



Forest Legislation and Policy Reference Guide 2009

Chapter Fourteen

Non-Legislated Forest Practices

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Non-Legislated Forest Practices

14.1 Forest Certification

Forest certification standards address environmental, economic and social aspects of sustainable forest management (SFM). Certification is a voluntary process, and although it is not a part of BC forest legislation, it has become an important component of forest management and operations for many forest enterprises.

14.1.1 Background and History

Since the early 1990s, there has been increasing worldwide attention focused on sustainable forest management (SFM) "managing our forests to meet the social, economic, environmental and cultural needs of present and future generations". A very important question for every country is "how are we doing?"

The forest industry, product buyers, governments, non-government organizations and individuals believe that credible, independent auditing could be used to assess global forest management - *to determine if the principles of SFM were being addressed and satisfied*. The general areas of first concern were tropical forests, and the key issues were the rate of deforestation and conversion of forestland to other uses. Temperate forest areas have become the major focus under the certification initiative due to more interest and activity.

14.1.1.1 What is Forest Certification?

Sustainable forest management gained prominence as a global concern at the 1992 United Nations Conference on Environment and Development (UNCED - the Earth Summit). Since the conference, government, industry and non-governmental organizations (NGOs) have introduced initiatives to promote SFM at the international, national, regional and local levels.

Certification provides independent, third party verification that a woodland operation is being managed according to a set of principles and requirements determined by a particular certification program.

Certification has emerged as a significant tool to assist forest enterprises to work with SFM, and communicate their commitment and performance. It is a voluntary process meaning it is not required or legislated by government. Its credibility is based on the principle of an *independent audit*. Certification has been applied to other sectors for years, such as labelling consumer safety products. However it is only in the last decade that it has been applied to the forest sector. A label may be displayed on a product to show buyers that the wood has been certified. This often involves additional procedures such as Chain of Custody certification, which is a verification system to track certified wood from the bush to the marketplace.

The overall goal of various international certification processes is to establish fair, objective, and globally applicable standards for sustainable forest management. It is important to note that the parameters and expectations of various forest certification programs may vary a great deal. However there is a common baseline of compliance with existing laws and a requirement for continual improvement.

14.1.1.2 Canadian Perspective

The management of Canada's public forests – with the exception of the Yukon and other lands under federal jurisdiction – is the constitutional responsibility of provincial and territorial governments, which have the jurisdiction and mandate to ensure that public forests are managed sustainably. Governments work in conjunction with the forest companies, under a variety of forest tenures, to have operations conducted according to the principles of SFM.

The following 12 basic principles were developed by governments to guide the relationship of certification to forest management in Canada. Certification should be:

1. complementary with government forest policies;
2. reflective of a balance of major forest interests;
3. objective and scientifically based;
4. implementable, practical and cost-effective;
5. non-duplicative of legislative and administrative requirements;
6. non-discriminatory and applicable to a broad range of public and private forest owners, managers and operators;
7. auditable and include appropriate measurable indicators;
8. voluntary and operate independently of government;
9. based on the market's desire and ability to pay and the forest industry's willingness to support it;
10. consistent with national and international agreements on definitions of sustainable forest management;
11. consistent with trade law and international principles; and
12. acceptable to all major consumer markets.

14.1.2 Certification Systems

There are many forest-related certification systems available worldwide. In BC, one Environmental Management System (EMS), ISO 14001, and three Sustainable Forest Management Systems (SFM) are the most prevalent: Canadian Standards Association (CSA) Z809, Forest Stewardship Council (FSC), PEFC, and the Sustainable Forestry Initiative (SFI). These standards have been internationally recognized and endorsed. FSC International has endorsed the FSC standard and the Programme for the Endorsement of Forest Certification (PEFC) has endorsed both CSA and SFI.

EMS: International Organization for Standardization (ISO 14001)

ISO is a worldwide federation of national standards bodies, headquartered in Switzerland, whose mission is to promote the development of voluntary standards that will facilitate international trade. ISO standards are some of the most widely recognized in the world. ISO 14001 is a standard that permits the certification of an environmental management system (EMS). This standard is applicable to all industries and is not specific to forestry. The ISO 14001 EMS standard provides a framework for a company to identify areas where its activities, products and services have an environmental impact. The company uses this information to put controls in place to minimize environmental risk. ISO requires a company to adhere to relevant legislation and to make a commitment to continual improvement in its environmental performance, however it does not dictate actual forest practice performance measures.

