

Fostering Networked Research for Community Sustainability in Circumboreal Model Forests

Summary findings from the *Workshop on Best Practices for Networked Research in Circumboreal Model Forests*, March 21, 2011, Burgos, Spain



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Cover photos—

Township of Hornepayne, Northern Ontario, 2008, R. Bullock

Boreal forest near Dubreuilville, Northern Ontario, 2008, R. Bullock

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1. BACKGROUND

The project *Networked Research for Community Sustainability in Circumboreal Model Forests*—supported by Circumboreal Initiative (CBI) funding provided by the International Model Forest Network—links international practitioners and researchers to explore how Model Forest governance approaches can address boreal forest community sustainability. Past efforts by Model Forest stakeholders at the 2008 Global Forum identified programming priorities relevant to all sites. Network Initiative members would conduct research, develop educational material and tools, and host workshops on a variety of topics related to:

- climate change vulnerability, mitigation, and adaptation;
- indigenous engagement;
- public engagement;
- values and land use, and;
- social-ecological sustainability and resilience.

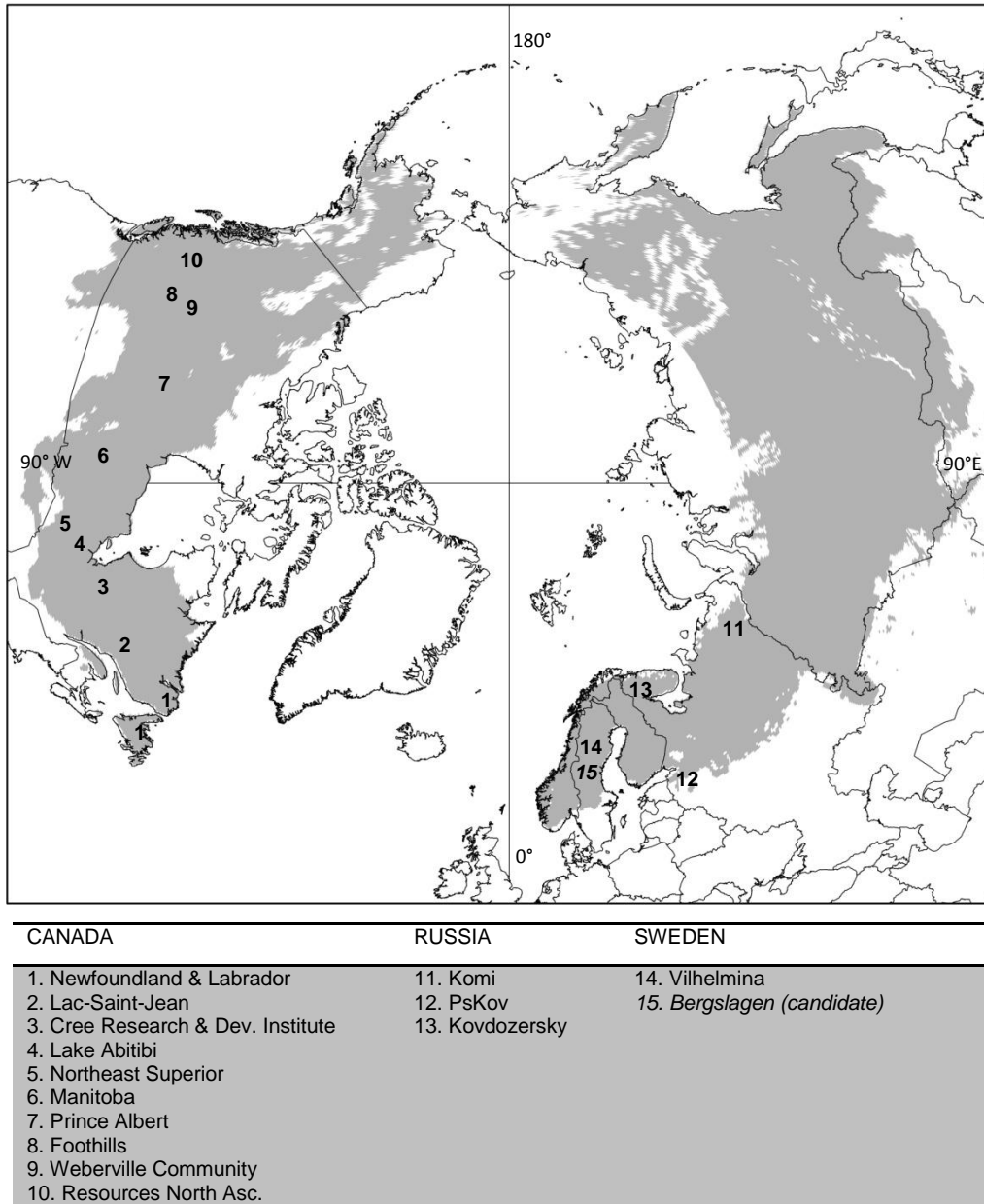
Subsequently, CBI project areas were further discussed and refined by members from Canada, Finland and Sweden at a February 2009 meeting at the Mekrijarvi Research Station in Finland. Emerging opportunities included participation in a multi-country project to develop a circumboreal vegetation map; examining biomass and site productivity; environmental monitoring and reporting, and; broadening engagement of other networks and initiatives.

