# Increasing Indigenous Participation in Resource Management in the North: Research Opportunities and Barriers

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Indigenous peoples have long been excluded from the management of their homelands and the natural resources these contain. In the Circumpolar North, most indigenous peoples began to experience significant deterritorialization by the 19th century, if not earlier. This loss of control over lands and resources was a major contributing factor in indigenous peoples' impoverished conditions relative to the dominant populations of the states in which they are encapsulated.

We see the slow reversal of this situation in the last few decades, most notably in the changing territorialities precipitated by "land claims" processes, through Settlement Acts (e.g. Alaska), other treaty processes (e.g. those in Canada), the creation of Territories of Traditional Nature Use (Russia, at least in theory), and other similar initiatives. Indigenous peoples have challenged, and made some in-roads into upsetting, the practices of dominant institutions controlling resource use and allocation in the North. Their re-territorializations pose myriad interesting research questions regarding borders and borderlands, including questions about the impacts of re-bordering of space along different axes, about changes in socio-spatial practices due to the creation of new bounded (resource) spaces, and regarding landscape manifestations of these new borders, etc. There is much more study needed of how state borders have been challenged and perhaps partially effaced through the trans-border co-operations of ICC, the Sami, and other groups regarding resources. In this paper, however, I want to follow another trajectory – and consider research opportunities, particularly for social scientists, regarding improving indigenous participation in natural resource management.

Where indigenous peoples are achieving greater control over the natural resources of their homelands, they are doing so in significantly altered landscapes and situations to those extant when they originally lost authority.

Their homelands have become sites of industrial forestry, of mineral and hydrocarbon extraction, of tourism destinations. Resource management strategies on indigenous homelands are contingent on new pressures, opportunities and constraints. These new realities affect the visions, values, goals and objectives of indigenous peoples, who frequently wish to be involved in such resource-based activities and to gain greater control over their development, while concurrently sustaining a variety of 'traditional' territorial-based activities (hunting, gathering, fishing, reindeer herding, etc.). They also often want to maintain certain 'traditional' values in the development of the new opportunities.

Below I briefly consider two aspects of indigenous participation in natural resource management: the issue of improving indigenous capacity to participate, and the issue of informing resource management with Indigenous Knowledge. I note a few of the research opportunities (and indeed needs) under these two themes, as areas that I see as critical to this topic and ways that researchers might contribute to the re-territorialization of indigenous peoples. There are many more that I don't identify here. My comments draw on my own research experiences with indigenous peoples in Eastern Siberia and in Northern British Columbia.

## Improving Indigenous Participation in Resource Management

As legal confirmation of indigenous rights to control their homelands' resources proceeds in much of the Circumpolar North a key issue is indigenous **capacity** to assume such control. Indigenous peoples have multifaceted visions for the development of their resources, with concomitant goals and objectives of improving employment opportunities, sustaining the environment, preserving key spiritual and other culturally important sites, and perpetuating and developing their

distinct cultures. At the same time they are confronted by dynamic social, economic and eco- systems. Legal and policy frameworks stipulate and sometimes constrain choices for resource management. Economic restructuring processes, especially notable in the Russian North, but characteristic of all parts of the Circumpolar North, shape possibilities. The North is currently characterized by a predominance of single-resource based communities. Population outflows of work-age and educated members typify many of its communities, including indigenous communities, while economic leakage remains another challenge. In some cases rapidly changing social and economic conditions are exacerbated by environmental change (for instance the huge impacts the Pine Beetle epidemic will have on aboriginal communities in northern British Columbia over the next generation as much of the pine forest dies off; the effects global climatic change will have on northern communities). Many wish to diversify the spectrum of resources on which their community well-being depends (e.g. through timber certification processes, eco-tourism development, etc.). Indigenous communities need the capacity to respond to such challenges, to identify new and desirable opportunities for resource development and to be able to act upon these opportunities.

