

**Developing a Monitoring Tool for Evaluating the Effectiveness of Ontario's Forest
Management Social Guides**

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EXECUTIVE SUMMARY

Introduction

The *Forest Management Guide for Cultural Heritage Values* (2007) and the *Management Guidelines for Forestry and Resource-Based Tourism* (2001) comprise what are known as the social guides that are applied by forestry practitioners during forest management in Ontario. The social guides help to ensure that cultural heritage values and resource based tourism values (social values) are kept sustainable during forest management for future generations. Review of the social guides has been undertaken to evaluate whether they are current and relevant but to date a formal mechanism to monitor the social guides' effectiveness has not been developed.

The client for this research project is the Ministry of Natural Resources and Forestry (MNRF). The MNRF is a line ministry of the Ontario Public Service that provides policy direction and provincial services as well as regional operations support in natural resource management. There are many associated sectors under MNRF administration, including forestry, fish and wildlife, and renewable energy.

The objectives of this report are to garner the knowledge and experience of those involved in forest management in Ontario who have a vested interest in the protection of social values in Ontario's Crown forests. This knowledge is gathered to contribute to the development of criteria and indicators for the formation of a monitoring tool that can then be applied cyclically to evaluate the effectiveness of the social guides.

The study has been designed to provide qualitative exploration of the following research questions:

What are the key criteria and indicators that measure effectiveness of the forest management social guides?

Sub questions include:

- *What are the principal factors affecting successful implementation of the forest management social guides?*
- *What are identifiable criteria and indicators of sustainability for cultural heritage and resource-based tourism values during forest management?*

Background

The forest management guides are mandated to be reviewed periodically to ensure that they are current with best available science and technology. There is also a requirement that there be a scientific program in place to monitor the effectiveness of the forest management guides. The guide effectiveness monitoring program in place since 2007 has been largely focused on the forest management guides that involve the protection of environmental values, including biodiversity of species, protection of fish and wildlife habitat and forest health. With this emphasis, the studies have been entirely founded in the biological sciences and experimental or quasi-experimental in nature. This form of monitoring has not been sufficiently appropriate or adequate for monitoring the effectiveness of the social guides.

Evaluating the effectiveness of the social guides is a policy issue that requires a different assessment tool than hypothesis-driven research. A monitoring tool comprising criteria and indicators by which to evaluate the effectiveness of the social guides is a desired objective for MNRF's Policy Division. Studying the current forest management program using qualitative research methods that facilitate stakeholder and Aboriginal input, provides for collaborative development of a criteria and indicator framework that can be used for consistent and repeatable reviews of the social guides.

Literature review

A literature review was conducted to identify smart practices for the development of criteria and indicator frameworks used in policy evaluation and to understand common attributes of successful criteria and indicators for monitoring the effectiveness of forest management policy in place to protect social values on Crown land. The sources of information used to inform this literature review included books, journal articles, government publications, and academic dissertations.

The literature review is organized into sections that map out the history of sustainable forest management and its associated principles and criteria and indicator monitoring frameworks internationally. It includes the hierarchical structure and types of criteria and indicators, and presents the methods that have been used to develop criteria and indicators for sustainable forest management for the protection of social values. The literature review provided insight into the frame of reference required for the ensuing research, and from it, the establishment of desired outcomes was adopted for the social guides.

Methodology

The qualitative research methodology for this study, used key informant interviews as the primary research method, supplemented by document analysis of select forest management unit summary reports. The interviews and summary reports provided detailed data for understanding the complexities associated with management of social values on Crown land.

Mixed, purposeful sampling was used to achieve representative diversity from those involved in social values protection during forest management. Regional stratification and intensity sampling was also applied to achieve both province-wide representation and information-rich cases. The resulting 44 interview participants included representatives from provincial government, forest industry, Aboriginal communities, resource-based tourism operators, and provincial subject area experts.

Interviews were semi-structured using standardized open-ended questions. Questions were designed using the established outcomes for the social guides: Collaboration, Access, Protecting the Value, and Capacity and, according to the program phases of sustainable forest management; to plan, implement, monitor, report, and adapt. Questions were designed accordingly to elicit categorical insight from each key participant about what is most important to the success and effectiveness of the social guides. Interviews were held in person, audio-taped, and later transcribed. The resultant 350 pages of transcribed data were then analyzed to identify predominant themes and emergent sub-themes that were translatable into criteria and indicators.

The summary reports used for document analysis included the *Summary of Aboriginal Involvement Report* and the *Local Citizen Committee Reports*. Data was organized into document rosters and thematically analyzed using the same coding system developed and applied to the interview transcripts.

Findings and Recommendations

Findings were organized by the major outcomes for the social guides. Emergent themes and subthemes were identified and quantified by their coding frequency. Interview findings were discussed in relation to the summary report findings, and connections were drawn to the literature reviewed.

Analysis of the findings resulted in 18 core recommendations, each in the form of proposed indicators for an identified criterion. The six criteria and 18 recommended indicators together form the conceptual base of the monitoring tool for assessing the effectiveness of the social guides.

Table of Contents

EXECUTIVE SUMMARY	1
<i>Introduction</i>	1
<i>Background</i>	2
<i>Literature review</i>	2
<i>Methodology</i>	3
<i>Findings and Recommendations</i>	3
1. INTRODUCTION	8
2. BACKGROUND	10
Forest management in Ontario.....	10
Legislative context.....	11
Rationale for the evaluation	13
Consultation requirements	13
Aboriginal involvement	14
3. LITERATURE REVIEW	15
Sustainable forest management	15
The evolution of criteria and indicators.....	16
Defining, classifying and identifying key attributes	20
<i>Defining criteria and indicator monitoring frameworks</i>	20
<i>Fundamental requirements of successful indicators</i>	21
Developing Criteria and Indicator Frameworks for Sustainable Forest Management	22
Summary	25
4. METHODOLOGY	27
Sampling.....	27
<i>Regional stratification</i>	28
<i>Provincial informants</i>	30
Recruitment	31
Research Instruments	31
<i>Interviews</i>	31
<i>Document Analysis</i>	32
Data Collection and Analysis	33

<i>Interviews</i>	33
<i>Analysis</i>	33
<i>Document Analysis</i>	34
<i>Limitations</i>	35
<i>Summary</i>	35
5. FINDINGS AND DISCUSSION	37
Access	37
<i>Interview Transcripts</i>	38
<i>Summary Reports</i>	41
<i>Literature connection</i>	42
Collaboration	42
<i>Interview Transcripts</i>	42
<i>Summary Reports</i>	47
<i>Literature connection</i>	48
Protecting the value	48
Values Information Management	49
<i>Interview Transcripts</i>	49
<i>Summary Reports</i>	53
Area of Concern Protection	54
<i>Interview transcripts</i>	54
<i>Summary Reports</i>	56
Adaptive Management	57
<i>Interview Transcripts</i>	57
<i>Summary reports</i>	58
<i>Literature connection</i>	58
Capacity	59
<i>Interview Transcripts</i>	59
<i>Summary Reports</i>	62
<i>Literature Connection</i>	62
Summary of Findings	63
7. RECOMMENDATIONS	65

<i>Criterion and Indicators for Access</i>	65
<i>Criterion and Indicators for Collaboration</i>	66
<i>Criterion and Indicators for Protecting the Social Value</i>	67
<i>Criterion and Indicators for Capacity</i>	70
<i>Summary</i>	71
<i>Table 1 Draft Criteria and Indicator Monitoring Tool for the Social Guides</i>	73
8. CONCLUSION	74
References.....	75
Appendix 1 Interview Questionnaire	79
Appendix 2 Thematic Analysis Codebook	83
Appendix 3 Record Rosters for Local Citizen Committee and Aboriginal Community Involvement Reports	85
Appendix 4 Tally of Codebook Themes by Core Question	91
Appendix 5 High Level Codebook for the Social Guides Project	94

Acronym List

CFSA – Crown Forest Sustainability Act

Declaration Order – Order made under the Environmental Assessment Act regarding the Ministry of Natural Resources and Forestry’s Environmental Assessment Requirements for Forest Management on Crown Lands in Ontario

EA – Environmental Assessment

EA Act – Environmental Assessment Act

FIM – Forest Information Manual

FIPPA - Freedom of Information and Protection of Privacy Act

FMP – Forest Management Plan

FMPM – Forest Management Planning Manual for Ontario’s Crown Forests

FOSM – Forest Operations and Silviculture Manual

FRO – Forest Resources of Ontario Report

GIS – Geographic Information System

LCC – Local Citizens Committee

MNRF – Ministry of Natural Resources and Forestry

MOECC – Ministry of the Environment and Climate Change

OPS – Ontario Public Service

SFL – Sustainable Forest Licence

UNCED - United Nations Conference on Environment and Development

USDA – United States Department of Agriculture

1. INTRODUCTION

The sustainable management of Ontario's Crown forests depends on direction from government that balances the public interests of the forest to meet social, economic and environmental needs for present and for future generations. This requires policy that reconciles forest management by large industry with forest use and benefit derived by local communities and individual stakeholders. The social value of Crown land is diverse and includes such things as archaeological sites that confirm a community's history and preserve cultural identity, to such things as the experience of wilderness that is valued as a resource-based tourism commodity.

The Ministry of Natural Resources and Forestry (MNRF) has the *Forest Management Guide for Cultural Heritage Values* (2007) and the *Management Guidelines for Forestry and Resource-Based Tourism* (2001) that provide direction to forest managers on how to protect social values in Crown forests. These guides are implemented through the provincial forest management program and applied during the preparation of a forest management plan (FMP). The forest management plan details how areas with identified social values are to be protected, and the FMP has to be approved by MNRF prior to commencing any forest management activity, including for access (road construction), harvest, renewal and maintenance.

These two guides, nicknamed the social guides, afford protection for identified social values in Crown forests by prescribing standards, guidelines and best management practices to be applied during forest management planning. The social guides each have a section dedicated to effectiveness monitoring of its policy, but a consistent tool to monitor the effectiveness of these policies has not, until this project, been contemplated.

The client for this research project is the Ontario Ministry of Natural Resources and Forestry (MNRF). The MNRF is the ministry responsible for the administration and effectiveness monitoring of the social guides.

The objective of this report is to identify emergent themes from data compiled through interviews with those involved in the forest management planning process supplemented by the reports that summarize the involvement of Local Citizen Committees (LCCs) and Aboriginal communities. The information gathered from both the interviews and the summary reports will be used to inform the development of a criteria and indicator framework for future monitoring of the effectiveness of the social guides.

The central research question of this project is:

What are the key criteria and indicators that measure effectiveness of the forest management social guides?

Sub questions include:

- *What are the principal factors affecting successful implementation of the forest management social guides?*
- *What are identifiable criteria and indicators of sustainability for cultural heritage and resource-based tourism values during forest management?*

Chapter two provides the necessary background information regarding forest management in Ontario and the policies in place to protect social values. Chapter three presents the results of the literature review conducted to better understand the post United Nations Earth Summit (1992) movement and evolution of criteria and indicator frameworks globally to glean smart practices for developing criteria and indicators for monitoring social values protection in the context of forest management. Chapter four details the methodology used in the project, including the research instruments and approach, the sampling strategy, and the steps involved in data collection and analysis. Chapter five presents and discusses the findings from the thematic analysis of the interviews conducted with district MNRF staff, industry proponents, Aboriginal representatives, and subject area experts, as well as the findings from the document analysis. The discussion concludes with a connection being drawn between the findings and the literature reviewed for each of the established outcomes, to provide conceptual ideas for the types of indicators that are best suited for the monitoring tool. Chapter six presents the recommendations based on the research findings to outline the proposed criteria and indicator framework for the formation of the monitoring tool for evaluating the effectiveness of the social guides. Chapter seven concludes the report.

2. BACKGROUND

The purpose of this section is to provide a brief history and description of forest management in the province of Ontario, with a specific focus on the protection of cultural heritage values and resource based tourism values (the social values) in the context of forest management. The legislative context of Ontario's Forest management program is outlined to explain the regulated mandates of the program, including the requirement for effectiveness monitoring of forest policies. The mandate to monitor the effectiveness of the forest management guides will be described to highlight the need for a formalized monitoring tool for evaluating the effectiveness of the forest management social guides. This section will also describe the consultation requirements with stakeholders and Aboriginal peoples to illuminate the participatory stages of the regulated forest management program.

Forest management in Ontario

Seventy-seven percent (83.5 million hectares) of Ontario is unregulated Crown land (publicly owned property that is not within Parks or protected areas (Government of Ontario, Forest Resources of Ontario [FRO], 2011, p. 5)). The harvest of Crown timber and its associated management in Ontario encompasses 43.8 million hectares (FRO, p. 38), and is a multi-billion dollar business. Sale of forest products in 2010 was estimated at \$12 billion, resulting in employment for 148,000 people, and Crown revenue from the disposition of timber in 2010 was \$68 million (Government of Ontario, Provincial Annual Report, 2011, p. 47).

While there is economic benefit in Ontario's Crown timber, there are other viable non-timber economic opportunities, such as resource-based tourism and non-timber forest products, that warrant consideration in the management of Ontario's forest. Environmental and social values are also intrinsically and culturally important and they require protection and conservation during forest management practices. Ontario's mandate is to "...manage Crown forests to meet the social, economic and environmental needs of present and future generations" (Crown Forest Sustainability Act, s.1, 1994). Managing for sustainability requires practising forestry ethically with due consideration for the multiple values that exist on the landscape and with the goal of maintaining the integrity of these values for future generations.

The social value of Ontario's forests takes on many different dimensions, from cultural heritage, to viewscape, canoe routes and experiencing remoteness. Cultural, experiential values such as these tend to be enigmatic, personal, and even at times intangible, and this makes managing and protecting social values complicated in relation to the business of forestry which is focused primarily on economics and the biological and physical sciences.

Increasingly, however, it is recognized that forestry problems cannot be resolved without adequately addressing social issues and without an equal focus on people (Kimmins et al., 2005, p. 724).

MNRF is dedicated to protecting and conserving existing social values in Crown forests from the potential impacts of forest management activities. The *Forest Management Guide for Cultural Heritage Values* [Cultural Heritage Guide] (2007) and the *Management Guidelines for Forestry and Resource-Based Tourism* [Tourism Guide] (2001) are the key guiding documents provided by MNRF to protect social values. These 'social guides' are part of a suite of five forest management guides developed by the MNRF in consultation with the public, forest industry and interested parties. The set of guides provide standards, guidelines and best management practices for silviculture, conserving biodiversity, and enhancing or protecting wildlife habitat, watersheds, and social values. These guides are intended to be used by forest management planning teams in the development of prescriptions for operations to be included in the forest management plan (MNRF Website, Ontario's Forests, Forest Management Guides, para.1-2).

The forest management guides program has been in place since the early 1990s, existing within the broader context of the Ontario Forest Management Planning Program. The guides are developed and administered by MNRF, but their application and how guide policy gets operationalized is a shared responsibility with forest industry, both strategically and financially, during the development and implementation of forest management plans. Each of the guides operates independently of each other but as an integral part of the forest management planning program contributing to the development of a forest management plan that is based on principles of sustainable forest management. Each guide is also periodically evaluated to ensure it is current and meeting the objectives of sustainable forest management.

Legislative context

The Crown Forest Sustainability Act (CFSA) is the principal legislation governing the management of Crown Forests and its purpose is to "provide for the sustainability of Crown forests" where sustainability is defined as "long term Crown forest health" (CFSA, 1994, s. 1 and s. 2(1)). A forest management plan is prepared for every management unit in accordance with the *Forest Management Planning Manual*, 2009, (FMPM) to describe the forest management objectives and strategies that must have regard for plant and animal life, the water, soil and air, and "social and economic values, including recreational values and heritage values" (CFSA, Part II, section 8(2) (a) & (b)).

The *Forest Operations and Silviculture Manual* [FOSM], 1995, is another manual regulated under the CFSA that is intended to be applied synchronously alongside the FMPM. It provides guidance and direction for the conduct of operations authorized by approved forest management plans (FOSM, p. v), authorizing the forest management guides that must be considered during the preparation of the forest management plans. The FOSM addresses the need for these plans to consider socio-economic factors, specifically requiring the use of the *Forest Management Guide for the Protection of Tourism Values* and the *Forest Management Guide for the Protection of Cultural Heritage Values* (FOSM, 2000, p.22).

The *Declaration Order Regarding the Ministry of Natural Resources and Forestry's Environmental Assessment Requirements for Forest Management on Crown Lands in Ontario* (Declaration Order) has numerous conditions to be complied with in order to conduct forest operations on Crown land. Condition 6 requires that the FOSM set out a list of the guidance and direction to be referenced in the planning and implementation forest management plans, and the FMPM provide instructions for the use of the guidance and direction (Ontario Ministry of Environment and Climate Change, 2015, p. 10). Condition 16 of the Declaration Order requires that protection measures for values be planned and implemented, "using the applicable Guides" as referenced in the FOSM (Ontario Ministry of Environment and Climate Change, 2015, p. 19). The Guides are subject to a monitoring program via Condition 44 and Condition 45. Condition 44 requires a review of each Guide "at least once every ten years to ensure that the guide(s) reflect current scientific knowledge as it applies to Ontario." (p.35). Condition 44 (a) (iv) and condition 45 require MNRF to maintain a program of scientific study to monitor guide effectiveness (p. 35, 36).

The Guide effectiveness monitoring program exists to meet condition 45 of the Declaration Order, with a focus on scientific study to monitor guide effectiveness, where "effectiveness is the evaluation phase of an adaptive management approach to resource management" (Government of Ontario, Effectiveness Monitoring of Forest Management Guides Strategic Direction, 2011, p. 1) The adaptive management approach relies on an iterative policy life cycle, where policies are treated as hypotheses and tested through monitoring and research to determine their overall effectiveness. The framework of the Guide Effectiveness Monitoring program is premised on a key principle of the Crown Forest Sustainability Act (CFSA, 1994), that forest practices which emulate natural disturbances and landscape patterns will result in the sustainability of the forest (CFSA, s.2(3)). While hypothesis-driven monitoring via experimental and quasi experimental research, with natural disturbance as the reference condition has been appropriate for

evaluating the silviculture and landscape guides, its appropriateness for evaluating the effectiveness of the social guides is less understood. Social values often comprise aesthetic, experiential, and/or spiritual attributes that are not measurable using traditional science, and hence monitoring the outcomes of these two guides is more complex and challenging.

Rationale for the evaluation

The question of how best to evaluate the effectiveness of the forest management guides for Ontario's cultural heritage and resource based tourism values is a long standing policy issue. Effectiveness can be viewed from two perspectives: 1) whether guide direction is being implemented as it was intended, a process question, and 2) whether implementation of guide direction meets the ultimate goal of the guide, an outcome question.

The human dimension of social values brings effectiveness of guide implementation to the forefront. How industry and government engage with the public, stakeholders and Aboriginals, to identify, collect, and develop prescriptions for safeguarding social values is critical for comprehensive and effective management of these values. The MNRF wishes to design a monitoring tool that includes both process and outcome criteria as well as indicators. Studying the current forest management program using qualitative research methods will facilitate stakeholder and Aboriginals input into the criteria and indicator framework (herein after referred to as the monitoring framework) that can then be used for consistent and repeatable reviews. The monitoring framework will simultaneously address the requirements of both condition 44 and condition 45 of the Declaration Order. While *process* indicators may be seen to go beyond what MNRF traditionally thinks of and what the Environmental Assessment Board describes as 'effectiveness monitoring', it is in this respect that MNRF will be attempting to both address the policy issue and increase its accountability as a steward of social values.

Consultation requirements

Understanding current policy requirements for consultation with stakeholders, Aboriginal communities, and the public, is important to understanding the larger picture of how social values get identified, mapped, shared and protected in the context of forest management in Ontario. The FMPM is Ontario's key regulated manual that provides direction for all aspects of forest management for Crown lands in Ontario. Part A, section 3.0 of the FMPM outlines how the forest management plan for each forest management unit will be prepared in an open consultative fashion. A Local Citizen Committee (LCC) is established and comprises the key stakeholder groups representing a range and balance of interests where they exist at the local level (FMPM, 2009, p.A-91). The LCC stakeholder

groups assist the forest management plan author and interdisciplinary planning team in the preparation of the FMP.

Additional opportunity for participation in the preparation of the FMP by interested and affected persons or organizations is provided through a formal public consultation process. Key outreach activities during planning include: 1. formal public notices at every stage including direct written notices and media notices, 2. required information centres during both phases of planning with additional information centres at the advice of the LCC. These key outreach activities focus on inviting the public, the Aboriginal community, and affected stakeholders, to participate in the plan, review information and maps and provide additional information (a form of participatory mapping), and review each of the stages of the FMP as it is developed. In addition, all written comments and submissions received by any person or organization are responded to in writing by the MNRF in conjunction with the plan author, and these responses are later summarized in The Public Consultation Summary section of the approved FMP (FMPPM, 2009, p.A-97). The LCC also produces reports of its activities. Currently the LCC report is prepared at the end of Phase I and Phase II planning and includes such components as the list of LCC members and their affiliations, a summary of their meetings, including a summary of training opportunities and participation in the development of values maps (FMPPM, 2009, p.A-93).

