

# Swedish FSC Standard for Forest Certification

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Version 4:2 of the Swedish forest management standard was approved by the Board of FSC Sweden on the 15<sup>th</sup> of December, 2009, and submitted to FSC International on the 18<sup>th</sup> of December, 2009.

FSC International specified the following conditions for approval in written communications on the 12<sup>th</sup> of January and on the 18<sup>th</sup> of February, 2010:

*January 12, 2010*

The following indicator shall be added to the standard:

6.10.4. Where forest conversion does occur the manager shall ensure that this only entails a very limited portion of the forest management unit and is in accordance with relevant legislation.

*February 18, 2010*

The standard shall be revised in the following manner:

1. The reference to the FSC Partial Certification Policy is incorrect and the new draft of the standard shall refer to 'FSC policy on Partial Certification; FSC-POL-20-002 (2000) Partial certification of large ownerships'.
2. Indicator 6.10.3 shall be replaced with the following indicator '6.10.3 Managers shall not convert forest land within High Nature Conservation Value forest areas (see 9.1)'.
3. The introduction shall clarify that 'the indicators, text boxes, annexes and footnotes are normative and shall be the basis for assessment by certification bodies, but that 'comments' and 'verifiers' are provided for guidance and are non normative elements'.
4. The text in 10.3, 10.5, 10.7, 10.8 and 10.9 shall be compressed and the number of cross-references shall be increased (changes specified in a separate document sent to FSC Sweden).

The current version 4:3 was produced when version 4:2 was revised to comply with FSC International's conditions for approval (above).

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## 1. Preface

The FSC's Principles and Criteria constitute an overall framework for the development of a national, suitable forest management standard. National standards are developed to comply with local ecological, social and economic conditions, while simultaneously embodying the FSC's fundamental Principles and Criteria. When a set of standards has been approved by the FSC, all local and international certifiers must apply these standards as a minimum requirement in their certification process.

Certification in agreement with the Swedish FSC Standard implies that the forest manager accepts that the Standard will be revised regularly. The revision should be based on new knowledge and experience, and be carried out by representatives from the three chambers of FSC. This has been the prerequisites for the revision process that now has come to an end. It has brought about some procedural changes in FSC Sweden, which will be of use by the time of the next standard revision.

Since forestry is important for Swedish prosperity, and society aims at sustainability, the FSC forest management standard can play an important role to promote the management and use of forests in ways that are ecologically, socially and economically responsible. This gives good motivation to go through the process of negotiations and compromises needed in the standard work within the FSC-system – a system that aims to stimulate dialogue and mutual agreements between stakeholders representing economical, environmental and social interests.

### 1.1 Descriptive statement of FSC

FSC is an independent, non-governmental, not for profit organization established to promote the responsible management of the world's forests.

It provides standard setting, trademark assurance and accreditation services for companies and organizations interested in responsible forestry. Products carrying the FSC label are independently certified to assure consumers that they come from forests that are managed to meet the social, economic and ecological needs of present and future generations. FSC maintains representation in more than 45 countries.

Forests provide us with clean water, fresh air, and help combat global warming. They also provide food, medicine and important natural resources, such as timber and paper. If managed responsibly, forests and plantations benefit forest people and the global community.

However, in some countries as much as 80 percentages of the timber is harvested illegally. This often involves violation of human rights and felling of protected forests.

For further information, please visit: [www.fsc.org](http://www.fsc.org)

## 1.2 Descriptive statement of FSC Sweden

FSC Sweden is a national initiative within the network of FSC. It is a national, not for profit membership based organization. FSC Sweden has membership and Board of Directors built on three chambers; the Social, the Environmental and the Economical, with the aim to build consensus solutions. It has clear decision mechanisms, securing well balanced decisions.

The major tasks of FSC Sweden are to fulfill FSC's mission by:

- spreading knowledge about FSC and FSC-certification in Sweden
- encouraging participation and membership in FSC both on a national and international level
- safeguarding the integrity of FSC in Sweden and internationally
- managing the Swedish FSC-standard for certification of forest management.

FSC Sweden is governed by its members who appoint the Board. The Board appoints committees.

For further information, please visit: [www.fsc-sverige.org](http://www.fsc-sverige.org)

## 2. Introduction

Certification in agreement with the FSC regulations implies that the forest manager performs an environmental responsible, economically viable, socially beneficial forest management. The management shall comply with all applicable laws and regulations, the FSC Principles and Criteria and the Swedish FSC Standard. The certification also allows forest products from certified holdings to be marked with the FSC symbol in forms decided by the FSC.