Discussions with indigenous people in the Russian North indicate their strong desire for employment opportunities, but also their strong commitment to protection of the environment – a fact in part based on traditional values, in part on their current dependence on subsistence activities of fishing, gathering and hunting. Some envisage developing local non-renewable resources (e.g. gemstones) in order to support traditional activities. First Nations in northern BC also want jobs, especially ones that provide local opportunities for youth – and they also regularly discuss the need to protect culturally important sites (e.g. medicinal plant harvesting areas) and to revive their languages – all in the context of resource development strategies.

What research opportunities does this need for indigenous capacity building in resource management suggest? Firstly, researchers can contribute to developing and testing rigorous and locally-sensitive methodologies for facilitating community visioning exercises for resource management strategies that will meet their economic, social and environmental values, and generating the goals and objectives that issue from these visions. Once such methodologies are evaluated as effective, researchers should then provide training to community members on how to carry out such exercises themselves, as these need to be repeated at appropriate intervals.

Researchers can also provide skills inventory assessments, identifying the skills and training needed by the community to meet resource management goals and objectives. What professional and technical expertise exists within the community? What lacks? Are there transferable skills, or opportunities for upgrading existing skills of community members? This information can then feed into community planning for strategic capacity building regarding resource management, in terms of training programs, education in critical areas, and means of acquiring experience in key fields.

It is critical when planning for resource management to understand changing patterns of resource use ('traditional' and 'non-traditional'), patterns and changing intensities of participation in various resource-base activities, and the values community members attach to different resources and their uses. This understanding can inform assessment of risk factors involved in different resource development strategies, and of possibilities for amelioration of such risks. Researchers are well situated to design, with community input, such studies, and then implement them with community participation.

Local resource management takes place within the context – and constraints – of current legislated structures and processes. Researchers can help to identify how community input can be effectively incorporated into resource management plans, considering opportunities and barriers, including those specific to indigenous participation (e.g. inter-cultural communication challenges, racism). When local resource management plans must articulate with regional plans that involve other indigenous and non-indigenous players, researchers can suggest models for engagement that have worked elsewhere, and, working with the local population, can identify alterations needed to these models, given the local context.

Where indigenous groups envision a new direction as desirable (e.g. ISO certification of their harvested timber for market advantage, ethno-tourism development), researchers can provide feasibility studies for such ideas, looking at the opportunities and challenges of various diversification strategies – again attending to the issue of community capacity for such development.

## Informing Resource Management with Indigenous Knowledge

As indigenous peoples resume control of their territories' resources, they also aim to develop resource management strategies that incorporate their values and are informed by their knowledge. Indigenous people

are regularly touted as significant contributors to sustainable resource management, through their practices, their unique connections to their homelands, and their local, place-based knowledge. Indeed, they fully understand the importance of the production of knowledge in creating territories (Paasi 2003), and intend to re-territorialize through the inculcation of these values and this knowledge into their resource management.

Yet efforts to incorporate indigenous values into resource management systems have to date been spotty at best. While in part due to constraints imposed by legislation and policies, in part efforts are stymied due to a lack of procedures for explicating such knowledge and values, a critical preliminary step for their inculcation into resource management plans. (The lack of respect for such knowledge among key non-indigenous players is also an on-going challenge.)

One recent development in sustainable resource management has been a trend toward the use of indicators as a means to measure progress toward achieving sustainability. Indicators have been developed to monitor the sustainability of ecosystems and of communities. Yet few indicators have been established within indigenous contexts and drawing on indigenous input. The following quote, although speaking specifically of forest management, is certainly generalizable to other resource management regimes:

"Indicators will ultimately influence what important aspects of forestry are to be measured and monitored, and against which SFM [sustainable forest management] is subsequently evaluated. This, in turn, impacts the influence that Aboriginal values have on sustainable forest management. Therefore, the fewer the number of Aboriginal indicators in existence, the less of an impact Aboriginal values will have overall in sustainable forest management." (FNFP 2004: 23)

Researchers can assist indigenous peoples in informing resource management by indigenous knowledge through a number of means. They can develop rigorous and culturally sensitive procedures for identifying local-level indicators and measures of sustainable resource management (e.g. Sherry and Fondahl 2004, Karjala et al. 2004).[1] In doing so, they can develop culturally appropriate and procedurally reproducible methods for identifying cultural experts within the indigenous community – a critical step for external legitimacy of research results in some situations (Davis and Wager 2003). In many northern areas these procedures must acknowledge the limited literacy and strong oral traditions of indigenous elders, as well as other cultural specificities.

