

Behind the logo

An analysis of the
Canadian Standards
Association's Sustainable
Forest Management
Standard



A report prepared for Fern

April 2001
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This report is part of a series, including a report on the PEFC and the FSC in Sweden;
the PEFC in France; the PEFC and the FSC in Germany; the PEFC in Finland and the
SFI in the US. All reports are available at Fern's website: www.fern.org, as is a
synthesis report based on these studies.

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Introduction

This report provides an analysis of the CSA standard and auditing procedures. The analysis is based on: official documents related directly to the standard; interviews with representatives from audited forestry operations, auditors, members of some of the Public Advisory Groups and others involved in the certification debate; and an initial survey of two Sustainable Forest Management Plans produced for 'defined forest areas' that have been audited using the CSA standard. The emphasis of the research is on the 'on-the-ground' performance requirements of the scheme; the management system requirements are not assessed in detail. In the space allotted, this report cannot include a comprehensive, in-depth review of the performance-related aspects of all Sustainable Forest Management Plans, field visits to 'defined forest areas' or a comprehensive assessment of the procedures and experiences of all Public Advisory Groups.

I Current status of the CSA and the FSC scheme in Canada

1.1 The Canadian Standard Association's Sustainable Forest Management System

The Canadian Standard Association (CSA) is an independent, not-for-profit organisation that has been involved in the development of standards for a variety of products and services since 1919.¹ The CSA is chartered and accredited by the Standards Council of Canada, a federal agency responsible for Canada's National Standards System. On behalf of the Standards Council of Canada, the CSA represents Canada on various ISO Committees. The area of sustainable forest management is a relatively recent expansion of the CSA's scope.

In 1994, the CSA set up a 'Technical Committee on Sustainable Forest Management' that began to develop guidelines and specifications for a *Sustainable Forest Management System*. The system is based on ISO procedures that have been adapted to the needs of the CSA scheme. The Guidance Document, one of the two key documents of the CSA standard, specifies the motivation to develop the scheme by stating that "*in the absence of an internationally accepted standard for sustainable forest management, the CSA was asked to develop a voluntary standard for Canada*"². The Guidance Document further states the purpose of the standard is to describe "*the components and performance objectives of a Sustainable Forest Management (SFM) system that, when applied to a specified 'defined forest area', will ensure that the Canadian Council of Forest Ministers' (CCFM) criteria for sustainable forest management are being met.*"³ These CCFM criteria and indicators were developed primarily for reporting at the national scale rather than for assessing on-the-ground forestry practices. In September 1996, the Standards Council of Canada approved the CSA SFM system as the National Standards of Canada.

The CSA standard is best described as a management system standard with a framework for performance requirements built into it. Following a successful third-party audit, the 'defined forest area' is registered with the CSA ("certified"). After registration, the applicant receives a 'certificate of registration' that can be distributed to third parties "as proof that the SFM system applied to a 'defined forest area' meets the system and performance requirements of the CSA standard". At present, the CSA standard does not include a chain-of-custody requirement and does not provide an on-product label.

The CSA standard was developed through funding provided by the "Canadian Sustainable Forestry Certification Coalition", a collective of 22 forest industry associations headed by the Canadian Pulp and Paper Association. The coalition was founded in 1993 with the goal of "promoting the use of sustainable forest management standards, nationally through the Canadian Standards Association and internationally through the International Organisation for Standardisation (ISO), in order to continually strive toward sustainable forest management, secure a sustainable supply of forest

¹www.csa.ca. Canadian Standards Association.

²CAN/CSA-Z808-96, p. X.

³ CAN/CSA-Z808-96, p. XI.

products, and ensure support for our practises at home and abroad”⁴. Members of the coalition presently include the Canadian Pulp and Paper Association, the Canadian Plywood Association, the Council of Forest Industries and the Canadian Wood Council as well as most regional forest industry associations⁵.

1.2 Status of certifications under the CSA, SFI and FSC schemes in Canada

In Canada, a total of 8,185,000 ha (as of February 2001) have been certified/audited under the CSA, the Sustainable Forest Initiative (SFI) and the Forest Stewardship Council (FSC). *See Annex Two for an overview of the current status of registration/certification of forests under these three schemes.* The size of the forest areas certified/audited ranges from 132 ha (FSC) to 2,900,000 ha (SFI). Both the CSA and the FSC certify at the level of the forest management unit (‘defined forest area’ in the CSA), though the process for determining the performance requirements for the forest management unit is very different under the two schemes. *See sections two and three for more detail.*

Table 1: Total area certified /audited under the CSA, SFI and FSC schemes in Canada and average size of certified / audited forests.

	Total area certified / audited (ha)	Average size of the certified / audited forest area (ha)	Smallest operation certified / audited (ha)	Largest operation certified / audited (ha)
CSA	4,215,000	421,500	12,000	1,000,000
SFI	3,940,000	1,313,333	32,500	2,900,000
FSC	30,000	4,285	132	19,184

An overview of the certifications under all three schemes as well as further notes can be found in Annex Two.

Both the CSA and the FSC scheme claim to be applicable to all forest types and sizes of operations. To date, CSA audits have been carried out exclusively on holdings of large forestry companies and for both area-based and volume-based tenures⁶. The Southern New Brunswick Woodlot Owners Organization undertook to implement an SFM plan with the CSA standard as a guide but has not yet sought certification.

In Canada, FSC certification has – with one exception⁷ – been granted on area-based tenures only, and certification has been predominantly of private woodlots as well as a medium-sized First Nations operation. FSC Canada is currently exploring two group certifications: one in collaboration with the Eastern Ontario Model Forest and a second

⁴ The Canadian Sustainable Forest Certification Coalition: Meet the Coalition. www.sfms.com.

⁵ For a full list of members of the Canadian Sustainable Forestry Certification Coalition see Annex One.

⁶ On area-based tenures, the licensee (usually a large forestry company) is responsible for developing the forest management plan, which is then approved by the provincial Government. Silviculture and road construction are the responsibility of the company and the area-based tenures are usually long-term leases. Volume-based tenures are short-term, generally for no more than five years. The provincial Government develops the forest management plans; the annual allowable cut is determined by the provincial authorities, which are also responsible for administering silviculture and road construction.

⁷ Timfor Contractors Ltd. Timfor made their full FSC audit report available to the public.

one in Nova Scotia with the Nova Forest Alliance Model Forest and the Nova Scotia Woodlot Owners and Operators Association.

II The Standard-Setting Procedures

It is generally understood that “the standard” against which forestry operations are audited in the CSA SFM scheme is the document approved by the Standards Council of Canada⁸. In practice, however, the “quality” of on-the-ground forest management is determined at two different levels.

A. CSA’s Guidance Document and Specifications Document

At the first level, the CSA’s Technical Committee on Sustainable Forest Management developed the two main documents of the CSA SFM system: The Guidance Document (Z808-96) and the Specifications Document (Z809-96). The Guidance Document describes the key elements of the standard. It includes a description of the SFM Performance Framework; the role and characteristics of values, goals, indicators and objectives in this framework; definitions of these terms; the six Canadian Council of Forest Ministers’ (CCFM) criteria (*See Annex Three*); a description of the SFM System Framework; and one page on the process of obtaining a CSA certificate of registration. This procedure is described in more detail in the Specifications Document, which outlines the steps of a CSA registration / audit as well as the documents and activities to be assessed by the auditor. The main document audited is the ‘Sustainable Forest Management Plan’, developed by the applicant.