The overall objective of the forest management is to: (i) maintain, and where necessary restore, the ecosystem's production capacity, fundamental ecological processes and biodiversity, (ii) secure people's livelihoods, promote a safe environment for workers, respect the cultures of local populations and Sami people, respectively, and their time-honored rights, and acknowledge the importance of values such as wildlife, fungi, berries, fish and recreation, and (iii) promote long-term valuable wood production and economic profitability.

### 2.1 Purpose

This standard sets out the required elements against which FSC accredited certification bodies shall evaluate forest management practices within the given scope of the standard.

The FSC Principles and Criteria for Forest Stewardship (February 2000) provides an internationally recognized standard for responsible forest management. However, any international standard for forest management needs to be adapted at the regional or national level in order to reflect the diverse legal, social and geographical conditions of forests in different parts of the world. The FSC Principles and Criteria therefore require the addition of indicators that are adapted to regional or national conditions in order to be implemented at the forest management unit level. The FSC Principles and Criteria together with a set of such indicators accredited by FSC constitute an FSC Forest Stewardship Standard.

This standard follows the requirements of FSC-STD-20-002 Structure and content of forest

stewardship standards (November 2004) to improve consistency and transparency in certification decisions between different certification bodies in the region and in different parts of the world, and thereby to enhance the credibility of the FSC certification scheme as a whole.

## **2.2 Scope**

This standard is applicable to all forest operations seeking FSC certification within Sweden. The standard applies to all forest types. Managers of major holdings are managers with holdings of over 5 000 hectares of productive forest land. Other managers are thus managers with less than 5 000 hectares of productive forest land. Indicators for Small and Low Intensity Forest Management, Slimf, are applicable for holdings with less than 1 000 hectares of productive forest land. On some indicators further exceptions are made for holdings with less than 20 hectares of productive forest land

## **2.3 Background information on the standard setting process**

A Swedish National Standard for Forest Management was accredited by FSC International in 1998. The review of the accredited standard started on November 2000. The timeline and the scope for the revision were announced in Sweden and on FSC's NI-forum during 2001. An open initiation meeting to inform on the planned revision process was held the same year when the work started in working groups and sub working groups (see Template for proposal and work plan 2008).

A revised draft of the standard, version 1:0, was prepared in the end of March 2003. Several issues remained unresolved, but the draft was submitted for consultation between April to May 2003. Comments were received from 47 different entities/groups/people.

The draft was revised based on the input received during the consultation. After long discussions, involving procedural changes and employment of dispute resolution protocol, a draft version 2:0 was finally endorsed by the Board of FSC Sweden in September 2005. It was submitted to FSC's Accreditation Business Unit for endorsement.

In March 2006 a Standard Evaluation Report on the standard draft version 2:0 was made by Accreditation Services International (ASI). FSC Sweden responded to the report in December 2006, with a draft version 2:1 of the Swedish forest management standard.

FSC Sweden received an updated version of the ASI-report in September 2007. On 10<sup>th</sup> of December 2007 the Board of FSC Sweden decided on a work plan to comply with the new requirements. The forest- and standard officer of FSC Sweden, Karin Fällman, and consultant Anders Lindhe were assigned to make a new draft version.

The results of revision by Anders Lindhe and Karin Fällman were presented to the members of FSC Sweden on a one-day meeting in February 2008 (version 3:0). The ways of handling Principle 10 and other preconditions from ASI were discussed.

In March 2008, the Board of FSC Sweden appointed the Standard Development Group to lead the work required to prepare a new draft of the standard. The group consisted of one representative from each chamber. The Standard Development Group worked intensely during 2008. Frequent internal consultations were made among members within each

chamber of FSC Sweden. The Federation of Swedish Saami was coopt to the group most of the time. Due to changes in the FSC-system, a formal proposal including a work plan for the revision of the Swedish Forest Management Standard was prepared during 2008. It was submitted to FSC International in December 2008 in order to comply with the process requirements in STD-60-006.

Anders Lindhe was appointed as a consultant in December 2008 and January 2009 to further refine the indicators under Principle 10. This work included consultations with FSC International and, through the Standard Development group, also with the members of the chambers of FSC Sweden.

Consultation on a draft version 3:1 of the standard was held between 23<sup>rd</sup> of February to 20<sup>th</sup> of March 2009. A written invitation to take part was sent to 104 stakeholders and was publicly announced by a press release and by information on the website of FSC Sweden. In addition the website provided instructions on how to send in comments and possibilities to download the drafted standard.

Written comments were received from 14 different entities/groups/people. The Board of FSC Sweden assigned the Standard Development Group to process comments and to assess and evaluate the relevance and importance of proposed changes. All comments, proposals and decisions were compiled in a specific document (in Swedish).