Technologies that assist in the identification of indigenous resource management values, indicators and measures beg development. One example of initial steps in this direction is visualization software/hardware, whereby an elder can view landscapes within the traditional territory through 'virtual fly-throughs', and indicate which landscapes provide key habitat for various species, for medicinal plants, etc – thus facilitating the identification of sustainable landscape indicators and their measures when treks into the bush are impractical (e.g. due to age or health of indigenous expert, or season) (Elliot nd). Other visualization software allows indigenous communities to 'see' what the landscape will look like in 10, 50, or 100 years under various management regimes, and to explore different development options (Kessler *et al.* 2001). Many other computer-based visualization technologies can be imagined that would aid in the identification of indigenous values and indicators of sustainable development, a requisite step to their inculcation in management plans.

## University–Indigenous Research Alliances: *Building Indigenous and Researcher Capacity Through Research Co-Management*

The above comments suggest very applied types of research. It is increasingly common in the North to hear pleas, indeed demands, for relevant research. Indigenous and non-indigenous community members alike frequently complain that they have been 'studied to death' with few obvious benefits flowing back to them. They want to see tangible results and/or useful products. Research must involve community members, and findings must be communicated in language and media that are accessible to them.

Co-management of research provides a means for improving the relevance of research and to increase indigenous participation in resource management. If co-management of resources is a strategic approach for asserting greater indigenous control over territory (Notzke 1995), co-management of research can provide a means by which indigenous peoples can assert greater control over research and researchers. By doing so, they can better ensure relevance of the research conducted on their territories, while also learning about research processes along the way. This also gives them insights into the limits of research and constraints on researchers, making their own expectations in terms of timing and outputs more realistic.

In Canada, a Community-University Research Alliance program[2] is founded on the assumption that commu-

nities are best situated to identify their key issues and problems; researchers can assist in identifying solutions to these challenges. While not specifically set up for indigenous-university research collaboration, it has supported numerous such endeavors: in 2004, of the 15 projects chosen for funding, 6 involved university-aboriginal partnerships.

Research with communities can provide community members with a host of training, in interviewing skills, transcribing, archival research, content analysis, technical writing, data base development and internet research. Skill can be honed in word processing, cataloguing, poster design, and independent work skills. Indigenous research assistants may be exposed to and become more knowledgeable about research protocols that their nations have generated, and to cross-cultural communication. In parts of the Canadian North, where Treaty Offices and other offices perform increasing amounts of research, rather than depending on outside consultants, research may be a significant employer, and capacity-building here can be a significant boon to indigenous communities. Even being able to better question and evaluate the research of outsiders done on their behalf, through a greater understanding of research processes, contributes to indigenous peoples' capacity.

The co-management of research benefits not only the indigenous community, but the researchers (and researchers-in-training), who learn how to work more effectively and respectfully in a multi-cultural environment. As resource control increasingly resituates from non-indigenous to indigenous institutions, such skills will be increasingly valuable to both researchers and their students who act as research assistants, but then pursue employment in other sectors (industry, government) and conduct activities with indigenous communities. As many researchers are also teachers, such experience can contribute to curriculum development that attends more to indigenous values and knowledge.

## Notes

1 Our research has shown that local-level, indigenous indicators of sustainable forest management attend much more to social and cultural measures of sustainability than do internationally or nationally-generated indicators, which focus more on economic and ecological parameters (Sherry et al. 2005).

2 Under the auspices of the Social Sciences and Humanities Research Council; see http://www.sshrc.ca/web/apply/program_descriptions/cura_e.asp#1. See http://cura.unbc.ca for an example of information on one such project, directed by the author.

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