Website: www.iso.ch (click on ISO 14000 side-bar)

SFM: Canadian Standards Association (CSA Z809)

CSA is a national standards writing organization, based in Toronto, that develops national standards and certification programs in a range of technical fields. The CSA worked with the Canadian forest industry and other stakeholders to develop the CSA Sustainable Forest Management Standard that was approved in 1996, and revised in 2002 and 2009. The CSA Z809 SFM System has been approved by the Standards Council of Canada (SCC) as the national SFM standard. The standard requires forest companies to set in place a comprehensive SFM system and establish on-the-ground performance objectives that address local values identified in a public participation process. The CSA Z809-08 standard has established a set of core indicators for each element that must be addressed, which are based on the Canadian Council of Forest Ministers Criteria and Indicators Process and the 1992 National Forest Strategy. These criteria are strongly based on the international 'Montreal' and 'Helsinki' C&I processes. Applicants seeking to certify a defined forest area (DFA) through CSA must undergo an independent third-party audit of the management system and also field inspections to confirm the attainment of performance objectives.

Website: www.csa.ca

Forest Stewardship Council (FSC)

FSC is a non-profit, non-governmental organization (NGO), headquartered in Europe. It was founded in 1993 by representatives of environmental groups, the timber trade, the forestry profession, indigenous peoples' organizations, community forest groups and forest product certification organizations. The stated purpose of the FSC is to establish worldwide principles of environmentally appropriate forest management, and to accredit organizations to certify that individual forests are managed according to their 10 international forest management principles. In Canada there are a number of FSC working groups, including one in BC, responsible to develop regional standards. The FSC BC Regional Standard was accredited by FSC Canada in November 2005.

Website: www.fsccanada.org/

Sustainable Forestry Initiative (SFI)

SFI Inc. is now an independent, organization that promotes sustainable forest management across North America. SFI Inc.'s has an 18-member multi-stakeholder Board of Directors that is made up of three chambers, representing environmental, economic and social interests equally. Board members include representatives of environmental, conservation, professional and academic groups, independent professional loggers, small family forest owners, public officials, labor and the forest products industry. Originally, SFI was an industry-developed system of the American Forest and Paper Association (AF&PA). In response to certification pressures, the AF&PA first developed the SFI system in 1994, composed of principles, objectives, performance measures, and indicators to which all companies that are members of AF&PA must subscribe. Companies decide themselves whether to do self-verification, have another firm verify compliance (2nd party), or select an independent auditor (3rd party). The SFI system underwent their most recent revision in 2005. The new standard will be in place for five years before the next review. The Sustainable Forestry Board (SFB), an independent group of 15 representatives from a balance of interests.

Website: www.sfiprogram.org

Program for the Endorsement of Forest Certification schemes (PEFC)

The PEFC Council (Programme for the Endorsement of Forest Certification schemes) is an independent, non-profit, non-governmental organization that promotes sustainably managed forests through independent third party certification. It was founded in Paris France in 1999 and has a head office in Geneva Switzerland.

PEFC assesses and provides mutual recognition for certification programs that put into practice mutually agreed-upon sustainable forest management criteria resulting from inter-governmental processes such as the Ministerial Conference on the Protection of Forests in Europe. Originally, PEFC was called the Pan-European Forest Certification scheme. It was established in Europe in the 1990s by private landowners who believed that governments had already established sufficient forest policy, including monitoring and enforcement requirements. It has evolved into an international 'mutual acceptance' framework to accredit national/regional forest certification programs that meet PEFC SFM requirements. A forest company cannot certify to PEFC per se, but instead would certify to a program that is recognized by the PEFC. Countries and/or regions are encouraged to develop their own cost-effective forest certification schemes, which

incorporate their unique ecological and ownership patterns while still meeting the PEFC criteria for SFM. This program combines process and performance criteria. In 2005 PEFC endorsed CSA Z809 and is reviewing the SFI programs.

Website: www.pefc.org

Note: A comparison of the major SFM certification systems in Canada can be found at: www.fpac.ca/en/sustainability/management/certification.php?edit_document=1 (click on certification similarities and achievements).

14.1.2.1 Certifiers

A forest certification system requires that an objective third-party (auditor, certifier or verifier) checks and certifies that an enterprise is operating according to parameters set out by the system and standards which the system developed. The auditing firm must be accredited by the applicable system, which often requires independent accreditation by a national accreditation body (SCC - Canada; RAB, ANSI - USA). One certifier may be accredited to certify many different systems. In order for a certifier to earn accreditation, they develop a “checklist” of parameters and specific criteria to be audited, and then apply to a system for endorsement.