Aboriginal involvement

In addition to the formal public consultation process, Aboriginal communities in or adjacent to the forest management unit whose interests or traditional uses may be affected are afforded distinct and separate consultation opportunity. The MNRF District Manager contacts each Aboriginal community at least six months in advance of the formal public consultation process to discuss opportunities to be involved in the planning and implementation of the FMP (FMPPM, 2009, p. A-124). Each Aboriginal community is also offered the opportunity for a representative to participate on the planning team (p. A-124). If an Aboriginal representative does join the planning team they are reimbursed by the MNRF for out-of-pocket expenses and are provided a reasonable per diem for attendance at planning team meetings. Additionally the Aboriginal community can elect to have a separate consultation approach developed specifically to meet their needs on how they will interact with the planning team. A summary of Aboriginal involvement report is prepared by the MNRF District Aboriginal liaison. This summary includes the list of Aboriginal communities, a summary of the correspondence provided to each community and response received, and a summary of the implementation of the consultation approach for each Aboriginal community, where applicable (FMPPM, 2009, p.A-133).

3. LITERATURE REVIEW

The purpose of this literature review is to identify smart practices for developing criteria and indicator frameworks and the key attributes of successful criteria and indicators for monitoring the effectiveness of policy in place to protect social values in sustainable forest management programs. Sources used to inform this literature review include books, journal articles, an academic thesis and government publications. Repositories used for the review include the University of Victoria library, the Ontario Ministry of Natural Resources and Forestry (MNRF) library, and the Internet using the search engine Google.

The literature review is organized into five sections. The first section provides a description of sustainable forest management, its origins, and its guiding principles internationally. The second section discusses the evolution of criteria and indicators for sustainable forest management identifying the top three international processes. Section three defines criteria and indicators, classifies different types of indicators, and identifies key attributes of a good indicator. Section four discusses methods that have been used to develop criteria and indicators for sustainable forest management, with particular attention to methods that have detailed criteria and indicator development for social values. Section five provides a summary of the literature review, highlighting the major findings and their subsequent use in this project, to conclude this chapter.

Sustainable forest management

Sustainable forest management is a concept borne out of the notion of sustainable development. Globally, sustainable development is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987, p.4). Sustainable development calls for a new way of thinking, where economic sustainability, social sustainability, cultural sustainability, and biological sustainability are considered equally important (Lowe, 1995, p.343). Sustainable forest management was identified as one of the key factors in sustainable development at the Earth Summit, United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992. Sustainable forest management is regarded as a modernization of conventional forest management, to move away from a timber-dominant forest management paradigm.

At the Earth Summit, the 108 countries that were represented agreed on a set of principles to foster the sustainable management of forests worldwide called the *Non-legally binding authoritative statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests* (1992)

commonly referred to now as the Forest Principles. Forest Principles apply to all forests at all levels- from global to local, and the principles are statements intended to reconcile the productive, economic functions of forests with the protective, environmental and social roles that forests fulfill (Lowe, 1995, p.343). The fifteen principles outline the new paradigm of sustainable forest management as a more holistic and balanced approach to forestry which takes into consideration the multiple functions and uses of forests, , and it embraces other forms of capital beyond resource capital, including natural, human and social capital and the interaction among them (Wang, 2004, p.205-207).

The principles for sustainable forest management also call for greater stewardship of all forest values, including timber, non-timber and non-commodity values, in a way that responds to the needs of society and which is both adaptive and contextual based (p.208). Principles 2 (b), and 5(a) refer specifically of the need to manage forests in a way that respects and meets the cultural and spiritual needs of present and future generations, and principle 2(d) speaks directly of the need for governments to promote and provide opportunities for participation of all interested parties in the development of forest policies. Principle 1 (b) elaborates on the needs of present and future generations and includes employment and recreation in the list of forest products and services. Resource-based tourism is a recreational sector that naturally aligns with the concept of sustainability as it is either non-consumptive or entails consumption of a renewable resource, and it provides real opportunities to stimulate economic development. As well, it provides economic incentive to conserve natural and cultural assets (Joshi, 2012, p.2).

Sustainability and sustainable forest management are products of interactions between three complex and interrelated systems- the ecological system, the social system and the economic system (Wright, Alward, Colby, Hoekstra, Teler & Turner, 2002, p. 92). The social system is less understood but gaining attention, as it is being realized that economic competitiveness and wellbeing of a community are not only determined by geographic location and resource factors, but also by what is known as the Five Senses of Quality Communities: sense of place, identity, evolution, ownership and community (Joshi, 2012, p.2-3; Reid, & Schwab, 2006). The maintenance of cultural resources plays a significant role in the sustainability of communities as it provides the history that forms the social fabric of a community.

The evolution of criteria and indicators

The Forest Principles agreed upon at the Earth Summit triggered a number of post-UNCED activities to further define sustainable forest management and to develop the tools by which to monitor and report on the objectives of sustainable forest management (Lane, 2001, p.64). Emerging from these activities were several criteria and indicator sets, three

of which have become the most popular in the western world, namely: The Montreal Process, *Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests*, comprising a working group of 12 non-European countries including Canada; The *Pan-European Forest Process on Criteria and Indicators for Sustainable Forest Management* (formerly known as the Helsinki Process) addressing boreal, temperate and Mediterranean forests in 37 European countries; and the *Tarapoto Proposal for Criteria and Indicators for Sustainability of the Amazon Forest* which includes eight signatory countries of the Amazon Cooperation Treaty. Four international processes evolved by which participating countries defined criteria against which to assess sustainable forest management, along with corresponding indicators to monitor the effects of forest management over time (Castaneda, 2000, p.34).

While the number of criteria and indicators varies among the Montreal, Pan-European and Tarapoto criteria and indicator sets, all three have criteria and indicators related to socio-economic functions and conditions. The Montreal Process has seven criteria and 67 associated indicators. Criterion six focuses on maintaining and enhancing socio-economic benefits to meet the needs of societies, and lists the following indicators to assess this criterion that are related to tourism and culture:

Indicators of Production and consumption

6.1 b) Value of non-wood forest products produced or collected

Indicators of Investment in the forest sector

6.2 a) Value of capital investment and annual expenditure in forest management, wood and non-wood forest product industries, forest-based environmental services, recreation and tourism

Indicators of Employment and community needs

6.3 d) Area and percent of forests used for subsistence purposes (closely linked to cultural identity and quality of life)

Indicators of recreation and tourism

6.4 a) Area and percent of forests available and/or managed for public recreation and tourism

6.4 b) Number, type, and geographic distribution of visits attributed to recreation and tourism and related to facilities available

Indicators of cultural, social and spiritual needs and values

6.5 a) Area and percent of forests managed primarily to protect the range of cultural, social, and spiritual needs and values

6.5 b) The importance of forests to people

(Montreal Process Liaison Office, 2009, pp.18-21)

The Pan-European Forest Process has six common criteria, 27 quantitative and 101 descriptive indicators. Criterion six involves the maintenance of socio-economic functions and conditions, and lists the following quantitative and descriptive indicators related to tourism and cultural values:

Quantitative indicator of recreational services:

6.6 Provision of recreation: area of forest with access per inhabitant, % of total forest area

Descriptive indicators of recreational services (examples):

6.7 Existence of a legal/regulatory framework, and the extent to which it recognises customary and traditional rights of indigenous people, and provides means of resolving access disputes

6.8 Existence and capacity of an institutional framework to undertake planning and assessment in recreational services on forestry

6.9 Existence of economic policy framework and financial instruments, and the extent to which it supports forestry constituencies to conserve special environmental, cultural, social and scientific values in relation to recreational services

6.10 Existence of informational means to implement the policy framework, and the capacity to conduct assessment on recreation

Descriptive indicators of cultural values (examples):

6.28 Existence of a legal/regulatory framework, and the extent to which it provides for programmes and management guidelines which recognise cultural heritage in relation to forestry

6.29 Existence and capacity of an institutional framework to develop and maintain programmes to conserve culturally valuable sites and landscapes

6.30 Existence of economic policy framework and financial instruments, and the extent to which it provides for sufficient financial incentives for acknowledgement of cultural values in forest management planning

6.31 Existence of informational means to implement the policy framework, and the capacity to conduct studies on proportion of culturally valuable sites and sites with special visual value (FAO, 2001, p.7)

The Tarapoto Proposal identifies 12 criteria and 76 indicators in total, but distinguishes criteria by those that relate to global concern (1), those that are indicators for implementation at the national level (7), and those that are applicable at the forest management unit level (4). Under this different approach socio-economic values are given regard at both the national and management unit.

The use of criteria and indicator frameworks to monitor progress toward sustainable forest management is widely acknowledged as the appropriate instrument for critical assessment (Castaneda, 2000, p. 34). There are those, however, who argue that it is a reductionist approach to science and that it is incapable of dealing meaningfully with complex systems (Prabhu, Ruitenbeek, Boyle, & Pierce- Colfer, 2001, p. 40). Others are mindful that there are limits to the use of criteria and indicator frameworks for sustainable forest management, especially those that are not clearly measurable or where descriptive indicators are used because quantitative or qualitative indicators for a criterion are difficult to define (Lowe, 1995). Overall criteria and indicator frameworks are widely regarded as the preferred mechanism for measuring sustainability. Internationally recognized criteria for sustainable forest management include the following:

- Extent of forest resources
- Biological diversity
- Forest health and vitality
- Productive functions of forests
- Protective functions of forests
- Socio-economic benefits and needs
- Legal, policy and institutional framework
(Castaneda, p.34)

Developing appropriate indicators and determining how best to apply these are key challenges (Rametsteiner et al, 2011, p.62). Indicators which measure social capital including what society values, and social relationship values such as collaboration and meeting local needs are identified as gaps in current indicator reviews (Gough, Innes, & Allen, p.426). Many of the methods for developing criteria and indicators are top-down and expert driven, although a few maintain that collaborative methods and stakeholder input into the process are important (Fraser et al, 2004, Park & Yoon, 2011 and Khadka &

Vacik, 2012), and that a participatory approach in the development of criteria and indicators may enhance their legitimacy (Khadka & Vacik, 2012, p.146).

Defining, classifying and identifying key attributes

Defining criteria and indicator monitoring frameworks

Criteria and indicator monitoring frameworks are commonly understood as hierarchies of concepts, beginning with principles, then criteria, and next indicators where each is subordinate to the next (Prabhu et al., p.44). A criterion can be understood as a standard by which something (i.e. sustainability) may be judged (p.41). It is also described as a category of conditions or processes that can be assessed (CCFM, 1995, p. 2). In terms of sustainable forest management, criteria are also understood as a group of broad core values (Hall, 2001, p.109) commonly grouped under the higher organizing categories, or principles, known as the three pillars of sustainability – Environmental, Economic and Social (Wright et al., 2002, p.3).

An indicator is defined as a parameter that measures specific quantitative or qualitative attributes of a criterion to show current performance or status and trends in performance (McDonald, Lane, 2001, p.64, and Wright et al., 2002, p.3). It is a simplified part within a complex system that, when measured, can tell us something about a larger event or phenomenon (Wright et al., 2002, p. 2). For example, blood pressure is an indicator of personal health. Blood pressure is used as a measure of underlying physiological processes and it can signal problems in the body, such as cardiovascular disease, although it is not a direct measure of the physiological processes unto themselves. In the assessment of forest management sustainability, each criterion relates to a key element of sustainability which may be described and measured by one or more indicators (Wright et al., 2002, p. 3).

The criteria and indicator monitoring framework does not end at indicators. At a hierarchical level below indicators are measures, which define the specific characteristics to be studied and the methods to be used in studying an indicator (Wright et al., 2002, p.3). Further to this, are data elements which are the actual units of information collected for a measure, and reference values, which are comparison values, used to evaluate the data against.

Classifying criteria and indicators

The classification of *criteria* for sustainable forest management is most commonly categorized by the principles of social, environmental and economic sustainability, while the classification of *indicators* is somewhat more complex and variable. In the broadest sense, indicators can be distinguished as either cardinal (able to quantifiably measure a

change) versus indicators that make assessments without using a cardinal measure scale which includes descriptive and qualitative indicators (Lowe, 1995, p.345). Descriptive indicators usually represent the trend of a variable in time, and are normally used as indicators of state, pressure or impact (Bottero, 2011, p.19). Descriptive indicators can be ordinal, as they are used to assess a change in rank or position (e.g. bigger, more) but do not quantify the change (Lowe, p. 346). The *Pan-European Forest Process on Criteria and Indicators for Sustainable Forest Management* uses descriptive indicators to elaborate on the regulatory and institutional frameworks, focusing on aspects of policy, legislation and capacity to implement, and these indicators are considered supplementary to the quantitative indicators (Lowe, p. 345). Qualitative indicators are usually assessments of the presence or absence of intrinsic characteristics or necessary attributes of a criterion, which, if not satisfied, then neither is the criterion (p.346).

There is also a distinction between *prescriptive* and *evaluative* indicators. Prescriptive indicators measure an action taken during the *process* of forest management to create a particular result (e.g. increasing forest edge during harvest to increase moose population) while evaluative indicators measure an *outcome* of forest management (# of moose/km²) (Rempel, Andison, & Hannon, 2004, p.85).

Indicators can also be classified as response and state indicators. Response indicators are those that measure the result of a decision or intervention made to address a given problem, while state indicators gauge the status of an aspect of a problem (Lowe, 1995, p. 345). Both response and state indicators can be quantitative, descriptive or qualitative in nature, although they are typically quantitative or descriptive (Lowe, p.346).

Fundamental requirements of successful indicators

Many of the articles addressing criteria and indicators identify fundamental requirements for what makes a good indicator. Experts (e.g. Wedeles et al., 1998, p.7-8; Wright et al., 2002, p.30; Husseini et al., 1996, p.11) generally agree that indicators need to be sound (measurable, predictable, comparable), relevant (linked to sustainable forest management criterion, apply to all stakeholders, response oriented- i.e. sensitive to change), understandable (clear and explainable) and feasible (accessible- relatively easy to assess, not cost more than the information is worth, i.e. practical).

Other qualities of a good indicator include being sufficient to the purpose, scale appropriate (measureable at a scale appropriate to the monitoring effort) and compatible with other indicators at other levels, so that it is possible to compare and consolidate results at the regional, provincial or even national level (Wright et al., 2002, p. 30).

Developing Criteria and Indicator Frameworks for Sustainable Forest Management

Developing criteria and indicators that are measurable and appropriate is one of the major challenges facing policy makers, bureaucrats, scientists and citizens tasked with developing mechanisms for monitoring sustainable forest management (Rametsteiner, Pulzl, Alkan-Olsson, Frederiksen, 2009, p.62). Who participates in, and makes decisions about indicator development processes is both a technical and political issue, as it requires balanced interest representation and expertise for a concept (i.e. sustainability) that is itself normative-based.

Indicator development to monitor sustainable forest development has typically been conducted by either experts applying best available science to identify indicators that are a true representation of the interaction between ecosystems and the human system, or by collaborative and democratic deliberation of values and interests by stakeholders to arrive at norm-created indicators (Rametsteiner et al., p.63). The literature identifies different methods using either or both of these frames of reference (i.e. expert or stakeholder driven), including: multi-partner meetings, facilitated workshops, participatory action research (Izurieta et al., 2011, p. 5), studying existing criteria and indicator frameworks (Adam, M., & Kneeshaw, D, 2008, p. 2026), including the systematic reduction of 3000 + indicators from sustainable forest management initiatives from around the world to a shortlist of 200 indicators using gap analysis (Gough, Innes, & Allen, 2008), a combined Delphi technique and analytical hierarchy process for achieving consensus (Duk-Byeong, & Yoon, 2010), and, a blended “bottom up” (stakeholder), “top-down” (expert) participatory process (Fraser, Dougill, Mabee, et al, 2004; Khadka, Vacik, 2012).

Overarching the type of method used, advice and guidance is given regarding the development of criteria and indicators in general. Identifying the purpose of each indicator as it is developed is highlighted as particularly important. Three different purposes for indicators include: to track performance (results-based management), to test competing hypotheses (scientific exploration) and to identify the best policy (decision analysis) (Failing & Gregory, 2003, p. 122). Along with a clear purpose, there are two key guiding principles for developing efficient and effective indicators. The first is to develop a logical framework with clear principles, goals and objectives that indicators can be directly linked to as they are developed, distinguishing between those indicators that are *prescriptive* (related to process) versus those that are *evaluative* (related to outcomes). The second principle is to create the optimal number of prescriptive versus evaluative

indicators for each criterion such that each is necessary and the indicator set is sufficient (Rempel et al, p.86; Lowe, 1995, p. 347).

Another way indicators have been classified is according to the elements of the policy cycle: context, planning, inputs, process, outputs, and outcomes (Izurieta, Sithole, Stacey, Hunter-Xenie, et al., 2011, p.2; Bottero, 2011, p.20). The Ontario Public Service has a similar enterprise-wide approach to policy development and implementation called The Policy Lifecycle, which is espoused by all ministries (OPS, 2007, pp. 10-11). The Policy Lifecycle is commonly regarded as an iterative cycle of planning, implementing, monitoring, and reporting with the objective of adaptive management and continual improvement. Examples of the categories of indicators that are derived from these elements are described as follows by the *Common Monitoring Evaluation Framework* model used by the European Union to monitor Rural Development Plans:

- A. Input indicators refer to such items as the budget and allocation of resources used (e.g. cost of each measure)
- B. Output indicators the activities carried out to achieve the goals and objectives (e.g. outreach activities, number of incentives provided)
- C. Result indicators measure look at the immediate effects of planned intervention (e.g. number of values protected)
- D. Indicators of Impacts refer to the overall benefits of a program beyond just the direct beneficiaries (e.g. increase in social cohesion in a community when cultural heritage is protected)
- E. Basic Indicators include objective and contextual indicators

(Adapted from Bottero, 2011, p.20)

Most criteria and indicator sets are a mixture of input-process, and outcome-based indicators. Input indicators commonly refer to the tangible and material contributions made by humans to manage forest resources, but can also look at the process (or human action) which occurs to administer and implement the inputs (Prabhu. et al., p.45). Outcomes then, are the impacts of both inputs and processes.

The systems approach for developing criteria and indicators

The Local Unit Criteria Development Test, developed by the United States Department of Agriculture (USDA), applies complex systems theory to better understand the critical structures and functions of the systems for sustainability. Sustainability depends on the reliability of the structural components, and relationships between, the ecological, social and economic systems that sustain us (Wright et al., 2002, p.92). Clearly articulating the

important components of the ecological, social and economic systems of sustainable forest management will help develop a practical suite of criteria and separate what should be measured as indicators from what could be measured (Wright et al., 2002, p. 32).

While there are established international *Forest Principles* and several national level criteria and indicator monitoring frameworks that uphold the importance of the “social states of the forest” (Kant & Lee, 2004, p. 217), forest managers continue to struggle to identify local unit level criteria and indicators to monitor the social sustainability of forests. This may be because the protection and monitoring of social values involves making social decisions and the divergent interests of multiple groups makes this challenging (Kant & Lee, p. 218). Perhaps it is because the social system is so complex, involving structures and functions of how humans interact with and value natural systems that span a continuum from meeting basic needs to accommodating transcendental endeavours (Wright et al., 2002, p. 96) or it could be because the ties between forests and people are less concrete now than they were (Wright et al., p.98). Nonetheless, the social dimension is an integral and critical part of the sustainability pyramid, and the practice of sustainable forest management continues to learn how to manage for it successfully.

The USDA criteria are transferrable to other contexts to assist with the challenge of identifying local forest management unit level criteria and indicators. The process distinguishes between broader social goals and sustainability and narrows in on the aspects of sustainability to focus on at the forest management unit level (Wright et al., 2002, p. 97). USDA identifies the overarching principle of the social system progressing from “social values related to the forest being maintained” to “social well-being” in general (Wright et al., p.98) to arrive at a conceptual and management framework of criteria, indicators, and verifiers for the social system. The criteria for the social system include: 1. Collaborative stewardship, 2. Institutional and community capacity, 3. Social and cultural values opportunity, and 4. Social Equity (Wright et al., p. 100). These criteria are relevant to this study in that they are translatable to the inferred outcomes of the forest management social guides.

The USDA criterion of social and cultural values opportunity can be understood as protection of the existing socio-economic values and maintaining access to these values. Security of access to resources, now and into the future, is known as inter-generational access (Colfer, Wadley, Harwell, & Prabhu, 1997, p. 2). This term includes security of land tenure, the rights to use forest products, and the fair distribution of forest benefits, now and for subsequent generations. Security in this sense means that there is reasonable certainty that future access will not be significantly reduced, that the resource will remain

with sufficient quantity and quality and that people can use it to the same extent as in the past.