A revised draft of the standard, version 4:0, was endorsed by the Board of FSC Sweden on 3<sup>rd</sup> of April 2009 and sent to FSC International. To comply with suggestions and conditions from FSC Policy and Standards Unit another draft with editorial changes, version 4:1, was submitted by the Board of FSC Sweden on 21<sup>th</sup> of September. Additional comments from FSC International and further revision by the Standard Development Group resulted in a new version 4:2 that was endorsed by the Board of FSC Sweden on the 15<sup>th</sup> of December 2009. Version 4:2 was submitted to FSC International on the 18<sup>th</sup> of December, 2009. FSC International specified additional conditions for approval in written communications on the 11<sup>th</sup> of January and on the 18<sup>th</sup> of February, 2010. The standard was revised to comply with the conditions for approval and the current version 4:3 was produced.

Decisions on SLIMF indicators were allocated to a separate standard process by decisions in Board of FSC Sweden in June 2005. FSC Sweden discussed and got acceptance for this from FSC International. The Board of FSC Sweden intends to submit an endorsed draft of SLIMF-standard to FSC International in the beginning of 2010.

Attempts to harmonize the standard setting work with the standard setting work in Canada and in countries of the Baltic region have been made during the process. A thorough analysis on harmonization in the Baltic region was made in the project “FSC – breaking the borders”. Major conclusions and recommendations have been considered and addressed in the revision of the Swedish standard.

### **3. Version of the standard**

#### **3.1 Standard version**

This standard is the fifth revision draft (4:3) of the Swedish FSC Standard for Forest

Management, originally endorsed by FSC International in 1998. Preparations for revision were initiated in year 2000. This draft was submitted to FSC International for endorsement in April 2009 and, after revision, in December 2009.

Statutes of FSC Sweden stipulate that revision of the Swedish standard should be initiated within a time period of 4 years after endorsement by FSC International.

### **3.2 Responsible parties**

The Board of Directors, several working groups and the appointed Standard Committee of FSC Sweden have been responsible for making this new, revised version of the Swedish FSC Standard for forest management. The groups have comprised representatives from FSC's three different chambers; environmental, social and economic. A consensus-striving process has characterized the negotiations linked to the revision. Consultations among stakeholders have been made according to the timeline and the scope for revision (2000); on draft version 1:0 in 2003 and on draft version 3:0 in 2009.

## **4. Context**

### **4.1 General description of the geographical area covered by the standard:**

Sweden covers some 42 M ha and the distance between the northernmost and southernmost parts is about 1,600 km (from 69°N to 54°N and from 10°E to 24°E). Vast forested areas, numerous lakes and long coastlines characterize the geography. Nearly 70% of the land area (28.5 M ha) is covered with forests (as defined by FRA 2005). However, about 23 M ha has a productivity  $\geq 1$  m<sup>3</sup>/ha/year and is therefore regarded as productive forest land. Besides forests, Sweden also comprises nearly 96,000 lakes (larger than 100×100 m; totally 4 M ha) and large tracts of mires (4.5 M ha), rock surface (0.9 M ha), mountains and subalpine coniferous woodland (3.5 M ha) and arable land and pasture land (3.4 M ha).

The topography is rather even and most areas are located less than 300 m above sea level (a.s.l.). Yet, the Scandinavian mountains in the northwest encompass treeless mountain peaks of 1,000-2,000 m a.s.l.. Sweden's forest soils consist mainly of podzol formed on top of glacial moraine. The average wood production is 5.3 m<sup>3</sup> per hectare and year.

Sweden's climate varies from arctic-alpine in the Scandinavian mountain range to warm temperature (nemoral) in the southern coastal areas. The growing season is only some 100 days in the north while 240 days in the south. The average temperature varies from  $\pm 0$  and -15°C in January to 3-17°C in July. The annual precipitation varies between 400 mm in the eastern regions to 1,500-2,000 mm in the western regions.

The large regional differences in climate are reflected through the division of the country into several vegetation zones. In the northernmost parts, tundra and subalpine mountain birch forests are found along the mountain chain. Further, most of the country is in the cold-temperate zone; it is the area from the northernmost parts southwards to about lat. 60°N (or north of the latitude of Stockholm, the capital). This zone is characterized by relatively short growing seasons and long winters. Conifers, mainly Norway spruce and Scots pine, dominate the forests, thereby the name "the boreal coniferous belt". Birch is the most common deciduous tree species, but alder, willow and aspen are also fairly frequent. South of this zone the climate becomes milder; the boreonemoral zone begins. Pine and spruce forests still

dominate, but there are also deciduous tree species including oak, elm, lime, maple, tilia and hazel. The southernmost parts of Sweden are located in the warm-temperate zone. Here we find the northern outposts of the north European nemoral deciduous forest, where oak and beech are characteristic species.

