

The Ontario Forest Research Institute's Role in the FRP

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Ontario Forest Research Institute (OFRI) staff have been integrally involved in the Canadian Ecology Centre-Forestry Research Partnership (CEC-FRP) from the outset. Here I document some of those contributions over the first five years of the partnership.

The very first project funded by the CEC-FRP was an *Intensive Forest Management (IFM) Science Workshop* held in Sault Ste. Marie, Ontario. In August 1999, Mr. Geoff Munro, at that time Director of MNR's Applied Research and Development Branch and member of the CEC-FRP executive committee, called for a workshop to determine science needs related to intensive forestry in response to commitments made in the 1999 Forest Accord. Specifically, the intent of the workshop was to identify science and information needs relevant to:

- Developing and testing a range of IFM practices
- Assessing the impacts of IFM on forest growth and yield
- Directing science activities in support of Ontario's forest management planning requirements under the Timber Class Environmental Assessment (Timber Class EA) and the Crown Forest Sustainability Act (CFSA)
- Modifying existing policies/guidelines where necessary
- Enhancing forest protection measures to protect IFM areas from fire, insects, and disease
- Assessing the impacts of IFM on the environment
- Evaluating the monetary costs and benefits of IFM

OFRI research scientist Wayne Bell was tasked with leading the workshop. With the support of Doug Pitt, Guy Smith, and Mike Weber of the Canadian Forest Service and Michael Irvine, Neil Stocker, Thom McDonough, Lisa Buse, Bill Towill, Han Chen, Fred Pinto, and David DeYoe from MNR's forest management, research, and science branches, the IFM workshop was held in December 1999. At that time, organizers were unaware that the workshop proceedings would help to lay the foundation for a multi-million, multi-disciplinary, multi-agency research partnership.

The main goal of the workshop was to identify the knowns and unknowns about IFM to adapt it for use in Ontario's forests. The workshop provided a forum to (1) develop a common level of understanding of the principles, practices, and possibilities for IFM in Ontario, (2) provide resource managers with a basis for making informed decisions about resource expenditures, and (3) identify education, training, and/or research needs associated with implementing IFM.

The 204 workshop participants recommended establishing clear definitions for IFM and developing wood supply, silviculture, protection, monitoring, and science and information objectives and strategies.

Workshop participants recognized that much knowledge and experience about intensifying forestry already existed and strongly recommended working towards implementing this knowledge. Organizing committee members recommended that an IFM research strategy be embedded within an adaptive management cycle (Fig. 1).

Collectively, the tasks in that research strategy focus on identifying

exactly what we do and do not know to conduct a sensitivity analysis of the effects of intensifying forestry on wood supplies, economics, and/or biodiversity.

The CEC-FRP adopted a more succinct version of the research strategy (Fig. 2). While the partners realized that this did not truly reflect an adaptive management cycle, the revised approach allowed the partnership to focus efforts to address true knowledge gaps and maximize returns on research investments.

