supports.

Four high profile keynote speakers will augment the Network's efforts by providing their unique perspectives on a range of issues vital to the future success of Canada's forest resources and forest industries. Following the opening ceremonies, **Dr. Buzz Holling**, will review the unique opportunities he has had and the shared features of the environmental organizations that he has worked for in the past. Dr. Holling is renowned for developing many of the concepts of complex dynamics and ecosystem resilience that underlie much of our current understanding in sustainable forest management. Of the many organizations that Dr. Holling has worked with, many started with a flourish and then waned in influence. He has since worked with several other organizations that have taken a different approach. He expects these organizations will last significantly longer than the organizations that preceded them.

Throughout the conference, a total of 20 Partner-Researcher Showcases will be presented addressing issues, supported by Network research, as raised by partners.

On the second day, **Dr. Peter Senge**, who is a well recognized leader in the development of learning organizations, will discuss the opportunities and challenges of partnerships that bridge the traditional solitudes of industry, NGOs, governments and academia. In particular, he will reflect on his experiences from diverse cross-boundary and cross sector collaborative efforts involving differing stages of collaboration. Dr. Senge will share some of the types of tools and learning processes that can contribute to meaningful collaborative progress. His presentation will then lead to a panel discussion, involving speakers from several forest research partnerships aimed at exploring the best way to leverage partner engagement.

Photos (l to r): 2009 National Conference keynote speakers Buzz Holling, Peter Senge, Gwynne Dyer, and Thomas Homer-Dixon.

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The luncheon speaker will be **Mr. Jim Lopez**, President and CEO Tembec Inc. In the evening, **Mr. Harry Bombay**, Executive Director, National Aboriginal Forestry Association will provide the dinner address.

Day three (Thursday) will serve to reflect on the past and look to the future. The morning will include keynote presentations by futurist **Dr. Thomas Homer-Dixon** on the complexity of the evolving future, and author and film-maker **Dr. Gwynne Dyer** on global geopolitical drivers as highlighted in his most recent book, *Climate Wars*. Dr. Homer-Dixon will speak on whether or not sustainability should be the guiding principle, or whether there are other principles that need to be considered given the probability of severe and nonlinear climate change. Dr. Gwynne Dyer will suggest that while we can't stop climate change, there may be some very unique ways to slow it down to give humanity more time to create viable alternatives. In a separate panel discussion, **Dr. Peter Duinker**, Project Manager, Forest Futures Project will unveil the project's key findings. We expect a lively discussion! Don't miss it!

Despite the world financial crisis and Canada's forestry crisis, there is still the need for strategy and direction though sound research and guidance.

Throughout the conference, a total of 20 Partner–Researcher Showcases will present new results from SFM Network projects that were identified by Network partners as important priorities. These showcases are a unique feature of Network conferences and draw a large crowd of practitioners curious to learn the latest techniques and advances to practical matters facing them in the field. These showcases will cover topics spanning the breadth of sustainable forest management such as: forest-regeneration, succession and dynamics, carbon trading, decision-support systems, Aboriginal tenure, and trade-off analysis.

In addition, final presentations of the Network's six State of Knowledge (SoK) projects will be provided: **Dr. Vic Adamowicz** (University of Alberta) on natural capital and ecosystem valuation; **Dr. Irena Creed** (University of Western Ontario) on implications for water resources on the forested landbase; **Dr. Mark Johnston** (Saskatchewan Research Council) on forest vulnerability to climate change; **Dr. Ellen Macdonald** (University of Alberta) on ecological implications for altering mixedwood forest composition; **Dr. Yolanda Wiersma** (Memorial University of Newfoundland) on innovations regarding protected areas in SFM; and **Dr. Stephen Wyat**t (Université de Moncton, Campus d'Edmundston) on the Canadian experience in harmonizing Aboriginal and industry interests, and the best practices for traditional land use mapping.

A "Carrefour" will be held on Tuesday evening. The concept developed in Québec translates to something between a marketplace and a crossroad where people and ideas come together, relationships are renewed and built, and synergies fostered. The Carrefour will involve kiosks with food and drink interspersed among the presentation booths and research posters of collaborating, students, and researchers.