However, in most parts today's Swedish forests are the result of past forest management. The forest-use history can roughly be divided into three phases; (i) the pre-industrial phase dominated by extensive areas of natural forests and agrarian low-intensity forest use, (ii) the phase of early forestry, i.e. the gradual intensification of forest exploitations during mainly the 16-19th centuries, characterized by a 'timber frontier' that moved from the south to the north and took out almost the entire stock of large, old-growth timber trees, and (iii) the phase of modern forestry, principally starting after the 2<sup>nd</sup> world war, including modern silvicultural management with clear-cutting, scarification and planting of conifer seedlings. Yet, the extent of forest use varies greatly between different regions. The characteristics of the forests in the nemoral zone have been affected by humans for thousands of years. The deciduous forests have declined considerably due to the conversion of forestland into agricultural land, but also through logging and management activities that have been unfavourable for the regeneration of deciduous trees. The importance of spruce has increased on the expense of deciduous trees, particularly during the 20th century when modern forestry was introduced. Furthermore, many areas in southern-middle boreal regions have been intensively exploited since the 17th century, mainly because of the demand for charcoal by the early mining and metal-based industries. On the contrary, forests close to the mountain range and in northern parts were affected much later. Many remote areas were still until the 20th century relatively little affected by forest management.

#### **4.2 List of members of the committee that prepared the standard:**

The Board of FSC Sweden with subgroups led the standard revision process during 2000–2008.

From February 2008 to April 2009 the work was led by the Standard Development Group members Mårten Larsson (SCA), Per Larsson (WWF Sweden) and Leif Johansson (Swedish Forest & Wood Trade Union), with Forest and standard officer Karin Fällman/Sara Berggren as secretary. Malin Brännström (Federation of Swedish Saami) participated in most meetings.

From May 2009 to December 2009 the work was led by the Standard Development Group members Uno Brinnen (Korsnäs), Per Larsson (WWF Sweden) and Leif Johansson (GS-union; established in June 1 2009 through a merger of the Graphics Industry Union and the Forestry- and Woodworkers Union).

#### **4.3 List of key consultants and advisors who assisted the committee:**

Gemma Boetekees gave advice on how to facilitate the negotiation process when it had broken down and the environmental chamber had announced a time-out (see Template for proposal and work plan 2008).

Anders Lindhe have prepared the information required for the work linked to several of the indicators.

Björn Österlöf and Börje Drakenberg have participated in the development of SLIMF indicators.

#### **4.4 Associated documentation referenced in the standard.**

*FSC STD 01 001 V4 0 EN FSC Principles and Criteria*  
*FSC-STD-60-006 Procedure for the development of Forest Stewardship Standards*  
*FSC STD 20 002 V2 1 EN Structure and Content Forest Stewardship Standards*  
*FSC STD 01 003 V1 0 EN SLIMF Eligibility Criteria*  
*FSC STD 01 003a EN SLIMF eligibility criteria addendum 2008 02 13*  
*FSC-GUI-60-100 Guidance on the interpretation of the FSC Principles and Criteria to take account of scale and intensity*  
*FSC-GUI-20-200 EN FSC Guidelines for Certification Bodies 2005*  
*FSC POL 30 401 EN FSC certification and ILO Conventions 2002*  
*FSC POL 20 002 EN Partial Certification 2000*  
*FSC Guidance Document FSC-GUI-30-004: FSC Principles 2 and 3: Guidance on Interpretation*  
*FSC GUI 30 001 V2 0 EN FSC Pesticides Policy Guidance 2007*  
*FSC GUI 30 001a V1 0 EN Approved derogations for use of pesticides 2008 01 21*  
*FSC POL 30 001 EN FSC Pesticides policy 2005*  
*FSC PRO 01 004 V2 1 EN Processing pesticide derogation applications*  
*FSC POL 30 602 EN FSC GMO Policy 2000*  
*FSC ADV 30 602 EN Conversion of plantation to non forest land 2004 03 29*  
*FSC ADV 30 602 EN Conversion of plantation to non forest land 2004 03 29*  
*FSC ADV 30 901 EN Interpretation of Criterion 9 2 2003 04 28*  
*FSC ADV 31 001 EN Interpretation of C10 9 2002 12 03*  
*Legislation and international agreements, see Annex 1 and 2.*

#### **4.5 Terms and definitions**

Terms and definitions which are crucial to the standard, and are not defined in the FSC Principles and Criteria, are listed in glossary (Annex 11) or as footnotes where appropriate.