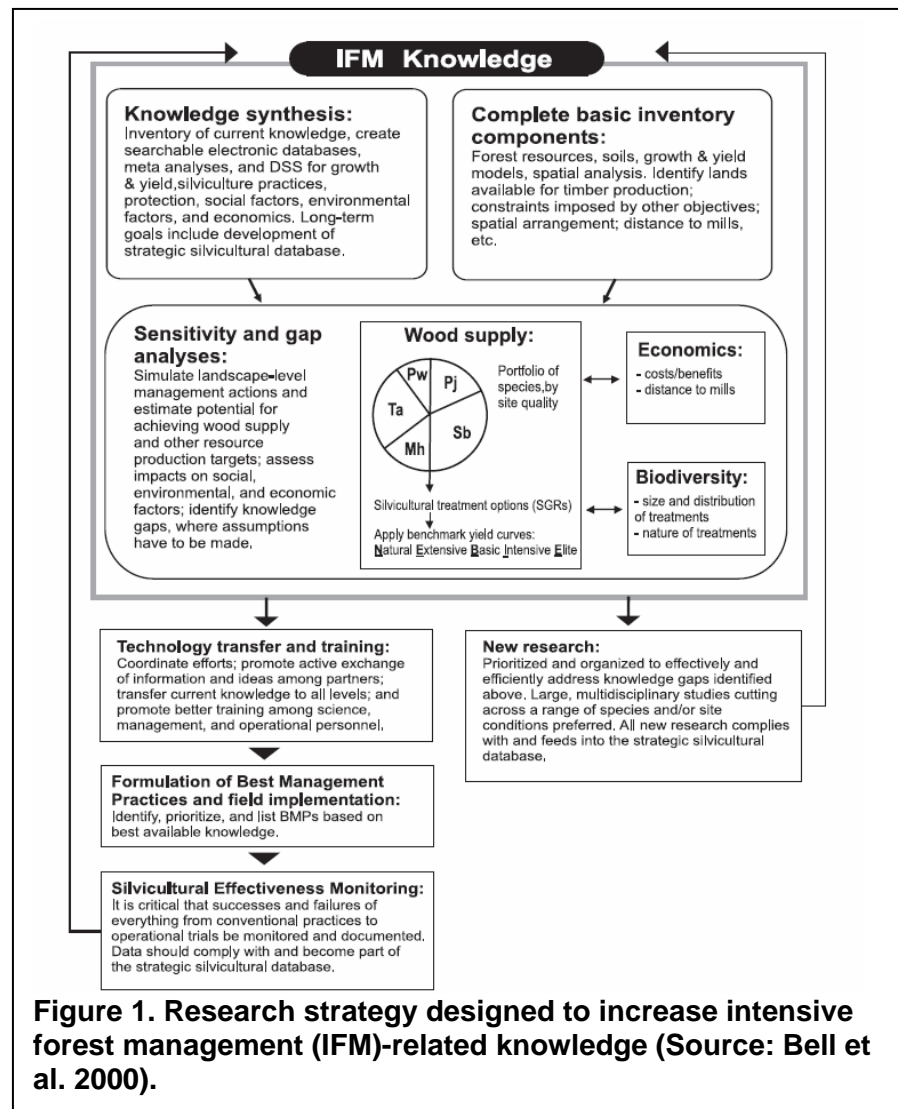
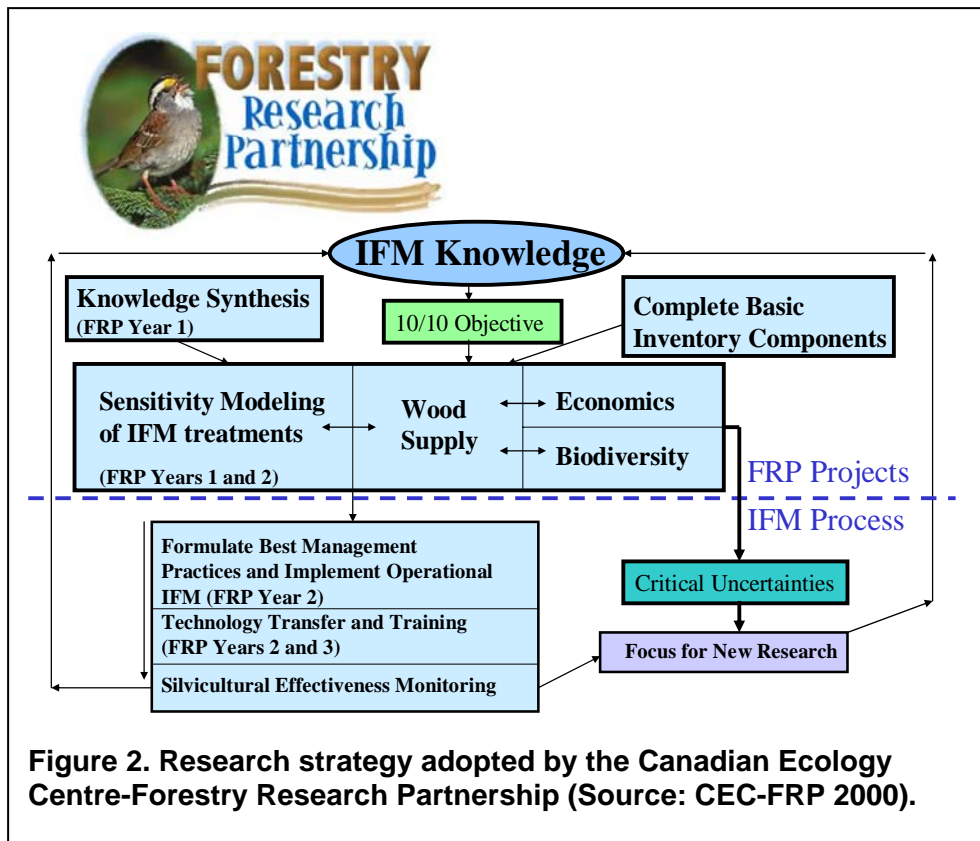