2. WORKSHOP PURPOSE & APPROACH

The overall purpose of the *Workshop on Networked Research in Circumboreal Model Forests* (Figure 1), held in Burgos, Spain on March 21, 2011 was to develop a research framework for Model Forest researchers and communities that could help structure and advance community-based research for community sustainability. In particular, it was proposed that *A Networked Research Approach* (Czuczman et al. 2006) could help address the perceived need for applied research to better anticipate and understand

changes affecting boreal communities and ecosystems and help develop systematic adaptation approaches.

Figure 1. Circumboreal Model Forests



The networked research approach is intended to actually engage community members in all stages of the research process (i.e., question identification, research design, data collection and analysis, reporting and dissemination) (Box 1). In particular, networked

research could help foster integration of international research capacity and responses to better address emerging opportunities and challenges and the shared concerns of circumboreal communities, governments, and researchers.

Box 1. Key Aspects of Networked Research

Seeks to improve social, economic and ecological conditions as expressed by targeted social groups

Values local knowledge, experience, and involvement

Creates forum for peer support and review, as well as international collaboration and information sharing

Process and researchers are critical, self-reflective, and adaptive to support ongoing learning

Research is applied and interdisciplinary

Dissemination pathways are strategically selected in advance to feed back results to decision makers

Model Forests are intended to act as landscape level learning sites for collaborative research on sustainability where findings of ecological and social significance are shared with regional and sectoral actors. Embracing social science research and, specifically, community-based research methodologies, as prescribed by the *Networked Research Approach*, is in keeping with this mandate.

Box 2. Challenges to Circumboreal Community Sustainability

Small, isolated settlements

Limited economic structure (overdependence on a few companies)

Limited infrastructure (e.g. transportation, communications)

Generally aging populations and outmigration of youth and skilled labour

Poverty and associated social problems

Erosion of traditional cultures and rights

Limited political organization and influence

There is a natural fit between circumboreal community sustainability as a CBI project theme, the key aspects of networked research (**Box 1**), and previously identified challenges to circumboreal communities (**Box 2**). Developing these linkages would help

advance understanding of specific local issues in the boreal and develop key tools to actually build socially and ecologically sustainable boreal communities.

3. PARTICIPANTS & FORMAT

There was a good turnout with a larger than expected group (31) representing 4 countries (Russia, Canada, Poland, Sweden), indicating a good level of interest in the workshop themes. The group included mostly biophysical researchers and practitioners involved in Model Forests internationally, with high representation from Canada (nearly 2/3) (Box 3).

Box 3. Participants

1. Kenneth Andersson	12. Carina Keskitalo	22. Jacques Robert
2. Tom Archibald	13. Marc Laprise	23. Per Sandstrom
3. Robert Axelsson	14. Clara Lauziere	24. Mike Slivitzky
4. Raymond Barrette	15. Jerges Lozinski	25. Gord Stenhouse
5. Michael Bendzsak	16. David McLean	26. Johan Swensson
6. Brian Bonnell	17. Przemek Majewski	27. Janine Tremblay
7. Ryan Bullock	18. Youri Pautov	28. Gord Vaadeland
8. Susan Carr	19. Reg Parson	29. Person X
9. Sean Dolter	20. Collette Roberson	30. Person Y
10. Erik Ederlov	21. Guillaume Roy	31. Person Z
11. Mark Johnston		

Facilitated by Ryan Bullock with support from Sean Dolter and Mike Slivitsky

An ambitious agenda was set intended to enable workshop participants to share different experiences and knowledge about both non-indigenous and indigenous forest communities, and to introduce participants to one another and help them explore and define common ground for a research framework. The day included exploratory group discussions in the morning session followed by small break-out group discussions (organized by region i.e. Canada, Russia, Scandinavia) in the afternoon session. An agenda and background discussion paper were provided for preparation.