Despite the doom and gloom of the current economy, there is still hope for the future. That hope, though, requires sound research direction and guidance. What better place to find it than by being among those who are the most knowledgeable in the country!

If you haven't registered yet for the conference, but would like to, it's really easy to do! See: www.sfmnetwork.ca


"BUZZ" HOLLLING


PETER SENGE


GWYNNE DYER


THOMAS HOMER-DIXON

The Home Stretch! SFM Network's Forest Futures Project

Conference serves as meeting place to showcase results

by Peter Duinker

The SFM Network's Forest Futures Project is an initiative to enhance strategic forest-policy conversations in Canada. The concept behind the project is to develop and analyze a set of four scenarios that depict radically different possible futures for Canada's forests and the forest sector to 2050. Since the project's inception two years ago, some twenty workshops have been held across the country to develop, refine and discuss the basis for the scenarios. Many of these workshops were held in forest-based communities.

All of the project's products are posted at: www.sfmnetwork.ca, (click on) F*orest Futures*.

The project had four main activities:

DRIVER PAPER DEVELOPMENT

The project team identified thirteen drivers – key agents of change – associated with Canada's forests and forest sector, and developed papers on eleven of them.

FOUR SCENARIOS: DEVELOPMENT AND REFINEMENT

Using a well-tested approach of pitting two key drivers against each other to create a scenario space, we chose climate change and societal values and sketched out scenarios with the titles:

- Goods from the Woods,
- Peace in the Woods,
- Turbulence in the Woods,
- Restoration in the Woods.

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WORKSHOPS TO DISCUSS AND ANALYZE THE SCENARIOS

We held fifteen such workshops across Canada during 2008 – what a breadth of views we received! Most workshop attendees, who collectively represent the broadest array of forest and forest-sector stakeholders, found the scenarios to be interesting and helpful prompts to identify and focus attention on key forest-policy issues.

POLICY INTERPRETATIONS BASED ON THE SCENARIOS

Some fifteen policy thinkers came together at a workshop in Toronto in early February to share their insights on what for them are the key policy messages to arise from the scenarios. Their essays, currently under revision, will serve as the main basis for drawing policy lessons from the whole project.

On April 23, the SFM Network's conference at the Hilton Lac Leamy Hotel in Gatineau will serve as the venue to pull all the pieces together for presentation to the Canadian forest-policy community. Two prominent keynote speakers will be featured in the discussion that ensues: Gwynne Dyer and Thomas Homer-Dixon. Around their presentations, I will present some of the project's key findings. We expect a rather lively discussion! See you there!

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DANNY ABRIEL, DALHOUSIE UNIVERSITY

The Future of Forest Tenure Systems in Canada

by Ilan Vertinsky and Marty Luckert

The forest sector is facing a severe crisis. Unlike past crises, this crisis is not a mere reflection of temporary economic circumstances (e.g. the severe recession taking place) or a result of a policy failure that marginal adjustments can correct. The new challenges facing the forest sector are fundamental and complex, requiring articulation of new visions for the forest and bold actions. Forest tenures, being the key policy instruments governing Canadian public forests, are part of the problem and their reform may help offer a key to the solution.

In this short article, we highlight some of the key premises of tenure systems in Canada that must be changed to meet both the short and long term challenges that forest governance must face.

Tenure systems in Canada displayed remarkable stability over the past 50 years. Initially governments had simple objectives in designing forest tenure systems – attracting investment and creating economic activities and employment in forest regions. Forests were also regarded as a source of public finance to support a variety of public services and programs outside of forest communities. Their focus was timber management to provide a stable supply of raw materials for processing plants. 'Sustained yield' and 'even flow' were the key ingredients introduced to create incentives for investment and the creation of economic activities and employment. Ownership of the Crown forest was not a contested issue (at least from the perspective of the Crown). Tenure systems functioned well in a relatively simple, stable, social economic environment. Shifts in public attitudes and growing awareness of the importance of non-timber values, especially environmental values, were accommodated by the introduction of marginal changes to the existing systems. The systems became more and more complex and less transparent. The introduction of new rules and constraints resulted in rapidly increasing costs. The complex system of incentives resulted in unanticipated counter productive behaviour of tenure holders. Periodic reforms were attempted by various governments to simplify and rationalize the systems. These reforms (even the relatively bold, recent one in British Columbia) corrected some of the short term problems but have not dealt with the long term need for a forest tenure system that can accommodate rapidly changing physical, economic, social, legal, technological and scientific environments. In this short article, we highlight some of the key premises of tenure systems in Canada that must be changed to meet both the short and long term challenges that forest governance must face.