Neither of these two documents – approved by the Standards Council of Canada as ‘National Standards of Canada’ – includes clearly defined and quantified entry-level criteria setting minimum thresholds for key indicators of environmentally and socially sound forest management.

The following examples highlight the level of prescriptiveness and detail given in the Guidance Document, generally referred to as the ‘CSA Sustainable Forest Management Standard’ (Guidance Document CAN/CSA-Z808-96).

Regarding Indicators (5.4):

- “At least one indicator must be selected for each goal identified through the public participation process. There is no upper limit to the number of indicators that may be chosen as long as the final indicator set is sufficient to enable a determination whether the goals related to the critical elements of the CCFM criteria are being met...the final indicator set will be specific to the ‘defined forest area’ and will reflect local circumstances” (p.10).
- “The selection of specific indicators will be made through internal management policies and procedures and the public participation process with assistance of technical experts....The final indicator set must include indicators for all applicable critical elements; reflect all

⁸ www.sfms.com. Canadian Sustainable Forest Certification Coalition. Frequently Asked Questions.

identified values for the ‘defined forest area’; be adequate to enable progress towards the goals established for each value to be measured” (p.11).

A short description of characteristics of indicators is provided stating that all indicators should be measurable, predictable, relevant, understandable, valid and feasible. No further prescriptive language on requirements pertaining to the quality or nature of indicators is included in the Guidance or Specifications Document.

Regarding Access to Information (6.5):

- 6.5.2.4 Access to Information: “Different interests may wish to have access to varying amounts and types of information. Opportunities must be provided for sharing information, views, and values in a manner that is acceptable to all interested parties. While access to all relevant information must be provided, it is recognized that sensitive or proprietary information will require special provisions and may not be available to everyone” (p.16).

The document does not define or describe the terms ‘relevant, sensitive or proprietary information’. It does not describe a procedure for obtaining information.

B. Adapting the SFM Performance Framework to the Defined Forest Area

The second level relevant to the level of performance is the adaptation of the components of the SFM Performance *Framework* to the ‘defined forest area’, and in particular the adaptation of the six criteria and the critical elements (goals) adopted by the Canadian Council of Forest Ministers (CCFM). Refining these broad, Canada-wide CCFM criteria into specific, measurable performance requirements for the ‘defined forest area’ is a crucial part of the standard setting process because the performance requirements for a successful audit are determined at this stage.

A Sustainable Forest Management Plan is developed by the applicant, specifying values, goals, indicators, objectives, and management strategies to be applied to the ‘defined forest area’. This Sustainable Forest Management Plan is required by the CSA standard, in addition to the management plans that the applicant has to develop as part of the tenure lease agreement with the provincial Government in those cases where the applicant holds cutting rights to an area-based tenure. A Public Advisory Group provides input into the process of developing the Sustainable Forest Management Plan.

In sum, the Sustainable Forest Management Plan is the applicant’s interpretation of the performance requirements contained in the CSA standard; it is the key document used by the auditor to assess whether actual forest management in the ‘defined forest area’ conforms to the CSA standard.

2.1 Standard setting at the level of the CSA’s Technical Committee

Between 1994 and 1996, the CSA’s Technical Committee on Sustainable Forest Management drafted the Guidance and Specifications Documents of the CSA standard. The Technical Committee represented a wide spectrum of forestry interests including academia, research institutions, the Canadian Forest Service, Ministry of Forests

representatives from several provinces, the International Woodworkers Association (IWA)⁹, the National Aboriginal Forestry Association, the Canadian Wildlife Federation, Wildlife Habitat Canada, private woodlot owners associations (associate member¹⁰), forestry companies (including two who have subsequently sought CSA registration), wood products manufacturers and auditors (associate members). Standard setting at the level of the Technical Committee has been described as open, inclusive and consensus-oriented.¹¹

Although many environmental non-governmental organisations (ENGOS) were invited to participate in the Technical Committee, the vast majority chose not to, including the Sierra Club of Canada, WWF Canada, Greenpeace and the Canadian Environmental Network. They cite varied reasons for declining to participate (or withdrawing after participating for a while, either as a member or an observer). However, the common element of concern that they voiced was that the system was set up to be primarily a management system standard, with no independently established performance standards.

In the fall of 1995, drafts were made available for NGO input and in early 1996 the CSA held four nationally advertised meetings in cities across Canada (Halifax, Montreal, Toronto and Vancouver) to obtain input from the public-at-large. The CSA reports that comments were submitted by more than 90 organisations and individuals. ENGOS reiterated their reasons for declining participation in the process in a statement released in September 1996. Over fifty environmental, Aboriginal and labour groups endorsed the statement.

In March 1996, six pilot projects were carried out to test whether the CSA standards were “feasible, auditable and affordable”.¹² In May 1996, the Technical Committee examined the comments received through the public review process, revised the documents and endorsed the Guidance and Specifications Documents. In September 1996, the Standards Council of Canada approved the CSA’s SFM System standards as ‘National Standards of Canada’ and the standards were published in October 1996.

2.2. Standard setting at the level of the applicant and public participation process

A crucial element in the standard-setting procedure rests with the management of the forestry operation applying for registration (the “applicant”), since the CSA standard itself does not include clearly defined and quantified entry-level criteria setting minimum thresholds for on-the-ground forest management. The CSA standard requires the auditor to assess that a “Sustainable Forest Management System including quantified objectives for meeting sustainable forest management criteria has been established through a process of public participation”¹³. During the forest operation’s development of the SFM Plan, performance levels for forest management are determined: this is where the six CCFM criteria are translated into values, goals,

⁹ The IWA is one of the two trade unions representing workers in the forestry sector.

¹⁰ The key difference between members and associate members in the Technical Committee is that the latter do not have a right to vote.

¹¹ Balsillie, 2000.

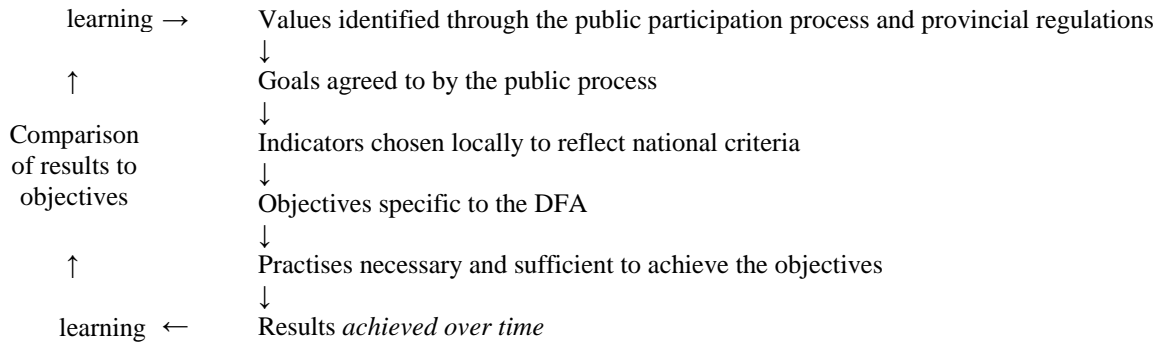
¹² www.sfms.com. Canadian Sustainable Forest Certification Coalition.

¹³ CAN/CSA-Z809-96, p.ix.

indicators, objectives and practises applicable at the level of the ‘defined forest area’ (see Figure 1).

Figure 1: Hierarchy of components of the CSA SFM Performance Framework.

Source: CAN/CSA-Z 808-96, p. 8. (Emphasis added).



