

# Conserving Cultural Values: Are the Indicators and Targets Being Used Working?

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## **Abstract**

The Convention on Biological Diversity recognizes the need to involve Indigenous Peoples and the value of traditional knowledge in efforts to conserve biological diversity. Over the last 5 years in Canada, efforts have been made in the development of the Canadian Standards Association (CSA) sustainable forest management certification standard and the Model Forest Program to address the conservation of biological diversity in sustainable forest management practices. These processes recognize the value and need to incorporate traditional knowledge, and include indicators and objectives related to Aboriginal values and priorities. Objectives, such as the need to conserve spiritual and cultural values, the conservation of timber and non-timber resources, that in many cases includes sustenance and medicinal resources, and socio-economic indicators that pertain to aboriginal participation in and benefits from the forest sector, have been developed. However, what effort is being made to develop measurable indicators and targets for conserving cultural values and resources? Are targets and indicators being used effecting the conservation of cultural values in forest management and practices? This paper examines how a CSA-based process and the Model Forest Program are attempting to incorporate Aboriginal values and priorities in the sustainable management of forests, and provides recommendations on what is needed to effect the conservation of cultural values and resources.

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## Introduction

There is growing recognition by the international community of the close and traditional dependence of Indigenous communities on biological resources (e.g., plants, animals, forests, water), and that Indigenous Peoples have sustainably used and managed lands and resources within their traditional territories for centuries. The Brundtland Report (1987), produced by the World Commission on Environment and Development, recognized that Indigenous communities held vast amounts of traditional knowledge (TK), and that society in general could learn a great deal from traditional skills in sustainably managing complex ecosystems. The Brundtland Report went on to further state that “careful and sensitive consideration of Indigenous interests is a touchstone of sustainable development policy”. This report suggested that sustainable development should ensure that Indigenous values are included, preserved and managed for in ways that meet the needs of present and future generations. The World Summit on Sustainable Development, held in 1992, confirmed that biological diversity plays a critical role in sustainable development, and identified the Convention on Biological Diversity as the key instrument for the development of commitments and objectives focused on the conservation and sustainable use of biological diversity (Handbook of the Convention on Biological Diversity 2003).

Several provisions and objectives under the Convention on Biological Diversity (1992) recognize the value of using TK in the efforts to conserve biological diversity, and that approaches to conserve biological diversity should take into account cultural considerations, rights and values. Thus, inherent and important links have been made that recognize culture as a component of biological diversity, and the need to incorporate cultural values and use TK in efforts to sustainably use and conserve biological diversity for present and future generations (Figure 1).

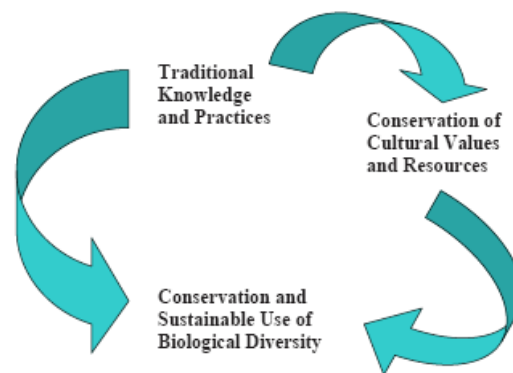


Figure 1. Links between the incorporation of cultural values and use of traditional knowledge to the conservation and sustainable use of biological diversity and to sustainable development.

However in efforts to conserve forest biological diversity what is being done to manage and conserve cultural values and resources in sustainable forest management plans and practices? How successful have these efforts been at conserving and protecting cultural resources and values? Cultural values and resources, although connected, actually refer to slightly different concepts. Cultural resources refer to actual resources, like subsistence plants, roots, bulbs, berries, medicinal plants and wildlife resources such as deer, moose etc., while a value generally refers to an activity such as spiritual sites,

gathering sites, camping, fishing and hunting sites etc.. However these are only a few examples; there are many more cultural uses and values.