### **5. Hierarchical framework:**

The indicators, text boxes, annexes and footnotes are normative and shall be the basis for assessment by certification bodies, but 'comments' and 'verifiers' are provided for guidance and are non-normative elements.

The hierarchical framework implements the basic principles described in the introduction to the FSC Principles and Criteria for Forest Stewardship (February 2000):

- 1.** FSC and FSC-accredited certification bodies will not insist on perfection in satisfying the FSC Principles and Criteria;
- 2.** Major failures in any individual FSC Principle will normally disqualify a candidate from certification, or will lead to decertification;
- 3.** Certification decisions will be guided by the extent to which each FSC Criterion is satisfied, and by the verifiers.

## **PRINCIPLE 1: COMPLIANCE WITH LAWS AND FSC PRINCIPLES**

Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.

### **CRITERION 1.1**

*Forest management shall respect all national and local laws and administrative requirements.*

**1.1.1. Managers<sup>1,2</sup> shall be aware of all national laws, local regulations and other contracts and agreements (Annex 1) applicable to management of the landholding**

**1.1.2. Managers shall comply with all applicable national laws, local regulations and other contracts and agreements.**

**1.1.3. Managers shall take corrective and preventive measures in case of non-compliance with applicable laws, binding contracts and agreements.**

1.1.1–1.1.3 *VER*: Control of the manager’s awareness of and compliance with legislation and agreements. Injunctions. Control of ongoing activities. Access to Skogforsk databases “Regelrätt skogsbruk” and “Riktig arbetsmiljö”.

### **CRITERION 1.2**

*All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid.*

**1.2.1. Managers shall be aware of all fees, royalties, taxes and other charges related to forest management.**

**1.2.2. Managers shall document payment of all the required fees, royalties, taxes and other charges related to forest management.**

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<sup>1</sup> By “Managers” is meant:

1) Forest owners with their own forest management certificate.

2) Forest owners who are members of a certified group scheme .

The “manager” can transfer implementation of various items of the standard to a contractor or trustee by written agreement. However, the manager is still responsible for compliance with the standard, and must be able to show how compliance was achieved by means of relevant verification from the contractor or trustee.

<sup>2</sup> In this standard, the concept of a manager of major holdings means a manager with over 5 000 hectares of productive forest land. Other managers are thus managers with less than 5 000 hectares of productive forest land.

**1.2.3. Managers shall verify, through written agreements or documentation, that everyone conducting forest management activities on the landholdings in question pays all the required fees, royalties, taxes and other charges.**

1.2.1-1.2.3 *VER*: Control of documentation, bookkeeping and agreements/contracts.

### **CRITERION 1.3**

*In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected.*

**1.3.1. Managers shall be aware of the provisions, applicable to forest management, of all binding international treaties and agreements to which Sweden is a signatory country, such as CITES, the ILO Conventions<sup>3</sup>, ITTA and the Convention on Biological Diversity (Annex 2).**

**1.3.2. Managers shall ensure that forest management or other own activity on the landholding complies with applicable binding international treaties and agreements to which Sweden is a signatory country.**

**1.3.3. Managers shall comply with all ILO Conventions that affect forest management or other own activity on the landholding.**

**1.3.4. Managers shall take corrective and preventive measures if their own activities on the landholdings do not comply with applicable binding international treaties and agreements.**

**1.3.5. Managers shall take corrective and preventive measures if their own activities on the landholdings do not comply with all the ILO Conventions that affect forestry measures and procedures.**

1.3.1-1.3.5 *VER*: Awareness of applicable agreements/directives. Control of ongoing activities.

### **CRITERION 1.4**

*Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case by case basis, by the certifiers and the involved or affected parties.*

**1.4.1. Managers shall consult with the certifier, on a case by case basis, in order to evaluate, together with affected parties, conflicts and interpretations related to certification between Swedish legislation, agreements to which Sweden is a signatory country and the Swedish FSC Standard. Evaluation shall be documented<sup>4</sup>.**

1.4.1 *VER*: Documentation of evaluation.

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<sup>3</sup> See FSC-POL-30-401 (2002) EN FSC Certification and ILO Conventions.

<sup>4</sup> Certifiers shall consult with FSC Sweden in cases of considerable conflicts and problems of interpretation.

## **CRITERION 1.5**

*Forest management areas should be protected from illegal harvesting, settlement and other unauthorized activities.*

**1.5.1. Managers shall monitor the landholding for illegal or unauthorized activities.**

**1.5.2. Managers shall assess the need for corrective and preventive measures.**

**1.5.3. Managers shall implement the corrective and preventive measures as identified at 1.5.2.**

1.5.1-1.5.3 *VER*: Consultation with manager and possible authority. Field inspection, agreement.