It became apparent after preliminary discussions that much more ground work and time would be needed to achieve the full set of planned workshop objectives (i.e. agree on main research questions, articulate proposal ideas, etc.). The proposed agenda was

designed to pursue *step two* activities (see Czuczman et al. 2006), which included deciding details of terms of reference, articulating specific research proposals, and identifying funding opportunities. However, in keeping with *A Networked Research Approach* participants raised concerns essential to *step one* of the network development process, such as:

- deliberating and defining normative network principles, objectives and concepts related to the networks core research theme (i.e. community sustainability);
- the need to inventory research team projects and capabilities to orient researchers within the network;
- the need to identify research questions informed by boreal communities themselves and a co-created research and literature review to frame proposed research, and;
- how network researchers should and could interact and communicate in a systematic way.

Consequently, what emerged was a framework discussion exploring how the research community and Model Forests should and could interact in a meaningful way and requisite guidance for future interactions and work with boreal communities.

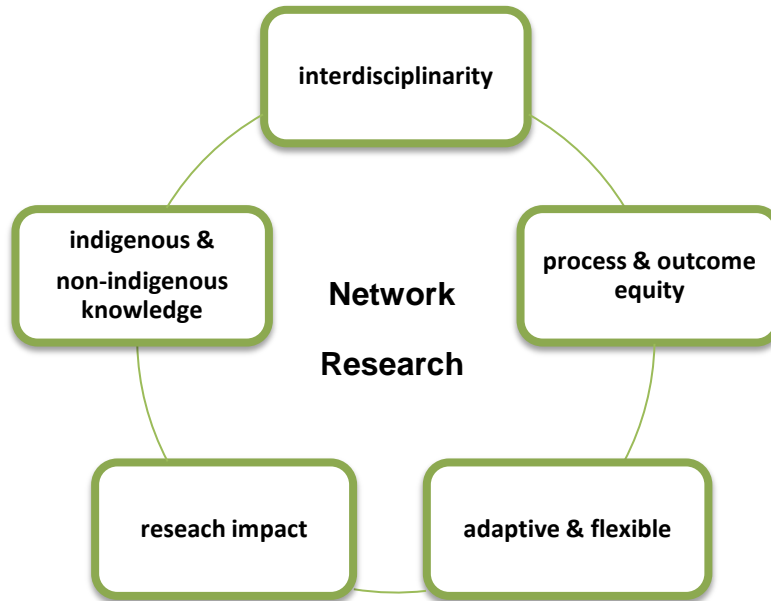
4. GETTING to NETWORKED RESEARCH: PRINCIPLES, THEMES, ACTIVITIES

4.1 Principles for Networked Research

Following introductions and some discussion, interaction was refocused on emerging questions and building shared appreciations for what a circumboreal research network for community sustainability *should* entail. In considering the role of Model Forests and CBI within regional and international networks, group discussions converged around a set of common and interrelated points that offer principles to guide networked research for circumboreal community sustainability (**Figure 2**).

Participants thought it was imperative that any research to promote community sustainability in the boreal ought to incorporate socio-economic *and* ecological perspectives in research and practice. As such there was a perceived need to **strive for interdisciplinarity** within the network, though it was not readily apparent how researcher collaboration could occur in this level.

Figure 2. Principles for Networked Research for Circumboreal Community Sustainability



There was a strong emphasis on the need to support and effectively **engage the perspectives and knowledge of local indigenous and non-indigenous populations in research**. Russian delegates carefully reminded their colleagues that community-based research *must* start with engaging communities to discuss and mutually identify project ideas and research questions.

Concomitantly, a community-based orientation was thought to help overcome limitations of top-down, expert-driven research *on* communities as subjects, which is often delivered by government and university researchers, and to fulfill place-based information needs in line with the proposed network purpose (i.e. fostering community sustainability). There was implicit concern for the need to **promote equity in networked research processes as well as outcomes to support long term community development**.

There was consensus that Model Forests more than ever must work to be socially relevant and demonstrate their value in terms of useful services, tools, and products produced within the international network. Many thought it was critical that circumboreal research should be conducted to affect positive change within specific settings, and then disseminated within and beyond the network. **Maximizing information access,**

sharing, and relevance for impactful project outputs that reached beyond the site level and network was deemed essential.

Given the changing context and shifting needs of communities, **researchers, the network and projects must remain adaptive and flexible through time** with periodic reflection to verify if networked research for community sustainability is focussing on the right thing, at the right time, and in the right place. It was thought that such qualities would also contribute to network responsiveness in order to capitalize on rising opportunities.