Over the last five years in Canada, efforts have been made in the development of sustainable forest management plans based on the Canadian Standards Association (CSA) Sustainable Forest Management (SFM) Certification standard and under the National Model Forest Program to develop indicators, objectives, targets and monitoring requirements that reflect and incorporate Aboriginal values and priorities in the sustainable use and management of forests. In these processes, the value and need to incorporate traditional knowledge has been recognized. The Model Forest Program and the CSA SFM standard support and promote the involvement of Aboriginal Peoples in the development of objectives, indicators, and targets that reflect local values in the sustainable use and management of forests. The Canadian Model Forest program and the SFM plan for the Kamloops Timber Supply Area, based on the CSA SFM standard, requirements and guidelines, will be used in this paper to illustrate some of the advances and challenges associated with the incorporation Aboriginal values into forest management and planning. The Model Forest Program and the Kamloops SFM plan have not been chosen as negative examples. On the contrary, they have been chosen as examples of efforts being made to incorporate aboriginal priorities and protect cultural values.

Both the Model Forest Program and the Kamloops Sustainable Forest Management (SFM) Plan, use the Criteria and Indicator framework developed by the Montreal Process, adapted for use in Canada by the Canadian Council of Forest Ministers (CCFM) in 1994. The intention of the Criteria and Indicators framework was to provide a common understanding and scientific definition of sustainable forest management in Canada (CCFM Technical Report 1997). It is based on six (6) Criteria that include: the conservation of biological diversity, ecosystem productivity, soil and water conservation, global ecological cycles, multiple benefits to society, and society's responsibility for sustainable development.

Criteria 6, society's responsibility for sustainable development, contains elements that directly refer to the need to respect Aboriginal rights and values. To facilitate the development of local level indicators of sustainable forest management, multi-stakeholder planning processes are used to develop indicators and targets under the six Criteria to conserve local values, monitor and evaluate how the forest operations and management are protecting and conserving a range of values within a defined forest management area.

## **The Model Forest Program**

Information from the Natural Resources Canada (NRCAN) (Natural Resources Canada 2000) report and review of the Model Forest Program, was used in this paper to identify indicators being used and developed to protect and incorporate Aboriginal values in the Model Forest Program. Five out of the twelve Model Forests in the NRCAN report (2000) developed and included Aboriginal indicators in their management goals and objectives. One is Aboriginal-led (Waswanipi Cree) and four others (Long Beach, Nova Forest Alliance, Manitoba, Lake Abitibi) have developed and included Aboriginal indicators in management goals and objectives in their sustainable forest management indicator sets (NRCAN 2000). The concept behind the Model Forest Program is to use Model Forests

to develop and test sustainable forest practices within defined, local forest areas. The Model Forest Program is based on, and uses, partnerships with Industry, government, Aboriginal Peoples and members of the public to bring forward a diversity of perspectives and interests. The goal is to provide a forum for all interested parties to express their opinions, and work together on the development of forest management strategies and objectives that reflect, balance and protect social, cultural, economic and environmental values.

### **Waswanipi Cree Model Forest**

The Waswanipi Cree Model Forest, located in Quebec, is Canada's newest Model Forest and the only one led by Aboriginal Peoples. The goals of this Model Forest have been developed to benefit and assure the economic, social and cultural development of the Waswanipi Cree. Indicators have been structured around the rights of the Cree peoples described in the James Bay Northern Quebec Agreement, and include: protection of biodiversity and productivity of the ecosystem, protection of Aboriginal peoples and their economies, incorporation of TK and Aboriginal values, and protection of hunting, fishing and trapping rights. Direct comparisons with other Model Forest Programs in Canada are difficult because this Model Forest has developed its own suite of criteria and indicators for sustainable forest management. Cultural indicators that have been developed include: the need to protect hunting areas, and develop programs that promote hunting, fishing and trapping. The wording of most of the indicators is very general in nature, and most measurements are qualitative and not quantitative, which makes it very difficult to measure and assess change. Yes/No, presence or absence of an activity are generally used as measurement units. However, the development of quantifiable indicators by the Waswanipi Cree has been hindered by a lack of baseline inventory information (NRCAN 2000). The Waswanipi Cree Model Forest partnership is working on the development of detailed indicators that reflect the perspectives and values of the Cree Peoples. Recent efforts have included a project and process to enhance Cree participation in the in forest management planning process (Waswanipi Cree Model Forests 2002). Cree participation is key to developing measurable targets and indicators to manage and protect cultural values that ensure and sustain the Cree way of life.