## **CRITERION 1.6**

*Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.*

**1.6.1. Managers shall demonstrate their long-term commitment to the FSC Principles and Criteria by managing all landholdings of which they have full ownership – regardless if the holdings consist of one or several properties – in compliance with the Swedish FSC Standard.**

**1.6.2. Managers of major holdings shall state their long-term commitment to comply with the Swedish FSC Standard in publicly available documents.**

**1.6.3. The forest manager shall provide the certification body with information on all forest areas over which the forest manager has some type of ownership or management responsibility<sup>5</sup>.**

**1.6.4. There is no substantive evidence that the forest management on potentially non-FSC certified land holdings, where the forest manager has some type of ownership or management responsibility, conflicts with the requirements of standards for FSC Controlled Wood<sup>6</sup>.**

1.6.1-1.6.4 *VER*: Policy document, certification contract, long-term planning document.

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<sup>5</sup> See FSC policy on Partial Certification; FSC-POL-20-002 (2000) Partial certification of large ownerships.

<sup>6</sup> FSC-STD-30-010 V2 0 EN (2006) Controlled Wood standard for FM enterprises.

## **PRINCIPLE 2: TENURE AND USE RIGHTS AND RESPONSIBILITIES**

Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.

### **CRITERION 2.1**

*Clear evidence of long-term forest use rights to the land (e.g. land title, customary rights, or lease agreements) shall be demonstrated.*

**2.1.1. Managers shall demonstrate their right to conduct forest management on the landholding through ownership or legally binding contract.**

**2.1.2. Managers applying for certification of jointly owned properties shall demonstrate that all the owners adhere to the certification and commit to comply with the requirements of the Swedish FSC Standard.**

2.1.1-2.1.2 *VER*: Proof/contract on forest use right. If required contact authorities about possible legal dispute. If needed consultation, for example if there are several owners of a single property.

### **CRITERION 2.2**

*Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies.*

**2.2.1. Managers respect everyone's right to roam freely in the forest in line with Sweden's Right of Public Access<sup>7</sup> provided that, for example, the privacy of residents is not disturbed or that economic interests are not damaged.**

**2.2.2. Managers shall respect everyone's right to pick wild berries, mushrooms and flowers in the forest in line with Sweden's Right of Public Access.**

**2.2.3. Managers shall be aware of, and respect, legal and customary tenure and use rights related to forest management on the landholding.**

2.2.1-2.2.3 *VER*: Information on local parties affected and legal claims on the landholding. If required, consultation with affected interested parties.

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<sup>7</sup> B. Bengtsson 2004, Allemansrätten - vad säger lagen? ISBN 91-620-8161-6.

### **CRITERION 2.3**

*Appropriate mechanisms shall be employed to resolve disputes over tenure claims and use rights. The circumstances and status of any outstanding disputes will be explicitly considered in the certification evaluation. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an operation from being certified.*

**2.3.1. Managers of major holdings shall ensure that there are procedures for documenting and solving disputes related to use rights.**

**2.3.2. Managers shall actively attempt to resolve any disputes related to use rights.**

**2.3.3. Managers shall document the process of reaching agreement.**

**2.3.4. Managers shall not, at the time of certification, be involved in any major dispute related to use rights of the forest holding.**

2.3.1-2.3.4 *VER*: Control of possible dispute. Assessment of the magnitude and legitimacy of dispute, based on the manager's documentation to try and resolve any ongoing dispute and consultation with affected parties. Control of acquired results, if any. Documents of consultation.

## **PRINCIPLE 3: INDIGENOUS PEOPLES' RIGHTS**

The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognized and respected.

### **CRITERION 3.1**

*Indigenous peoples shall control forest management on their lands and territories unless they delegate control with free and informed consent to other agencies.*

**3.1.1. Managers shall accept and respect Sami people's reindeer husbandry on landholdings situated within the area designated as reindeer husbandry area<sup>8</sup> by Report No. 44, Vol. 5, 1978, from the National Swedish Board of Agriculture, the National Swedish Board of Physical Planning and Building.**

**3.1.2. Managers with landholdings within the reindeer husbandry area shall conduct consultations in compliance with §§ 20 and 31 in the Swedish Forestry Act and associated regulations and general guidelines as worded 2009-01-01. Consultations shall encompass planning of forest management measures in a landscape perspective for a period of three to five years. The parties may agree to forego consultations outside year round reindeer husbandry land. Consultation may be implemented within the framework of group certification or other forms of landowner co-operation.**