Regarding the level of public involvement in determining the values, goals, indicators and objectives, interviews with both members of Public Advisory Groups and representatives of the companies audited confirmed that the final decision about performance requirements rests with the company seeking registration of its operations under the CSA scheme.

Membership in the local Public Advisory Groups is not necessarily open to anyone but the criteria for membership must be clearly documented and available to all. Although the standard does not describe the procedure for determining interested parties, it does require that “the registration applicant should ensure a balanced and representative matrix of those directly affected by or interested in forest management on the ‘defined forest area’”¹⁴.

Notably, selection of the Public Advisory Group members is apparently in the hands of the applicant. Nonetheless, no cases were reported to the author that participation in a Public Advisory Group had been denied. It was reported that, generally, the companies had made an effort to have a ‘balanced and fair’ representation of *local* stakeholder interests in the Public Advisory Groups and that the Public Advisory Groups did establish clear terms of reference. It was further stated that, within the constraints of the process as a whole, facilitation was generally impartial. It should be noted that the requirement to establish and maintain an ongoing Public Advisory Group beyond issuance of the certificate of registration demands a considerable long-term time and financial commitment from all involved and goes beyond the requirements for local public involvement in other forest management certification schemes. However, this asset of the public participation process is compromised by the advisory-only nature of the group.

Concerns that were raised regarding public involvement focused on four issues:

¹⁴ CAN/CSA-Z808-96, p.15.

- The lack of publicly available information about which forestry operations are in the process of obtaining CSA registration. This makes it difficult for interested stakeholders from outside the local area to follow the process.
- The fact that the status of the Public Advisory Groups is *advisory only* and that the final decision concerning which indicators and objectives are included in the Sustainable Forest Management Plan remains with the applicant. In one case¹⁵, the applicant successfully passed the audit *before* the Public Advisory Group had discussed the entire SFM Plan. It also appears that Public Advisory Groups were not always provided with a copy of the full audit report¹⁶.
- That the development of indicators or performance objectives directly related to logging practises either fell outside the mandate of the Public Advisory Group or that whenever indicators affecting the *status quo* of logging practises were suggested, the advisory nature of the group became very apparent. Examples of indicators and quantified objectives *not* incorporated as suggested by the Public Advisory Groups include: Maintaining / not increasing overall road access on the ‘defined forest area’; substantially increasing the amount of coarse woody debris left /burnt on site; setting a target for the percentage of selective logging carried out in the ‘defined forest area’; discussing the sustainability of the rate of cut on the ‘defined forest area’, particularly on volume-based tenures; setting a target for the percentage of timber bought from private operators in the ‘defined forest area’; and maintaining / increasing the number of jobs per cubic meter cut¹⁷.
- That few individuals in the Public Advisory Groups had the technical expertise to get involved in the detailed discussions concerning quantifiable indicators and performance objectives for sound forest management.¹⁸ It was further pointed out that, in several cases, those individuals with the technical expertise were also the ones who are economically dependent to varying degrees on the forestry operation, i.e. contractors, consultants, mill workers or woodlot owners who sell their timber to the company. This is of particular concern given that many of the operations are located near communities whose economic well-being is tied to the fate of the forest sector and who have in many cases been hit hard economically over the past decade.

III Assessment of performance requirements

As noted above, the CSA SFM system is best described as a management system standard (based on ISO 14001 procedures), with a framework for performance requirements (the six CCFM criteria) built into it. Since CSA performance requirements

¹⁵ Weldwood Williams Lake Division.

¹⁶ The Weyerhaeuser PAGs were provided with the full audit report, for some other groups it could not be clearly assessed whether or not the full audit report was made available and at least in one instance (Weldwood Hinton Division), the Public Advisory Group has not been presented with the full audit report to date.

¹⁷ Interviews with members of the Weldwood Williams Lake Division PAG, the Canfor Chetwynd Division PAG, and the Weldwood Hinton Division PAG

¹⁸ In some cases, the companies invited external company experts into the group for special sessions (Weyerhaeuser) while in other cases, suggestions to invite company experts on specific issues were not followed through and suggestions for experts not affiliated with the company were rejected (Weldwood Williams Lake Division).

are determined at two different levels, assessment of these requirements will consider these levels separately.

3.1 Performance requirements in the CSA Guidance Document

The Guidance Document, one of the two key documents of the standard, describes the ‘SFM Performance Framework’ of the CSA scheme (pp.8-12). This section of the standard defines the function and meaning of the following terms used to determine the performance requirements at the level of the ‘defined forest area’: values, goals, indicators, objectives and practices (see also Figure 1, pg 7). It further lists the six CCFM criteria and supporting 21 critical elements (see Annex Three); a list of the 83 indicators approved by the CCFM for reporting at the national level is referenced as a non-mandatory part of the standard (Annex B of the Guidance Document).

The performance requirements of the CSA standard are based on the six CCFM criteria, which in turn constitute “a Canadian adaptation of the SFM criteria that were developed through the Montreal Process”¹⁹. The six criteria are:

- ◆ *Conservation of biological diversity;*
- ◆ *Maintenance and enhancement of forest ecosystem condition and productivity;*
- ◆ *Conservation of soil and water resources;*
- ◆ *Forest Ecosystem contributions to global ecological cycles;*
- ◆ *Multiple benefits to society;*
- ◆ *Accepting society’s responsibility for sustainable development.*

Each of the six criteria contains a number of critical elements and indicators that further refine the scope of the criteria. The CCFM criteria and indicators were developed primarily for reporting at the national level; they were not originally intended to assess the forest management at the level of the forest management unit. As a result, some of the critical elements and indicators are not applicable to forest management at the level of the forest management unit while on the other hand, criteria and indicators necessary to assess the quality of forest management and actual forestry practices may not be included in the CCFM criteria and indicators.

Although the Preamble of the Guidance Document highlights the “great relevance” of international initiatives and agreements such as Agenda 21, the Rio Statement of Principles on Forests, the Convention on Biological Diversity, there is no further reference to these or other relevant international initiatives in the remainder of the standard. Neither of the two key documents of the CSA standard contains any reference to Convention 169 of the International Labour Organisation, the relevant sections of the Intergovernmental Panel on Forest’s Proposals for Action or the Draft UN Declaration on the Rights of Indigenous Peoples. The CSA standard does not comprise concise language on forest workers’ rights or the long-term social and economic well-being of forest workers.

¹⁹ www.sfms.com Canadian Sustainable Forest Certification Coalition.

Neither the six criteria nor the 21 supporting critical elements are specific enough with regard to on-the-ground forestry practices to allow for a comparison of the performance requirements with other certification schemes operational in Canada or for a comparison with national / provincial requirements on key environmental and social issues such as pesticide use, set-aside areas, respect of land rights and customary use rights or benefits to local communities.

3.2 Performance requirements in the applicant's Sustainable Forest Management Plan

Refining the broad Canada-wide CCFM criteria into specific, measurable performance requirements for the 'defined forest area' is a crucial part of the CSA process since the performance requirements for a successful audit are determined here.

A comprehensive assessment of all Sustainable Forest Management Plans, including an analysis of whether the indicators and objectives chosen require substantial commitment beyond legal requirements, was beyond the scope of this report. However, the examination of examples from the Weldwood Hinton Division SFM Plan and an evaluation of two earlier studies²⁰ assessing the Weyerhaeuser North Island Woodlands Division (BC Coastal Group) SFM Plan highlight that:

- many indicators unrelated to the rate of timber extraction do not conform to the CSA standard guidance on selection of indicators (see below);
- some indicators appear merely to restate legal requirements;
- several indicators aim at increasing efficient use of timber and non-renewable resources used to operate machinery;
- few indicators are directly related to logging practices or ensure ecosystem integrity throughout the 'defined forest area';
- social indicators focus on monitoring and surveying or providing access to information rather than on ensuring sustainable benefits to local communities or diversification of non-timber forest use;
- there appears to be considerable variation in the quality and quantity of indicators selected among the SFM Plans; these differences cannot be attributed only to the fact that audited operations are located in different forest types in some cases.