Summary

It has been twenty years since the paradigm shift from conventional forest management to SFM which embraces the concept of the social dimension of the sustainability pyramid, and yet efforts to identify local, forest management unit level criteria and indicator frameworks to monitor the social sustainability of our forests is yet to be fully realized. These smart practices shape the beginning point for forging an appropriate criteria and indicator framework to monitor the social sustainability of our forests.

The criteria and indicator framework is the most commonly accepted approach for monitoring management efforts towards achieving the principles of forest sustainability. There are many different methods for developing criteria and indicator frameworks, and the classification of indicators for sustainable development is multidimensional and diverse. Smart practices derived from this literature review include adapting the USDA criteria for a sustainable social system as the desired *outcomes* for the social guides. Criteria are understood as groupings of themes into categories and these categories can be translated into outcomes by changing the scope of their measure. The USDA criteria can be expressed as outcomes for the social guides as sustainability or continual improvement in:

1. Access to social values in Crown forests
2. Collaboration between all parties with a vested interest in protecting social values in Crown forests
3. Protecting identified social values on Crown lands during and as a result of forest management
4. Capacity, including the knowledge and the resources to protect social values on Crown lands

The establishment of logical, practical outcomes for the social guides provides a necessary frame of reference for this study. With these benchmark outcomes established, research focused on how these outcomes are to be achieved within the policy life cycle of the social guides. How the outcomes are to be achieved within the forest management program provided the context for the development of interview questions to reveal the relevant criteria and indicators. Having clear principles, goals, and outcomes aligns with the Ontario forest management program policy framework. Interviewing subject area experts,

stakeholders, and Aboriginal groups as the primary qualitative research approach, made sense as a smart practice for the development of key criteria and indicators and distinguishing prescriptive (process-based) indicators, versus evaluative (outcome based) indicators assisted with the organizational format and understanding of the monitoring tool once it was established.

4. METHODOLOGY

A qualitative research approach was used for this project comprising both key informant interviews and document analysis. Interviews were chosen as the primary research method due to their potential to yield depth of understanding on issues with a complex social dimension (Dicicco-Bloom & Crabtree, 2006, p. 314).

Document analysis was used for cross reference to supplement and provide an additional line of evidence to the key informant interviews. Existing forest management documents relevant to the planning, implementation and reporting of the protection of social values on Crown land during forest management activities were collected and analyzed from five management areas across the province. Document analysis and thematic analysis of the interviews provided two streams of data for comparison. This comparison was used to identify pre-eminent themes in the data resulting in the identification of criteria and indicators for the development of the monitoring tool.

Ethics approval to interview human subjects for this report was obtained from the University of Victoria Human Research Ethic Board, and letters of notification regarding the interviews and selected First Nation interview candidates was sent in advance to their respective First Nation's Chief and Council.

Sampling

Mixed purposeful sampling has been chosen, using both stratification to facilitate comparisons regionally and intensity sampling to focus on information-rich cases (Patton, 2002, p. 244). The sampling frame used resulted in 56 potential respondents being invited to participate in the interview; 44 participated for a response rate of 79%. Those who declined to be interviewed did so because they were unavailable at the location during the interview roadshow or due to time constraints.

The 44 resultant interview participants all had an understanding, to varying degrees, of Ontario's program for managing Crown forests and the process by which cultural heritage and/or resource based tourism values are protected within the context of this program such that they were able to offer their insight and knowledge into the challenges and facilitating factors for effectiveness and successful application of the social guides.

A stratified purposeful sampling strategy was used to target five key participant groups: provincial government representatives (District field level), forest industry representatives (operational field level), Aboriginal representatives, resource-based tourism operator representatives, and provincial subject area experts, including policy experts, archaeologists, and provincial tourism organization representatives. With the exception of the provincial subject area experts, the four other key participant groups were further

scoped geographically, by regional stratification, according to selected forest management unit.

Regional stratification

Five forest management units out of a total of 41 existing forest management units across the province were chosen to provide regional representation for the study; two in the northwest, two in the northeast, and one in the southern region of the province. Figure 1 provides a map to illustrate the locations of these management units in the province of Ontario. Intensity sampling was used to select the five forest management units; each was strategically selected based on their potential to be information rich and to provide a balanced cross-sectional representation based on the total number of forest management units distributed across the province. In total, there are 18 forest management units in the northwest, 18 in the northeast, and 5 in the southern region of Ontario. After consultation with provincial policy leads and the client, the following 5 management units were selected for the study:

1. Algoma Forest Management Unit, Northeast Region
2. Nipissing Forest Management Unit, Northeast Region
3. French Severn Forest Management Unit, Southern Region
4. Lake Nipigon Forest Management Unit, Northwest Region
5. English River Forest Management Unit, Northwest Region

The key informants from the five selected management units were identified either by their employment position or through consultation with government representatives. District Management Foresters and Aboriginal Liaisons were chosen as government representatives from the selected management units because of their extensive participation at the forest management planning level, particularly at the level of stakeholder outreach and consultation and for their responsibility in ensuring that the Tourism Guide and Cultural Heritage Guide get applied and adequately implemented at the forest management program level. Three Aboriginal Liaisons were interviewed (two of the management units did not currently have Aboriginal Liaisons on staff), and seven foresters were interviewed.

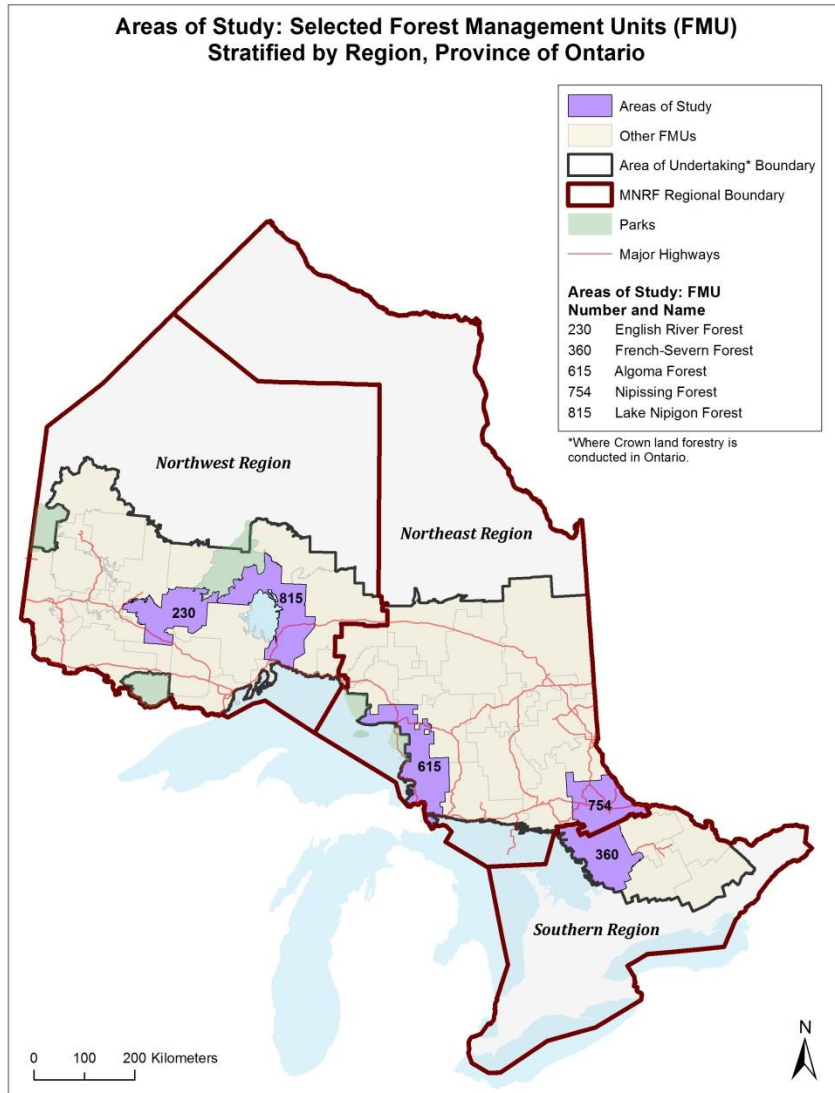


Figure 1 map showing location of selected forest management units

Forest management plan authors from forest industry were invited from each of the selected forest management units because of their knowledge of the planning requirements and their close involvement in stakeholder consultation and negotiations to identify the social values and to develop appropriate protective measures [area of concern prescriptions] for inclusion in the forest management plan. All five plan authors from each of the selected management units participated, and an additional industry representative, the vice-president of Woodlands from Algoma forest, was also invited and agreed to participate for a total of six industry representatives.

The District Forester and/or Aboriginal Liaison (where applicable) from each of the five forest management units suggested potential Aboriginal representatives, resource based tourism operators, and Local Citizen Committee members from their respective forest management units who have knowledge about the forest management program and the protection of social values within the program context. Out of 14 Aboriginal representatives invited, seven participated. Out of 13 resource-based tourism representatives invited, ten participated. Figure 2 provides a chart to illustrate the number of informants based on their affiliation and where they are based regionally.

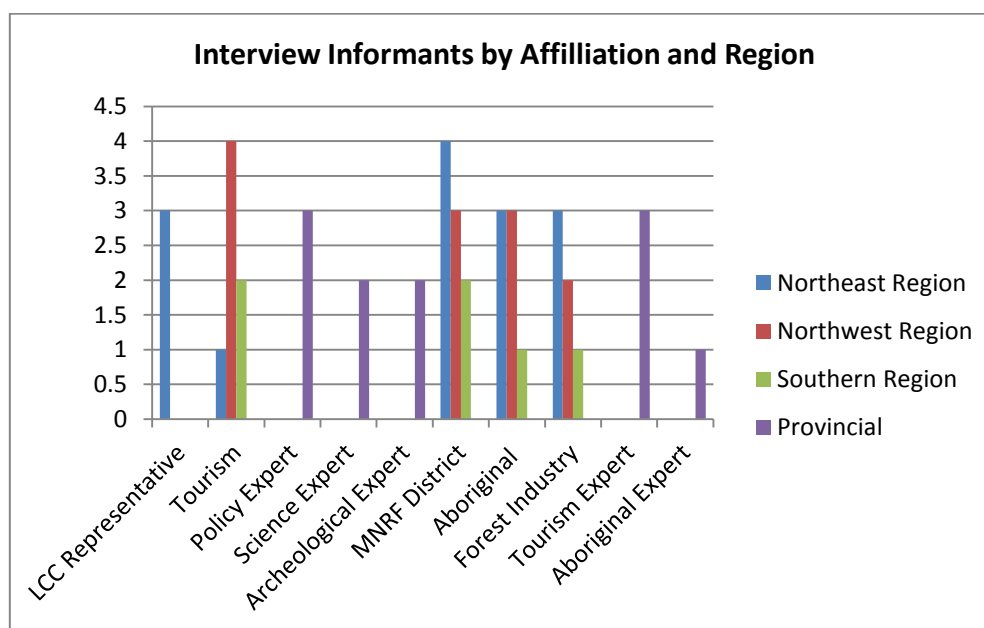


Figure 2 Breakdown of Interview Informants

Provincial informants

Provincial subject area experts were chosen by their employment position. The Senior Policy Advisor charged with administering the Tourism Guide was selected for his particular subject matter expertise, as was the Provincial Cultural Heritage Specialist, and the Ministry’s research scientist specializing in studying human dimensions. Similarly, a consulting archaeologist who worked formerly with MNRF and who helped to develop the Cultural Heritage Guide, and an Aboriginal consultant who also sits on the Provincial Forest Technical Committee (an advisory committee to the Assistant Deputy Minister, mandated by the Declaration Order) were also selected. Three other provincial policy experts were interviewed, two for the purposes of piloting the questions, the third to have a representative with general policy expertise answer from the refined questionnaire. Of

the 13 provincial subject area experts invited, 11 participated, including the two selected for piloting the interview questions.

Recruitment

Key informants were contacted by email or telephone where the information was available from within the public domain. In the case of a few select First Nations and resource based tourist operators who did not have available contact information, the government representative of the forest management unit who identified the individual invited the key informant on behalf of the researcher and first sought release of their contact information for the purposes of the project or had the interested interviewee contact the researcher.

The email invitation was sent out at least two weeks in advance with the participant consent form which outlined the details of the research project including how the data was to be collected and stored. Contact information was provided so that participants could ask questions before committing to an interview. Follow up emails and phone calls were made approximately one week after the initial invitation where no response was received. Interested participants were then emailed the interview questions at least a week in advance to provide them time to reflect on the questions and formulate their responses.

Research Instruments

Interviews

Interviews were semi-structured using an interview guide comprising standardized open-ended questions. Nineteen common core questions were asked of all respondents, and an additional 10 questions were targeted toward particular informant groups based on their particular knowledge and experience (the interview guide is included as Appendix 1).

Questions were asked specific to the processes of the Ontario's forest management program to identify, protect, monitor and report on cultural heritage and resource based tourism values and according to the preliminary baseline outcomes adapted from the USDA's social system criteria in consultation with the client. A set of common outcomes was identified for the social guides to provide a base point for the identification of criteria and associated measurable indicators. These are: 1. Collaboration, 2. Access, 3. Protecting the Value, and 4. Capacity. The questions designed around these outcomes were meant to elicit categorical insight from each key participant group's experiences and understanding about what is most important to the success and effectiveness of the social guides.

The questions were developed according to a process-outcome matrix illustrated in Figure 2. These baseline outcomes are combined with the major program processes of the forest management program cycle: to plan, implement, monitor report, and adapt. Together these form the major axes of the process-outcome matrix. Interview questions were designed to obtain information about the activities within this process, and to elicit what contributes to the achievement of desired outcomes. Some of the questions may apply to one or more of the outcomes or program processes depending on the informants' responses and as such they are accounted for in each of the potentially applicable cells.

		OUTCOME			
		Sustainability of Access	Collaboration	Protect the Value	Capacity
Process	Planning	Q5	Q2, Q3, , Q4, Q6, Q21, Q24	Q2, Q3, Q6, Q20	Q6, Q7, Q9, Q23
	Implementing	Q8	Q19	Q3, Q8, Q12, Q5,	Q3
	Monitoring	Q5b, Q16	Q5, Q19	Q3, Q6, Q8	Q28, Q29
	Reporting	Q17	Q6, Q17	Q6, Q7, Q17, Q18	Q7, Q8,Q17
	Adapting	Q4, Q7,Q8, Q9, Q10, Q11	Q5, Q8, Q14, Q15, Q21, Q22, Q24	Q4, Q7, Q8, Q26, Q27	Q4, Q7, Q8,Q13,Q14

Figure 3 Process-outcome matrix

Adapted from Patton, 2002, p. 474

Document Analysis

Document analysis is used to supplement and provide another line of evidence to the findings of the interviews. Forest management documents used for the analysis included the *Summary of Aboriginal Involvement* (a supplementary document included in the forest management plan), and the *Local Citizen Committee Report* for each of the selected management units dating back five years. Meeting minutes from Aboriginal Working Groups were also included for analysis, where available.

Data Collection and Analysis

Interviews

Interviews were conducted from September 11, 2014 to March 25, 2015. After piloting the interview with two policy experts September 11th and 16th and modifying the questions as a result, the interviews were scheduled and carried out as follows:

1. Algoma Forest Management Unit September 23rd to 25th
2. Nipissing Forest Management Unit October 1st to October 3rd
3. English River Forest Management Unit October 7th to 9th
4. Lake Nipigon Forest Management Unit October 20th to 23rd
5. French Severn Forest Management Unit October 29th to 31st

Interviews with subject area experts were individually scheduled, where and when attainable, beginning in October and concluding in December 2014, with the exception of one remaining interview, which was not scheduled and carried out until March 25th, 2015. Interviews with those selected were conducted in person and audio recorded with the exception of two of the interviews which were conducted by telephone. The telephone interviews were also audio-recorded. The audio records were transcribed. For the purposes of this study, a verbatim transcription protocol was followed, focusing only on transcribing the respondents' speech into written text, free of intonations, overlaps, pauses, and content where the respondent digressed completely off topic (Lapadat, 2000, p. 205). The transcribed data was selectively reduced in this manner for the purpose of, and in preparation for, applied thematic analysis, while preserving the context and meaning of the thoughts conveyed by the respondent. Extenuating circumstances also led to minor instances of incomplete data. One interview was cut short due to time constraints, and data from another interview was only half recorded due to an undetected problem with the audio recording device.

Analysis

Thematic analysis of the interview transcripts focused on identifying the key criteria and indicators for evaluating the effectiveness of the social guides for forest management. An analytical framework approach was chosen whereby the interview responses were organized by interview question into response sets, and then the transcript data was thematically analyzed to identify themes (codes), emerging categories from the themes (criteria) and sub codes from the themes (potential indicators), and whether the emerging criteria and potential indicators are prescriptive (process-based) or evaluative (outcome based). (Patton, 2002, p. 439).

The analysis strategy is described as conceptual and involving a combination of deductive and inductive methods (Patton, 2002, p. 470). The concept of using criteria and indicators to evaluate the effectiveness of program policy was first explored through the current literature, and then the process-outcome matrix was established and used to develop the interview guide. The response sets were analyzed and coded against each of the four identified outcomes from the established process-outcome matrix and further by the process phase.

The thematic analysis was conducted in three stages:

- The first stage involved establishing the codebook (Patton, 2002, p. 465) by reading through the first three response sets (for interview questions two through five), and noting possible emerging themes and categories of themes associated with the predetermined outcomes. This stage also focused on identifying where responses referred to other processes and/or outcomes within the matrix, but which were not targeted by the interview question.
- The remaining twelve core interview questions were coded using this preliminary codebook. An iterative process was applied, whereby new information that could not be classified by the codebook meant the codebook had to be reconsidered and revised each time to conclude with the finalized codebook that is presented in Appendix two.
- The interview response sets were thematically coded again using the finalized codebook and the transcripts were analyzed identify the correlations between themes and to identify key subthemes and relevant findings by key informant group in comparison to other groups, as well as to the total participant sample.

Document Analysis

Summary reports of the selected forest management units were compiled and analyzed using *data collection rosters* which are tables that organize the data found in the reports by columns to facilitate thematic analysis (King, Morris & Fitz-Gibbon, 1987). *Data collection rosters* were developed for the *Summary of Aboriginal Involvement Report* as well as the *Local Citizen Committee Report* and further organized by selected management units. The columns of the rosters were devised according to the report requirements for each, as outlined in the *Forest Management Planning Manual (FMPPM)*.

The analysis of the data collection rosters included identifying key program features such as type, duration or frequency of a program activity, and the extent of participant involvement in the activities (King et al., 1987, p.62). Documents were analyzed with the process-outcome matrix in mind, and thematically coded using the same codebook developed for the interview data. The data collection roster for both the local citizen

committee reports and the Summary of Aboriginal Involvement report designed for synthesis of the data are provided in Appendix three.

Limitations

A limitation of this study is the personal bias of the researcher who is also the interviewer, transcriptionist, and thematic analyst for the project. Efforts were made to minimize impacts to the data by ensuring the interviews were audio-recorded and that transcription was verbatim from the respondent's speech. Steps were taken to minimize researcher bias by having a second coder to confirm inter-rater reliability of the established codebook.

The research design is complicated by the fact that it researched the program processes of two forest management guides concurrently. It was difficult to balance the inquiry so that both guides were equally addressed, and later to tease out the data that was unique to each guide, versus that which can be equally applied to both guides. To alleviate this complication, the analysis focused on identifying criteria and indicators that are adaptable and relevant to the effectiveness of both guides.

Summary

The methodology for this project was a qualitative research approach comprising interviews as the primary research instrument, supplemented by document analysis of key summary reports. Sampling for the interviews focused on recruiting key informants with knowledge in forest management and regional stratification was employed, selecting five forest management units total across the three forest management regions of Ontario. Interviews were conducted in person with 19 open-ended questions being asked of all participants. Ten additional open-ended questions were asked of a subset of the informants based on the nature of the question and their capacity to answer the question. These questions were designed to supplement the findings from the core questions that were the subject of thematic analysis. Of the 19 questions asked of all informants, 15 became the subject of thematic analysis due to the nature of the question and suitability for thematic coding of the transcripts. Question one for example, was excluded from thematic analysis, because it was designed as the interview ice-breaker, asking informants to tell about themselves and their experiences in forest management. Questions two and six were ranking questions, and the response sets to these were not suitable for thematic analysis, therefore they were only analyzed for the ranked tallies and these rankings are discussed in the research findings alongside the thematic analysis.

The methodology enabled exploration of the forest management processes within which the social guides are applied. At the same time it tested the outcomes that were

established for the social guides from the literature review. Essential to understanding the relevancy of the criteria and indicators that were produced as a result of this project, is the realization that the social guides cannot be evaluated for their effectiveness in isolation or separate from the processes of Ontario's forest management program. The social guides describe principles for social values protection, and provide high level standards and guidelines to be applied in the development and implementation of a forest management plan. The means by which and how this direction gets applied year over year within the context of the forest management program become prescriptive or process elements that determine, to a great extent, the guides' effectiveness.