Certifiers Active in British Columbia

Main Certifiers

KPMG Klynveld, Peat, Marwick Goerdeler. The Vancouver KPMG office (forestry division – Performance Registrar Inc.) does certification for CSA, ISO, FSC, and SFI.

Website: www.kpmg.ca/en/industries/enr/forestry

PwC PricewaterhouseCoopers. Their office in Vancouver, BC provides forest certification and auditing, including ISO, SFI, CSA and Chain of Custody.

Website: www.pwc.com/forestry

QMI Quality Management Institute (the quality assurance division of CSA International). It is registered to provide CSA, ISO, and SFI services.

Website: www.qmi.com/registration

SmartWood Rainforest Alliance. The SmartWood Network, a group of non-profit organizations and SmartWood representatives who are accredited by FSC, audit companies to the FSC standard.

Website: www.smartwood.org

Other BC Certifiers

BVQI Bureau Veritas Quality International. Their North American office provides both ISO and SFI certification in forestry, and has applied to FSC for accreditation.

Website: www.bvqina.com

InCert GmbH International Cert Zertifizierung GmbH. They offer certification services (ISO 9001) with an office in Lumby, BC.

Website: www.international-cert.de/eng/germany.html

SA Soil Association (Certification). It addresses farm woodlot operations and managed forests and plantations, and provides FSC certification for timber and non-timber forest products through their Woodmark Scheme.

Website: www.soilassociation.org/certification

SCS Scientific Certification Systems. SCS developed their own Forest Conservation Program and are also accredited to perform FSC certifications.

Website: www.scscertified.com

SGS Société Générale de Surveillance. SGS developed a program called **Qualifor** that is accredited for FSC certifications. The Qualifor program includes both forest management and chain-of-custody certification. SGS also offers BC clients ISO certification services through the SCS-ICS Canada office in Vancouver.

Website: www.forestry.sgs.com

14.1.2.2 How Does It Work?

In the case of forestry, an organization would hire a certifier to audit that their planning and management systems conform to the principles and criteria established by a particular forest certification system (i.e. ISO, CSA, FSC, SFI). The following outlines the steps a company may go through in a typical forest certification assessment.

Gap Analysis/Pre-Assessment

- A gap analysis is used by a firm, without paying for a full assessment, to check their readiness for certification, to identify obvious red flags that could preclude a successful certification review.

Formal Assessment (Pre-Audit and Audit)

- The certifier uses its approved checklist for the particular certification system.
- Certifiers conduct an in-depth review of the agency's forest management plans, harvesting practices, and public input processes to determine the thoroughness of the management system in place, and identify components to be checked in the field.
- A field assessment is usually conducted by a team of auditors, with a range of expertise including silviculture, biology, forestry, etc. Interviews with stakeholders may be held, as well as public meetings.

Certification Report

- A draft report is prepared by the certifiers to identify preconditions, conditions and recommendations that need to be met to achieve certification.
- If the pre-conditions are met, then a certificate is awarded. The applicant must meet any further conditions during a specified time period. A summary of the report is made publicly available (SFI, CSA only).
- Applicants may wish to apply for a separate Chain of Custody Certification, which demonstrates the ability of an organization to identify and track certified product throughout the production phases of its operations. This is a requirement for using an eco-logo on the end product.

Annual Audit/Renewal

- All programs require periodic (often annual) surveillance audits for checking that the certification requirements are being met. These audits may also be used to verify that the conditional requirements of the certification have been met.

Renewal

- A certificate is typically renewed every three to five years. The auditor conducts a re-certification/re-registration audit that is similar to the original assessment but is of shorter duration.

Government Role

- The government, as a stakeholder, may be approached during the formal assessment process. Most certification systems call for adherence to relevant forestry legislation.
- Several BC government ministries are usually involved, as the forest certification application may address forest practices, environmental impacts and legislation, protected areas and land use planning, and First Nations' interests.