**3.1.3. Managers with landholdings within the reindeer husbandry area shall provide the Sami village with a general forest map and, if possible a map of forest stands, prior to consultation<sup>9</sup>. If the consultation is related to lands designated as important grazing areas or equivalent in the Sami village land-use report or land-use plans for reindeer husbandry, a map of forest stands shall always be attached.**

**3.1.4. Managers with landholdings within the reindeer husbandry area shall comply with documented consultation agreements.**

**3.1.5. Managers shall, if an agreement cannot be reach on forest management activities to be undertaken, document in the consultation minutes that the issue is postponed to a future consultation.**

**3.1.6. If, after a second round of consultation, agreement on forest management activities cannot be reached, the manager and the Sami village shall jointly appoint a neutral mediator to assist them in reaching an agreement. If, notwithstanding, the parties still do not agree, the mediator shall propose a solution. If any of the parties reject the proposal, the reasons shall be documented in the consultation minutes together with a description of the considerations to be taken related to reindeer husbandry. The mediation process and its results shall be documented in the minutes.**

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<sup>8</sup> Within the Härjedalen municipality the reindeer husbandry area, with reference to the Bergvik Skog and Holmen Skog landholdings, includes the land covered by the conciliation agreement between these companies and the Sami villages as long as it is in force.

<sup>9</sup> The parties shall jointly schedule the consultation.

**3.1.7. Managers of major holdings with landholdings within the reindeer herding area shall carry out an annual evaluation, together with reindeer husbandry representatives, of the implementation of the consultation. The evaluation shall be carried out by a regional group appointed by the parties<sup>10</sup>.**

**3.1.8. Managers with landholdings within the reindeer husbandry area shall document the consultation, clearly stating the areas and measures discussed, agreements made and any remaining divergences with rationales. The consultation minutes shall be signed in approval by both parties.**

**3.1.9. Managers shall obtain information from affected Sami villages on installations and other important objects for reindeer husbandry, as well as on potential substantial impacts on the reindeer husbandry, prior to overall planning of any significant changes in land use. This requirement shall not be subject to the consultation and dispute resolution procedures outlined in Indicators 3.1.2 – 3.1.8.**

3.1.1-3.1.2 *VER*: Consultation minutes. Checking contact with the Sami village affected.

3.1.3 *VER*: Instructions. Checking contact with the Sami village affected.

3.1.4 *VER*: Checking contact with the Sami village affected, interviews and field visits.

3.1.5 *VER*: Consultation minutes. Checking contact with the Sami village affected.

3.1.6 *VER*: Mediation minutes.

3.1.7 *VER*: Documentation from evaluation meetings.

3.1.8 *VER*: Consultation minutes.

3.1.9 *VER*: Instructions and documentation from the collecting of information.

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<sup>10</sup> The aim of these evaluations shall be to develop dialogue and consultation. Guidance as to how these evaluations shall be carried out shall be developed within the Swedish FSC after this Standard has been approved.

## CRITERION 3.2

*Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples.*

### **Intent box 3.2**

For hundreds of years, the Sami have conducted reindeer herding, which has been the basis of their livelihood through the ages. Reindeer herding is still one of the most important aspects of the Sami culture, and the basis of the Sami's land rights. Reindeer herding is conducted on about 40 percent of the entire area of Sweden. The reindeer migrate between pasture areas, from the mountains and forests in the west during the summer, down to the forests in the east during the winter. This nomadic reindeer herding evolved on the basis of the movements of the reindeer. Today, reindeer herders make use of motorised vehicles and helicopters.

The Sami's rights apply to both state-owned and private land. This is stipulated in legislation. The rights are based on customs from time immemorial, i.e., that the land has been used continuously for a long period of time. This is a civil right which is protected under the Swedish Constitution, as it involves a right to property.

The reindeer herdsman are members of Sami villages. A Sami village is both a geographical area and a form of association, which represents the reindeer herdsman and their rights.

The Swedish Reindeer Husbandry Act guarantees the reindeer-herding Sami access to forest land so that their nomadic reindeer herding can continue to exist and develop. One requirement is sufficient access to ground lichens. Tree lichens are also important during the spring and during winters when ground lichens are covered by excessive snow or ice that the reindeer cannot dig through. Reindeer must also be able to move between different areas, either individually or collectively in a herd. For each Sami village, the maximum number of reindeer is decided on, based on the available amount of winter grazing fodder. Without grazing in various types of forest areas, there would not be enough fodder for the reindeer. Thus, access to both winter grazing and summer grazing are prerequisites for reindeer herding, and the ways in which forestry is conducted have direct impacts on reindeer grazing and reindeer herding.