In sum, while the criteria and goals listed in SFM Plans appear to reflect a commitment to the protection of all forest values, the author found it difficult to draw a link between the stated intentions and the measurable outcomes identified in indicators and objectives. This lack of correlation makes it difficult to determine how auditors verifiably determine achievement of "sustainable forest management".

The CSA Guidance Document provides clear statements regarding which types of indicators are to be used: "Indicators that directly monitor forest conditions are

²⁰ Cowan et al. (2000): Certification, Sustainability and MacMillan Bloedel. Honours Environmental Studies Thesis, University of British Columbia, Vancouver, B.C.; Haddock, M & L. Brewster (1999) *Canada's First Sustainable Forest Management Certification by the Canadian Standards Association*. WWF Canada, unpubl.

preferred over those that monitor activities that affect conditions. ...In some instances, direct measures of forest conditions are not feasible, and an indirect measure is necessary... For example, if the amount of a certain ecosystem type is used as a surrogate for the population of a rare species, it is necessary to periodically establish that the rare species is present in the ecosystem type.”²¹

The CSA standard further requires that the SFM Plan contain a description of practices intended to achieve each objective. The CSA standard defines a practice as “an on-the-ground forest management activity designed to achieve an objective”.²² Remarkably, an SFM Plan – intended to demonstrate that forestry practices in the ‘defined forest area’ ensure sustainable forest management – can be considered complete by an auditor without containing indicators, objectives or practices directly related to the harvesting system²³, the use of fertilizers or herbicides, or the nature of species used for replanting. This was the case with the SFM Plan for Weldwood’s Hinton Division, for example, which to be fair, has several progressive indicators pertaining to public participation and to input at the local level (e.g. commitment to survey local public satisfaction with Weldwood SFM program starting in 2001 and repeating the survey at least once every 3 years). However, the indicators and objectives directly related to on-the-ground forestry practices seem insufficient to justify a claim that “sustainable” – i.e. environmentally and socially sound – forest management is practiced in the ‘defined forest area’.

The Specifications Document of the CSA standard states that ‘major commitments are a part of the registration process’ and that these major commitments include among others the recognition of environmental, economic, social and cultural values.²⁴ However, in the SFM Plans, the “major commitments” appear to be restricted to monitoring indicators, particularly with regard to social and cultural values – where quantified indicators have been determined for social and cultural values at all. None of the indicators or objectives included in the surveyed SFM Plans would ensure, for example, that the number of local jobs directly related to the operation be maintained or increased, or that aboriginal title to the land be respected in the sense that consent is sought in cases where companies were operating on unceded native territory.

IV The Certification Process

The CSA standard requires both a documentation audit and an implementation assessment including field inspections of the ‘defined forest area’. Concerning actual forest management, the Sustainable Forest Management Plan, developed by the applicant, is the key document used by the auditor to assess whether performance requirements are met. The auditor will:

- seek assurance that the objectives of SFM are being achieved in the ‘defined forest area’;
- collect evidence to determine whether the SFM System is effective;

²¹ CAN/CSA-Z 808-96, p. 11.

²² CAN/CSA-Z808-96, p.12.

²³ For example, retention of merchantable trees on the cut block, structural diversity on the cutblock after harvest, long-term sustainability of the rate of cut.

²⁴ CAN/CSA-Z809-96, p.ix

- verify the accuracy of measures of changes in forest values and indicators;
- carry out a comparison of performance against objectives;
- assess compliance with legislation and regulatory requirements and other commitments (ie: policies and codes of practice).

Those standards documents and audit reports that were publicly available do not make clear which of the tasks listed above are verified during the field visits and which are verified during the documentation audit only.

During the implementation assessment, auditors will also assess the public participation process. They will assess the terms of reference of the Public Advisory Group and interview members of the group. Interviewees are chosen by the auditor; however, in some cases it was not clear to the members of the group who had been chosen or whether they would be able to contact the auditor directly if they had a strong interest in providing feedback to the auditor. There was also doubt as to the impact that raising concerns with an auditor had in practice.

The applicant's operation is revisited six months after the initial audit; further surveillance audits to review SFM system documentation and implementation, including field visits, follows annually after the initial audit. The registration is granted for three-year intervals.

Audits are conducted by independent third-party auditors accredited by the Standards Council of Canada or their delegated registrar. At present, two registrars have been accredited by the Standards Council Canada to carry out audits of the CSA's Sustainable Forest Management standard:

- the Quality Management Institute (QMI), a division of the CSA, is accredited by the Standards Council of Canada (SCC) as a third-party registrar.
- KPMG Quality Registrar, Inc.

Where a dispute arises concerning grant/refusal of certification, questions remain regarding how precisely the appeals process of the CSA scheme operates. On the one hand, the CSA Sustainable Forest Management System, as a standard closely following ISO 14000 procedures, allows objections to a successful audit to be filed with the auditor and eventually, with the Standards Council of Canada. However, the key CSA standard documents provide no guidance on this issue. Furthermore, the lack of response to a mere request for information by one of the two registrars (see section 5) raises concerns about the adequacy of this procedure.

V Transparency

The CSA Standards are not publicly available free of charge but can be purchased through CSA, for a price of CAN \$ 245 (complete set of key documents and guidebooks). The CSA web-page does not contain any in-depth information on forest management certification, or specific information on the CSA scheme. A list of registered / certified forest areas is available on the web-page of the Canadian Sustainable Forest Certification Coalition, but the CSA standard or web-page contains no reference directing interested parties to this site.

In contrast to certifiers accredited under the FSC, KMPG and QMI do not provide extensive (or any) information on forest management certification or on the CSA scheme specifically; nor do they provide audit reports. Of the 10 forestry operations audited to date, only one (Weldwood's Hinton Division) had a web-page where substantial information was available on the CSA audit, including the SFM Plan and general information on certification of forest management.

The CSA standard provides that the audit report is the property of the applicant and that its distribution remains the applicant's responsibility. Because the CSA standard does not specify which documents must be made available to the public, applicants did not always have a publishable version of the auditor's report. Not all Public Advisory Groups were provided with full audit reports. From the information supplied in the CSA standard's key documents, on the CSA web-site or on the web-sites of the auditors or companies, it is not apparent whom an interested person should approach to obtain a copy of the full / summary audit report. Document Plus 1133 – General Audit Principles and Audit Procedures for Auditing Sustainable Forest Management Systems indicates that these documents might be available through the applicant. Nor do the CSA standard's key documents, the CSA web-site, or the web-sites of the auditors or companies clarify whom an interested person should contact to file a complaint or appeal concerning a registration.

Representatives of all the forestry operations that were contacted provided information on the CSA auditing process and made full or summary copies of audit report available on request. Only one audited operation currently makes their SFM Plan available on the web.

Both accredited auditors (KPMG and QMI) were approached for interviews. The questions sought to clarify, *inter alia*,

- Whether the auditor carries out certifications for more than one SFM scheme;
- Which documents related to the auditing process are publicly available;
- How much time is spent assessing the documents and on field visits;
- How the auditing team assesses whether the set of indicators and objectives chosen by the applicant will "ensure that the CCFM criteria for sustainable forest management are being met;"²⁵
- Whether an appeals mechanism is in place and, if so, how it operates.