14.1.2.3 Factors Assessed

When a certifier prepares a report card during the certification process, a number of social, economic, environmental and cultural factors are measured. Although each certification system and individual certifier are somewhat different in their assessment approach and audit standards, the following list includes many of the more common factors applied:

- Compliance with Laws
- Security of Tenure
- Management Plans
- Public Involvement
- Forest Resource Management
- Forest Practices
- Monitoring and Assessment
- Compliance and Enforcement
- Environmental Impacts
- Resource Values and Uses
- Resource Conservation
- Aboriginal Peoples Rights
- Workers Rights
- Community Stability
- Education and Training
- Investment and Productivity

14.1.3 BC Situation

British Columbia has become an active area for implementation of forest certification; in fact it is the most active area in Canada. Many forest companies, large and small (including the BC Timber Sales program - BCTS) have become involved either through formal application for certification or through preparations for review and assessment. Forest certification is seen as one component of the overall provincial commitment to the goal of sustainable forest management. By the end of 2008, the area certified under SFM standards is approximately 57 million ha (72% of forest lands). The status of certification in BC can be reviewed at:

www.certificationcanada.org/documents/status_reports/SFM_BC_Data_Forest_Certification_Status_Report_details.pdf

14.1.3.1 Role of Forest Companies and Government

Since certification is voluntary and related mostly to forest product markets, government agencies (and non-government organizations) are not usually involved directly in the actual certification assessment but can provide comment as requested. It is the forest industry that is directly involved, and has the overall choice and responsibility to show leadership around certification. Government works with industry and stakeholders to address issues that require attention and resolution, including development of standards and indicators, and national and international issues.

14.1.4 Role of ABCFP and Registered Members

Since forest certification activity in BC falls within the legal definition of the practice of professional forestry, our Association and its members are by necessity directly involved with the forest certification initiative.

There are responsibilities for certification that fall on our members working for Industry, Government, and consultants particularly under Section 1 of the *Foresters Act* of BC:

"The practice of professional forestry" means, for a fee or remuneration, performing or directing works, services or undertakings which, because of their scope and forest management implications, require specialized knowledge, training and experience equivalent to that required for a professional forester under this Act, and includes the following:

(e)examining and verifying forest management performance".

Therefore, it is expected that ABCFP members (RPFs or RFTs, depending on specific activities) will be actively involved with all forest certification activities in BC, including actual assessments. For further information, read the Forum articles about certification in the March/April 1998 and July/August 1998 editions.

14.1.5 Level of Activity in BC

The first ISO 14001 forestry registrations in BC were awarded in 1999. Since then, the majority of large and mid-sized forest companies have achieved ISO. The first CSA Z809 registrations were awarded in 1999. FCS forest certifications began in 1999. SFI's first certificates were awarded in 2000. Additional certifications are occurring, as BC continues to be the most active province in Canada.

To review the up-to-date status of completed certifications in BC and Canada, including area and volume numbers, check out the following website: www.certificationcanada.org/english intentions. There is also a section covering the intentions of various companies about their plans for certification over the next several years.

14.1.6 Other Information

Several websites are available to provide basic, general information in addition to the specific websites identified in Sections 13.1.2 and 13.1.2.1:

- Canadian Standards Association: www.certifiedwoodsearch.org
- Ministry of Forests and Range Forest Certification: www.for.gov.bc.ca/het/certification
- Certification Canada: www.certificationcanada.org
- Forest Certification Resource Centre: www.certifiedwood.org
- BC Certification Search Tool: searchtool.bcforestinformation.com

14.1.7 Looking Ahead – Questions and Answers on Forest Certification

1. How important is forest certification?

Certification continues to grow in importance in many markets, including parts of Europe, the United States and Asia. Some major buyers are pressing for certified pulp, paper and lumber products to substantiate SFM in BC. Being certified should help BC companies to communicate to their markets that they are practicing responsible forest management.

2. What is the value of forest certification for BC?

No single initiative, including certification, is the answer to resolving all conflicts on forest issues. However, certification systems can provide people with an independent verification of sustainable forest management

One key issue is the quality of certification systems – whether they are appropriate, fair, objective and globally equitable. Their standards should be clear, realistic and not discriminate against any one country or kind of forest. The system of audits must be professional, objective and free from conflict of interest

3. Are BC's forest practices consistent with certification requirements?

The certification systems have requirements that include elements which are comprehensively addressed in BC's legislation and policy, including the *Forest and Range Practices Act*, Land Use Planning, Timber Supply Review, Protected Area Strategy, and public consultation on forest plans.

Certification systems may also cover issues that go beyond legislation, and address environmental, social and economic factors that may require some additional actions by a forest company.

4. Are the costs of certification covered by government?

No. Certification is a voluntary instrument, and it is the task of each company to assess whether or not the potential benefits of certification are worth the cost.