5. FINDINGS AND DISCUSSION

This Chapter reports on the thematic analysis of the interview transcripts and analysis of the summary reports to provide findings that will be related back to the literature review in the discussion. The chapter is organized and presented by the major outcomes established for the social guides as shown in Figure 3 of Chapter 4. These include:

- Access
- Collaboration
- Protecting the value
- Capacity

Within each of these outcomes the major themes that emerged during thematic analysis of the interview transcripts will be identified and comparison with the content analysis of the summary reports will be discussed.

The codebook used for thematic analysis, along with the corresponding spreadsheets that provide the tally of the themes by interview question, and the summary report rosters can be found in Appendix 2, 3 and 4 respectively. Appendix 5 provides the high level summary of the established outcomes, and subsequent emanating criteria and themes.

The codebook was established based on key words organized under the major emerging themes and subthemes. The prevalence of the themes by interview question was used to identify the major findings that were further elaborated by analyzing the key words in context. In the analysis and findings section, the terms *stakeholder* and *value holder* are used interchangeably, and refer to all interest groups, including Aboriginals with social values on Crown lands in Ontario.

The interview questions were developed with the client's input and with the assigned outcomes (access, collaboration, value protection and capacity) in mind. The analysis stage filtered the questions to 15 core questions for thematic analysis out of the 19 questions asked of all informants. These questions reflect the best question set in terms of their suitability for thematic analysis and their balance across the outcomes.

Access

The social guides contribute to policy direction for how Crown forests get accessed and used by the public, stakeholders, interest groups, and Aboriginal communities. The positive outcome of this direction is to find a balance among user groups that maintains sustainability of access for the benefit of present and future generations.

Preventing or restricting access to an area or location on Crown land can be an effective measure for protecting social values. In particular, preventing motorized vehicle access to an area is often the protective measure afforded to a remote resource based tourism operator following timber harvest in or adjacent to the area where their business is situated. It is put in place to protect the value of remoteness and experience of wilderness for tourists. Access can also be restricted to protect cultural heritage values. For example, a bridge crossing at an area of known or potential archaeological significance may be denied to the proponent.

Interview Transcripts

Access was the third most talked about outcome. It was referenced 248 times and by 91% of key informants during response to the 15 core questions. Key themes that were identified, in order of how frequently they were referenced include: land use planning, future opportunity for access, who has the legitimate right to access an area, and the benefit to be derived from access and use of Crown land.

Interview question eight asked key informants how close road use is tied to social values protection and 42% said road use is tied or very tied to protecting these values. How the land is planned for use, and established for use by roads once they are constructed, has an impact on protecting the integrity of social values and this in turn has an impact on who benefits from access. Clear policy for land use and land use planning is highlighted as an essential mechanism for balancing conflicting interests and managing expectations of forest users. The need for roads to access Crown timber forces the business of forest management to shoulder the responsibility of land-use planning despite those that argue that land use planning should be a separate exercise. The forest management plan becomes a focus of balancing interests and determining the degree of access to stakeholders as a result.

Of the 33 key informants who provided an indication of their position on the subject, 12 were in favour of road restrictions, 13 were neutral on the subject, and eight were against road restriction. The tourism respondents were predominantly for road restriction unless their business was road-based. Policy experts were also predominantly for road access restrictions, whereas the Aboriginal group was primarily against road access restriction. District and industry were largely silent or neutral on the topic.

The Aboriginal respondent group's perspective is that roads are of benefit to their community, as they provide new and additional opportunities to hunt, fish, and gather. They want to keep the roads open, and feel they have an established treaty or traditional

right to access the land via the roads that are developed as a result of forestry. The remote based tourism operators and policy experts' perspective is that the viability of the tourism business needs to be protected and road restriction is necessary to achieve this.

Access to Crown land was also talked about with regard to equity among user groups. The cultural heritage guide and tourism guide do not explicitly consider the recreationalist group and what they regard as social value on Crown lands. This is raised by three informants repeatedly in response to the core questions. Equitable access for all user groups and giving just consideration to their social values is important for public satisfaction and sustainability of access.

Legitimacy on the land is about ones' right or perceived right to access Crown forest and whether, due to historical use, economic dependency, or proximity of an area to a community, a person or groups' rights to access the forest is considered to supersede another stakeholder or the public in general. Legitimacy is spoken about twenty times throughout the transcripts. When stakeholder values overlap and conflict, legitimacy comes to the forefront of the land use debate. Whether the values of the tourism operator should be protected above that of the public's because the tourism values are the basis for the tourist operators' livelihood, is a question of legitimacy. The evident split between motorized users and non-motorized users of Crown forests further compounds the access issue. Legitimacy of access as a result becomes tightly woven with issues of road access, and is dependent on whether the value holder needs the roads to access their values, or if their values are negatively impacted by roads. Access roads affect remoteness, a value of the wilderness experience for a subset of stakeholders:

Canoeists and recreationalists desire wilderness as well. There are those that want quick and easy access to [timber], fish and wildlife, but you can't have that everywhere.

Maintaining wilderness is, for certain stakeholders, dependent on maintaining areas that are road less, and for others it is about restricting motorized vehicles on existing roads. One informant describes the experience of wilderness and resource based recreation as *important to human development and part of our Canadian psyche*. Wilderness and the experience of wilderness is an essential element of social well-being and social sustainability. Therefore it is imperative that a balance be maintained between road-accessible motorized activity, and non-motorized activity that protects the sense of remote wilderness.

Legitimacy on the land base for Aboriginal people relates to their historical ties and traditional use. Question 20 asked the Aboriginal informant group what the qualities are

of a historical Aboriginal value. Three said that a key attribute is that they are passed down from elders for generations, four talk about the values as being significant in terms of telling the story of a community, tribe or historical event. One talked about historical Aboriginal values, as that which are considered sacred, regardless of whether they were ten years or 100 years old. Another informant qualified a historical Aboriginal value as any area that helps the community or individual to understand the past and their connection. As one Aboriginal informant summed it,

A religious person [goes] to a church, First Nations go to the bush... knowing where these medicines can be found... is like protecting all the way back to when white man came... Archaeological digs and allowing us to find our artifacts and make sure they are catalogued and done right is very important to us. We always want to protect the past because we have lost so much of it.

Inequitable access to certain areas of Crown forest under certain circumstances may be the best strategy for attaining balance and protecting the social values of interest groups and there is a growing reality among resource managers that it is now also a requirement. Supreme Court case law has recently rendered verdicts that require the government to consider Aboriginal treaty rights and Aboriginal title when making decisions about access to Crown forest. Recognizing the legitimacy of one group to an area over another inevitably raises the issue of equity. However, it is a necessary step towards reconciliation between the government and Aboriginal society. As one informant points out, “with ownership comes responsibility” and in the case of Aboriginal groups, recognizing their legitimacy of an area “bolsters their confidence in engaging”, and motivates them to develop the capacity to meet new heightened responsibilities for stewardship of the land. Recognizing Aboriginal groups’ legitimacy to access Crown lands and resolving this with forest industry and resource based tourism operators for continued sustainable forest management, is one of the challenges facing the MNRF, and it is closely connected with the identification and protection of social values.

Interview question nine asks key informants during what phase of the forest management program they think road access issues could best be reconciled and how. Sixty three percent consider the planning phase as the best phase to focus reconciliation efforts, 20% identify monitoring as the most important phase, and 13% percent identify outreach as a key phase for reconciling road issues. Twenty percent also talked about the importance of participation at the planning phase so that stakeholders are collaboratively involved in finding solutions that balance different resource user interests, and develop a greater understanding of the issues around access as a result. A good example of an access issue requiring outreach, in terms of scanning for who is on the landscape, and collaborative

participation, is the issue of values that are adjacent to forest management unit boundaries:

An issue that we encountered a few years ago is that our cabin was just outside the forest boundary, half a kilometer from the forest line. So we didn't get consulted and it created some access issues. After that the ministry got better at doing scans of adjacent forests and the values therein.

Interview question 16 asks key informants how best prescriptions (restrictions, limitations etc.) regarding road use could be monitored. Sixty three percent felt that greater enforcement is required. Twenty percent mentioned the use of remote detection (video surveillance, drones, and pressure devices in the ground) as a possible means to improve monitoring. Twelve percent suggested collaborative partnerships with user groups to assist with monitoring. For example, tourism operators could report on issues.

Controlling access is difficult. The addition of all-terrain vehicles has made it very hard to prevent access. Different methods of monitoring and experimenting would be good. Sometimes it has to do with placement [of the road]. It also requires serious commitment and intent with these methods. So effectiveness and reporting of that is important, and consideration of context is important.

Summary Reports

The *Local Citizen Committee Report* (LCC Report) and the *Summary of Aboriginal Involvement* (Aboriginal Involvement Report) for each of the five selected forest management units were compiled and summarized, then thematically coded using the same codebook established for the interview transcripts. Access was referenced four times in the LCC reports, and five times in the Aboriginal Involvement reports. The loss of remoteness with the development of more roads was identified in one LCC report. LCC input into the development of protection measures for snowmobile trails to prevent negative impact by winter harvest operations was reported in another report.

The Aboriginal Involvement Reports identified the importance of areas of use, particularly portage trails that may not yet be identified to forest managers. The reports also mention that forest access to restricted roads needs to be permitted for Aboriginal use because they have inherent rights to access the land. Unsafe bridges requiring maintenance and who is to assume the responsibility and cost for this was also raised as an access issue.

Literature connection

Both the Montreal Process and the Pan-European Forest Process have indicators related to access. The Montreal Process indicator is indirectly related by way of associated land use designation, focusing on the quantitative measure of forested area managed for public recreation and tourism. The Pan European Forest Process has the same quantitative indicator of designated area and an additional descriptive indicator that requires the existence of a regulatory framework that recognizes legitimacy on the land base and provides a means for resolving access disputes. While quantitative measures, either of area designated to tourism and recreation, or measures of access per inhabitant based on the percentage of total forest area, are valid indicators, their relevance is beyond the realm of forest management. Forest management cannot be held accountable for all access issues nor is it the business of forestry to make decisions regarding land use designations for recreation and tourism. The social guides are implemented to ensure protection of existing social values within the context of forest management. Therefore it is best to focus on descriptive indicators, specifically indicators that measure state or impact over time, when considering how to assess the guides' effectiveness at contributing to the sustainability of access.

Collaboration

Protecting the social values that exist on Crown land requires the input of the public, stakeholders, interest groups, and Aboriginal communities in order to know where the values are, and to understand how to protect them. As one informant summarized,

These two guides are tied to the people and it requires their involvement and desire to see their values afforded protection during forest management.

This requires collaboration between the proponent, the ministry, and the value holder. Successful collaboration is a positive and desired outcome of the social guides.

Interview Transcripts

Collaboration is the second highest talked about outcome in the interviews. It is referenced 267 times during responses to the 15 core questions. The outreach for such collaboration is referenced 125 times, with equal representation being referenced 72 times and collaborative participation, or uptake from the outreach being referenced 67 times. Themes that emerged during thematic analysis under the outcome of collaboration include how communication needs to be more timely and strategic, and that collaboration

needs to demonstrate equal representation and mutual respect for there to be a relationship of trust. Also, partnerships with third parties such as universities could assist with research and knowledge exchange to improve the capacity of all involved in social values protection during forest management.

Interview question two asked informants to rank the program phases (plan, implement, monitor, report, and outreach) in terms of their importance to the protection of the socio-economic values during forest management. Forty-one percent ranked collaborative outreach as number one, second only to planning. Key themes identified include the importance of education during outreach to inspire engagement, and that outreach is important in order to consult with stakeholders on their values. In response to question two, the importance for having timely and sufficient outreach well in advance of planning was conveyed by 11% of informants as key to successful collaboration. In response to interview question 22 that asked what the critical factors for successful outreach are, timeliness and having sufficient time was again reiterated by 17% of respondents. Finding alternative methods for outreach in order to effectively engage stakeholders also emerged as a subtheme. Embracing social media (radio and newspaper advertisements included) is mentioned by 13% of informants in combined responses to question two and 22, as a way to improve the effectiveness of collaborative outreach efforts.

Interview question seven asked informants to discuss the strengths and weaknesses of social values protection in the forest management program. A significant theme that emerged was that despite considerable outreach efforts, participation is poor. Sixteen percent of informants spoke about outreach being frequent or providing sufficient opportunity, and 25% talked about how participation was lacking. 14% of informants felt that the lack of participation is a result of unequal or biased representation when decisions are being made about values during forest management. Additional reasons identified include lack of capacity to understand the complexities of the forest management program resulting in stakeholders being too intimidated to participate, and poor responsiveness to value holders by MNRF and proponents resulting in mistrust. These three factors are largely responsible for having a negative effect on the working relationship, and it has led to a culture of complacency among stakeholders with regard to participation in the forest management program.

Building and maintaining a relationship of trust between the ministry, proponent and value holder is identified by all informants who identified that participation is weak. Collaborative outreach that provides sufficient time to support adequate engagement and demonstrates positive responsiveness is identified as essential to fostering trust. Motivational education opportunities that build capacity and

understanding of what social values are, and their importance, how the forest management program works in Ontario, and how social values data is classified, collected and managed needs to be provided regularly and in advance of value data collection. When values data is brought forward by an individual or community that may or may not fit with the established classification system, it needs to be addressed respectfully and given due consideration. If the ministry or proponent dismisses a social value brought forward by a value holder as out of scope or irrelevant it erodes the relationship. The following excerpts from informants juxtapose an example of ill-responsiveness to a value holder with that of a value holder that is satisfied with the level of responsiveness. One informant's story is as follows:

We have areas that have been brought forward, a township that was the site of a significant battle, and yet we weren't respected. It was considered unacceptable to the SFL and MNRF that an entire township would be protected and they went ahead and cut it.

Others convey satisfaction with the level of responsiveness that has been afforded:

I've been spoiled by having someone who lets me know if there is going to be a problem in my area. Without [this person] you would need to be aware and on the ball. These guys understand our needs and the consistency of this is great.

The relationship of trust is built on respect, mutual understanding and consistency. Confidence in the process is built on adequate responsiveness, negotiated agreements and satisfaction with the results. When the relationship is positive and there is confidence in the process, participation improves.

Trust is critical. If you lose their trust by impacting a cultural heritage value conflicts arise and it's not good for anybody. But boil it down, it's about trust. How to get that trust? It requires consistency of people together and ongoing communications. The visit every five years isn't necessarily enough.

Values data collection, referenced by 30% of the informants in response to question seven, is another theme that emerged regarding the issue of participation. Informants indicate that while outreach is plentiful when the ministry and proponent are collecting values data, it needs to be more meaningful, respectful and consistent in order to improve collaborative participation. Both interview questions seven and 22 identify knowledge exchange as a way of improving the relationship. Instead of requesting information, and the giving being one-sided, the ministry and proponent need to consider what they can

give as well. One idea for how this can be achieved is by partnerships between the ministry and universities to research and provide historical land-use and occupancy reports. This would provide values data for those marginal values, values that are not necessarily advocated for or understood for their cultural or tourism importance, such as colonization roads and old logging camps.

In response to question seven, 11 % of informants spoke specifically about the local citizen committee (LCC), and that having a strong functional LCC is fundamental for successful collaboration. The LCC is reported as being a more effective means of outreach than the environmental registry or than information letters because it provides for face to face engagement. However, in order for it to be effective it needs to provide equal representation which means having representation from all stakeholders and not having a stacked committee' with more representatives from one particular stakeholder group than the others. A functional LCC also requires a detailed terms of reference that describes how the members are to collaborate, make decisions, and collect and disseminate information to their respective stakeholder groups. As noted by one informant:

I like Local Citizen's Committees however there needs to be a mechanism for accountability to ensure that Local Citizen's Committee reps are going back to their group. The model is good but it could be improved.

Additional outreach to secure Aboriginal representation demonstrates commitment to equity, and where a separate Aboriginal working table or consultation process has been established, there has been greater success in collaboration;

Local Citizens Committees with representation from all sorts of folks is great but this doesn't [always] work for First Nations, because you can't have one First Nation person representing all these communities. This is not going to work. So ... we created a separate Aboriginal working group and this has been the key to our success. And then the representative on the planning team could share with this group what was said, and how he represented the First Nations at the Local Citizen Committee. This is working. And we have two First Nations representatives on the planning team.

Interview question 14 asks informants what phase of the forest management program currently provides the best opportunity for collaboration. Sixty-two percent of respondents said that planning currently provides the greatest opportunity for collaboration, while 57% of respondents either included outreach alongside planning or

chose it as the phase with the greatest opportunity. Thematically, while the majority say the opportunity for collaboration is at planning, respondents think collaboration is more successful during outreach, as there is more time for education, knowledge exchange, relationship building and values sharing. At the planning stage it is often rushed and the relationship, and values collection, may not be given due consideration as a result.

At present most of the collaboration occurs in the planning phase with little active collaborative activities in the other phases. There is compelling evidence from the interviews that there is both an interest and the advantage of providing consistent engagement and a better relationship with increased collaboration across the program phases. As one informant aptly put it,

This paradigm needs to change in order for there to be more authentic balanced collaboration.

Particularly, Aboriginal groups are interested in collaboration that provides opportunities for partnership across all phases. Many express that they have the capacity now, and a desire to be engaged on a continual basis with the opportunity to provide meaningful input at all stages of the forest management plan.

Interview question 15 asked what phase of the forest management program would be best for additional opportunities for collaboration. Fifty-six percent identified monitoring, while implementation, reporting, and outreach were also identified by 30% of respondents. Subthemes within monitoring include a desire for monitoring to be more transparent, and that assessment of effectiveness become part of compliance monitoring. The satisfaction of the stakeholders could be monitored and reported, and stakeholders could assist in monitoring the protection measures during implementation and afterward for success. Joint inspection with stakeholders could be educational and strengthen collaboration at the compliance phase. More consistent outreach with stakeholders, where they are kept engaged during implementation and their feedback is sought afterward on the effectiveness of the protection measures supports relationship building. Preparing and providing reports that include topics that interest stakeholders and that are understandable, could facilitate more meaningful collaboration.

The relationship theme was also prevalent in interview question 17 that asked informants what the most important topics to report on. Twenty six percent of informants said that the relationship is important to report on. It was suggested that taking a poll of stakeholder satisfaction and reporting these satisfaction ratings would be one way of gauging the relationship year over year.

Summary Reports

The *Forest Management Planning Manual* requires that the LCC report summarize the representation provided, participation that occurs for values collection and the development of protection measures, as well as participation in consultation efforts. The LCC report also provides a tally of the number of training opportunities that were provided. Representation on the LCCs for each of the selected management units ranged from six to 19 members with an average of 14. All but one had at least one Aboriginal community representative. All but one had more than one industry representative, and all but two had two or more tourism representatives. The committees also ranged in diversity of representation. Some units had an LCC comprising only general public, tourism, industry and Aboriginal representatives, while others included prospectors, educators, hunters, environmentalists and snowmobilers. Representative bias was explicitly mentioned once and recommended for improvement.

The LCC reports indicated that there were ample training opportunities, with 43 educational events offered over the five year period across the five selected management areas. The data provided on the collaborative participation or uptake on the training opportunities by the LCC members was comparatively weak. All four management unit LCC reports noted an issue with collaborative participation. Reasons for opting out of training opportunities included having prior training on a subject, severe weather that disabled members from travelling and course length (e.g., a week long Forest Ecosystem Classification course that members could not afford the time to commit to).

Three out of five management units reported evidence that protective measures for social values were developed collaboratively, but there were only one or two particular social values addressed in each forest management unit. Participation in the development of values maps, values collection and protection was reported on largely by listing the outreach efforts of the ministry and Sustainable Forest Licence holder to provide maps, identify where policy documents could be reviewed, and seek values data and input on the long term management direction objectives developed for a forest management plan. One management unit did report using radio and newspaper to conduct outreach, and this management unit reports the greatest level of participation with LCC member participation on several key task teams.

The Aboriginal involvement summary report is required to report on the representation by Aboriginal persons on the LCC and planning teams, and tally outreach efforts as well as input received and responses provided, along with participation at public and special information centres. The disparity between outreach and participatory uptake is notable, with 118 efforts of outreach compared to 44 efforts to participate being reported.

Evidence in the notes also suggests varying levels of capacity to participate. Some Aboriginal communities reported that they did not have any values to protect at this time (indicative possibly of mistrust or intimidation), some expressed the importance of areas of use without providing detail, and others pinpointed and established protective measures for specific identified values such as wild rice. Two out of the five Aboriginal involvement reports indicated that they received no input, and one received input that the ministry deemed to be out of scope. One recorded comment of input suggested that MNRF hold a workshop on intellectual data and considerations for data sharing.

Two of the five management units reported the establishment of a special Aboriginal consultation approach. One of the units established a separate Aboriginal Working Group that meets and reports on First Nations objectives, forest management opportunities, economic opportunities, and social and educational opportunities, including the state of their progress and strategies for measuring their success. The other unit has a consolidated special consultation approach that was developed cooperatively by seven out of the nine identified communities. One of the forest management units reported that First Nations communities were requesting more harvesting rights, and to be a representative on the board of directors of the sustainable forest licence, which indicates their desire for greater representation and benefit from forest management.