The response received was markedly different: KPMG agreed to an interview on the spot and readily provided information. QMI asked for written submission of the questions and subsequently declined an interview, suggesting that further information could be obtained by contacting other registrars (QMI Vancouver office); it also referred to a list of CSA documents and the proprietary nature of information²⁶ not found in those CSA documents (QMI Toronto office).

²⁵ (CAN/CSA-Z 808-96, p.xi)

²⁶ "QMI is not in a position to answer some of the questions because they deal with proprietary information or the questions do not provide adequate context in order to provide an adequate and comprehensive answer." Email correspondence Peter Johnson, QMI, March 13, 2001.

VI Label Protection and Chain of Custody

The CSA SFM scheme is not a labelling system and at present does not provide for any claims to be made that link specific products to forests managed under the CSA system. Currently, the standard does not provide for on- or off-product labelling. The CSA SFM system is more adequately described as a registration rather than a certification system, and the Canadian Sustainable Forest Certification Coalition describes it as “a management system designed to promote progress towards sustainable forest management.”²⁷ Although the system was originally not intended to provide a chain-of-custody framework and on- / off-product labelling, the CSA is investigating chain-of-custody procedures in light of the international debate surrounding them, and demand for such procedures as part of a certification scheme.

VII Conclusions and Summary of Findings

As stated at the outset, an in-depth review of performance-related aspects of all Sustainable Forest Management Plans, field visits to ‘defined forest areas’, and a comprehensive assessment of the procedures and experiences of all Public Advisory Groups was beyond the scope of this study. As a follow-up to this report, the author suggests a comprehensive review of all 10 operations audited to date. The review should include field visits, interviews with members of each of the Public Advisory Groups and a comprehensive comparison of the performance requirements as described in the individual Sustainable Forest Management Plans vis-à-vis the SFM performance framework of the CSA standard as well as the minimum requirements for credible certification schemes as outlined in the Fern synthesis report of this project, “Behind the Logo”. Such an exercise would provide a more complete overview than could be achieved here of the variation in actual performance resulting from the absence of clearly defined minimum performance requirements applicable to forest management and forestry practices at the level of the ‘defined forest area’.

Summary of the findings and conclusions

Certification under the Canadian Standards Association focuses primarily on the management system and procedural elements to achieve a level of environmental performance that is determined – with input from the public– by the applicant. The system thus describes a process whereby the management of a forestry operation (the applicant) makes certain commitments pertaining to the environmental performance of its operations in a ‘defined forest area’ that can be verified by an independent auditor. These commitments include developing a *Sustainable Forest Management System*, consisting of both a *performance framework (the Sustainable Forest Management Plan)* and a *system framework*. A successful audit leads to registration of the operation with the CSA and to a “certificate of registration” issued by the CSA.

A fundamental difference between the CSA and Forest Stewardship Council certification schemes is that the CSA standard does not set any quantified, performance-based, entry-level criteria for a successful audit. Thus, CSA audits have no

²⁷ www.sfms.com Canadian Sustainable Forest Certification Coalition. Frequently Asked Questions – Different from an Ecolabel Program.

independently determined criteria and indicators against which performance at the level of the forest management unit is audited. Without a pre-defined set of auditing standards, the value of a successful certification is entirely dependent on the indicators and objectives determined by the applicant. If an applicant sets low standards, it could pass a CSA-registration audit by simply practising *status-quo* forestry without substantial changes to unsustainable forestry practises on the ground. In this case, performing a CSA audit adds only another layer of bureaucracy to the management of a forestry operation. On the other hand, thorough and well-designed indicators and objectives could provide documentation of key components needed to determine whether forestry practises are environmentally and socially sound. The challenge for public acceptance of CSA audits is that in both cases, a certificate of registration would be issued, since the framework requirements laid down in the CSA standard are fulfilled.

To continue, the CSA scheme and its associated documents are complex and difficult to follow. It is difficult to get a clear idea of what is being audited, against what standards, whether commitments were made that go beyond legal requirements, or even to find out which operations have been audited. The public-at-large as well as major timber consumers are unlikely to have a clear idea of what is being registered / certified, how the process is structured, and what the certificate means in terms of the true quality of forest management, especially concerning logging practices.

With regard to the biodiversity indicators included in the SFM Plans, a strong emphasis remains on the use of indicator species and habitat modeling rather than on indicators that directly monitor the structural diversity and ecosystem health across the ‘defined forest area’. Those audit reports that were available did not provide evidence that the auditing team evaluated the adequacy of the indicators and objectives against the six CCFM criteria. Likewise, it is not apparent from the audit reports surveyed how auditing teams evaluated the applicant’s forest management and practices against the selected indicators and objectives.

Considering that the SFM Plans are designed to register operations as “Sustainable Forest Management Systems”, it is striking that SFM Plans did not always contain values, goals, indicators or objectives that indicate the type of harvesting system being used in the ‘defined forest area’. Clear-cutting, selection logging or any other form of practise could take place, but the reader of the SFM Plan – the main performance-related document assessed during the audit – is not in a position to determine which of these logging practises is used or whether they ensure sustainable (i.e., ecologically and socially sound) forest management. This ambiguity regarding on-the-ground practises in the SFM Plans can be partly explained by the seemingly different expectations of what the CSA standard is supposed to assess: the author assumed the standard and the SFM Plan were to provide the performance requirements for an assessment of forest management and forestry practises on-the-ground. However, company representatives generally perceived that the SFM Plan focused on ‘higher level objectives’, not readily detectable on the cut-block, but said to contribute to sustainable forest management at the landscape level of the operation.

With regard to the Public Advisory Groups, the lack of decisive influence of the group in determining the final set of values, goals, indicators and objectives appears to outweigh the utility of an ongoing public participation process. While both companies and participants in the group make a considerable, long-term time commitment, and

some participants felt they had been able to set long-term goals and to influence somewhat the interpretation of sustainable forest management in their area, the advisory nature of the group appears to be 'dis-empowering' for most participants. In one case, the applicant had successfully passed the audit *before* the Public Advisory Group had discussed the entire SFM Plan. When asked if any change could be detected regarding on-the-ground logging practices as a result of the audit, the impression among interviewees prevailed that the immediate changes were minimal, if at all noticeable. This raises concern that the CSA standard's claim to "ensure that the CCFM criteria for sustainable forest management are being met"²⁸ is unfounded. Such a claim cannot be supported on the basis of an SFM Plan that does not result in immediate changes in unsustainable forestry practices on the ground, but rather provides a mechanism to monitor and measure sustainability or lack thereof of forest practices over the longer term. This point is of particular concern given the voluntary nature of certification: in the framework of the CSA standard, a certificate *can be* issued without noticeable improvement of ecologically unsound forestry practices or increased consideration of non-timber forest, social or cultural values. At a future point in time, should monitoring reveal a lack of sustainability that could be remedied only by making substantial changes that the applicant was not ready to make at the outset, the applicant may choose not to renew a certificate. Nonetheless, a benefit would have been gained from advertising with the certificate while no substantial changes to the practices were required.

²⁸ CAN/CSA-Z 808-96, p.xi

Bibliography

Balsillie, D. (2000): Comparison of three certification systems in use in Canada with the requirements of the German magazine publishers for the framing of forest certification.