5. Will certification increase the cost of lumber and products?

Although certification is a direct cost to industry, at this time there is no indication there will be a price premium for certified product in the marketplace.

One of the criteria of a good certification system is cost-effectiveness and practicality. A good system should not duplicate any existing requirements, or create undue financial barriers for any smaller forest enterprise that wishes to pursue certification.

6. Will certification replace the *Forest and Range Practices Act*, or other Acts and Regulations?

Forest certification is not intended to replace current legislation or policies; in fact one of the requirements of certification is that applicants must comply with existing laws and administrative requirements. It is expected that certification will complement BC's administrative framework and forest practices. Current legislation in BC should meet or exceed most certification requirements.

14.1.8 Apply the Knowledge

1. What are the social, economic, environmental, and cultural factors assessed under the forest certification initiative in BC?
2. How does certification relate to legislation and policy, including the Forest and Range Practices Act? Will certification replace the traditional regulatory and administrative environment around BC's forest management?
3. Should BC have its own 'made-in-BC' forest certification system, independent of the existing systems, or continue to recognize and work with each system that comes to the province?
4. Is there a role for the BC Government with forest certification in the province? Should the industry associations (CFPA, ILMA, COFI, TLA) have a role, rather than each forest enterprise going on their own?
5. Could forest certification become a non-tariff trade barrier as an international issue? What would be the implications for BC?
6. If you believed that a certification system or a certifier was contradicting the national principles for certification as developed by our Governments, what would you do?
7. If you were concerned that a specific requirement of a certification system was not in keeping with good forestry, how would you deal with it? If there was not a forest professional on an assessment team?

14.2 Criteria and Indicators

14.2.1 Introduction

The interest in criteria and indicators (C & I) is part of the global emphasis on sustainability that became focused during the 1992 United Nations Conference on Environment and Development (UNCED). In terms of promoting sustainable forest management (SFM), there are two parallel approaches that originated from that conference, one being a government – driven initiative (criteria and indicators) and the other being a non-government initiative (forest certification). They both have an overall SFM goal, as a subset of the wider concept of sustainability.

14.2.2 Background

The advancement of the concept of sustainable development is a reflection of the changing values and attitudes of societies worldwide. Many countries have agreed to apply C&I in support of SFM. Generally the concept of forest sustainability involves addressing current and future human requirements while protecting the resource base. Specifically, SFM recognizes the environmental, social and economic value of forests, and strives to find the balance to address the needs of present and future generations. C & I are designed to provide information and improve understanding about the balance, *by incorporating explicit values and measures over time*.

14.2.2.1 What are C & I ?

Criteria and Indicators are tools for *assessing trends in the condition of forests and the goods and services derived from forests* and for promoting SFM. The general purpose of C & I is to enable reliable verification and reporting about the *progress towards sustainability of forests*. This can be done at several levels - international, national, regional and local.

Criteria define in broad terms the conditions or processes by which SFM may be assessed. *Indicators* are specific elements of the criteria that can be measured over time to demonstrate trends in condition. (Refer to specific examples in chapter 13.2.3)

The specific C&I are often chosen through public involvement processes that identify the values most important to people, and combine them with the scientific and technical aspects as provided by resource experts. It is important to remember that *C & I are not intended to be actual performance-standards* – i.e. on-the-ground operational requirements. However, performance measures should be related to the values identified in broader-level C & I, and should provide information that contributes to the picture of trends in forest condition and the overall progress towards sustainability. Note that as a related SFM initiative, forest certification is usually more related to local, on-the-ground performance.

The steps towards assessing SFM begin with establishing *a set of values* that are considered most important, determining their components and then measuring them over time so that they best represent the condition of forests that we wish to achieve. This is what C & I is all about. However not all countries approach C & I from the same perspective and therefore there are a variety of programs that are developing. In BC, the eleven primary ‘resource values’ of the *Forest and Range Practices Act* could constitute a partial base for made-in-BC C & I.

14.2.2.2 History of C & I

Sustainable forest management gained prominence as a global concern, as part of the 1987 Brundtland Report (“Our Common Future”) and during the following major 1992 United Nations Conference (“UNCED – the Earth Summit”). As a direct response, a Seminar of Experts on Sustainable Development of Boreal and Temperate Forests was held in Montreal in 1993 involving 40 countries and many invited organizations. *This was the first in depth multinational discussion of C & I for SFM.*

The resulting ‘Montreal Process’ involves 12 countries that encompass 90% of the world’s temperate and boreal forests outside Europe (which follows the Pan European C & I protocol). These countries are: Argentina, Australia, Canada, Chile, China, Japan, Mexico, New Zealand, South Korea, Russia, USA, Uruguay. *Globally there are more than 140 countries currently participating in C&I initiatives at various levels.* The Montreal Process is now undergoing a major review to ensure it is an up-to-date and responsive program. A revised list of indicators for criteria 1-6 was published in December 2007. Indicators for criterion 7 are still under review.