Figure 1. Research strategy designed to increase intensive forest management (IFM)-related knowledge (Source: Bell et al. 2000).



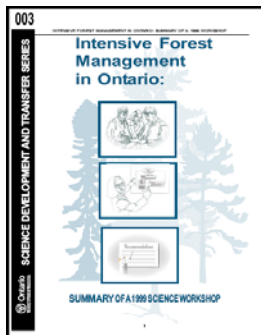
Following the workshop, the CEC-FRP has funded, directed, or catalyzed more than 140 studies that have provided science in the areas of spatial analysis, fibre production, protection, biodiversity, and economics pertinent to achieving the CEC-FRP's 10 in 10 goal – i.e., increasing wood supply by 10% in 10 years on the sustainable forest license areas that contribute to Tembec's wood supply in Ontario. Most of the studies have focused on data and knowledge management that provide a solid foundation from which to conduct a series of sensitivity analyses to determine if the longer-term 10 in 10 goal is plausible and, more importantly, sustainable.

OFRI staff involved in the partnership include individuals from Forest Research and Development section in MNR's Applied Research and Development Branch (ARDB) as well as from the Ontario Terrestrial Assessment Program (On-TAP) and the Forest Resources Inventory (FRI) section within the Science and Information Branch (SIB). The forest research section has about 50 staff, including research scientists, science specialists, statisticians, technicians, technology transfer specialists, managers, and administrative support. Staff expertise relates to a variety of forestry disciplines and current issues, such as ecology, silviculture, soils and hydrology, biochemistry, pathology, physiology, genetics, modelling, remote sensing, landscape ecology, non-timber forest products, and climate change. Research efforts are focused at a range of scales, from individual seedlings and trees to forest stands to the landscape of northern Ontario.

Some examples of key ARDB staff contributions over the course of the partnership, apart from helping to lay its foundation, include:

- Dr. Jim Baker chairs the Science Advisory Committee and has provided the partnership with much insight into adaptive forest management
- Dr. Ajith Perera led the initial *IFM Spatial Feasibility* study
- Dr. Bill Cole led the *Tolerant Hardwood Research Synthesis* project
- Dr. Mahadev Sharma, a more recent addition to the Science Advisory Committee is involved in the growth intercept project
- Wayne Bell has continued as a member of the Science Advisory Team and leads the *Old Studies Remeasurement* and the *NEBIE Plot Network* projects

ON-Tap staff have been involved in the growth and yield and remote sensing projects within the partnership and more recently FRI staff have become integrally involved in pilot projects of new inventory technology and approaches.



The IFM workshop proceedings are available online at http://www.mnr.gov.on.ca/mnr/forests/t&t_research/publications/ifm%20report.pdf.

OFRI and other MNR staff are committed to staying involved over the next term of the CEC-FRP to continue filling the knowledge gaps and transferring the results of their work to support on-the-ground implementation.