The first step in changing our policy perspective and the design of the forest tenure systems is to broaden their scope. Forest tenure systems must be emancipated from a timber-centric view, a view that focuses on physicals flows of timber to fill mill needs. The practical implications are clear:

- no more locking forest resources into specific uses
- planning based on values, not merely physical flows
- forest tenures that clearly convey forest management rights and responsibilities for multiple forest values to private firms and/or governments

An important step to introduce a flexibility that allows forest resources to achieve their highest value to society would be to "decouple" forests from processing plants. Moreover, the increasing importance of multiple non-

timber forest resources will increasingly require the consideration of trade-offs that involve value dimensions beyond physical quantities. In order for these tradeoffs amongst multiple forest resources to be effectively considered, there must be increased clarity regarding rights and responsibilities held by private parties and government.

Forest zones with resources that are largely valued privately (e.g. plantations in locations without sensitive ecological systems) could be considered for increased private control. Zones with overwhelming environmental or social values could be managed directly by governments or communities. Such an approach could avoid inefficiencies and conflicts that are generated in systems where overlapping narrow tenure rights prevent the internalization of externalities that accrue from the use of each resource to users of other forest resources. Indeed, such a system could also help accommodate more flexibly the rights and aspirations of first nations even before final settlements of ownership issues.

The new challenges facing the forest sector are fundamental and complex, requiring articulation of new visions for the forest and bold actions.

Forest tenure systems have to accommodate not only environmental changes but changes in scientific knowledge, technical know-how and values. The principles of adaptive management must be cornerstones in the "new forest management paradigm". As the environment in which forest management institutions operate becomes more complex and uncertain, diversification of tenure systems can reduce risks and better meet the demands of varied stakeholders.

Tenure systems should match the local characteristics of the managed forest and the aspirations of its direct stakeholders, while also meeting broader social objectives.

We see in the future a mosaic of different tenure types across the wide spaces of the forest (no one suit fits all for forest tenures!). The idea of zoning, i.e. dividing the forest into spatial units managed and regulated according to the characteristics of the forest so as to achieve more effectively goals of sustainable forest management, is an idea whose time has arrived.

Irrespective of the type of tenure, governments have a role in ensuring that the environment is protected. While regulation is inevitable, it should be smart regulation. There is a need to replace command and control regulation with newly designed economic instruments which reduce costs of meeting environmental objectives and ensure that individual management units, working to advance their own objectives, are provided with incentives that lead them to act in a socially desirable way.

In a short article it is impossible to cover the variety of tenure changes required to meet the future challenges but the principles are clear – create a governance system which is decentralized, diversified, responsive to diverse stakeholders, adaptable to changes in the environment and is efficient. We hope to share with you more of our vision of the future of forest tenure systems in the SFMN final conference.

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SFM Network's SAC Research Program

Reflecting on 12 years of success – 1996-2008

by David Natcher

In 2001, the research program of the SFM Network took a decidedly Aboriginal turn. After 5 years of previous research programming, the SFM Network came to realize that to be truly sustainable, forest management must find ways to account for the social and political context of forest use as well as emerging rights-based issues involving Canada's Aboriginal peoples. The SFM Network also recognized that simply acknowledging the rights and interests of Aboriginal peoples was not enough. Rather, an accompanying set of policies and actions was required in order to advance the interests of Aboriginal peoples. Recognizing the need for change, the research agenda of the SFM Network began to mature, both methodologically and in the questions being asked. This meant moving beyond simply identifying physical 'sites' of Aboriginal interest, to a more comprehensive research program that was first and foremost directed by the Network's Aboriginal partners. It was at this point that the Sustainable Aboriginal Communities (SAC) Research Area was formed.