Literature connection

The extent to which the ministry and industry meaningfully collaborates in the management of social values in the context of forestry on Crown land, determines the overall satisfaction of stakeholders and successful implementation of the social guides. Similar to how Wright et al. describes how blood pressure is used as a measure of underlying health issues, the state of the relationship between stakeholders, government and the industry can be used as a measure of underlying issues in the implementation and the effectiveness of the social guides. There are several elements required for a healthy collaborative relationship, the majority of which are related to the processes of the forest management program, and these fall into the categories of output indicators (e.g. outreach, incentives) as described by Bottero. There is a positive link between the efforts put into establishing a collaborative relationship and the success of the relationship. However it is not only dependent on the quantity of such efforts; more importantly it is about the quality and integrity of these efforts.

Protecting the value

Protecting the value is the most obvious desired outcome of the social guides. Planning for protection, implementing the protection measure and monitoring to ensure compliance (that protection measures were implemented as planned) and overall effectiveness of the

protection, all relate to this desired outcome of the social guides for forest management. Protecting the value is, for the purposes of this study, considered to occur at three levels: First is at the level of values information management. How values data is collected, stored, administered and kept secure is important to protecting the integrity of the value. Second is at the level of the operational protective measures. How an area of concern prescription gets developed and approved in the forest management plan to protect the value, and then how this gets implemented and monitored, is essential to the protection of the value. Third, how the results from monitoring and research get considered during reporting for the purposes of adaptive management is important to protecting the value. This section reports the findings of the three levels associated with protecting the value, and each level is addressed as a subtheme of the outcome of protecting the value.

Values Information Management

Interview Transcripts

Protecting the value is the most talked about outcome in the interview transcripts. It is referenced 687 times by informants and of all the themes referenced, 47% are associated with protecting the value. Values information management is the fourth highest talked about theme, referenced 163 times across the 15 core questions. Interview question four asked informants how best to collect and manage social values data. Thirty-three percent spoke about the values map, 28% about values collection in general, 26% talked about data controllership, and 14% talked about data security. Interview question five asks specifically how important the values map is and why. Of the 38 responses, 82% considered it important or very important, eight percent considered it only somewhat important, only one informant said it was not important, and the remaining did not state whether it was important or not. The values map was identified as an essential planning tool that facilitates collaboration and that provides opportunity for education and knowledge transfer. Informants talked about how the map is both visual and spatial and that the map provides comprehensive knowledge at a glance revealing the multiple layers of values which helps planners realize ways to balance competing interests on the landscape. The map was also identified as an important record to ensure future retention and to legitimize the value.

The majority of the informants who talked about the map highlighted the importance of having the values mapped to the standard of a Geographic Information System (GIS) with coordinates to locate the value accurately on the ground. Having social values data mapped is considered *a critical piece for planning* both as a collaborative interactive tool and as the smartest means by which the information can be stored and maintained.

Data controllership emerged as a subtheme of values information management that has a direct influence on the collaborative relationship. Essentially the party or group that controls the data is perceived as having greater power in the relationship. In response to interview question four, 53% of the informants identified which party they thought should control the data; 70% identified government, 17% identified the Aboriginal community or organization, and 13% identified a third party such as a consultant firm or university. Government was predominantly chosen because it has the resources, capacity and responsibility. Several informants did not select the Aboriginal community or organization to be the data controller due to the community/organizations capacity issues related to managing GIS databases. District and Aboriginal informants were the only respondent groups to select the Aboriginal community or organization to be data controller. Their reasons for selecting the Aboriginal community include: retaining intellectual rights to the data, First Nations mistrust and subsequent reluctance to share their cultural values with outside parties, and because the government cannot guarantee confidentiality of the values once collected due to the nuances of the Freedom of Information and Protection of Privacy Act. Section 10.1 of this Act, provides every person the right to access records that were collected or recorded by an institution of the Ontario government, and section 11.(1) makes the institution obliged to disclose such information.

While the majority of informants identified the ministry as most suited to be controller of social values data, controllership is best established collaboratively with Aboriginal and resource based tourism organizations who are the values holders. It is important to collaboratively establish controllership, as controllership influences the working relationship. As one informant described it, *knowledge is power* and another Aboriginal informant describes the third party alternative which may resolve the power issue:

Because the values are so sensitive the last place we want to store the data is with the government. So what's missing is the capacity of the communities to store it and keep track of it themselves. [We are] looking at storing the data with a college with confidence through agreements. Then the community could access it through web based means. Idea is that a third party independent as the data keeper is ideal. Independent party would be working for First Nations and providing the cultural heritage technical support to them.

Who controls the map or values information is a delicate issue particularly with Aboriginal communities because of historical subjugation that has caused pervasive mistrust in government. The sense is that when providing their social values data to the ministry they are also symbolically relinquishing control of the value itself. Collaboratively establishing controllership, and providing power to the value holder

where possible will help to negate these sentiments and build the relationship of trust required for adequate co-management.

Data security is also a recurring theme and it is tied to data controllership. In response to interview question four, it is referenced by nine informants, three of which state that having a central reliable repository for the data is essential for data security. It is referenced a fourteen times or 36% times in question five that asks about the importance of the map, which shows a correlation between the map and data security. Data security refers to who owns the data and who has the intellectual property rights to the data. If Aboriginal communities were the data controllers of their values data, they would be better equipped to manage the multiple requests they receive for their values data each year from different proponents and ministries. However, until and unless they develop their capacity for GIS database management, the best alternative is for government and Aboriginal communities to have formal data-sharing agreements that demonstrate commitment to data security and to the trust relationship.

Ultimately it is about guarding the data and determining how and who it gets shared with, with the objective of ensuring that the data is not made public and that it is kept in confidence for the purpose of protecting the value from the potential negative impacts of forest management. Working collaboratively to establish an effective and consistent means of sharing data that recognizes and protects sensitive information is important. As one district liaison (who is also Aboriginal) conveyed:

The natives don't want our values exploited, but we know it's important for operators to know that a value exists in order to protect it. We don't bring the native values map to open houses. If they ask questions then we have the map at the office- but [it is] not readily available. This demonstrates respect and offers protection.

Having a reliable, central database was highlighted by eight informants in response to question four, five and seven. Informants describe it as important to alleviate duplicate information, identify values that overlap and possibly conflict, and to identify locations requiring further verification for greater accuracy. Accuracy of social values data would prevent error in how they are protected, while a single database would provide for more effective control over dissemination of the values data.

The importance of classifying and verifying social values data was highlighted by 20% and nine percent of informants respectively in response to question four. Classifying

the social values and having a classification system defined in the social guides is important for data management but it can also be limiting in terms of what is accepted as a social value. Currently the cultural heritage guide lists five classes of cultural heritage values: archaeological sites, archaeological potential areas, cultural heritage landscapes, historical Aboriginal values, and cemeteries. The Tourism Guide has five classes of resource-based tourism values: natural aesthetics, remoteness, the perception of wilderness, wilderness opportunities (sustainability of fish, game), and the perception of Ontario as a world class wilderness tourism destination. Recreational values such as trails and canoe portages that are not considered historical, and values that have been identified as marginal such as bear bait stations, and present day areas for medicinal plant collection, are not given classification in the current social guides and this can affect the relationship and be a point of dissatisfaction for stakeholders. Five percent of informants put forward a caution to having further classification and inclusion of marginal values, positing that it is not reasonable to expect that every old logging camp, abandoned vehicle or dated pop be protected if it is identified by a stakeholder. Efforts to further classify and educate stakeholders on what constitutes cultural heritage and resource based tourism values is requested by 20% of informants in response to question four. Classification of values that is backed by research and deliberated on through consultation, followed by education on the classification system is required to manage expectations around what constitutes cultural heritage and resource based tourism values on Crown land. One informant describes the values collection process and need for consistency;

We've collected data from First Nations and cultural heritage specialists on the forest along with government agencies. Data comes from all kinds of places. With the right priorities though it could be given a more robust program where it's categorized and more consistent.

Another informant speaks about relaying the classification system to the stakeholders and Aboriginal groups:

That's fine if they [the stakeholders and Aboriginal groups] want to handle [the data] in their own way, but it might be good if we could provide them with a master list of how we would like them to organize their values, so that it would be easier to do... to classify them by the guide categories.

Verification of the values is the second part of making the social values database more effective. Verifying social values data is twofold. The first step of verifying is to

ensure that the GIS co-ordinates provided are free of error. If the coordinates are wrong by even one number it could place the value in some other continent when mapped or out in the middle of the ocean for example. While this is the only type of verification referred to in the Cultural Heritage Guide, the other type of verification is field or ground verification and this type of verification is referred to the most in the interview transcripts. Field verification ensures greater accuracy in the data, which translates to greater efficiency of values protection on the ground. A district informant summarizes the importance of verification:

I trust whoever is giving me the information is verifying it. But I do hear from communities that they would like more time to ground truth it. Much of what we get from them is from community member stories, so we could use the time to verify it and it would help to refine the polygon. Ideally you would have a component of field verification.

In response to interview question four, verification is referenced by 14% of the informants as being an important activity for securing an accurate values database. However, one industry informant reported that the responsibility of verifying new values data was overwhelming and that data ends up getting thrown out because they cannot verify it all. If the value is a sensitive cultural heritage value they may not be told explicitly what the value is, making it that much more challenging to verify. Another informant mentioned that without continual verification of values, licensees may be protecting values that no longer exist. This can occur where remote-based tourism businesses cease to operate or areas of medicinal plant value are no longer thriving. In this case, verification becomes, in part an exercise of de-valuing under certain circumstances and an activity that needs to be recurring to ensure previously verified values still exist.

Under the current program, the onus is on industry to verify social values data, but perhaps the Aboriginal community could share this responsibility and it could also provide an opportunity for knowledge exchange and relationship building. It was noted by one informant that values collection by Aboriginal communities has often been exhausted but funding is still allocated with each new forest management planning phase for further values collection. It is suggested this funding could be better spent on having the Aboriginal community involved in values verification of their identified social values.

Summary Reports

Four out of five forest management unit LCC reports indicated that maps were shared with the LCC to review and get input. Two of the five forest management unit LCC reports reference opportunities for training pertaining to data security, particularly recording

training opportunities, one for data sharing agreements, the other for data sensitivity training. The one on data sharing involves a First Nation community coming to present on their current value mapping project and data sharing agreement, demonstrating how knowledge exchange can occur and be targeted to address one of the themes important to the effectiveness of the social guides.

In the summary of Aboriginal Involvement Reports, there was one request for training on both the intellectual property rights of data and data-sharing. Regarding values classification, there were two present use values put forward as cultural heritage values including portage trails and wild rice. These points reinforce the themes of data controllership and the desire to have marginal values included in the cultural heritage classification scheme.

Area of Concern Protection

Interview transcripts

The process of developing the protective measure (called an area of concern prescription), implementing the area of concern prescription in the field, and monitoring the area of concern prescription afterward for compliance and effectiveness, are the core activities for protecting the social value from potential impact due to forest management. Area of concern protection ranked number one in interview question three which asks what the most important outcomes of the social guides are. The importance of protecting the integrity of cultural heritage and resource based tourism values received near equal mention (19 and 21 times respectively).

Area of concern protection also ranked number one in response to interview question 17 which asks what the most important topics to report on are. Monitoring the area of concern prescription was referenced by 40% of informants. Ten of the references about monitoring indicated the importance of effectiveness monitoring and reporting on the effectiveness of the area of concern prescription. All ten identified the need for improvement in this area and a couple suggested that qualitative assessment was required for effectiveness monitoring. Six informants indicated that reporting on both the successes and issues of area of concern protection identified through monitoring would be beneficial for future improvement of area of concern protection. Of those who identified monitoring results for reporting, four spoke about the forest operations compliance program and how the new issues management system is not transparent enough to provide meaningful report data at the annual report level when the compliance inspection reports get summarized. Interview question seven supports the need for

improved monitoring, where 30% of informants said that monitoring is a weakness of the program.

Interview question 12 asked informants how important it is to detail the area of concern prescription to the value being protected. Sixty-one percent said it was either very important or important, 18% were not asked the question (this question was added after the pilot and not asked of the science experts and three of the aboriginal representatives based on their perceived working knowledge), 16% gave no definitive answer and only two percent each respectively said it was somewhat important or not important. Informants who considered it important to detail the area of concern prescription said that generic or standardized prescription for a value type (e.g. visual aesthetics around a tourism lake) does not necessarily fit for every value.

The example provided by one informant was that a tourism lake may have a cliff on one side where the tourist would not be able to see logging 50 metres beyond it, but if there is a wetland on the other side, the tourist may be able to see logging a kilometre back. So in this instance a standard buffer or donut of forest kept intact around the lake, would not effectively protect the tourism value. Fifteen percent of the informants described this one size fits all or cookie cutter approach to area of concern protection has either not effective or not efficient because every social value is unique and every situation is different. Informants spoke about the value of having a standard or guideline for protecting values as a minimum or starting point, but they were careful to say that it had to be flexible so as not to inhibit achieving the best protection possible. Efficiency of the area of concern prescription relates to scarcity of the resource and balancing the needs of all stakeholder interest. If the standard area of concern prescription is excessive the value is over-protected and the forest industry loses wood volume from its timber allocation as a result. Therefore tailoring the prescription is important as it helps to maximize the benefit from Crown forest for all interest groups, reducing conflict among stakeholders overall.

Responses to interview question 12 suggest that detailing and tailoring the area of concern prescription has a positive impact on the relationship between stakeholders that extends beyond maximizing the benefit of Crown forest for all interest groups. The theme of equal representation was referenced by 25% of informants in response to this question, more than in any other question, which indicates that the process of detailing and tailoring the area of concern prescription is a collaborative activity that demonstrates and bolsters equal representation. Other themes identified and associated with this activity include the opportunity it provides for education and understanding one another's values, that it demonstrates respect for the relationship and that it has a focus on sustainable access in terms of maximizing

benefit and considering future opportunities. One informant aptly summarized the benefit of tailoring the prescription:

[Tailoring the prescription is] very important of course because every value- when we put an Area of Concern on a value, whether it's a timing restriction or leaving trees on the ground- that affects the forest industry. Even if they have to contact somebody- it's a burden. It's not just about cutting trees. It's about managing the resource. Social values need different prescriptions. Some you can cut right up to [the] site just don't disturb the soil; other ones may need a buffer so you don't disturb the site. Tourism operators have a lot of timing restrictions and physical buffers. Tailoring the prescriptions to the specific value- that's where it's worth spending the time ahead of time instead of just putting a donut around everything.

Tailoring the AOC prescription is about ensuring the right balance of protection so that both industry and value holder are satisfied. Collaborating to tailor the prescription also helps parties gain understanding of one another's interests and fosters mutual respect.

Summary Reports

The LCC reports have two references about the development of area of concern prescriptions to protect the integrity of tourism values; one for snow-machine trails, the other for cottage lakes, which is interesting because neither of these values are classified or specifically managed for in either of the social guides. The theme of area of concern protection only occurs once in the summary of Aboriginal involvement reports, related to protecting an area with wild rice. The data suggests that the input received from Aboriginal communities is issues driven and at a larger scale (e.g. issues related to harvesting rights, right to access) than developing prescriptions for individual values. Another explanation for why this theme is not more prevalent is that the development of area of concern prescriptions to protect the values is the responsibility of the planning team. However, this could be an area of focus for improving collaboration and the working relationship. The forest management unit that has a separate Aboriginal Working Group reports that planning team tasks are sometimes carried over to this forum for completion. Having the LCC and Aboriginal communities or groups participate in the development of area of concern prescription would demonstrate a greater collaborative effort and heighten their understanding.

Adaptive Management

Adaptive management is a principle of Ontario's sustainable forest management policy framework and the final stage or phase of the policy cycle. To adaptively manage requires continual improvement of the forest management program based on analysis of results from monitoring and research. When asked whether the reports (annual reports, compliance reports, and independent forest audit reports) produced for the forest management program could be relied upon as monitoring tools for the effectiveness of the social guides, 54% of informants said somewhat, although limited mostly to the independent forest audits, 30% of informants said no, the reports are not a reliable tool, and 11% said yes, the reports could be relied upon as monitoring tools. No one from the industry group said that the reports were not reliable and two indicated concern for additional reporting requirements.

Interview Transcripts

Interview question 18 asked what the most important topics to report on are with regard to protecting social values. Sixty-two percent of informants said it was important to report on the integrity of tourism values. Factual data on the resource based tourism industry; how well businesses are doing and the variances across the province would provide socio-economic context and promote understanding among stakeholders. Showcasing success stories of resource based tourism businesses, or successful resource stewardship agreements between industry and tourist outfitters, would be helpful to understand what is required for the tourism industry to stay vital. Sixty percent of informants also said that reporting on the integrity of cultural heritage values was important; particularly, the number and type of cultural heritage values on the landscape, and the successes that can be accounted for in protecting them as well as a report on the status of the relationship between Aboriginal groups, the proponent and the ministry. Thirty eight percent of informants said that reporting on monitoring is important, and ten specifically indicated that reporting on the effectiveness of area of concern prescriptions and the effectiveness of the monitoring program itself is important.

When asked how MNRF could find out if the guides are working, analysis and reporting ranked second, next to collaborative outreach, and compliance ranked third. Surveying the value holders themselves for their level of satisfaction with the guides, and data mining the available reports for issues related to the protection of social values were referenced most by informants and these are the common methods applied during mandatory guide reviews. Informants talked about the need for the social guides to have clear objectives on which to base effectiveness assessments, and that there could be local level research in the form of case studies that looks at focused topics associated with

social guide effectiveness. One informant talked about establishing key indicators to assess objective criteria of the social guides as part of a more formal effectiveness monitoring program.

Interview question 15 asked in what process phase of the program additional opportunities for collaboration would be best. Thirty-four percent of informants said additional opportunities for collaboration would be best at the analysis and reporting phase. Of the 34%, 24% discuss collaboration at these phases as being in the manner of a presentation to stakeholders with the opportunity for feedback and input, but the other four see collaboration at the level of policy development, where they would have input into what gets reported and by extension what gets monitored. Reports that had stakeholder design input were thought to be more relevant and readable and therefore more interesting and useful. Two informants mention that compliance reports get shared at the LCC meetings, but they expressed dissatisfaction with these reports, as they are continually reporting 100% operational compliance year over year, since the new compliance monitoring program changes. Aboriginal informants were interviewed by independent forest auditors but that they did not receive the subsequent report nor were they contacted for follow up on the report.

Summary reports

Greater collaboration at the reporting phase, in terms of both being presented the reports and having greater say in what gets reported, provides a new avenue for collaboration and it could also be regarded to change the power relationship. The Aboriginal summary of involvement reports capture a similar change in the power relationship through requests for more harvesting rights and data sharing agreements, or to have representation at the sustainable forest licence board of directors level. There are no records in the LCC reports of reports being presented or shared with the committee.

Literature connection

Result indicators, a category of indicator listed by Bottero and described as a measure that looks at the immediate effects of planned intervention, is the type of indicator aptly suited for consideration when determining indicators for the outcome of protecting the value. Planning to increase the number of planned area of concern prescriptions that are collaboratively detailed and tailored for example could equate to improved understanding and more equitable, efficient land use. Expanding and making the classification system for social values more widely known and measuring its results would be another good example of this type of indicator. The response and state indicators described by Lowe may also be suitable for consideration. Response indicators are similar to result indicators, while state indicators gauge the status of an aspect of a problem. For the outcome of

protecting the value, for example, one could create an indicator to gauge the effectiveness of the social guides through the forest management program's reporting mechanism.

Capacity

An inherent goal of the social guides is to develop capacity to improve the overall business of protecting socio-economic values on Crown lands. In order to successfully collaborate to identify socio-economic values and understand how to protect them, the proponent, ministry and value holder need to understand one another and the context that they are working in. This involves many things, including, but not limited to; the basics of forest management, the program for forest management in Ontario, the geography and its multiple uses, and the attributes of cultural heritage and tourism values. Education, knowledge exchange, research and analysis of how well the direction in the social guides are working, all play an integral part in the success of the social guides and therefore capacity building is an important outcome.