4.2 Applied Research Themes for Community Sustainability

In discussing the possible contribution(s) of applied research, participants emphasized the need to think through practical problems and develop applied research strategies with communities. Participants reminded their colleagues that research was *the tool* and should not be *the goal* of networked research for community sustainability.

Workshop participants discussed several broad challenges affecting community sustainability in northern forest communities as well as research program relevance that could be used to refine a set of research priorities for this component of the CBI. At least two common areas were identified as relevant were the research community might make contributions.

1) The evaluation and return of benefits of ecosystems and conservation was thought to be significantly overlooked. For example, participants shared that community-based conservation initiatives often failed to assess the benefits created for the local community (e.g., caribou and bison conservation). Many acknowledged the difficulty of defining conferred and intrinsic environmental values (i.e., habitat, species) in order to demonstrate and account for the social and economic benefits, as well as ecological. There were also challenges with defining cross-cultural environmental values and metrics given that human values and perceptions are cultural-dependent.

In general, existing assessment tools were considered incomplete and inadequate. Existing criteria and indicator frameworks still need work and specification (e.g. community assessment guidebook has indicators but not a full set related to community sustainability) and other frameworks offered 'blunt tools' for quantifying values that have no market value. There was interest in learning more about the mechanisms for assessing and cycling these returns back into communities.

2) Forest and community governance as it relates to community and regional development was a second area of interest. There was recognition of regional differences but also a growing global trend towards increased stakeholder involvement in forestry decisions making and development (e.g. First Nations, municipalities and civil society in Canada, provincially in Russia). Russian researchers pointed out their communities had no previous experience with devolution or local models of forest governance so that developing and presenting actual practical examples of workable models to communities would be valuable. Canadian participants highlighted the growing importance of provincial tenure reform to creating opportunities and needs in forest communities. Swedish colleagues saw potential for collaborative learning and insights from cross-case comparisons, whether with other countries or individual communities across countries.

In keeping with community-based research that values local empowerment, governance research should start by focussing on what can be solved locally, rather than identifying what should be done in senior governments. This could include specifying the roles and responsibilities of communities and industry in development to better integrate forest systems and increase local benefits.

4.3 Networked Research Structures & Activities

Model Forests play a role as “honest brokers” and can act as the interface for community-based research that provides access to funders, researchers, community members and projects. Some time was spent mapping out short and medium term actions to structure Model Forest researcher-community interactions in the context of applied community-based methodologies. Participants worked together to envision how they could work together to identify issues and share information across the boreal, enhance learning opportunities and participatory research, communication with partner communities, and assess future activities.

Together they set out some milestones for developing a circumboreal community sustainability network, identifying counterpart tasks for both the research community and community groups that are analogous to the Networked Research Approach process. The following event chronology was gleaned from workshop scoping exercises and notes concerning the development of internal links and functions thought necessary for networked research.

4.3.1 Short-Term Actions for Model Forest Researchers

- a. Identify ongoing existing research among Model Forests and elsewhere (project inventory, literature review, annotated bibliography) to identify existing and new approaches and concepts in global community sustainability. Building an inventory was considered imperative to establishing where the group stands and common ground for a way forward. Prescribed as an essential first step in the guidebook for *A Networked Research Approach* (Czuczman et al. 2006), Model Forests could use existing website infrastructure to submit reports and papers through an online portal that can be viewed by participants as a living document. Researchers and practitioners could upload and review materials.

Research ideas would be fed through a Public Advisory Committee (PAC). A PAC should be established immediately as a counterpart to the core team.

Once the above activities are accomplished, the team can obtain feedback and teleconference with PAC members to confirm *critical issues for boreal community sustainability* that will guide networked research projects.

- b. Subsequently, there is a need to develop context specific engagement protocol(s) for how researchers should engage boreal communities and vice versa through Model Forests. Model Forests and communities must decide how to first identify potential communities and then how to approach community through Model Forest.

Specifically, motivated researchers could take guidance for project development and community identification from the main priority areas identified through the literature and research review. This would also help build awareness and point to main community sustainability research priorities (i.e. *critical issues for boreal community sustainability*). Researchers would use co-established priorities to select their cases. Alternately, PAC members would make suggestions for community cases that could be a good fit with priority issues.

With input from researchers and communities, the core team would draft and maintain a working list of *critical issues*, *cases*, and *linkages* to ongoing projects,

proposals, researcher-community relationships and look for convergence (i.e. overall fit within MF-community networks) to dream up and give shape to project ideas). This is where the network would gain traction.