Since the establishment of the SAC Research Area, more than 60 projects have been conducted. SAC Research (see Figure 1) has examined the accommodation of Aboriginal and treaty rights; 2) the integration of Aboriginal values, knowledge, and management systems; 3) the engagement of Aboriginal peoples in forest management and the economic development of forest resources; and 4) the development of criteria and indicators to measure performance in the above three areas. By 2008, SAC research accounted for approximately 30% of the total SFM Network research expenditure; a financial commitment that has resulted in a number of important changes in policy and practice. That said, there is more work to be done beyond the SFM Network's NCE mandate.

In fact, several notable areas relevant to Aboriginal forest management have failed to receive adequate research attention. For example, while some SAC research has examined co-management arrangements, little critical attention has been given to the requirements for these institutions to become adaptive and responsive to social, political and environmental change. The international literature on Adaptive Co-Management has made important advances in identifying the institutional requirements for effective forest governance. Examples from Canada would add to this understanding and would help clarify the conditions necessary for iterative learning and decision-making. Collective action in sustainable forest management has also received scant attention. Collective action research conducted outside of Canada has proven useful in identifying the conditions in which communities self-organize to achieve shared goals and to secure sources of livelihood. Yet we know very little about the factors that facilitate effective forms of collective action in Aboriginal communities in Canada.

The gendered aspects of forest use and management have also eluded research attention. While a central concern of many international forestry programs, gender has not been a major focus in Canada despite the policies and practices associated with forest management having considerable influence on the livelihoods of Aboriginal women. Aside from these examples there are no doubt many other areas that warrant attention. Certainly Aboriginal rights and title require a more concerted research focus, as does the duty to consult, effects of globalization, and climate change. Nonetheless, the SFM Network's SAC Research Area has provided a firm foundation on which future research can be built.

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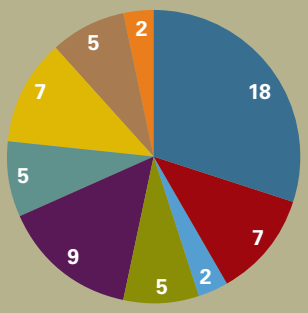

Figure 1: SAC Research Areas 1998-2008 (60 Projects Total)

The Future Beckons: Research Issues Still Requiring – Attention!

by Bruce Macnab and Terry Veeman

While the SFM Network was created under a definite time-frame – the maximum 14 years of funding under the Networks of Centres of Excellence Program – many of the challenges faced by forest managers and policy makers still remain and new ones are constantly emerging. It is important to keep in mind that the SFM Network research has from the outset tried to fill a niche by addressing research issues and approaches that the Network's management felt were not being adequately covered elsewhere.

At its peak, the Network had as many as 192 researchers Networked across the country involving more than 350 highly qualified personnel, the majority at either the Master or Ph.D. level. Overall, more than 300 projects were initiated and completed. Numerous lessons were practically applied toward better understanding natural processes. As well, researchers with social science backgrounds in anthropology and economics played critical roles. Those roles included identifying the important tradeoffs Canadians face in trying to consider the ecological, economic and social implications of forest practices and policies, and in the capacity to far better understand unique Aboriginal forest management perspectives and applications.