Interview Transcripts

Knowledge exchange, the sharing of knowledge and experience between two or more parties is discussed in the collaboration section of the findings as a way to improve the relationship. Knowledge exchange is also an essential tool for fostering capacity. Knowledge exchange was referenced forty one times through the course of the interviews and the most times in response to question four when asked what the most important outcomes are for the guides. Knowledge exchange has a different focus than education or outreach. The focus is on knowledge that can be offered to the value holder by the ministry or proponent in advance of requesting their values information. In particular Aboriginal communities may not have the existing capacity to understand forest management processes or how to interpret the maps the ministry provides them. It is not enough to conduct outreach to stakeholders, requesting them to provide their values. Knowledge transfer of the forest management processes, the social guides and the map have to be provided in advance and in exchange for values identification. As one informant asserts:

Where it doesn't work though is the internal communications with First Nations themselves. Some of the elders will look at the map and wonder what it represents. The internal communications isn't happening as it could. We need to support the forestry representative of the First Nation on conveying the information to the community. So we work with the communities. I think we need a more universal approach, an academic approach to cultural heritage perhaps in partnership with universities to assist with this. One

particular First Nation was displaced and their values were maybe flooded for example, and so we are asking their forestry representative to gather values from the community and sometimes they don't get a lot of input because the community may not know where their values are. Universities could help them with their story... what's missing for many First Nations is the traditional land use and occupancy studies that never existed. And because of the breakage of linkages with the land due to residential school and other displacements, the First Nations don't remember necessarily where they came from.

The ministry in this sense needs to focus on giving back, to help the Aboriginal communities regain their lost knowledge. To do so requires the approval and initiation of research of this nature, and commitment to forge contractual partnerships with universities or archaeological consultants to identify and verify cultural heritage values data.

Knowledge exchange also involves the ministry and industry proponent learning from the value holders. Recognizing and being open to Aboriginal traditional knowledge, for example, is critical for fostering mutual respect. Aboriginal traditional knowledge is referenced by three informants in response to question two, seven and 12. One informant mentions that Aboriginal involvement in monitoring may convey traditional knowledge that identifies unforeseen impacts. Another informant believes there is a weakness in the planning phase because Aboriginal traditional knowledge is not harnessed.

Interview question ten asks informants how the activities at each of the program phases to protect social values during forest management might benefit society. Interview question twelve asks whether the application of the social guides contributes to society's (individuals, communities) relationship with their environment. These questions were designed to have informants consider the overarching objectives of the social guides. Both of these questions yielded similar results with regard to the theme of capacity. Education, a subtheme of capacity, is referenced second only to the theme of sustainability of access in response to questions ten and eleven. In question ten, legitimacy on the land, a subtheme of sustainability of access which refers to one's sense of right, identity, history, and belonging, is referenced 45% of informants, and future opportunity (also a subtheme of sustainability of access) is referenced by 36% of informants in response to question eleven. These two themes, legitimacy on the land and future opportunity are spoken about as the key themes that can be fostered through education about social values and why they are important, as well as education and knowledge exchange facilitated by the application of the social guides.

Learning about social values, creating an inventory of these values and balancing their protection alongside the maintenance of economically viable forestry and resource based tourism industries is two-thirds of the sustainability pyramid, the third pillar being protection of the environment. Sustainability that includes the social dimension requires continual applied learning and knowledge exchange about social values, their protection, and the socio-economic context. The social guides become learning tools to enable better and informed decisions, foster respect for one another's values and they provide as one informant says, "a process by which to work toward harmonious co-existence". Through the experience of implementation, monitoring the effectiveness of the implementation, and sharing the successes and lessons learned, the knowledge base grows for how to best manage for all Crown forest values.

In terms of target topics for education, it became apparent through the transcripts that the social guides need to be the subject of conversation on a routine basis with LCCs and Aboriginal communities. Few of the Aboriginal and tourism affiliated informants had ever seen the social guides, and several of the district informants admitted to never having applied the social guides during any of the program phases. It was rationalized that the social guides are only guidance documents to be used by planning teams and operational practitioners. Imperative to success in their application, the social guides need to be understood by all involved in the process, including by both the value holder and the receiver of the value data. If the stakeholders do not understand the context of how social values data are collected, classified, controlled and protected, they may not have confidence and trust in the process enough to put forward their values to be inventoried. Improved knowledge of the program yields greater capacity and provides for a more balanced relationship in which to foster trust.

Interview question twenty three asks a subset of the informants (district and industry representatives) how much time is spent educating versus values planning. Sixty five percent said they spent greater than fifty percent of their time educating about forest management and how values protection fit into the process. Thirty five percent of the sixty five percent said that education took up more than seventy five percent of their time. This reinforces that more education is still needed; that forest management is very complex and requires a certain level of understanding before there can be meaningful collaboration in the area of social values protection.

Other subthemes under the theme of education include the importance of teaching our youth about social values. Informants talked about the changing demographic; that it is an older and declining population accessing Crown forest for recreational and cultural purposes. They speak about youth losing their connection with their environment and

their associated cultural identity. Informants that broached this topic, see educating youth about resource scarcity, the concepts of sustainability, and the social values of our forest, as insurance for a future that provides the same opportunities for wilderness experience and cultural cohesion. One informant also mentioned that teaching the older stakeholders is more difficult as they are often stuck in their ways, and rigid in their position about how things should work. Sponsoring youth in forestry ventures and leveraging social media were put forth as methods to be embraced to provide outreach to youth.

Summary Reports

The LCC involvement reports show a disparity between the opportunities for education and overall participation or uptake. Between all five select management areas, education was referenced forty three times, but participation only fourteen times. Knowledge exchange was referenced only four times in the reports, signifying that perhaps more of this type of capacity building may improve overall participation. In the transcripts, informants talk about the complexity of the forest management program and the reports reveal that four out of five management areas offered general forest management planning training opportunities and half of these were poorly attended. Poor attendance is attributed to poor timing or lack of time, or that they had previously attended the training. From the reports it is apparent that when there is a variety of training opportunities in different targeted subject areas and at different phases of the program (e.g. in one management unit there were field trips to look at water crossing, and individual LCC members were invited to participate in FSC audits or controlled burns), that there is greater success in participation, and overall success in collaboration.

The Summary of Aboriginal Involvement reports do not have a requirement to report on the number of training opportunities and this is probably the primary reason that there is no reference to education. There are two references to knowledge exchange; one is a suggestion by MNRF for a data sharing agreement between an industry proponent and an Aboriginal community, the other a request by a community to be a member of the board for the sustainable licence. Providing and fostering education and providing knowledge exchange opportunities to Aboriginal communities is an important factor for the effectiveness of the social guides. Targeted and meaningful engagement that builds upon current capacity, and that recognizes the importance of equity and legitimacy is what is needed but time and funding constraints are identified as the key challenges.

Literature Connection

The Pan-European Forest Process has descriptive indicators involving capacity for both resource based tourism and for culture heritage. Both indicators involve the existence and capacity of institutional frameworks; for tourism it is to have the capacity of an institutional

framework to plan and assess recreational services on forestry, and for cultural heritage it is to have the capacity to maintain programmes to conserve culturally valuable sites and landscapes. For both of these frameworks a government led focus is assumed but it does not preclude the involvement and input of value holders. The Pan-European Forest Process also includes descriptive indicators for the existence of economic policy framework and financial instruments to support forestry constituencies to conserve social values and to provide financial incentives for the acknowledgement of social values in forest management planning. Response and state indicators described by Lowe would be well-suited for indicators of capacity.

Summary of Findings

Thematic analysis of the interview transcripts resulted in the identification of 7 criteria and twenty four themes. The twenty four themes were referenced 1465 times throughout the transcripts derived from the 44 interview informants. The top three criteria in order were area of concern protection, collaboration, and sustainability of access. Document analysis of The *Local Citizen Committee Reports* (LCC Reports) and the *Summary of Aboriginal Involvement* (Aboriginal Involvement Reports) supported the evidence of the transcripts, with two similar top two criteria; collaboration ranked first, sustainability of access second and capacity ranked third.

Emanating out of each outcome were the prominent criteria and within each criterion significant themes emerged. With regards to access, almost half of informants perceive roads and road use as integrally connected to the subject of protecting social values. Roads are connected to land use planning and land use planning is by extension connected to the needs and interests of stakeholders on Crown lands. Balancing the needs and interests of stakeholders enters into the realm of equitable representation and stakeholders' convictions as to their rights and established privilege described as one's sense of their legitimacy to use Crown forests. Sustaining access to Crown forest for stakeholder use now and into the future were identified as key outcomes and objectives of the social guides.

Collaboration was identified as an overarching outcome as well as a preeminent criterion, from which themes emerged including outreach, participation, equal representation and the resulting relationship, a relationship of trust and respect, that is essential for effective application of the social guides. Participation was identified as being largely dependent on the type and quality of outreach. Outreach that is timely and strategic, and that uses different media formats for example, are more successful. Equal representation on committees and planning teams as well as with regard to the social values classification

and ensuring that the guides classify all social values inclusively are important elements for demonstrating and ensuring equity in the planning undertaken to protect social values during forest management.

Protecting the value is the most significant outcome identified for the social guides, and the largest in terms of the number of criteria associated with it. Protecting the value involves both the information management of the values data in terms of how it is collected, stored and shared, the protective prescriptions that are developed to protect the value, along with the implementation, monitoring and reporting of such prescriptions. Third is the adaptive management component of protecting the value which pertains to the analyses of the information received from the monitoring and reporting to make improvements at the time of the next forest management plan cycle for a forest management unit.

Capacity is a key outcome of the social guides. Building upon the existing knowledge base, both in terms of stakeholder understanding to improve their ability to participate, as well as the collective knowledge base to improve upon our understanding of social values, why they are important and how to best protect them, is essential to the effectiveness of the social guides. Knowledge exchange was an emerging theme that was described as a means to build equity and improve the relationship.

The findings reveal that the emergent themes for each of the outcomes are complexly intertwined. This chapter highlights the significant findings and the associated correlations between themes in preparation of the final chapter that synthesizes the findings for the development of a criteria and indicator framework to evaluate the effectiveness of the social guides.

7. RECOMMENDATIONS

This chapter provides a synthesis of the findings into a compilation of recommended criteria and indicators to define the framework of the monitoring tool for evaluating the effectiveness of the social guides. Criteria and indicators will be outlined according to each of the four established outcomes: access, collaboration, protecting the value, and capacity. Each of the indicators proposed are also categorized as either prescriptive (process) indicators or as evaluative (outcome) indicators.

Table 1 presents the framework of criteria and indicators as a draft product for evaluating the effectiveness of the social guides.

Criterion and Indicators for Access

A criterion that supports sustainability of access and legitimacy of access to social values in Crown forests is a category on roads planning for forest management. Specifically, that the social guides are applied during roads planning, that roads scheduled in the forest management plan have considered all social values equitably, and plans for future road use demonstrates consideration of stakeholder legitimacy.

Recommendation 1.

A prescriptive indicator is recommended to assess the degree to which the road use plan has considered legitimacy of value holders to access or protect their social values.

Recognizing a stakeholder group's legitimacy to access or to restrict access to a particular geography of Crown forest because of their social values and reconciling their needs against others with legitimate social values through careful planning for road construction is centrally important to the relationship and to future opportunity to access an area for its social value. Key to satisfying this indicator will be to scan for who is using the Crown land area in question in advance, including how new roads in the area may affect tourism operators in adjacent areas and whether these new roads abut with other existing roads.

Determining legitimacy and how a stakeholder's legitimacy influences the planning decisions may be the greatest challenge ahead regarding the outcome of sustaining access to Crown forest. Aboriginal, treaty, and Métis rights, along with credibly asserted or established Aboriginal title and what legally constitutes the rights and entitlement will need to be carefully considered during road planning.

Recommendation 2.

A prescriptive indicator for the roads planning criterion is how well historic trails, portage routes, and colonization roads have been researched, mapped, and relayed to the public

and potential stakeholders for consideration in the forest management plan. If the ministry and proponent demonstrate knowledge and a willingness to exchange knowledge about historical access and a desire to protect these values, it will improve the collaborative relationship, building both trust and providing incentive to participate in forest management planning outreach sessions.

Recommendation 3.

An evaluative indicator for how well the social guides are applied to roads planning for forest management is to assess the successful institution of access controls to protect the social value. This indicator will require inputs at all program phases, from planning to reporting. Access controls will require strategic planning and alternative methods, and monitoring will have to be sufficient and consider effectiveness in addition to operational compliance monitoring.

Criterion and Indicators for Collaboration

The overarching criterion for the outcome of collaboration is to have meaningful stakeholder participation in forest management processes focused on social values protection that fosters a relationship of trust, mutual respect and cooperation. There are several key elements to make stakeholder participation more meaningful, and these key elements can be reflected as indicators.

Recommendation 4.

A prescriptive indicator related to collaborative outreach assessing whether values information collection was timely, respectful and sufficient to support adequate engagement. For it to be timely it needs to occur in advance of the planning stage and not be rushed, and updates to the values map need to be made on a continual basis, as they are received. To be respectful, collaborative outreach for values collection is best made in person, and the values receiver needs to actively listen and be responsive to input.

Recommendation 5.

A prescriptive indicator is whether there is equal representation on the committees designed for collaboration, namely the Local Citizen Committee (LCC), and if additional effort is made to attain Aboriginal representation and/or establish a separate Aboriginal working group. Equal representation is necessary in order to demonstrate respect to all stakeholders and consideration for all social values.

Recommendation 6.

A prescriptive indicator is whether committee members actively participate and liaise with their stakeholder group regarding social values information. It is not sufficient to just be a member of the LCC; LCC members need to be present and engaged at meetings and actively report back to their constituent groups providing information and receiving input.

To improve the representation and functionality of LCCs, it is recommended that the terms of reference for these committees be reviewed and updated, and that monitoring occur to evaluate the effectiveness of the committee against its terms of reference.

Recommendation 7.

A prescriptive indicator to assess whether collaboration occurred across all phases of the forest management program is recommended. Greater balance of collaboration across program processes and better continuity of engagement will maintain and nurture positive relationships. Monitoring was identified as an area of considerable interest to stakeholders and this could be a possible starting point for expanding collaborative opportunities across the program phases.

Recommendation 8.

A prescriptive indicator that measures the degree to which the ministry recognizes marginalized values plans for their protection by adopting guidelines in the social guides. Effective collaboration requires accommodations when stakeholder input does not fit to within the parameters of the social guides. Good examples include non-historical recreational trails or current use medicinal plant gathering areas.

Recommendation 9.

An evaluative indicator for the collaboration outcome is the degree to which MNRF and industry are satisfactorily responsive to stakeholder participation and input. Satisfaction surveys or scorecards could be established to gauge stakeholder and interest group satisfaction on how responsive ministry and industry have been to value holder input. This evaluative indicator could be expanded to evaluate the overarching criterion established for the collaboration outcome as well.

Criterion and Indicators for Protecting the Social Value

Protection of the social value is an outcome that has three key categories as outlined in chapter five and these are: values information management, area of concern prescription and adaptive management. These categories translate into the three criteria established for this outcome.

The first criterion is to have an effective values information management system.

Recommendation 10.

A two-pronged prescriptive indicator that assesses whether data controllership is collaboratively established and how well social values data are mapped using Geographic Information System (GIS) technology is recommended.

GIS technology offers the highest standard of accuracy for locating values on the ground and as such, a central GIS database for social values is considered the most effective. Establishing collaboratively who will control and administer the data to this standard needs to be established and revisited year over year, to demonstrate respect, and to support capacity building for those Aboriginal communities who may desire controllership but who do not yet have the capacity required to be data controller of their own values data.

Recommendation 11.

A prescriptive indicator of an effective values information management system is whether data sharing agreements have been formalized for data security and whether data sensitivity training is offered to ensure awareness of the data sharing agreement and the requirement for confidentiality. Establishing a data sharing agreement will formalize the commitment to keep sensitive data confidential and, in turn, Aboriginal individuals and communities will be less fearful that their information will make it out into the public sphere.

Recommendation 12.

A prescriptive indicator of an effective values information management system is that the social values data be given consistent identifiers in the information database according to how these values are classified in the social guides and that their location and existence be verified. Classifying the types of social values data (e.g. the distinction between an archaeological site, historical Aboriginal value, or cultural heritage landscape) will facilitate communication and understanding about what constitutes a cultural heritage value and resource based tourism value, and assist with management and data sharing.

Verification of social values on the ground is an important factor in effective land use planning. Verification of the value and knowing accurately the geography the value occupies is essential to understanding overlapping values, and potential conflicts from multiple uses. It is therefore an essential element for successful planning for the protection of identified social values.

The second criterion identified for the outcome of protecting the value is that area of concern prescriptions to protect social values be efficient and effective.

Recommendation 13.

A prescriptive indicator for this criterion is that area of concern prescriptions to protect social values are collaboratively developed and that the prescriptions are detailed and tailored to maximize benefit and minimize impact. Informants indicate that a minimum standardized buffer or prescription is ideal provided there is flexibility to tailor the prescription further to reach optimal performance. Tailoring the area of concern prescription collaboratively helps to ensure that everyone has a clear understanding of the prescription and how the area of concern prescription will be measured during monitoring. Collaboratively tailoring the area of concern prescription also demonstrates good faith and commitment toward balancing interests on the land base.

Recommendation 14.

An evaluative indicator for this criterion is that there are few instances of issues being reported related to social values protection from monitoring mechanisms. Where policy could be improved to enhance the relevance of the reports from ministry monitoring mechanisms, there are opportunities to review current information for evidence of the effectiveness of the area of concern prescriptions for social values protection. Forest operations compliance inspection reports and independent forest audit recommendations currently offer the best opportunity for such information.

The final criterion under the outcome of protecting the value is that adaptive management is being undertaken to continually improve the quality of social values protection.

Recommendation 15.

A prescriptive indicator is evidence of change(s) being made to process activities in response to requests by value holders and committee members or as a result of reports generated from monitoring mechanisms. This indicator is a state indicator of the level and quality of responsiveness provided by the ministry or industry proponent.

Criterion and Indicators for Capacity

A criterion for the outcome of improving capacity is for stakeholders, proponents, and the ministry to advance their collective knowledge about social values and how to protect social values in Crown forests.

Recommendation 16.

An evaluative indicator is that education provided to Local Citizen Committees and Aboriginal communities is meaningful and that it builds upon the existing level of knowledge. Referencing and learning about the social guides on a regular basis and presenting the report findings from compliance inspections and independent audit reports is recommended. Reports and synopses including; the successes and failures of area of concern prescriptions, summaries of the number and type of social values that are on the landscape, reports on satisfaction ratings of Aboriginal groups and stakeholders with regard to how their values were protected, and the socio-economic context geographically in terms of resource scarcity and stakeholder pressures are examples for consideration.

Recommendation 17.

An evaluative indicator is that research and environmental scans contribute to the knowledge of social values and social values protection in forest management units. Conducting historical research on traditional land use of an area to identify historical colonization roads, trails, portage routes and earlier settlements, compiling this information and presenting it to stakeholders during early collaborative outreach sessions is one way of contributing to the knowledge of potential areas of social and cultural significance. Environmental scans to include analysis of who is on the land base, what their interests are, and understanding the socio-economic context also provides knowledge of social values. Research that focusses on the effectiveness of area of concern protection measures would also contribute to the accuracy of the knowledge about social values, by proving or refuting what is deemed to be adequate measures to protect the integrity of the value.

Recommendation 18.

A prescriptive indicator is that knowledge exchange occurs routinely between the ministry, proponent and stakeholders regarding social values and how to protect them in forest management. Knowledge exchange that starts with the ministry providing historical information about the land base as well as social values data to value holders may assist with liaison efforts to work with the Aboriginal forestry representatives for further

knowledge transfer and collaboration about the forest management program, and about social values protection in the context of forest management.

Summary

The recommended six criteria, with 14 associated prescriptive indicators and four associated evaluative indicators provided in Table 1 below, are not exhaustive of the research findings. Rather, the research and recommended criteria and indicators form the baseline for effectiveness of the social guides. The next step to realize the potential of the proposed monitoring tool is to pilot test the criteria and indicator framework, and to develop specified measures for the indicators during the pilot. If the pilot identifies issues or weaknesses in the recommended criteria and indicators, the research findings and interview transcripts can be referenced again for improvements in order to finalize the monitoring tool.