In addition to the Montreal Process, there are a number of other C & I initiatives. These include the Pan European Process in Europe (formerly known as the Helsinki Process; now typically referred to as MCPFE, for Ministerial Conference on the Protection of Forest in Europe), the International Tropical Timber Organization (ITTO), and initiatives in several Amazonian countries, parts of Africa, Central America and Near East countries. Some of these initiatives tend to concentrate on timber production goals while others incorporate non-timber values and products, and social and cultural interests. Although the various programs are often related through some common C & I, *there is no global ‘standard’ approach* because of the differing stages and types of development and administration in the various countries. This means that direct country-to-country or region-to-region comparisons can be difficult, including within the Montreal Process.

14.2.2.3 Canadian Perspective

Canada’s commitment to SFM and C & I was formalized in 1992, with the Canadian Council of Forest Ministers (CCFM) publication of the “National Forest Strategy – Sustainable Forests: A Canadian Commitment”. In 1993, the CCFM organized a public process to define science-based C & I of SFM. This CCFM framework was updated in 2003 and now has *six Criteria and 46 Indicators* (see www.ccmf.org). Many people from BC were involved with developing this C & I framework. It sets a common framework for our governments and companies.

C & I are being addressed in Canada at several levels encompassing international, national, regional and local initiatives. Provinces/territories are doing their own provincial and regional work – BC, Quebec, Ontario, New Brunswick, Newfoundland, Saskatchewan. Also, the Canadian Standards Association forest certification program is based upon the CCFM C & I.

14.2.3 Assessing SFM with C & I

A wide range of C & I can be incorporated into a country's or region's SFM programs, depending upon the values that are considered important. These may or may not be identical to the major international initiatives. For example Canada supports the Montreal Process, but reports on the national CCFM C & I Framework that is about 80% equivalent. Some examples of C & I:

Criteria:

- Biological diversity;
- Forest contribution to global carbon cycles;
- Forest ecosystem condition;
- Soil and water resources;
- Multiple benefits to society;
- Institutional frameworks; and
- Economic well-being.

Indicators:

- Area by forest type and age class;
- Area of forest land available for timber production;
- Area and percentage of forest land converted to other uses;
- Volume of timber harvest as a percent of sustained yield;
- Percentage of forest area successfully regenerated;
- The status and number of forest dependent species; at risk;
- Area and percent of forest land with significant soil erosion;
- Area and percent of forest land managed for water protection;
- Area and percent of forest land managed for recreation;
- Area by forest type in protected area categories;
- Contribution of forest ecosystems to global carbon budget;
- Value of investment in forest growth, health, processing;
- Level of expenditure on research, development and education;
- Direct and indirect employment in the forest sector; and
- Legal framework that recognizes indigenous peoples' rights.

14.2.4 The BC Situation

BC has contributed at the international and national levels through participation with the various major reports that Canada has produced. In 2005 and 2007 the Ministry of Forests and Range published State of the Forests reports with six (6) and 12 indicators of SFM. The next edition is planned for December 2009. The 2006 report on B.C.'s Coastal Environment outlines six main topics and associated indicators, for the land and water area north of Prince Rupert to south of Vancouver Island.

Some forest companies and Forest Districts have developed various sets of area-specific C & I as part of their forest certification programs. This is an example of C & I helping to support another SFM initiative, at a local level.

14.2.5 Role of ABCFP and Forest Professionals

C & I falls under the definition of the 'practice of professional forestry' and is therefore one of the responsibilities of members of the Association. It is expected that forest professionals are and will be actively involved with C & I activities in BC.