Canadian Council of Forest Ministers (1995): Defining sustainable forest management – a Canadian approach to criteria and indicators. CCFM, Ottawa, Ontario, Canada.

Canadian Council of Forest Ministers (1997): Criteria and indicators of sustainable forest management in Canada – 1997 progress to date. CCFM, Ottawa, Ontario, Canada.

Canadian Standards Association (1996a): A sustainable forest management system: Guidance Document. CAN/CSA-Z808-96, Canadian Standards Association, Etobicoke, Ontario, Canada.

Canadian Standards Association (1996b): A sustainable forest management system: Specifications Document. CAN/CSA-Z809-96, Canadian Standards Association, Etobicoke, Ontario, Canada.

Canadian Standards Association (1996c): Guidelines for Sustainable Forest Management Systems –General Audit Principles and Audit Procedures for Auditing Sustainable Forest Management Systems. PLUS 1133. Canadian Standards Association, Etobicoke, Ontario, Canada.

Canadian Standards Association (1996d): Guidelines for Sustainable Forest Management Systems – Qualifications Criteria for Sustainable Forest Management Auditors. PLUS 1134. Canadian Standards Association, Etobicoke, Ontario, Canada.

Canadian Standards Association (no date): Canada's National Standard for Sustainable Forest Management. Leaflet available from Canadian Standards Association, Etobicoke, Ontario, Canada.

Canadian Sustainable Forest Certification Coalition. Entirety of the web-based information material available at www.sfms.com

Cowan, C. et al. (1999): Certification, Sustainability and MacMillan Bloedel. Vancouver, 124 p., unpubl.

Haddock, M. & L. Brewster (1999): Canada's First Sustainable Forest Management Certification by the Canadian Standards Association. WWF Canada, unpubl.

Schneider, R. (2001): Forest Management in Alberta. A Review. Draft Report. Alberta Centre for Boreal Research. 19 p.

Weldwood / International Paper, Hinton Division. Entirety of the web-based information material (including SFM Plan) available at www.hinton.com

Annex One

Members of the Canadian Sustainable Forest Certification Coalition

Source: Canadian Sustainable Forest Certification Coalition

www.sfms.com

- Alberta Forest Products Association
- B.C. Pulp and Paper Association
- Canadian Lumberman's Association
- Canadian Plywood Association
- Canadian Pulp and Paper Association
- Canadian Wood Council
- Cariboo Lumber Manufacturers Association
- Central Forest Products Association
- Coast Forest and Lumber Association
- Council of Forest Industries
- Council of Saskatchewan Forest Industries
- Interior Lumber Manufacturers' Association
- New Brunswick Forest Products Association
- Maritime Lumber Bureau
- Newfoundland Lumber Producers' Association
- Northern Forest Products Association
- Nova Scotia Forest Products Association
- Ontario Forest Industries Association
- Ontario Lumber Manufacturers' Association
- Québec Forest Industries Association
- Québec Lumber Manufacturers Association
- Québec Wood Export Bureau
- Structural Board Association

Annex Two

Canadian Forest Management Certification Status Report – Status February 22, 2001

Source: Canadian Sustainable Forestry Certification Coalition

Company (1)	Woodlands Division Certified	Certification Achieved	Certifier (Registrar)	Hectares	Annual Allowable Cut (m ³)
Canada's National Sustainable Forest Management System Standard (CSA)CAN/CSA Z809					
Canfor	Chetwynd Tree Farm License, British Columbia	CSA - Aug. 2000	KPMG	*645,000	*400,000
	Nimpkish Tree Farm License, British Columbia	CSA - Aug. 2000	KPMG	*200,000	*1,025,000
	Grand Prairie Forest Management Area, Alberta	CSA - Aug. 2000	KPMG	*650,000	*730,000
Weldwood of Canada	100 Mile House Woodlands in British Columbia	CSA - Dec. 99	QMI	*250,000	*400,000
	Hinton Forest Resources in Alberta	CSA - July 2000	QMI	*1,000,000	*2,000,000
	Quesnel Operations, British Columbia	CSA - Dec. 2000	QMI	*280,000	*600,000
	Sunpine Forest Products, Alberta	CSA - Dec. 2000	QMI	*525,000	*740,000
	Williams Lake Operations, British Columbia	CSA - Dec. 2000	QMI	*120,000	*270,000
Weyerhaeuser	BC Coastal Group (North Island Division)	CSA - May 99	QMI	*230,000	*1,400,000
	BC Coastal Group (West Island Timberlands)	CSA - Nov. 2000	QMI	*315,000	*1,700,000
SUB TOTAL — CSA				*4,215,000	*9,265,000
Forest Stewardship Council (FSC) ⁽⁴⁾					
Allen Hopwood Enterprises	Private woodlot, British Columbia	FSC	SFF	132	N/A
Haliburton Forest and Wildlife Reserve	Ontario	FSC	Rainforest Alliance	19,184	N/A
Pictou Landing First Nation	Nova Scotia	FSC	Rainforest Alliance	384	N/A
Regional Municipality of York	Private Woodlot, Ontario	FSC	Rainforest Alliance	2,031	N/A
Rod Blake	Private woodlot, British Columbia	FSC	SFF	660	N/A
Tembec Inc.	Private woodlot, Huntsville, Ontario	FSC	SCS	939	N/A
Timfor Contractors, Ltd.	British Columbia	FSC	Rainforest Alliance	6,716	N/A
SUB TOTAL — FSC				30,000	N/A

Sustainable Forestry Initiative Program (SFISM) – American Forest and Paper Association

Fraser Papers Inc.	Fraser's private timberlands and Crown lands (excluding sub-licensees operations), New Brunswick	SFI - July 2000	QMI	*715,000	*1,050,000
Interfor	All coastal forestry and logging operations, BC	SFI - Jan. 2001	KPMG	*2,900,000	*3,400,000
TimberWest Forest	All private lands in British Columbia	SFI - Dec. 2000	KPMG	*325,000	*2,400,000
SUB TOTAL — SFI				3,940,000	6,850,000
TOTAL ISO, CSA, FSC and SFI in Canada (*)				39,029,000	50,165,000

* If a forest area has been certified to more than one standard, the area is only counted once, hence the grand total of certifications is less than the sum of the individual totals. In order to be as transparent as possible, an asterisk has been placed beside areas that have already been accounted for under another certification system, and therefore are not included again in the grand total.

1. Company names that **have this type of marking** have a hot-link to their corporate web-site.
2. The scope of this certification was limited to woodlands operations, that is harvesting operations, as Columbia Forest Products does not have forest management responsibilities. Moreover, the figure listed of 150,000 m³ is not actually an AAC, but rather the average amount that Columbia harvests each year based on Ontario Ministry of Natural Resources aspen harvesting permits on all 3 licenses.
3. The hectares and AAC for Fraser Papers Inc. in Thurso, QC apply to private lands only.
4. From FSC International web site, information accurate as of December 31, 2000

Certifiers (Registrars)

ITS Intertech Testing

KPMG – KPMG Quality Registrar Inc.

QMI – Quality Management Institute

SGS ICS – SGS International Certification Services Canada Inc.

SCS – Scientific Certification Systems Forest Conservation Program

Rainforest Alliance Smart Wood Program

SFF - Silva Forest Foundation

Annex Three

CCFM Criteria and Indicators

The C & I are intended to provide a common understanding and scientific definition of sustainable forest management in Canada.