But what about the future and the research that still awaits? Below are some key strategic research areas that we think still deserve investigation by any future organization taking an SFM Network approach to research:

- **Integrated Landscape Management and Planning,** particularly multi-disciplinary approaches to evaluating tradeoffs, including assessments of cumulative effects, and the implementation of "TRIAD" or zoning systems with the potential for producing more fibre from less of the land base while achieving conservation objectives.
- **Assessments of the impacts and potential adaptation strategies of climate change** at scales relevant to forest management.
- **Use of forests for biofuels including the necessary broad assessments and implications**, particularly in relation to the potential impacts on biodiversity and forest productivity.
- **Aboriginal engagement in sustainable forest management**, including research and policy for reconciliation of Aboriginal interests in Canada's forests lands, improved livelihoods, capacity building and the development of effective institutions.
- **Support for safe and reliable water supplies** as part of forest management. We consider it vital that forest managers be at the decision making table along with other relevant entities to ensure that the necessary research work be conducted to support any future decisions.
- **Improved Economic and social futures** through the development of tenure systems and institutional arrangements, and incentive systems that support competitiveness and sustainability.

While not comprehensive, we think these are the most immediate research areas still requiring ongoing attention given our long-term experience with the SFM Network. You might wish to create your own list based on your own perspectives and experiences. Indeed, we encourage you to do so. The more ideas we collectively generate for future peer-reviewed research, the better equipped we will be to meet the challenges ahead!

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SFM Network Partners

GRANTING COUNCILS

- Networks of Centres of Excellence / Government of Canada
- Natural Sciences and Engineering Research Council of Canada (NSERC)
- Social Sciences and Humanities Research Council of Canada (SSHRC)

PARTNERS

Governments

- Government of Canada (Environment Canada)

  (Natural Resources Canada, Canadian Forest Service)

  (Parks Canada, Ecological Integrity Branch)
- Government of Alberta (Advanced Education and Technology – Alberta Forestry Research Institute) (Sustainable Resource Development)
- Government of British Columbia (Ministry of Forests and Range)
- Government of Manitoba (Manitoba Conservation)
- Government of Newfoundland and Labrador (Department of Natural Resources)
- Government of Ontario (Ministry of Natural Resources)
- Gouvernement du Québec (Ministère des Ressources naturelles et Faune)
- Government of Yukon (Department of Energy, Mines and Resources)

Industries

- AbitibiBowater Inc.
- Alberta-Pacific Forest Industries Inc.
- Canadian Forest Products Ltd.
- Daishowa-Marubeni International Ltd.
- J.D. Irving, Limited
- Louisiana-Pacific Canada Ltd.
- Manning Diversified Forest Products Ltd.
- Tembec Inc.
- Tolko Industries Ltd.
- Weyerhaeuser Company Ltd.

NGO

- Ducks Unlimited Canada

Aboriginal Groups

- Heart Lake First Nation
- Kamloops Indian Band
- Métis National Council
- Moose Cree First Nation
- Treaty 8 First Nations of Alberta

Institutions

- University of Alberta (host institution)
- British Columbia Institute of Technology
- Concordia University
- Dalhousie University
- Lakehead University
- McGill University
- Memorial University of Newfoundland
- Mount Royal College
- Royal Roads University
- Ryerson University
- Simon Fraser University
- Thompson Rivers University
- Trent University
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- Canadian Institute of Forestry
- Forest Ecosystem Science Cooperative, Inc.
- Forest Engineering Research Institute of Canada (FERIC)
- Fundy Model Forest
- Lake Abitibi Model Forest
- Manitoba Model Forest
- National Aboriginal Forestry Association

March 2009

10% POST-CONSUMER FIBER

Vision

The forests of Canada will maintain their extent, diversity and ecological vitality and be managed in a manner that will provide for the broad social, cultural and economic needs of all Canadians.

Mission

The Sustainable Forest Management Network is a national partnership in research and training excellence. Its mission is to deliver an internationally recognized, interdisciplinary program that undertakes relevant university-based research. It will develop networks of researchers, industry, government and First Nations partners, and offer innovative approaches to knowledge transfer. The Network will train scientists and advanced practitioners to meet the challenges of modern natural resource management.

Newsletter Production

Communications Manager
Marvin Abugov

Design
www.c3design.ca

Translation
Les entreprises Verret Enterprises, Ltd.(Ltée.)

Photography
Marvin Abugov, Black Brook District, N.B., Ontario Ministry of Natural Resources, Keith Hautala, Richard Siemens, Dave Locky, Danny Abriel

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Canadian Publication
Mail Agreement No. 1571958