

Local Criteria and Indicators: Moving Beyond Generic Approaches to Sustainability

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Introduction

The last few decades have witnessed a marked interest in approaching forest management in ways that prove ecologically, economically, and socially sustainable. To this end, we have seen the development of numerous criteria and indicators (C&I) frameworks for monitoring and assessing sustainability. Such frameworks have largely derived from top-down approaches. Yet, research suggests that definitions of sustainability may differ dramatically at different scales.

Methods

During Phase 1 of our project, community and university researchers analysed primary archival materials to begin to identify Tl'azt'en Nation forest values. We compared the resulting local-level C&I with three well-known frameworks for sustainable forestry: the Canadian Council of Forest Ministers template (CCFM 2003), the Local Unit Criteria and Indicators Development test (Wright et al. 2002), and the Centre for International Forestry Research generic template (CIFOR 1999). Our purpose was to determine how local expressions of sustainability differed from more global and top-down approaches. The comparison focused on five core themes: fair and effective decision-making, social sustainability, economic sustainability, increased management effectiveness, and ecological sustainability.

Conclusions

- Generic C&I frameworks need to be supplemented by research that identifies local-level C&I for sustainable forest management. International and national frameworks can provide policy context and structures to enable on-the-ground management, and can provide a foundation for the development of local-level C&I. However, it is critical to understand how sustainability concepts are expressed by local people; communities define sustainability differently from each other and from experts, requiring a unique set of progress measures.

- Analysis of archived community information may provide valuable context and a starting point for local C&I initiatives. Such results are not meant to represent a definitive set of C&I, but rather should be seen as an initial approximation of local values. Local managers can modify such a preliminary framework as information becomes available and as community members' values, expectations, and needs change.

- The CCFM C&I framework, has been criticized strongly by Aboriginal groups and by the National Aboriginal Forestry Association. Our research shows that beyond the political reasons for such rejection, the framework appears to have significant general deficiencies in defining suitable C&I. To date, efforts have focused on environmental and economic concerns. Studies to develop effective C&I of management processes, social and cultural values, and non-timber goods and services are needed.

- Our research demonstrates the necessity of community involvement in attempts to develop more sustainable approaches to forest management. Results show that a 'bottom-up' approach to C&I development increases relevance, buy-in, and awareness.

- The current study also establishes that a C&I strategy can be applied in Aboriginal communities to give expression to local knowledge, practices, and beliefs, and to assess forest management as it relates to culture, land use needs, and community development.

- Disadvantages of this local-level approach may include increased costs of data collection, the loss of opportunity to compare trends among communities, and the need for constant tracking and revision as local priorities shift over time.

Findings

- The current analysis supports the growing recognition that C&I developed for application at other scales do not translate well to the forest management unit scale and thus are not as relevant for management at the local level.

- Community research can provide additional detail to C&I shared with higher level frameworks and can produce new C&I.

- In some cases, national and local C&I represent complementary tools. Many areas of overlap and interdependence were identified between Tl'azt'en C&I and the Comparison Frameworks in the areas of *Economic Sustainability* and *Ecological Sustainability*. For instance, our analysis clarifies the complex and multi-dimensional nature of community economic dependence on the forest.

- There is less correspondence between Tl'azt'en C&I and those of the Comparison Frameworks under the *Fair and Effective Decision-Making*, *Social Sustainability*, and *Management Effectiveness* principles.

- The current research shows that the processes of decision-making and management are as important to society as the outcomes. Tl'azt'enne require increased attention to communication, consensus, inclusive and pluralistic representation, partnership building, and cross-cultural learning in management processes. Tl'azt'enne seek meaningful opportunities for participation, incorporation of local knowledge, and respect for Aboriginal rights and title in forest management.

- The social C&I emerging from our analysis focus on the degree to which Tl'azt'en Nation is healthy and sustainable, and whether a nurturing environment exists in which to live and grow, rather than focusing on forest-related indicators that have a community dimension. Tl'azt'en C&I go beyond jobs and income to address other supportive roles forests can play in the achievement of community sustainability, such as cultural revitalization, capacity building, intergenerational equity, amenity values, and ownership of forest land. Forestry is seen as a means to address and resolve social problems, to enhance community cohesiveness and resilience, and to build relationships.



References

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