### **Long Beach Model Forest**

The Long Beach Model Forest was located in coastal temperate rainforest on Vancouver Island in British Columbia. One indicator under Criteria 5 and thirteen indicators under Criteria 6 were developed that cite the need to incorporate TK, conserve and protect cultural values. No specific measurements or targets were developed to manage and protect cultural values. It should be noted that at the time of this study by NRCAN (2000), the local First Nations, the Nuu-Chah-Nulth did not feel that their participation was sufficient in the development of indicators being used to define sustainable forest management in this area. Subsequently workshops were held by Nuu-Chah-Nulth First Nations to further develop local level indicators of SFM that better incorporated traditional knowledge and reflected their values and priorities. However, because the Long Beach Model Forest no longer exists, the outcomes of these workshops were never incorporated into the Long Beach Model Forest SFM framework (Bill Wagner, Research Economist, Natural Resources Canada, pers. comm., September 2005).

### **Nova Forest Alliance**

Nova Scotia's Model Forest project is located in central Nova Scotia. The Nova Forest Alliance Model Forest is unique as it was developed and chosen to test sustainable forest practices that had been developed under another Model Forest Program, the Fundy Model Forest. There are two descriptive indicators, under Criteria 6, related to the degree of aboriginal involvement and that mention the need to understand Mi'kmaq issues. There are no indicators specifically for cultural values. The Nova Forest Alliance has struggled with defining measurable targets and indicators for all criteria; with cultural criteria presenting their own unique issues (David Sutherland, General Manager, Nova Forest Alliance, pers. comm. September 2005). Although the Nova Forest Alliance has developed 11 measurable indicators for some criteria they feel work well, measurable targets and indicators under Criteria 6 and for cultural values haven't been developed (David Sutherland, pers. comm., September 2005).

### **Manitoba Model Forest**

The Manitoba Model Forest is located in the boreal forest and extends from Lake Winnipeg to the Manitoba/Ontario border. One of the purposes of the Manitoba Model Forest initiative is to provide a set of indicators for use in the Pine Falls Paper's sustainable forest management plan. It has one descriptive indicator under Criteria 6, related to the use of TK and the need to respect proprietary interest of Aboriginal Peoples to their TK. No targets, units of measurement or indicators have been developed. However, Tembec Industries Inc. (Pine Falls Operations), is currently working on the development of protocols with Aboriginal groups to increase their involvement in the development of Aboriginal indicators and targets of SFM based on the SFM process and indicators developed by the Manitoba Model Forest (Tembec Industries Inc. 2005).

### **Lake Abitibi Model Forest**

The Lake Abitibi Model Forest is located in the northeast corner of Ontario. One indicator under Criteria 6 recognizes the need to protect social, cultural and spiritual sites. The unit of measurement is the number of sites protected. The Lake Abitibi Model Forest just initiated a research project to increase Aboriginal involvement in the identification of indicators to manage for and protect wildlife and cultural values, and increase economic opportunities for community members (Wayne Young, General Manager, Lake Abitibi Model Forest, pers. comm., Sept. 2005).

In general the indicators developed and used to incorporate the management and protection of cultural values in these Model Forest programs are descriptive and qualitative, and not quantitative or measurable. Although all of these programs recognize the need to involve Aboriginal Peoples, there have been difficulties with the development of effective and measurable SFM indicators to conserve and protect Aboriginal interests and cultural values. The lack of baseline inventory information on cultural values and resources, and the lack of meaningful participation of Aboriginal communities in the development of criteria and indicators of SFM are two main factors. However, in most cases, efforts are now being made to increase Aboriginal involvement in the process and development of indicators of SFM that reflect and protect their values and priorities. It will be important to develop practical and measurable indicators and targets that can be used to monitor on-the-ground change to determine if forestry activities are conserving cultural resources and values.

## **Sustainable Forest Management Plan for the Kamloops Timber Supply Area**

The Kamloops Sustainable Forest Management (SFM) Plan is based on the Canadian Standards Association (CSA) certification system and includes a set of locally developed values, objectives and indicators of SFM for the Kamloops Timber Supply Area (TSA). The Kamloops SFM plan contains performance targets and management strategies that are used to guide current and long-term forest management of a diversity of environmental, social, cultural and economic values in the Kamloops TSA. The Kamloops SFM Plan is reviewed annually to assess whether performance measures for indicators have been met and in efforts to identify new information and areas of continual improvement. A multistakeholder group, that recognizes the unique role of First Nations, is used to: develop local level indicators of sustainable forest management for a diversity of values, review and update the plan on an annual basis and promote the sharing of information between First Nations and forest tenure holders. The Kamloops SFM Plan is an evolving forest management plan that all forest tenure holders in the area have committed to. Certification by a forest licence holders under the CSA standard is additional and voluntary.