OUTCOME	CRITERIA	INDICATORS
Access	1.0 Roads scheduled in the forest management plan consider all social values equitably, and future road use considers stakeholder legitimacy.	<p>Indicator 1.1 Legitimacy of access is considered and reflected in a road use plan that considers all stakeholder values.</p> <p>Indicator 1.2 Historic trails, portage routes and colonization roads are researched and considered in the forest management plan.</p> <p>Indicator 1.3 Access controls to protect a social value are effective.</p>
Collaboration	2.0 Meaningful stakeholder participation in forest management focused on social values protection that fosters a relationship of trust and cooperation.	<p>Indicator 2.1 Outreach for values information is timely, respectful, strategic, and sufficient to support adequate engagement.</p> <p>Indicator 2.2 There is equal representation on Local Citizen Committees and additional effort is made to attain Aboriginal representation.</p> <p>Indicator 2.3 Committee members actively participate and liaise with their stakeholder group regarding social values information.</p> <p>Indicator 2.4 Collaboration on social values protection occurs across all phases of the forest management process, including at planning, implementation,</p>

OUTCOME	CRITERIA	INDICATORS
		<p>monitoring and reporting.</p> <p>Indicator 2.5 Values that are not included in current guide classification (e.g. recreational values, medicinal plant values) are recognized and protected.</p> <p>Indicator 2.6 MNRF and industry are satisfactorily responsive to stakeholder participation and input.</p>
Protect the Value	3.0 An effective values information management system.	<p>Indicator 3.1 Data controllership is collaboratively established, and social values are mapped using GIS technology.</p> <p>Indicator 3.2 Data sharing agreements have been established with procedures on how sensitive data will be managed.</p> <p>Indicator 3.3 Social values in the information database are classed according to the guide and have been verified.</p>
	3.1 Area of concern prescriptions to protect social values are efficient and effective.	<p>Indicator 3.1.1 Area of concern prescriptions to protect social values are collaboratively developed, and detailed and tailored to maximize benefit and minimize impact.</p> <p>Indicator 3.1.2 Monitoring mechanisms (e.g., audits, compliance inspections) are not reporting issues related to social values.</p>
	3.2 Adaptive management is being undertaken to continually improve the quality of social values protection in forest management.	Indicator 3.2.1 There is evidence of change(s) being made to the process activities of forest management in response to requests by stakeholders or reports from monitoring mechanisms.
Capacity	4.0 Stakeholders, proponents and the ministry are advancing their collective knowledge about social values and how to protect social values in the Crown	<p>Indicator 4.1 Education provided to LCCs and Aboriginal communities is meaningful, relevant and builds upon existing level of knowledge.</p> <p>Indicator 4.2 Research and environmental scans contribute to the knowledge of social values in forest management units.</p>

OUTCOME	CRITERIA	INDICATORS
	forest.	Indicator 4.3 Knowledge and exchange occurs routinely between the ministry, proponent and stakeholders regarding social values and how to protect them in forest management.

Table 1 Draft Criteria and Indicator Monitoring Tool for the Social Guides

8. CONCLUSION

This report was completed for the Ministry of Natural Resources and Forestry to determine the factors affecting successful implementation of the forest management social guides and to make recommendations on criteria and indicators to measure their effectiveness. To achieve these objectives, a review of literature from Canada as well as other jurisdictions was completed to identify relevant outcomes for the social guides and identify smart practices for criteria and indicators. Interviews were conducted with participants who had knowledge and experience in Ontario's forest management program. Interview participants included district foresters and Aboriginal liaisons, forest industry plan authors, Aboriginal community representatives, resource based tourism operators, policy experts, archaeologists, and science experts from across the province. Document analysis of forest management consultation summary reports was conducted to provide supplementary evidence to the interview findings.

The research findings in this report identify factors in the planning, implementation, monitoring, reporting, and adaptive management phases of Ontario's forest management program that affect the successful implementation of the social guides. The project recommends six criteria and 18 indicators that form a draft monitoring tool to evaluate the effectiveness of the social guides. Criteria and indicators are related to the established outcomes for the guides that include: access, collaboration, protecting the value, and capacity.

The report recommends that outreach and collaborative activities in forest management planning strive to establish and maintain a relationship of trust between the ministry, industry proponents, stakeholders and Aboriginal communities. Forest management planning activities that involve decisions on land use and access to Crown forest (i.e. road use planning) need to be collaborative, achieve equal representation, and demonstrate recognition of stakeholder legitimacy on the land base. The report also recommends that values information management be sophisticated, including such elements as consensual data controllership and data sharing agreements. It is also advised that the protection of social values be collaboratively tailored, and thereafter implemented, monitored and reported on in a manner that keeps the value holder informed and aware of the process and outcome. Capacity building is essential for ongoing adaptive management and therefore the report also recommends committed and continual knowledge exchange about social values protection in public forests between value holders, the forest industry and government.

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Appendix 1 Interview Questionnaire

Core questions asked of all informants

1. Can you tell me about your background and experience with forest management, particularly as it relates to the protection of social values?
2. Can you rank the four phases of the forest management program – Outreach, Planning, Implementation, Monitoring and Reporting, in terms of their relative importance to the protection of social values? Are there other important phases that should be considered?
3. What do you expect to see as a result of successful application of the social guides?
4. How are social values data best collected and managed for the purposes of protecting these values during forest management?
5. How important is it that social values maps be produced for a management area and why?
6. How important is it that social values data be continually updated and how frequently should updates occur?
7. Could you tell me about the strengths and weaknesses of social values protection in relation to the program phases- Outreach, Planning, Implementation, Monitoring and Reporting?
8. To what degree (if any), is road use tied to social values protection and why?
9. At what program phase and how can MNRF best focus its efforts to balance conflicting interests between road use and protection of social values?
10. How might the activities at outreach, planning, implementation, monitoring and reporting (related to the social guides), provide benefit to society?
11. How important is it that the social guides contribute to society's relationship with the environment and why?
12. How important is it, in your opinion, to detail and tailor the area of concern prescriptions to the site value?

13. What could MNRF do to find out if the Guides are working?
14. What program phase (outreach, planning, implementing, reporting, monitoring) currently provides the best opportunity for collaboration on delivery of the direction in the social guides?
15. In what phase would additional opportunities for collaboration be most beneficial?
16. When conditions are placed on road use to protect social values, how could monitoring best be carried out to ensure these conditions are successful?
17. What are the most important items/topics to report on regarding the application of the social guides?
18. MNR and industry complete compliance reports, annual reports and independent audit reports. How much can we rely on the reports to indicate the success of the socio-economic guides?
19. Do you think collaborative opportunities that involve field activities are important to the successful application of the social guides and if yes, during which phases – planning, implementation, monitoring or reporting would it be most valuable?

Additional Questions

District/Industry

The MNR identifies Archaeological Potential data via the Heritage Assessment Tool and refines this data manually. How important is it, in your opinion, to report on and monitor this system and how best could this be accomplished?

What do you think is critical to the success of outreach with First Nations and stakeholders?

During your outreach, how much of the time would you describe as education versus actual focused values planning?

b. Are discussions more valuable when they are planned group discussions or are discussions with individuals more valuable and why?

What types of activities have the greatest success in terms of getting First Nations and stakeholders engaged and interested in forest management planning?

Aboriginals

How important are the planning activities (open houses, letters of invite, planning team and Local citizen committees) in terms of outreach and collaboration with First Nation communities to identify and protect social values?

- b. Can you give me one or two examples for how these activities might be improved or changed?

The Forest Management Guide for Cultural Heritage Values has five classes of cultural heritage values, one being Historical Aboriginal Values. What are the qualities that make a place or thing a Historical Aboriginal Value?

What kinds of public outreach activities, information products are you aware of that pertain either directly or indirectly to the protection of social values?

Policy Experts

What is most crucial to the successful implementation of the social guides?

How do you define guide effectiveness?

How can we best measure the effectiveness of the planning activities to identify social values on Crown land?

Tourism Experts

The Management Guidelines for Forestry and Resource-Based Tourism identifies 7 key values including natural aesthetics, remoteness, perception of wilderness, sustainability of fish, game and wilderness opportunities, and maintaining Ontario's reputation as a world class wilderness destination. If you had to pick, which would you say are the two most important and why; or, are there other values not listed here that are more important?

The Management Guidelines for Forestry and Resource-Based Tourism relies on tools and tips which provide a large degree of flexibility, and depend on a collaborative approach to identify, delineate, and develop protective measures for the forest management plan. How well is this approach working in your opinion and why? Are RSAs a beneficial outcome of the Tourism guide?

Cultural Heritage Experts

Direction in the Cultural Heritage guide is organized by standards, guidelines and best practices in a stepped management approach. How well is this system working to protect cultural heritage values and why?

What are the most important activities in the process of identifying and confirming cultural heritage values on Crown land?

The MNR identifies Archaeological Potential data via the Heritage Assessment Tool and refines this data manually. How important is it to report on and monitor this system and how best could this be accomplished?

Appendix 2 Thematic Analysis Codebook

Access

- Legitimacy on the Landbase
KEYWORDS: HISTORY, FUTURE, IDENTITY, FOOTPRINT, TRADITIONAL_USE, TERRITORY, LEGITIMATE, OWNERSHIP, TREATY, INTEREST, LICENCE, TITLE*, ABORIGINAL_RIGHT, AUTHORITY, , INTEREST, ABORIGINAL_TITLE, HAVE_THE_RIGHT, GIVEN_RIGHT, DOMINION*

Sustainability

- Benefit
KEYWORDS: FUND, BENEFIT*, EMPLOY*, CONTRACT, SUPPORT, ABILITY, CONFIDENT*, SUCCESS, INCENTIVE, ACCESS*, ECONOMIC, FINANCE, COST*
- Future Opportunity
KEYWORDS: OPPORTUNITY, ENJOY, SUSTAIN*, INTEGRITY, FUTURE, GENERATION*, MAINTAIN, NEW_TECHNOLOGY, BALANCE, SCARCITY, SOCIO-ECOLOGICAL_CONTEXT, AFFILIATION, ASSOCIATION, DISSOCIATION, DEMOGRAPHIC, WAY_OF_LIFE, PERPETUATE*, THROUGH_TIME*
- Land Use Planning
KEYWORDS: DELINEATE, RESTRICT, DESIGNATE, USE_PATTERN, PROTECTED_AREA, ROAD, TRAIL, ATV, ALL_TERRAIN_VEHICLE, SCAN, DECOMMISSION, MOSAIC, IN_OR_ADJACENT, SIGN, CLOSURE, STRIKE_THE_BALANCE*

Adaptive Management

- Analysis
KEYWORDS: MITIGATE, ASSESS*, IMPROVE, ADAPT, EVALUATE, REVIEW, AGAINST_OBJECTIVES, ANALYSE*, RESEARCH, STUDY,*
- Reporting
KEYWORDS: FEEDBACK, ANNUAL_REPORT, COMPLIANCE_REPORT, PUBLISH, DISEMINATE, INDEPENDENT_FOREST_AUDIT, STATE_OF_FOREST_REPORT, REPORT_ON_THE_VALUES, TRACK, SUMMARIZE, ROLL_UP

AOC Prescription

- Implement AOC
KEYWORDS: FULFILL, FLEXIBLE*, OPERATE*,*

SKILL, REASONABLE, FOLLOW_THROUGH, INFORM, OPERATIONAL_PROTOCOL, IN_FIELD, CARRY*_OUT, INSTITUTE, COMPLETE, ANNUAL_WORK_SCHEDULE*

- Integrity of Cultural Heritage Values
KEYWORDS: , ARCHAEOLOGICAL_DIGS, PILFER, LOST, SACRED, STOLEN, VIOLATE*, BURIAL_SITE*
- Integrity of Tourism Values
KEYWORDS: RSA, RESOURCE_STEWARDSHIP_AGREEMENT, REFORESTATION, RENEWAL, WINTER_HARVEST, WINDTHROW, DECOMMISSION, GROSS_INCOME, CLIENT, CUSTOMER, SALES, CLEARCUT, REMOTENESS, WILDERNESS, WINTER_CUT, VIABILITY, PROFIT, BROAD_SCALE
- Monitor AOC
KEYWORDS: ASSESS, MEASURE, MONITOR, INSPECT, CHECK, TEST*, TARGET, EFFECTIVENESS, OBJECTIVE*, ADEQUATE*, ENFORCE, DETECT*, SURVEILLANCE, REMOTE-SENSING, CAMERA, SPY, TECHNOLOGY*
- Plan AOC
KEYWORDS: SCOPE, PRESCRIPTION, STANDARD, GUIDELINE, BEST_PRACTICE, PROTECTION_MEASURE, PROTECTION, AREA_OF_CONCERN, PROTECT**

Capacity

- Education
KEYWORDS: KNOWLEDGE, INFORMATION, CONVEY, TEACH, UNDERSTAND, EXPLAIN, STRUCTURE, PROCESS, ADVISE, TRANSFER, LEARN*
- Knowledge Exchange
KEYWORDS: INTERDISCIPLINARY, AWARENESS, CHANGE_BEHAVIOUR, LEARN, DIVERSIFY, RECOGNIZE, GRASP, CONTINUAL_LEARNING, RESEARCH, GIVE, GIVE_BACK, RECIPROCAT, CULTURAL_AWARENESS, STUDY, ABOUT_THE_VALUE, INTEGRATION, TRADITIONAL_KNOWLEDGE, EXPERT,*

Collaboration

- Equal Representation
KEYWORDS: WELCOME, EQUAL*, EQUITY*, TOKEN*, POWER, RECREATIONAL, ENDORSE*, COMMUNITY*, BALANCED_CONSULT, REPRESENT*, STACK*, EXPECTATION, IMPARTIAL, BIAS*, FOCUS, RATIONALE,*

BALANCED_INTERESTS, MARGINAL

● Outreach

KEYWORDS: OUTREACH, COMMUNICATE, ENCOURAGE, NURTURE, ENGAGE, MOTIVATE, RESPOND*, PROACTIVE, ADVERTISE, DEMONSTRATE, INITIATE*, MEDIA, BROADCAST, SHOWCASE, FACE_TO_FACE*

● Participation

KEYWORDS: INVOLVE, PARTICIPATE*, COLLABORATE*, APATHY*, TEAM*, COMMITTEE*, STEWARD*, COMPLACENCY, RELY_ON_STAKEHOLDERS, ENGAGED, WORKING_TOGETHER, GROUP, MEET*

Relationship

◆ Respect

KEYWORDS: ACCOMODATE, RESPECT*, RESOLVE*, POSITION*, INTEREST*, ACKNOWLEDGE*, NEGOTIATE*, COOPERATE*, CONFLICT*, ADDRESS*, POSITION*, DISPUTE*, ISSUE*, MEANINGFUL_CONSULTATION, RECONCILE*

◆ Trust

KEYWORDS: PARTNER, CONTINUE*, TRUST*, MUTUAL*, FEAR*, INTIMIDATE*, RESIST*, INTEGRITY*, HONOUR*, HONEST*, COMMIT*, CONSISTENT*, CONFIDENCE, SATISFY, HAPPY, PLEASED, CONFIDENT, EXPECTATION*

Values Information

Data Collection

● Collection Management

KEYWORDS: COLLECT, VERIFY*, CONFIRM*, UPDATE, CLASSIFY*, RESOURCES_TO_COLLECT, DE-VALUE*

● Cultural Heritage

KEYWORDS: CULTURE, CULTURAL*, COLONIAL*, MEDICINE*, ABORIGINAL, MAPLE_SYRUP, MIDEWIN, HERITAGE*, ARCHAEOLOGICAL, SPIRITUAL, MARGINAL, LAND_CLAIM, APA, ARCHAEOLOGICAL_POTENTIAL_AREA, HERITAGE_ASSESSMENT_TOOL, INTRINSIC, INTANGIBLE, PETROGLYPH, OLD_LOGGING_CAMPS*

◆ Tourism Values

KEYWORDS: BUSINESS, TOURIST, TOURISM, REMOTE, SEMI-REMOTE, DRIVE-TO, VIEW*, FISH, GAME, HABITAT,*

LICENCE, AESTHETIC, AUDIBLE*

● Values Map

KEYWORDS: MAP, PLOT, IDENTIFY, ESTABLISH, SPATIAL, POINT, POLYGON, OVERLAPPING, GIS, GEOGRAPHIC_, LOCATE, LIVING_DOCUMENT, EVERY_FIVE_YEARS, ANNUAL*, BIENNIAL, AMPLE_TIME, BEFORE_PLAN, ADVANCE, CONTINUAL*

◆ Data Controllershship

KEYWORDS: STORE, RECORD, RESPONSIBILITY, DISTRIBUTE, SHARE*, PROTOCOL, AGREEMENT, CENTRAL*, HOUSED, CUSTODIAN, ADMINSTRATE*, DATABASE*

◆ Data Security

KEYWORDS: SECURE, CONFIDENTIAL, SECRET*, FIPPA, PRIVATE, PUBLIC, , RIGHTS, INTELLECTUAL_RIGHTS, PROTECT_THE_INFORMATION, PROTECT_THE_DATA, VULNERABLE, SENSITIVE, DATA_OWN**

Appendix 3 Record Rosters for Local Citizen Committee and Aboriginal Community Involvement Reports

RECORD ROSTER OF LOCAL CITIZEN COMMITTEE INVOLVEMENT							
MU	Representation	Summary of training opportunities and recommendations for improvements	Participation in the development of values maps, values collection, and protection	Participation in public consultation	Evidence that AOC prescriptions for social values were developed collaboratively	Notes	Codebook Themes
NW (1)	General Public (2) Tourism (2) Logging Industry (1) Aboriginal Community (1)	<p>Training</p> <p>Self-directed FMP training orientation & CD</p> <p>Presentation on new FMPM and the changing roles of LCCs & the issue resolution process</p> <p>Formal FMP training was available</p> <p>A week long FEC course was also available</p> <p>Recommendations</p> <p>There is mention of lack of participation however no remedy is offered.</p> <p>Other recommendations are surrounding the structure of the LCC and pointing out bias and representative issues. It is brought up that perhaps structures that fit larger areas do not suit a smaller community.</p> <p>Also conflicts of interest are suggested in terms</p>	<p>Bowater Plan Author attended Oct meeting to update LCC on progress and inform on sources of direction and background information; - November meeting the LCAC was requested to review and provide input (collaboration)</p> <p>February meeting LCAC members actively reviewed the values map as a group and asked to contribute new info regarding cultural heritage sites and trap cabins; (shared values and effective follow through of communication)</p> <p>March meeting involved a presentation by the Lac Des Milles First Nations on their current value mapping project (involvement, representation, education), they also have provided the MNR with a map of their sites because of trusted data sharing agreements³</p>	<p>LCAC were aware of the 'Invitation to Participate' mail out; - not involved in any other public efforts; -have agreed to assist the planning team in finding a method to reach public concerning various planning stages and agreed upon a radio ad for their information centers</p>	<p>Under Desired forest and benefits meetings notes; an exercise was introduced by MNR to show LCAC how they would collaborate in the future to FMPs by providing suggestions and feedback.</p> <p>Further, planning team was cited having sought out LCAC input at a stage in the process to refine objectives. Specifically (p.7), the LCAC and planning team representatives were cited to working together to develop and revise the Tourism Objective B3 (social value).</p>	<p>One LCC member attended. Due to the lacking of presence of committed LCAC member the planning team has minimal participation in FMP training</p> <p>No LCAC members participated in the week long FEC Course</p> <p>The Lac Des Milles group are the first to deliver such a map to a planning team, represents progress and a growing trust in relationship.</p> <p>Other Notes Values expressed by LCCs in English River were the economic role of the FMP, continually citing concern for recent closures and the effects on the community. This socio-economic concern was reported to be out of the scope for FMP.</p> <p>Access concerns were mentioned and disfavoured of aerial spraying, harvesting near highways, and near shorelines.</p>	<p>CA-EDU (4) COLL-PART (4) COLL-EQREP (bias) VALINFO-COLL (2) VALINFO-CONTROL AOC/PINT-TOUR RELTRUST ACCESS-BEN ACCESS-FUTOP</p>
NW (2a)	General Public (2) Armstrong Resources Development (2) Trapper/Hunter (1) Eco/Tourism (2) Business Community (1) Community of Collins (1) First Nations (1) Ontario Power Generation (1) Landore Resources Canada (1)	<p>Training</p> <p>Opportunity for a presentation to the committee about forest management planning was offered-but declined 2.</p> <p>Data sensitivity training was provided at a meeting.</p>	<p>Copies of values maps were presented at the LCC meeting and left for review</p> <p>Maps were provided to LCC at each phase of planning</p> <p>Planning team made note of how they addressed LCC concerns</p> <p>A copy of the Long Term Management Direction summary documents was left in a building available for public review</p>	<p>Information centre in stage 3 of the planning process which was hosted in part by LCC members and the LCC planning team rep.</p> <p>Stage 4 information centre³</p>	<p>Mentions MNR and plan authors level of participation in clarifying and explaining FMP processes and long term direction</p> <p>Routine reporting was mentioned to occur during meetings around work schedules to accommodate participation</p>	<p>It was mentioned that LCC members were brought updates of the planning team meetings as well as minute updates on specified occasions</p> <p>Zoffer was declined because 'most' members of the LCC had already been involved in earlier FMP's</p> <p>3a review of the FMP draft</p>	<p>COLL-OUT (x2) VALINFO-SECURE CAP-EDU (x3) VALINFO-MAP</p>