14.2.6 References

For further information about C & I initiatives worldwide and in Canada, the following websites will provide useful information:

- The Montréal Process: www.mpci.org
- Canadian Council of Forest Ministers: www.ccfm.org
- International Centre for Forest Research: www.cifor.cgiar.org/acm/methods/candi.html
- USDA Forest Service: www.fs.fed.us/research/sustain
- State of BC Forest: www.for.gov.bc.ca/hfp/sof
- State of the BC Environment: www.env.gov.bc.ca/soerpt/
- BC Coast and Marine Environment: www.env.gov.bc.ca/soe/bcce/
- Criteria and Indicators for Sustainable Forest Management:
www.fao.org/forestry/site/19527/en

14.2.7 Questions & Answers

1. What are 'Criteria and Indicators' of SFM?

C & I are a tool for characterizing, assessing and reporting on progress towards SFM. They help us address questions such as: Are people's values being appropriately accommodated by plans? Are our prescriptions and practices actually giving the results we expected? Are changes needed to legislation, strategies, policies and procedures to better achieve desired outcomes?

2. What is their value to BC?

C & I of SFM enables people in BC to identify the values of most importance, measure the impact of our actions upon those values, discuss if those results are acceptable, and then adjust our practices to better meet the expectations. This can be done at the provincial level or at the local level.

3. Will forest professionals encounter C & I during their work?

The answer is 'yes', since C & I are already active in BC. The province is contributing to national reporting on C & I and is preparing reports on State of the Forests and State of the Environment based upon C & I. Also C & I are being developed for some local areas (including TSAs, RMAs and TFLs). Under the new *Forest and Range Practices Act*, resource values are required to be explicitly identified and monitored, which is a process similar to C & I.

14.2.8 Apply the Knowledge

1. How can C & I contribute to SFM globally? In Canada? In BC?
2. How could C & I relate to the *Forest and Range Practices Act*? or Resource Stewardship Plans ?
3. How could the CCFM C & I set be used to help create, or provide review comments on, a forest management plan?

14.3 Non-Timber Forest Products

Much of the attention of forest professionals and forestry in BC is focused upon trees and associated timber products. However there is another 'product dimension' to our forests - the world of non-timber 'resources' on our forest lands throughout the province. Various terms have been used to describe them including secondary forest products, botanical forest products, non-wood products and now more commonly, non-timber forest products (NTFPs). The term non-timber forest resources is generally preferred by First Nations.

14.3.1 Background

People throughout the world have traditionally utilized many types of forest materials, not only for timber purposes. BC is no exception as people, and in particular First Nations, have applied their knowledge and skills to develop many products from tree bark and foliage, plant leaves and roots, flowers, berries and seeds, cones, twigs and branches, mosses and lichens, mushrooms, and pieces of wood.

Today there are thousands of people in BC using NTFPs for both personal and commercial purposes, including recreational pickers, and subsistence and cultural users. An industry has become well-established and is now a major contributor to the social and economic well-being of the province. It contributes significantly to rural economic diversity, health and well-being, and community stability.

14.3.2 What are Non-Timber Forest Products?

A simple definition for NTFPs could be: "A term to describe forest plants (including fungi) that are harvested for a variety of uses, other than for timber". There are more than 200 species used commercially in BC. The main categories of NTFPs are:

- **Wild edibles** - mushrooms (many kinds); berries (salal, huckleberries, currants and wild raspberries); roots and bulbs (wild onion, wild ginger); greens (stinging nettle, fiddleheads, miner's lettuce).
- **Floral greenery** - salal, boxwood, bear grass, pussy willows; boughs (cedar, pine, fir); invasive (ivy and holly).
- **Natural health products** - Oregon grape, rose, juniper, prince's pine, spruce, poplar, yew, thistles, devil's club.
- **Restoration and landscaping** - hedging and greenery (cedar, spruce, fir, juniper); ferns and mosses.
- **Art and crafts** - mosses, cones, salvaged wood species (for carvings through to furniture), pine needles, cedar, cattails, burls; many more.

The number of products that is made from these plants are many and varied, including some plants that can be utilized whole (live) particularly for landscaping. The actual list of products is not so important (this list can be quite variable over time) as is the fact that NTFPs are a legitimate component of SFM and warrant comprehensive consideration during planning and operations.

14.3.3 BC Situation

Reviews done in the late 1990s suggested that several hundreds of millions of dollars were involved annually, and tens of thousands of people participated in some way in the harvesting, manufacturing and selling of the resource. A study completed in 2006 shows that the total floral greens NTFP sector has an estimated annual wholesale value of between \$27-65 million, and the wild mushroom sector has an estimated annual export value ranging from \$8-44 million, depending on productivity and markets.