There are two main indicators in the Kamloops SFM 2004/05 Plan specific to the management and protection of TK and cultural resources; Indicators 12 and 25. Unlike most of the Model Forest Programs these indicators are used throughout the plan, in three of the six Criteria and many of the elements, to incorporate aboriginal values throughout the SFM Plan (Sustainable Forest Management Plan for the Kamloops Timber Supply Area, February 2004). Objectives under several elements in the plan (8 out of 17), state the need to protect archaeological sites, cultural, and spiritual sites. So the intent is there – but what are the targets and units of measurement, and how successful have these indicators been at conserving and protecting cultural values in forest management and practices?

Indicator 12 cites the need for forest tenure holders to incorporate traditional knowledge, nontimber resources cultural and spiritual values in forest planning, where available. This indicator has three targets associated with it; open communication with First Nations regarding the review of operational plans, commitment to respond to all communication requests from First Nations, and incorporation of traditional knowledge, cultural resources and values where available. Annual monitoring and measurement obligations include reporting on the number of meetings forest tenure holders have with First Nations, the number of cutblocks where action was taken to manage for and/or protect cultural and spiritual values, the number of responses from forest tenure holders to First Nations requests for information.

Although the wording of Indicator 12 has good intentions, how effective this indicator is in protecting cultural values in forestry operations and activities is unknown. Resources are not provided to address gaps in information First Nations communities need to inventory and identify cultural resources and values within their traditional territories. The number of cutblocks where action is taken is a good, quantifiable measurement based on the assumption that where action is taken cultural resources are being identified, managed for and protected. However, the number of meetings with First Nations, and the number of times a licensee responds to a First Nations request for communications could mean very little to effecting practices on the ground to manage for and protect cultural resources. More or less meetings or correspondence does not necessarily mean that more or less, respectively, is being done on the ground to protect cultural resources.

The intent of these surrogate indicators is to collect information on cultural resources and values that can then be used to protect and manage for these values in forest development plans and operations.

Indicator 25 pertains to the identification of archaeological values and resources, and the management of these resources in operational activities. The annual reporting measurement is the number of cutblocks where an Archeological Overview Assessment (AOA) was conducted, and the number of cutblocks where the AOA included a field visit. This indicator is measurable and based on the assumption that where action on the ground was taken, information on traditional use and cultural values was identified and used to manage for and protect these values. This indicator is quite good as the AOA model and process in the Kamloops Timber Supply Area involved First Nations in the development of the model. First Nations are also involved in archaeology overview assessments and field work, and in the development of recommendations to protect archaeological resources and sites. However, it should be noted that archaeology is a science based on physical evidence, and thus provides only one layer of information on cultural values. There are many other components of culture that may be missed when only archaeological inventories are used to assess the cultural importance of an area because many past and current traditional use activities (e.g. sustenance gathering activities, hunting) leave no physical evidence behind.

The Kamloops SFM plan and public advisory process has made efforts to incorporate a diverse array of values and involve First Nations. Many of the elements in the Kamloops SFM plan contain objectives that cite the need to conserve aboriginal cultural and spiritual values, but the plan lacks quantifiable and measurable indicators and targets needed to monitor and assess the effectiveness of the SFM plan and forestry operations at managing and protecting cultural values. Opportunities and initiatives that promote the sharing of information and discussion of issues facilitate management of a broader array of values. Partnerships and working agreements between industry and First Nations enhance communication between the parties and facilitate exchange of information and understanding of aboriginal values and priorities. However, development of measurable and quantifiable indicators, targets and thresholds for cultural values has proven to be difficult for several reasons.