CRITERION 1.0 CONSERVATION OF BIOLOGICAL DIVERSITY

Element 1.1 Ecosystem diversity

Indicator 1.1.1 Percentage and extent, in area, of forest types relative to the historical condition and total forest area

Indicator 1.1.2 Percentage and extent of area by forest type and age class

Indicator 1.1.3 Area, percentage and representativeness of forest types in protected areas

Indicator 1.1.4 Level of fragmentation and connectedness of forest ecosystem components

Element 1.2 Species diversity

Indicator 1.2.1 Number of known forest-dependent species classified as extinct, threatened, endangered, rare or vulnerable relative to the total number of known forest-dependent species

Indicator 1.2.2 Population levels and changes over time for selected species and species guilds

Indicator 1.2.3 Number of known forest-dependent species that occupy only a small portion of their former range

Element 1.3 Genetic diversity

Indicator 1.3.1 Implementation of an in situ/ex situ genetic conservation strategy for commercial and endangered forest vegetation species

CRITERION 2.0

MAINTENANCE AND ENHANCEMENT OF FOREST ECOSYSTEM CONDITION AND PRODUCTIVITY

Element 2.1 Incidence of disturbance and stress

Indicator 2.1.1 Area and severity of insect attack

Indicator 2.1.2 Area and severity of disease infestation

Indicator 2.1.3 Area and severity of fire damage

Indicator 2.1.4 Rates of pollutant deposition

Indicator 2.1.5 Ozone concentrations in forested regions

Indicator 2.1.6 Crown transparency in percentage by class

Indicator 2.1.7 Area and severity of occurrence of exotic species detrimental to forest condition

Indicator 2.1.8 Climate change as measured by temperature sums

Element 2.2 Ecosystem resilience

Indicator 2.2.1 Percentage and extent of area by forest type and age class (See also Indicator 1.1.2)

Indicator 2.2.2 Percentage of area successfully naturally regenerated and artificially regenerated

Element 2.3 Extant biomass

Indicator 2.3.1 Mean annual increment by forest type and age class

Indicator 2.3.2 Frequency of occurrence within selected indicator species (vegetation, birds, mammals and fish) See also Indicator 1.2.2

CRITERION 3.0

CONSERVATION OF SOIL AND WATER RESOURCES

Element 3.1 Physical Environmental Factors

Indicator 3.1.1 Percentage of harvested area having significant soil compaction, displacement, erosion, puddling, loss of organic matter, etc.

Indicator 3.1.2 Area of forest converted to non-forest land use, e.g., urbanization (See also Indicator 4.2.1)

Indicator 3.1.3 Water quality as measured by water chemistry, turbidity, etc.

Indicator 3.1.4 Trends and timing of events in stream flows from forest catchments

Indicator 3.1.5 Changes in the distribution and abundance of aquatic fauna

Element 3.2 Policy and protection forest factors

Indicator 3.2.1 Percentage of forest managed primarily for soil and water protection

Indicator 3.2.2 Percentage of forested area having road construction and stream crossing guidelines in place

Indicator 3.2.3 Area, percentage and representativeness of forest types in protected areas (as established by Categories I to IV of the IUCN Guidelines for Protected Area Management) See also Indicator 1.1.3.

CRITERION 4.0

FOREST ECOSYSTEM CONTRIBUTIONS TO GLOBAL ECOLOGICAL CYCLES

Element 4.1 Contributions to the global carbon budget

Indicator 4.1.1 Tree biomass volumes

Indicator 4.1.2 Vegetation (non-tree) biomass estimates

Indicator 4.1.3 Percentage of canopy cover

Indicator 4.1.4 Percentage of biomass volume by general forest type

Indicator 4.1.5 Soil carbon pools

Indicator 4.1.6 Soil carbon and pool decay rates

Indicator 4.1.7 Area of forest depletion

Indicator 4.1.8 Forest wood product life cycles

Indicator 4.1.9 Forest sector carbon dioxide emissions

Element 4.2 Forest land conversion

Indicator 4.2.1 Area of forest permanently converted to non-forest land use, e.g., urbanization

Indicator 4.2.2 Semi-permanent or temporary loss or gain of forest ecosystems, e.g., grasslands and agriculture

Element 4.3 Forest sector carbon dioxide conservation

Indicator 4.3.1 Fossil fuel emissions

Indicator 4.3.2 Fossil carbon product emissions

Indicator 4.3.3 Percentage of forest sector energy usage from renewable sources relative to the total energy requirement

Element 4.4 Forest sector policy factors

Indicator 4.4.1 Recycling rate of forest wood products manufactured and used in Canada

Indicator 4.4.2 Participation in the climate change conventions

Indicator 4.4.3 Economic incentives for bioenergy use

Indicator 4.4.4 Existence of forest inventories

Indicator 4.4.5 Existence of laws and regulations on forest land management

Element 4.5 Contributions to hydrological cycles

Indicator 4.5.1 Surface area of water within forested areas

CRITERION 5.0

MULTIPLE BENEFITS OF FORESTS TO SOCIETY

Element 5.1 Productive capacity

Indicator 5.1.1 Annual removal of forest products relative to the volume of removals determined to be sustainable

Indicator 5.1.2 Distribution of, and changes in, the land base available for timber production

Indicator 5.1.3 Animal population trends for selected species of economic importance

Indicator 5.1.4 Management and development expenditures

Indicator 5.1.5 Availability of habitat for selected wildlife species of economic importance

Element 5.2 Competitiveness of resource industries (timber/non-timber related)

Indicator 5.2.1 Net profitability

Indicator 5.2.2 Trends in global market share

Indicator 5.2.3 Trends in R & D expenditures in forest products and processing technologies

Element 5.3 Contribution to the national economy

Indicator 5.3.1 Contribution of timber and non-timber sectors to the gross domestic product

Indicator 5.3.2 Total employment in all forest-related sectors

Indicator 5.3.3 Utilization of forests for non-market goods and services, including forest land use for subsistence purposes

Indicator 5.3.4 Economic value of non-market goods and services

Element 5.4 Non-timber values

Indicator 5.4.1 Availability and use of recreational opportunities

Indicator 5.4.2 Total expenditures by individuals on activities related to non-timber use

Indicator 5.4.3 Memberships and expenditures in forest recreation-oriented organizations and clubs

Indicator 5.4.4 Area and percentage of protected forest (as defined by the Canadian Biodiversity Strategy) by degree of protection (as established by Categories I to IV of the IUCN Guidelines for Protected Area Management)

CRITERION 6

ACCEPTING SOCIETY'S RESPONSIBILITY FOR SUSTAINABLE DEVELOPMENT

Element 6.1 Aboriginal and treaty rights

Indicator 6.1.1 Extent to which forest planning and management processes consider and meet legal obligations with respect to duly established Aboriginal and treaty rights

Element 6.2 Participation by Aboriginal communities in sustainable forest management

Indicator 6.2.1 Extent of Aboriginal participation in forest-based economic opportunities

Indicator 6.2.2 Extent to which forest management planning takes into account the protection of unique or significant Aboriginal social, cultural or spiritual sites

Indicator 6.2.3 Number of Aboriginal communities with a significant forestry component in the economic base and diversity of forest use at the community level

Indicator 6.2.4 Area of forest land available for subsistence purposes

Indicator 6.2.5 Area of Indian reserve forest lands under integrated management plans

Element 6.3 Sustainability of forest communities

Indicator 6.3.1 Number of communities with a significant forestry component in the economic base

Indicator 6.3.2 Index of the diversity of the local industrial base

Indicator 6.3.3 Diversity of forest use at the community level

Indicator 6.3.4 Number of communities with stewardship or co-management responsibilities