NW (2a)	<p>General Public (2) Armstrong Resources Development (2) Trapper/Hunter (1) Eco/Tourism (2) Business Community (1) Community of Collins (1) First Nations (1) Ontario Power Generation (1) Landore Resources Canada (1)</p>	<p>Training</p> <p>Opportunity for a presentation to the committee about forest management planning was offered-but declined 2.</p> <p>Data sensitivity training was provided at a meeting.</p>	<p>Copies of values maps were presented at the LCC meeting and left for review</p> <p>Maps were provided to LCC at each phase of planning</p> <p>Planning team made note of how they addressed LCC concerns</p> <p>A copy of the Long Term Management Direction summary documents was left in a building available for public review</p>	<p>Information centre in stage 3 of the planning process which was hosted in part by LCC members and the LCC planning team rep.</p> <p>Stage 4 information centre3</p>	<p>Mentions MNR and plan authors level of participation in clarifying and explaining FMP processes and long term direction</p> <p>Routine reporting was mentioned to occur during meetings around work schedules to accommodate participation</p>	<p>It was mentioned that LCC members were brought updates of the planning team meetings as well as minute updates on specified occasions</p> <p>2offer was declined because 'most' members of the LCC had already been involved in earlier FMP's</p> <p>3a review of the FMP draft</p>	<p>COLL-OUT (x2) VALINFO-SECURE CAP-EDU (x3) VALINFO-MAP</p>
NW(2b)	<p>Trapper (2) Tourism (Roads/remote) (3) General Public (1) Fish & Game & OFAH (3) Independent Loggers (2) First Nations (4) Prospectors (2) TWP Nipigon (1) Forest Industry (1)</p>	<p>Experimental Thinning project</p> <p>Aggregate Resources Act Training</p> <p>Presentations:</p> <ul style="list-style-type: none"> -Lake Nipigon Forest Amalgamation -SFL conversion Initiative -Comparative Aquatic Effects Program -Independent Forest Audit- Biodiversity -Caribou Mosaic -Desired Forest and Benefits -Renewable Energy -Use of Herbicides -Species at Risk 	<p>Desired Forest and Benefits meeting was held</p> <p>Plan author presented strategy for the LTMD</p> <p>Plan author provided a summary of LTMD documents and comment forms were distributed at LCC</p> <p>Values maps were presented at LCC meetings and members had a chance to scrutinize and offer suggestions/changes to the maps</p>	<p>Public Information Centres(3)</p> <p>FMP planning member took part in 2</p>	<p>MNR provides LCC with support including training sessions, FMP Attendance and public consultations and info sessions</p> <p>MNR forester and plan author are reportedly very responsive to requests for training and information</p>	<p>Perhaps some overlap with Armstrong LCC because of amalgamation</p>	<p>CAP-EDU(x14) COLL-OUT (x5) VALINFO-MAP</p>

NE 1	<p>Access groups, anglers/hunters/trappers(2) Cottagers(1) Aboriginal(1) Environmental(1) Independent Logger(1) Municipalities, chamber of commerce, economic development(1) Naturalist(1) SFRU(1) Prospectors, mining, aggregates(1) Public-at-large(1) Silviculture contractors(1) Trails(1) Tourism(1) Local cultural heritage(1) Education(1) Woodworkers & Trade Unions(1)</p>	<p>Training Presentations: 4 by Ric Hansel: "What's Happening in the Forest" & NDPEG and Clear Cutting & "Allocation Planning" 1 by Dave Fluri "Stream classification & Assessments" 1 by John McNutt on Economics of Forest Industry(Tembec) 1 by Mark Lockhart about the planning process Field trips: 1 To McConnell Lake to look at water crossings, maintenance, repairs, cut areas 1 to Phelps Twp to discuss Oak management Invited to attend a controlled burn (none attended) LCC member accompanied an inspector during the FSC audit and another member to a compliance inspection Conferences LCC Regional conference Forest Futures Workshop at Nipissing University Planning Member Training and Other</p>	<p>AOC's were developed to protect beaver habitats, cottaging lakes, butterflies, as well as climate change which all reflect protecting of common values</p>	<p>Presentations LCC members at Conservation Committee of the Nipissing Naturalists Club on how to become involved with the planning process An introduction on FMP to Lake Nipissing Stewardship council and Northwatch's Forest Project Northwatch's Forest Project at the public library detailing public involvement Information Booths @ Trappers convention Environmental Information Fair Farmers Markets and Powassan Fall Fair Public Library Other Presentation to Nipissing Naturalist Club Newsletter/leaflet Media advisories LTMD draft at Public Library LCC media interview</p>	<p>LCC participated numerous times in the planning process: Reports of planning process were brought to LCC meetings LCC reviewed and commented on draft of FMP Project LCC members collaborated with AOC Task Team and provided input LCC member participated on various task teams: Silviculture Team Old Growth Team Public Consultation Team Operations Planning team AOC Task Team</p>	<p>1 Recommendations for improvements were to increase participation of LCC members in field trips</p>	<p>CAP-EDU (11) AOCpxPlan ADAPT-REP COLL-PART (6) COLL-OUT (7) CAPKE (4)</p>
NE 2a	<p>Forest Industry(2) Independent Loggers(1) Naturalists & Environment(2) Crown Land Users (motorized and non)(2) Tourism(1) Chamber of commerce(1) Hunter, anglers, trappers (2) Educators(1) Public(1) Trade Union(1) Prospectors(1) First Nations(0)</p>	<p>Training Training was only available in 2009 to the LCC plan rep and not the other members 2 new members received FMP training. Recommendations All members could benefit from receiving training and new members could have introductory training.</p>	<p>LCC members checked their values off Then were given digital values maps on a CD Consulted with LTMD</p>	<p>Meetings Desired forests and benefits (LCC contributed ideas that were incorporated into objectives Hosted LCC Regional Forum Outside party (Dr. David Euler) addressed the LCC regarding concerns on forecasting habitat levels .</p>	<p>Representatives of the MNR, SFL and members of the planning team 'always' attend the LCC meetings At an LCC meeting unanimously approved a forest planning objective concerning climate change The Objectives task team then reviewed this and proposed a strategy which was approved by the planning team1</p>	<p>1These processes and chain of action represent how this committee is working collaboratively</p>	<p>CAP-EDU (1) VALINFO-MAP COLL-OUT</p>
NE 2b	<p>Waterpower Sector(1) Angler/Hunter (1) Trappers (2) Baltfish (1) Aboriginal community (1) Tourism (1) Rod & Gun Club (1) Forest Industry (2) General Public (1) Prospectors (1)</p>	<p>FMP training (2) GAP Analysis Workshop LCC Workshop Regional workshop1</p>	<p>LCC members indicated areas of interest on a values checklist to be portrayed on map</p>	<p>Members discussed a request for FMP amendment for road allowance to Ripple Lake. Public consultation was had prior to the voting</p>	<p>n/a</p>	<p>1 no Wawa LCC attendance at this offered opportunity.</p>	<p>CAP-EDU (5) COLL-PART ACCESS-LUP VALINFO-MAP</p>

<p>Sth</p>	<p>Forest Industry(including operators and trade unions)(4) Cottager(2) Tourism(2) Municipal government(1) Fur harvester(1) General public(1) Naturalist(1) Snowmobiling(1) First Nations(1) Cultural heritage(1) Mining industry(1) Subcommittee to deal with trails: Snowmobiler Trapper Tourism operator Trail enthusiast Municipal government Naturalist.</p>	<p>Presentations Vegetation management</p> <p>Conferences/meetings "Your Forest your Choice; Under the Canopy" Westwind conference</p> <p>Joint LCC meeting with forests in district "Use of herbicides"</p> <p>"Your Forest your Choice: Overlooked Tree Species"</p> <p>Field trips Showing cultural heritage values to incoming LCC CHV rep</p> <p>Other FMP training in Sudbury (twice)(Timmins & North bay opportunities as well1) Wildlands league publication sent via email Toronto Star Article send via email</p> <p>Recommendations Better time management because most reasons for missing opportunities were quoted to be 'bad timing' or 'timing constraints'. Receiving and sending material in a timely manner were mentioned to be issues</p>	<p>Committee reviewed maps and provided alterations</p> <p>Joint FMP and LCC meeting; input was provided for the long term management direction</p> <p>The aforementioned meeting consisted of breaking up into four working groups of LCC and planning team members</p>	<p>4 trappers meetings were attended</p> <p>Support exists for future newsletter if funding affords</p> <p>LCC attended 2 open houses for proposed operations</p>	<p>Joint meeting was held with the LCC and planning team to discuss AOC prescriptions</p> <p>Some AOC's were modified with LCC input2</p>	<p>1 Timmins Training had no participants due to weather and second Sudbury training session as well as the North Bay session had no members attend</p> <p>2specifically an AOC for snowmobile trails was modified</p>	<p>CAPEDU(5) COLLOUT (3) VALINFO-MAP COLLIPART (3) AOCpxINT-TOUR ACCESS-LUP</p>
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RECORD ROSTER FOR SUMMARY OF ABORIGINAL INVOLVEMENT REPORTS

MU	Community representatives on Planning team and Local Citizen Committees	Tally of correspondence/Communication efforts	Tally of input received from each community/summary of comments	Planning Team responses where available (pt. form)	Summary of participation at public information centres and special information centres	Special Consultation Approach	Notes related to Codebook
NW1	<ul style="list-style-type: none"> • 1 on LCC • 1 on Planning team 	25	<ul style="list-style-type: none"> • 4 main points of input • xx First Nation expressed the importance of areas of use, portage trails, and values that they may have to identify • xx First Nation reported that they do not have any values to protect at this time • xx First Nation and the planning team have established an AOC for the wild rice in the area and specific concern was addressed in response to excessive access and herbicide application • xx First Nation relayed a concern over managing the moose population 	<ul style="list-style-type: none"> • In response to the access concerns over portage trails and values the planning team has committed to protecting any areas that xx First Nation will identify • The planning team are in discussion and will address AOC concerns for wild rice as the Draft plan is finalized • The planning team is reported to address any correspondence for further voiced concerns over the moose population management 	1 public info session was held – however no members from the aboriginal communities listed attended/identified themselves at the meetings	No specific consultation approach reported	COLLOUT(25) COLLPART(4) ACCESSLUP ACCESSFUTOP VALINFOCOLL (marginal values)
NW2	7 Planning team reps 3 LCC Reps	49 individual instances of correspondences to respective communities (in addition to the invitations to participate, long term management direction letters and reviews of proposed operations which all communities were sent equally)	<ul style="list-style-type: none"> • 7 Points of input • xx First Nation expressed interest in a buffer zone surrounding the community • xx First Nation expressed concerns regarding lack of consultation in planning the gravel river • xx First Nation expressed discomfort with the FMP amalgamation and the implications on the co-op SFL • RRIB requested community trapline information and maps to assist with ABIR • RRIB indicated they are entering into a “statement of Guiding Principles of Relationship” agreement with TKC • Suggested that MNR hold a workshop on intellectual property and considerations for sharing information • Opposition to the amalgamation of xx and xx forests 	<ul style="list-style-type: none"> • In response to interest in a buffer around the xx First Nation the MNR responded by informing Collins that the issue needs to be discussed with the planning team during the next FMP • MNR reports continued discussion over 3 meetings in response to the concern expressed by xx First Nation regarding lack of consultation • MNR suggested that RRIB consider a sharing agreement with Buchanan forester/plan author • In response to opposition to the amalgamation of xx and xx; a formal request was sent to MNR District manager to invoke issue resolution on the draft forest management plan for the forests 	• Throughout phase 1 in stages 2-3 there were a total of 15 reported cases of participation in public information centres and special information centres for the community	<ul style="list-style-type: none"> • 7 communities have developed a special consultation approach however details of the discussions and approach on consultation agreed upon were not provided in the report- however they claim they are available on file at the xx and xx district offices • The following communities agreed to the consultation approach; • xx First Nation • xx First Nation n • xx First Nation • xx First Nation • xx First Nation • xx First Nation • xx First Nation 	COLLOUT(49) COLLPART(29) AOCpxPlan COLLEQREP CAP-KE

RECORD ROSTER FOR SUMMARY OF ABORIGINAL INVOLVEMENT REPORTS

MU	Community representatives on Planning team and Local Citizen Committees	Tally of correspondence/Communication efforts	Tally of input received from each community/summary of comments	Planning Team responses where available (pt. form)	Summary of participation at public information centres and special information centres	Special Consultation Approach	Notes related to Codebook
NE1	<ul style="list-style-type: none"> the 5 communities are represented by 1 individual on the planning team 	17	<ul style="list-style-type: none"> 5 main points of input put forward and recorded; per diems should be paid for task team participation¹ xx forest access roads should be open for Aboriginal use xx First Nation access to crown forest allocation is a long term and multi-layered issue. One of the larger areas of concern is of an unsafe bridge that was once used to cross into the allocation and now is neither under secure ownership or undergoing plans of repair by either aboriginals nor MNR³ more harvesting rights have been requested by some communities⁴ aboriginal reps felt that they should have a rep at the Board of Directors level with the SFL⁵ 	<ul style="list-style-type: none"> MNR took full responsibility ensuring that they will continue to reimburse travel expenses and with prior approval-task team per diems¹ concern for access roads for aboriginal use have been addressed under Values Protection subsections for Road use and recreational land use (See xx FMP page 3 point #2 in second last paragraph)² Issue of bridge ownership has been identified and alternative solutions to create an alternative access road to the xx area the request for more harvesting rights has been tabled and some 'successes' have been reported between the aboriginal communities and SFLs; including increased awareness to aboriginals as to their potential opportunity to harvest and enter into business arrangements regarding forest operations⁴ an aboriginal rep was added to the Board of Directors⁵ 	<ul style="list-style-type: none"> 4 FMP info centres reported- no information about participation 	<p>Yes</p> <p>xx has a Aboriginal Working Group (AWG) which is a 'specialized consultation through a proactive approach by the MNR and SFL'. In addition planning team tasks are sometimes carried over to this forum for completion (separate minutes are provided from the AWGs which are amended to this chart)</p> <p>• Includes First Nations objectives in report; i.e. Forest management opportunities and implementation, economic opportunities, and educational and social opportunities. These objectives are then broken down into specific opportunities along with their current state of progress as well as their targets and strategies of measuring success</p>	<p>COLLOUT (17) COLLPART (10) RELRES ACCESS-FUTOP ACCESS-BEN COLLEQREP CAPKE</p>
NE2	<ul style="list-style-type: none"> 2 reps on the planning team 	2 + notification at each stage of planning process	<ul style="list-style-type: none"> in the past Aboriginals shared their values information with the MNR 	<ul style="list-style-type: none"> the MNR 'were aware' of any values the aboriginals identified and worked around them 	<ul style="list-style-type: none"> number of residence from local xx First Nation attended the community public information centres for the Draft Plan 	<p>no</p> <p>A task team was developed early into the planning process however it dissolved due to lack of participation</p> <ul style="list-style-type: none"> The values mapping section description explains how aboriginals were given a chance to identify and share their values information but it is not apparent that any type of feedback, collaboration or effort to ensure the Aboriginals are participating or offering up valuable input- perhaps a lack of capacity as well as relationship 	<p>COLLPART (4) COLLOUT(2)</p>
Sth	<ul style="list-style-type: none"> 2 reps on the planning team; -1 LCC rep 	<ul style="list-style-type: none"> 77 calls 88 emails 25 information sessions held 	No input was reported	No ministry response was reported	No participation at public or information sessions by the community was reported	No special consultation approach requested or was reported	COLLOUT (25)

Appendix 4 Tally of Codebook Themes by Core Question

CODE	Q3	Q4	Q5	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q19	SUM
Access BEN	3	1		1	12	3	14	7	4	1	1		1	2	1	51
Access FUTOP	6	2	1		6	3	9	16	5			2		2	3	55
Access Legit	3	5	4		5	2	20	6	1	1		1	5			53
Access LUP	8	5	4	3	22	19	3		1	2	2	1	14	2	3	89
ADAP ANA	1	2		1	1	1		1	2	8	2	2	7	8	1	37
Adapt REP	1	1		2		3	1	1	1	5	1	12	3		3	34
AOCpx-IMP (flexibility)	4	2		1	2	1	3		5		6	12		5	7	48
AOCpx-INTCH	19	1	1	3	9			5	3	2	1			26		70
AOCpxINTTOUR	21	4	2	5	9	7		6	4	3			7	25	3	96
AOCpxMON	4	1		13	5	12	2	1	3	9	4	23	40	17	14	148
AOCpxPlan	3	1	10	1	1	5	1	6	11	1	26	5		1	20	92
CAP-EDU	5	6	8	6	6	7	14	14	4	1	5	5	5	2	12	94
CAP-KE	2	8	4	4	5	1	1	2	1		1	4	2	1	5	41
COLL-EQREP	9	2	8	8	7	7	6	5	11	1	1	1	4	2	2	74
COLL-OUT	2	16	5	8	2	10	3	8	1	21	24	12	2	4	7	125
COLL-PART	9		4	9		2	4	3		2	5	6	11	4	8	67
REL-RESP	8	8	5	2	5	5	3	2	4	1	2	1	2	2	3	53
Rel-TRUST	14	14	6	5	1	2	6	2		2	1	1	4	9	11	78
VALINFOCOLLMAN	6	12	9	13	4	3	3		1	3	1	2		4	1	62
VALINFO-COLLCH	5		3	1	2			1		1					1	14
VALINFO-Map	2	14	1	1	2				3	2				1	1	27
VALINFO-SECURE		6	14	3	1	1			3					1	2	31
VALINFOCOLLTour			3		1											4
VALINF-CONTROL		11	8				1	1	2			2				25
SUM	135	122	100	90	102	94	94	87	70	66	83	92	107	118	108	1468

Access																
Access BEN	3	1		1	12	3	14	7	4	1	1		1	2	1	51
Access FUTOP	6	2	1		6	3	9	16	5			2		2	3	55
Access Legit	3	5	4		5	2	20	6	1	1		1	5			53
Access LUP	8	5	4	3	22	19	3		1	2	2	1	14	2	3	89
SUM	20	13	9	4	45	27	46	29	11	4	3	4	20	6	7	248
Adaptive Management																
ADAPT ANA	1	2		1	1	1		1	2	8	2	2	7	8	1	37
ADAPT REP	1	1		2		3	1	1	1	5	1	12	3		3	34
SUM	2	3	0	3	1	4	1	2	3	13	3	14	10	8	4	71
Area of concern protection																
AOCpx-IMP (flexibility)	4	2		1	2	1	3		5		6	12		5	7	48
AOCpx-INTCH	19	1	1	3	9			5	3	2	1			26		70
AOCpxINTTOUR	21	4	2	5	9	7		6	4	3			7	25	3	96
AOCpxMON	4	1		13	5	12	2	1	3	9	4	23	40	16	14	147
AOCpxPlan	3	1	10	1	1	5	1	6	11	1	26	5		1	20	92
SUM	51	9	13	23	26	25	6	18	26	15	37	40	47	73	44	453
Capacity																
CAP-EDU	5	6	8	5		7	13	14	4	1	5	5	5	2	12	92
CAP-KE	2	8	4	4	5	1	1	2	1		1	4	2	1	5	41
SUM	7	14	12	9	5	8	14	16	5	1	6	9	7	3	17	133

Collaboration																
COLL-EQREP	9	2	8	8	7	7	6	5	9	1	1	1	4	2	2	72
COLL-OUT	2	16	5	8	2	10	3	8	1	21	24	12	2	4	7	125
COLL-PART	9		4	9		2	4	3		2	5	6	11	4	8	67
SUM	20	18	17	25	9	19	13	16	10	24	30	19	17	10	17	264
Relationship																
REL-RESP	8	8	5	2	5	5	3	2	4	1	2	1	2	2	3	53
Rel-TRUST	14	14	6	4	1	2	6	2		2	1	1	4	9	11	77
SUM	22	22	11	6	6	7	9	4	4	3	3	2	6	11	14	130
Values Information																
VAIINFOCOLLMAN	6	12	9	13	4	3	3		1	3	1	2		4	1	62
VALINFO-COLLCH	5		3	1	2			1		1					1	14
VALINFO-Map	2	14	1	1	2				3	2				1	1	27
VALINFO-SECURE		9	14	3	1	1			3					1	2	34
VALINFOCOLLTOUR			3		1											4
VALINF-CONTROL		11	8				1	1	2			2				25
SUM	13	46	38	18	10	4	4	2	9	6	1	4	0	6	5	166

Appendix 5 High Level Codebook for the Social Guides Project

Outcome	Criteria	Theme	Code
Access	Legitimacy on Land base	Identity	ACCESS-LEGIT
	Sustainability	Benefit Future Opportunity Land Use Planning	ACCESS-BEN ACCESS-FUTOP ACCESS-LUP
Protect the Value-Policy	Adaptive Management	Analysis Reporting	ADAPT-ANA ADAPT-REP
Protect the Value-Protection measures	AOC Prescription	Plan AOC Implement AOC Monitor AOC Integrity of Cultural Heritage Values Integrity of Tourism Values	AOCPx-PLAN AOCPx-IMP AOCPx-MON AOCPx-INTCH AOCPx-INTTOUR
Protect the Value-Values Information	Data Collection	Collection Management Cultural Heritage Tourism Values Values Map	VALINFO-COLLMAN VALINFO-COLLCH VALINFO-COLLTOUR VALINFO-MAP
	Data Controllershship	Own, record, store, administrate	VALINFO-CONTROL
	Data Security	Sensitivity, confidentiality, intellectual rights	VALINFO-SECURE
Capacity	Capacity	Education Knowledge Exchange	CAP-EDU CAP-KE
Collaboration	Collaboration	Equal Representation Outreach Participation	COLL-EQREP COLL-OUT COLL-PART
	Relationship	Respect Trust	REL-RES REL-TRU