- c. In keeping with *A Networked Research Approach*, the core team needs to assess differences among the broader research community that will partake in *networked research for boreal community sustainability*. Based on the literature review as well as the integration of community-researcher perspectives on *critical issues, cases and links*, they need to determine the value of the network by figuring out what people, resources, and expertise exist and are needed to support the planned research agenda. This requires that the PAC/researchers/core team assess strengths and weaknesses in the research team with attention to *balancing representation across* 1) disciplines, gender, regions, and possibly age¹, and; 2) *determining research capacities*, namely available and needed research support (i.e. time and money, students, researchers, research institutes). It would be ideal for Model Forests, researchers and community groups to submit/discuss their own contributions to identify such strengths and gaps. The core team would then search to fill any identified gaps.

4.3.2 Short-Term Actions for Boreal Model Forest Community Partners

- a. Invite individuals from *boreal communities* in each country to become members of Public Advisory Committee as a counterpart to the research community. For practical reasons this, could include those already working with Model Forests (e.g. BOD). Participating Model Forests and core team would invite existing individuals to serve on the PAC, and strive to reflect the civic-public-private representation of each region. Email/phone/web communication should be used to circulate disclosure of intent in next few months to briefly outline the *Circumboreal Community Sustainability Network*, and the potential benefits for communities. Each region in the PAC assigns one representative as a counterpart to the core team for discussions (totalling 6 persons, 3 core team, 3 PAC).

¹ Workshop participation was very unbalanced considering disciplinary (mainly biophysical), gender (3/31 were women) and geographical representation (most people from Canada).

- b. Community partners should be invited to contribute to the literature and research review portal that would support common access to information. It may not be feasible to translate all the posted materials, which could be a problem. Names and contact info of those involved in the network should be posted by the PAC for member viewing.
- c. Invite PAC to discuss by teleconference and provide feedback on/input to the literature and research review, and identify *critical issues for boreal community sustainability* to help direct the proposed research agenda. PAC members makes suggestions for community cases that could be a good fit with *critical issues* and look for convergence to dream up and give shape to project ideas.

Having these steps in place would delineate researcher/community roles in the research relationship and projects housed by MFs. Following problem setting stage, additional steps for research design were identified (discussed below).

4.3.3 Medium-term Actions for Boreal Model Forest Researchers & Community Partners

With the above structures in place, Model Forest researchers and communities will need to work together to identify pathways to change/leverages points as informed by previously agreed upon *critical issues for boreal community sustainability*. In particular, it would be helpful to reflect on what are identified here as the 3 T's of advocacy research planning—Target, Timing, and Technique—or *who* research projects must target to have the desired impact, *when* project outputs and deliverables should be disseminated, and how or what mediums and dissemination tools (i.e. policy brief, public presentation, brochures, etc.) should be used to maximize desired effects?

It would be appropriate for the core team and PAC to further develop and prioritize main research questions that can produce research findings to support advocacy strategies that will engage communities and researchers in specified projects. For example, these could be for the whole network level and/or for particular regions, with each region taking lead on **one** priority project as lead within the overall research agenda.

PAC and researchers must continue to scan for emerging policy and planning windows, business opportunities, community events to help direct context specific research outputs that can be specified in proposals and project plans. Dissemination activities would help to expand awareness for other regions within the network.

5. SUMMARY

This report describes the main findings emerging from the *Workshop on Networked Research in Circumboreal Model Forests*, held in Burgos, Spain in March 2011. It provides options for developing a research framework for Model Forest researchers and communities to help structure and advance community-based research *for* community sustainability. Circumboreal Model Forest partners acknowledge the need and opportunity to better integrate international research capacity and actions among communities, government and researchers. This network would support community-driven applied research to better anticipate and understand changes affecting boreal communities and ecosystems and help to develop systematic adaptation approaches.

The contents of this report align the main challenges faced in circumboreal communities with Model Forest objectives and key aspects of networked research design. In doing so the report outlines how the research community and Model Forests can interact in a meaningful way and it provides guidance to enable ongoing work with boreal communities. Central to these efforts are the articulation of converging principles, themes and activities that together provide process design options for building *Networked Research for Community Sustainability in Circumboreal Model Forests*.

Both short- and medium-term actions for circumboreal Model Forest researchers and community partners are outlined. A set of mutually supporting actions indicates a way forward to structure researcher/community roles and interactions as vital parts of the research relationships and projects enabled by Circumboreal Model Forests.

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