Element 6.4 Fair and effective decision making

Indicator 6.4.1 Degree of public participation in the design of decision making processes

Indicator 6.4.2 Degree of public participation in decision making processes

Indicator 6.4.3 Degree of public participation in implementation of decisions and monitoring of progress toward sustainable forest management

Element 6.5 Informed decision making

Indicator 6.5.1 Percentage of area covered by multi-attribute resource inventories

Indicator 6.5.2 Investments in forest-based R & D and information

Indicator 6.5.3 Total effective expenditures on public forestry education

Indicator 6.5.4 Percentage of forest area under completed management plans/programs/guidelines which have included public participation

Indicator 6.5.5 Expenditures on international forestry

Indicator 6.5.6 Mutual learning mechanisms and processes

Annex Four

Excerpts from the Weldwood Hinton Division SFM Plan Selected SFM indicators (total of 47) and objectives (total of 62)

Indicator 4	Areas protected - Special features, Special Places in the Forest program, landbase allocation
Objectives	Continue to identify and document special features sites through the existing internal identification program and unique find database. Pursue designation of sites nominated in draft 1999 as part of the Alberta Special Places program. By December 31, 2000, develop an action plan to evaluate known special features sites and provide appropriate protective recognition through the Weldwood Special Places in the Forest program.
Comments	While indicator and objective related to protection of Special Places suggest substantial activities on the part of the company, it appears that the CSA standard does not provide procedures for adequately addressing disputes over the protection of Special Places. In the case of Weldwood's Hinton division, the 'defined forest area' contains an area called the Solomon Valley where logging continues in parts despite local opposition and call for protection of this Special Site.
Indicator 7	% of [water] crossings that meet standards.
Objective	As of January 1, 2000, 100% of new Weldwood watercourse crossings on fish-bearing streams are to facilitate unrestricted fish passage.
Comments	A report - initiated with public funding but subsequently continued by the company - which is said to show the impact of logging operations on fish-bearing streams has not been made available to the public yet; Whether the company is living up to its commitment of continuous improvement based on best available knowledge on this issue is thus difficult to assess.
Indicator 22	Incidents of garbage from woodlands operations.
Objective	No garbage on the FMA land base originating from Weldwood activities.
Comments	In sharp contrast to indicators related more directly related to logging practises such as biodiversity protection, jobs per cubic metre cut, or amount of coarse woody debris left on site, this and the following two indicators and objectives contain very specific quantified targets.
Indicator 23	Use of non-renewable resources per m ³ of harvest from FMA.
Objective	By December 31, 2000, determine current use/m ³ of non-renewable resources by Company operations and develop an action plan to reduce non-renewable resource use.
Indicator 24	Annual Allowable Cut
Objective	1,936,067 m ³ /year coniferous and 151,823m ³ /year deciduous as determined in the draft 1999 FMP Analysis Report.
Comments	The SFM Plan does not contain any information on the long-term sustainability or lack thereof of the current rate of cut on the 'defined forest area'.
Indicator 27	Visual impact assessments
Objective	Starting May 1, 2000, conduct visual impact assessments as part of planning for all proposed operations in areas identified as high visual sensitivity in the visual landscape inventory.

Comments Although the SFM Plan does not provide any unequivocal information on the issue of conversion of old-growth forests, it seems likely that conversion of old growth, if kept “within range of natural variation” is allowed.

Annex Five

Selected Indicators and Objectives from the MacMillan Bloedel / Weyerhaeuser SFM Plan for the North Island Woodlands Division. Selection based on studies by Cowan et al. (1999) and Haddock & Brewster (1999).

CCFM Criterion One - Conservation of Biological Diversity

Indicator	Percentage of forest area that is greater than sixty years of age
Objective	Retain a minimum of 36% of the forest greater than sixty years
Comments	In this forest type, the BC Ministry of Forests lists a minimum age of eighty years for a stand to be classified as “mature forest”, while to be considered “old growth” a forest must be 250 years or older. The objective chosen by Weyerhaeuser does not seem to guarantee that the full structural and species diversity will be maintained in stands of a maximum of sixty years as replacing old growth with young forests does not ensure the conservation of biodiversity. Haddock & Brewster further note that none of the indicators chosen directly address the spatial distribution of stands of different ages across the landscape.

CCFM Criterion Two - Maintenance and Enhancement of Forest Ecosystem Condition and Productivity

Indicator	Number of identified species at risk in the ‘defined forest area’
Objective	Zero annual increase in the number of species at risk as a result of Weyerhaeuser management activities.
Comments	The indicators and objectives chosen by the company to ensure species diversity do not require a commitment to improve or maintain habitat conditions for species already at risk which can be found in the ‘defined forest area’.

Although one of the goals listed in the SFM Plan for criterion two is to conserve habitat for identified species, there are no indicators which enable this to be measured. There is also no commitment to maintaining viable populations of species occurring within the ‘defined forest area’, or even species at risk. Furthermore, the SFM Plan does not contain any indicators or objectives for assessing the need for forest restoration.

CCFM Criterion Three - Conservation of Soil and Water Resources

Indicator	Percentage of the area of an opening that is occupied by permanent access structures (roads, landings etc.)
Objective	Less than 7% of the area in openings to be permanent access structures
Comments	This target to limit permanent access structures to 7% of an opening is identical to the maximum recommended in the Soil Conservation Guidebook of the BC Forest Practises Code. No indicators or objectives pertaining to soil erosion as a result of logging operations – a key environmental concern in much of coastal BC – are listed.
Indicator	Area of water bodies.
Objective	No change in the area of water bodies
Comments	Although listed as a CCFM indicator, the area of water bodies appears to be of less concern in this coastal forest ecosystem than protection of streams, both fish-bearing and non-fish bearing. For this a key environmental concern in coastal BC, there are no indicators or objectives listed in the SFM Plan.

CCFM Criterion Four - Forest Ecosystem Contributions to Global Ecological Cycles

Comments All indicators and objectives contained in the SFM Plan have also been listed in relation to earlier CCFM criteria.

CCFM Criterion Five - Multiple Benefits to Society

Indicator Harvest levels
Objective Harvest the Allowable Annual Cut allocation over the five year cut control Period

Comments None of the indicators or objectives addresses the issue of sustainability or lack thereof of the Annual Allowable Cut on the 'defined forest area'. The indicator above merely restates the intention to log at legally permitted harvest rates.

Indicator North Island Woodlands margin (\$/m³)
Objective \$7.14/m³ for 1999

Comments With regards to the indicators listed in the Weyerhaeuser North Island Woodlands Division SFM Plan Cowan et al. (1999) note that "It is difficult to understand how either harvest levels or the North Island Division margin will sufficiently indicate that multiple benefits to society are being met. These indicators are rationalised by MB [Weyerhaeuser] because they control employment levels. However, both seem to be a more accurate measure of multiple benefits to MB. Multiple benefits to society could be monitored more effectively by measuring the number of jobs per hectare, as well as the rate of employee turnover." P.93.

CCFM Criterion Six - Accepting Society's Responsibility for Sustainable Development

Indicator Advisory group active membership
Objective Ensure all sectors are represented in the advisory group
Indicator Planting by species (compared to harvest)
Objective Plant cedar in proportion to cedar harvest, averaged over a ten year period.

Comments According to the SFM Plan, determining whether the company is accepting society's responsibility for sustainable development, two indicators and objectives are sufficient. These seem a very weak substitute for the nineteen indicators identified in the CCFM report for this criterion.