The *Forest and Range Practices Act* **sec. 168** provides for the creation of regulations respecting NTFPs, or botanical forest products as they are referred to in the Act. No regulations have been enabled through this section of the legislation. The *Forest and Range Practices Act* also provides the right under **sec. 60** for an official or peace officer to inspect any vehicle transporting botanical forest products. NTFP values may also be included under FRPA cultural heritage values, given the value of NTFPs to First Nations communities. Under the *Forest Act*, the Community Forest Agreement is currently the only tenure on Crown land that may include non-timber forest products and may provide the rights holder to harvest, manage, and charge fees for NTFPs (termed botanical forest products in the *Forest Act*). However, there are opportunities to recognize NTFPs as a 'compatible practice' to warrant consideration during resource planning and forest operations.

The lack of regulation does not mean there is no interest to have administrative controls and stewardship requirements brought into force. Many harvesters and buyers, a few forest companies and forest districts, many Aboriginal communities, and the general public want systems that will enable sustainable management and equitable use of these resources. As a particular note of interest, it is important to recognize that First Nations consider many NTFPs as a very important part of their traditional uses and heritage, and expect full and meaningful, if not decision making power over the development of NTFP policy.

Some forest companies, both large and small, are working with local NTFP users (including on private forest lands) to provide some controls and monitoring of activities. There may be arrangements for some pickers to have a priority in certain areas, gate fees may be in effect, and some sites identified as important may be recognized in SFM plans. Several trials have occurred including the effects of tree thinning and fertilizing.

In the context of land-use plans, there are several initiatives that include some references to the management of NTFPs. Examples are some LRMPs, SRMPs, Community Forests, Woodlots, Tree Farm Licences, Code Pilots and Model Forests. These initiatives tend to be in the early stages of working with NTFPs to show how they can be better incorporated as a 'regular component' of SFM. Also two programs in BC - forest certification, and criteria and indicators - use NTFPs as a part of their basic elements.

Within the past several years in BC, a number of reports have been written about NTFPs in the province:

- 1995: Botanical Forest Products in BC: an Overview (MoF);
- 1998: BFPs: Effects on Operational Planning (MoF);
- 2000: Seeing the Forest Beneath the Trees: NTFPs in the Queen Charlottes;
- 2002: Property Rights in SFM of NTFPs (Forest Renewal BC);
- 2003: NTFP Collaborative Stewardship Project (MoF, CNTR);
- 2004: Integrating NTFPs into Forest Planning and Practices (FPB);
- 2006: Incorporating NTFPs into SFM (CNTR, MWICS, MFN);
- 2006: Critical Baseline Information for Management of NTFPs (CNTR), and
- 2008: Tenure and the management of non-timber forest products in British Columbia (SFM Network)

Some other recent developments include: NTFP opportunities in mountain pine beetle affected areas; autecological and market studies on specific NTFP species; regional profiles of NTFP activity; the creation of professional development modules; community workshops on capacity-building; annual publication of 'Buy BCwild' directory; and development of education opportunities through various post-secondary institutes including Vancouver Island University, University of Victoria, University of British Columbia and Royal Roads University.

14.3.4 Looking Ahead

NTFPs will become steadily more recognized as a basic component of SFM. Forest professionals will learn more about the subjects and will become more comfortable with incorporation into everyday planning and operations. A number of operational trials are underway to look at interactions and compatibilities, and search out common ground. This includes working with First Nations to identify particular needs and concerns. Basic legislation and policy may be written and many of the important issues will be addressed, including:

- ownership and responsibilities;
- stewardship requirements;
- inventory needs;
- impacts of forest practices;
- affects upon timber supply;
- site impacts of NTFP harvesting ;
- social and economic impacts;
- safety and liability; and
- revenues.

14.3.5 References

The following websites will provide more information about NTFPs in BC:

- MFR Research Branch: Non-Timber Forest Products:
www.for.gov.bc.ca/hre/ntfp/index.htm
- MFR Economics and Trade Branch: www.for.gov.bc.ca/het
- MFR Forest Practices Branch: www.for.gov.bc.ca/hfp/meta/publications.htm
- Royal Roads University Centre for Non-Timber Resources:
www.royalroads.ca/programs/faculties-schools-centres/non-timber-resources/
- BC NTFP mushrooms: bcmushrooms.forrex.org/ntfp

14.3.6 Apply the Knowledge

1. What are NTFPs? How are they important to BC?
2. How is NTFP management compatible with management for timber production? Are there situations when they may conflict?
3. What are the important issues to be addressed in BC?
4. What is the role of the forest professional in NTFP management?