### **Constraints to the Development of Indicators to Conserve Cultural Values in the Kamloops TSA SFM Plan**

There is a need to develop effective ways to engage and sustain Aboriginal participation in the development of indicators and the planning process. Communication and involvement are key. It is difficult to develop meaningful and measurable indicators and targets for Aboriginal interests and cultural values without their full involvement and support. Meaningful Aboriginal involvement is necessary for the development of practical indicators and targets to manage for cultural values that are effective and culturally appropriate. Ensuring their participation in the process is “without prejudice” is a good start, but resources and processes are needed that facilitate involvement and commitment of Aboriginal communities to the process. It is also important to develop ways and means to incorporate traditional knowledge that ensure that sensitive information shared is incorporated in the process in ways that respect the rights of the Aboriginal community(s) to their knowledge, innovations and practices, and the confidential nature of the information. Thus it is important that SFM indicators and

practices manage for cultural values and resources within an area/block and not just around a specific site.

There are no resources to support Aboriginal participation in the planning, monitoring and reporting processes or for the collection of baseline data. Most Aboriginal communities lack comprehensive baseline inventory information on cultural values within their traditional territories. Inventories of cultural resources and values are very costly, and there is limited funding available for Aboriginal communities to collect this information. Aboriginal communities are invited to participate in SFM planning processes without adequate baseline information and no commitment for resources to address gaps in the information needed to develop effective and practical indicators and targets for cultural resources. The Kamloops SFM plan commits to using traditional knowledge and information on cultural and spiritual values only where available. It is difficult to develop quantifiable indicators, benchmarks and targets to protect and manage for cultural values and evaluate how forest operations and management are conserving cultural resources and values when there is no baseline information to start with and qualitative measurements are used and assumed to protect and manage for cultural values. Continual improvement of SFM plans, and development of measurable indicators and targets to protect and manage for cultural values will continue to be a challenge without comprehensive information on cultural values, and the full and sustained involvement of Aboriginal communities in the development, monitoring and reporting of indicators to protect and manage for cultural values and resources.

Surrogate measurements for indicators pertaining to cultural values, such as yes/no answers to the participation of First Nations, correspondence with and meetings with First Nations, are being used because of the lack of information on cultural values. Surrogate measurements, targets and indicators are qualitative and not quantitative. Because this process doesn't provide resources for Aboriginal communities to collect the baseline information needed, surrogate measures based on current forestry practices and requirements are used to indicate and monitor how traditional knowledge and cultural values are being incorporated into forest planning. This makes it very difficult to determine if the sustainable forest management practices and forestry operations are protecting and conserving cultural values on the ground. Until a way is developed to resource and collect baseline information, surrogate measures, such as correspondence and meetings with First Nations, will be used by forest tenure holders to manage and protect cultural values.

Issues of scale have not been dealt with. Information is lacking on what scale cultural values and resources should be managed at. It is difficult to know what scale, the TSA level or stand level, to manage and conserve cultural resources. Spatial links would make it easier to manage activities on the landbase to conserve cultural values and develop quantitative indicators. The Kamloops TSA SFM Plan attempts to manage values at a higher level (i.e. at the Timber Supply Area level) and adjust that down to the stand level. However it is not known if this is working. If a cultural use or resource is missed at the higher level, it will likely be missed at the stand level. But if something is flagged at the stand level, then there is an opportunity to make changes in the cutting permit/block to protect and conserve cultural values.

It is not known if performance measures for indicators on cultural values, based on surrogate measurements, are effecting the protection of cultural values in forestry plans and operations. Continual improvement, central to the CSA standard, is difficult when

you don't know if what is being done is working. There has been no Aboriginal involvement in the monitoring and reporting process. Aboriginal involvement in monitoring and reporting processes is needed to assess the effectiveness of targets and measurements currently being used.

There may be cost implications for forest tenure holders for targets set around protecting areas of cultural importance. Without knowing what is there on the landbase, forest tenure holders are hesitant about setting targets they may have to commit to.

These difficulties have also likely hindered the development of quantifiable indicators to manage for and protect cultural values in Model Forest Programs across Canada. Members of the Kamloops SFM public advisory group, which includes First Nations representatives, forest tenure holders and members of the public, have made an effort to incorporate and reflect aboriginal values and priorities in the SFM plan. However, there is still a need to develop practical and measurable indicators for cultural values that can then be used to assess whether the SFM plan is effecting the conservation of cultural values and resources in forestry plans and operations. There is a need to address gaps in the information and collect baseline information on cultural values and resources to develop measurable indicators that will permit the assessment and modification of actions necessary to improve the development of effective indicators and targets for cultural values. Resources to address gaps in information on cultural values and develop better ways to increase Aboriginal involvement in the planning, monitoring and reporting processes will facilitate the development of practical and measurable targets and indicators of sustainable forest management that protect and conserve cultural values.

## **Cross-Cutting Recommendations**

Cultural resources are an integral component of biological diversity. More work needs to be done to collect the baseline inventory information needed to address gaps in the information Aboriginal communities have before practical, quantitative and measurable indicators, targets and thresholds that protect cultural values and resources can be developed. Cultural resource inventory information is lacking at the community and Nation level. This makes it very difficult to manage and protect cultural resources when baseline information on what there is to begin with is lacking.

Aboriginal communities need resources to collect baseline information on the abundance and distribution of culturally important resources within their traditional territories. This information can then be used to develop quantitative and measurable local level indicators, targets and thresholds aimed at conserving cultural resources in SFM plans and forestry operations.

Meaningful involvement and participation of Aboriginal communities is key to the development of effective indicators and targets that manage and protect Aboriginal values and cultural resources. Meaningful and sustained involvement of Aboriginal communities is needed to facilitate the incorporation and use of TK in developing local level indicators of sustainable forest management. Participation in the process should be 'without prejudice'. Resources are needed to facilitate and sustain Aboriginal involvement in planning, monitoring and reporting processes.

Cross-cultural workshops and sessions with local Aboriginal communities are needed to increase the understanding of the concepts behind SFM, cross-cultural approaches to forest stewardship, incorporation and use of TK in the development of indicators and targets. Processes and workshops should include and involve Aboriginal women as they are often the guardians and practitioners of TK. Ways and means to incorporate traditional knowledge must ensure that sensitive information shared is incorporated in the process in ways that recognize and respect the rights of the Aboriginal community(s) to their knowledge, innovations and practices, and the confidential nature of the information.

Spatial-sensitive links, indicators and targets associated with management and protection of cultural values need to be developed. Spatial links make it easier to monitor and measure over time how well an indicator is working. Aboriginal people need to be involved in research to determine the scale that works best to manage and protect cultural values.

Costs associated with the management and protection of cultural values, if they exist, must be identified and minimized. There is also a need for incentive programs that recognize and reward forest tenure holders for their efforts to conserve and manage for cultural heritage resources and values in forest management, practices and operations within their licence areas.

The Model Forest Program and CSA-based SFM plans and processes promote the involvement of Aboriginal Peoples in the development of local level objectives, indicators, and targets of sustainable forest management. This is a good first step. In absence of anything else the indicators and targets being developed and used are better than nothing. Partnerships, and communication protocols between forest tenure holders and Aboriginal communities provide opportunities to enable more effective participation and allow Aboriginal communities to put their issues out on the table. However, there is a need to bridge from surrogate measurements to more meaningful, quantitative measurements. A major, but necessary, challenge is the development of practical and measurable indicators and targets that incorporate and protect cultural values in sustainable forest management practices and forestry operations. Aboriginal communities need resources to collect of baseline information needed to identify and protect cultural values. This will facilitate the development of meaningful and practical indicators and targets that protect and conserve values Aboriginal Peoples feel are important in the sustainable use and management of forest lands and resources.

## **Conclusion**

The Convention on Biological Diversity recognizes the importance of traditional knowledge and culture in the conservation and sustainable use of biological diversity. Many of the indicators and objectives of sustainable forest management used by the Model Forest Program and CSA-based plans in Canada cite the need to conserve biological diversity, involve Aboriginal Peoples, manage for and protect cultural values. However measurable, practical and effective indicators and targets of sustainable forest management for Aboriginal values are needed to effect forestry operations and ensure that Aboriginal priorities and values are being conserved and managed. Recent efforts that have been made to develop and incorporate Aboriginal values into sustainable forest management (Karjala 2001). These should be used as examples to guide the

development of quantifiable indicators and targets that can be used to monitor and measure how sustainable forest management practices are protecting and conserving cultural values and resources. Resources are needed for Aboriginal Peoples to conduct the inventories and gather the information needed to identify, protect and conserve cultural values and uses. There is a need to ensure that participatory approaches to defining sustainable forest management promote cross-cultural approaches to forest stewardship, address resource and information gaps, and meaningfully engage Aboriginal communities. This is key to development of quantitative and measurable indicators and targets that successfully conserve cultural values, and contribute to the conservation of forest biological diversity in managed and unmanaged ecosystems.

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