**3.2.1. Managers with landholdings within the reindeer husbandry area shall be aware of areas and sites with significant occurrences of arboreal or ground lichens through consultation and access to the Sami villages' land or land use plans for reindeer husbandry use reports.**

**3.2.2. Managers with landholdings within the reindeer husbandry area shall leave edge zones with an abundance of arboreal lichens along watercourses and mires, and preserve areas/groups of trees from which arboreal lichens may disperse within or adjacent to the felling area.**

**3.2.3. Managers with landholdings within the reindeer husbandry area shall not establish stands of exotic tree species within areas of particular importance to reindeer husbandry (see 3.3.1) unless agreed upon in consultation.**

**3.2.4. Managers with landholdings within the reindeer husbandry area shall not apply fertilizers on land classified as lichen type, lichen-rich type or dry dwarf-shrub types with occurrences of lichens unless agreed upon in consultation (e.g. on forest land degenerated after fire).**

**3.2.5. Managers with landholdings within the reindeer husbandry area shall use soil scarification methods which minimises negative impacts on the lichen availability on land classified as lichen type, lichen-rich type and dry dwarf-shrub types with occurrences of lichens unless agreed upon in consultation.**

**3.2.6. Managers with landholdings within the reindeer husbandry area shall not use prescribed burning on lichen areas of importance to reindeer husbandry.**

3.2.1-3.2.6 *VER*: Consultation minutes. Checking contact with the Sami village affected. Map and planning documentation. Instructions. Field inspection.

### **CRITERION 3.3**

*Sites of special cultural, ecological, economic or religious significance to indigenous peoples shall be clearly identified in cooperation with such peoples, and recognized and protected by forest managers.*

**3.3.1. Managers with landholdings within the reindeer husbandry area shall consider and respect areas and sites of special cultural, ecological, economic or religious significance to the Sami people: old settlements and other Sami cultural remains, migration routes, natural gathering places, overnight resting-places (grazing areas), difficult passages, particularly important arboreal lichen areas, work corrals and calving as well as culturally important paths and sacrificial places. These shall be documented through consultations, in the Sami villages' land-use reports, in land-use plans for reindeer husbandry, or in reports of areas of national interest for reindeer husbandry.**

**3.3.2. Managers with landholdings within the reindeer husbandry area shall plan and implement forestry measures so that identified areas and sites of special cultural, ecological, economic or religious significance to the Sami people are maintained and protected.**

3.3.1 *VER*: Consultation minutes. Checking contact with the Sami village affected. Map and planning documentation. Field inspection.

3.3.2 *VER*: Consultation minutes. Checking contact with the Sami village affected. Field inspection.

### **CRITERION 3.4**

*Indigenous peoples shall be compensated for the application of their traditional knowledge regarding the use of forest species or management systems in forest operations. This compensation shall be formally agreed upon with their free and informed consent before forest operations commence.*

**3.4.1. Managers shall provide the reindeer-herding Sami people with financial compensation for reasonable costs when their traditional knowledge regarding the use of forest species or management systems is applied in forest management.<sup>11</sup>**

3.4.1 *VER*: Any agreements are documented in consultation minutes.

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<sup>11</sup> This includes reindeer herders' knowledge of ecological conditions, e.g. how plants and animals such as the reindeer react to changes in the environment.

## **PRINCIPLE 4: COMMUNITY RELATIONS AND WORKER'S RIGHTS**

Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities.

### **CRITERION 4.1**

*The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.*

#### **4.1.1. Equivalent to 5.1.1.**

**4.1.2. Managers shall plan and manage the forest in ways that contribute to the long-term social and economic well-being of forest workers as well as of people living in areas nearby.**

**4.1.3. Managers with landholdings in subalpine areas<sup>12</sup> shall plan and manage the forest in ways that promote employment and the economy of local communities, while considering the needs of reindeer husbandry and avoiding jeopardizing high natural values.**

**4.1.4. Managers shall strive to, taking account of market conditions, use local services providers in forest management and to employ local people and/or hire local contractors.**

**4.1.5. Managers of major holdings shall take demonstrable measures aiming at long-term, stable and beneficial relationships with contracting businesses.**

**4.1.6. Managers shall ensure and document that employees possess the required competence for their specific tasks as regards both production and the natural and cultural environment.**

**4.1.7. Managers with employees shall implement staff development programs to strengthen the professional identity and branch competence of employees.**

**4.1.8. Managers shall document measures in 4.1.7. in individual professional development plans that shall be prepared and implemented.**

**4.1.9. Management shall annually evaluate measures according to 4.1.7-4.1.8. in co-operation with the employee.**

**4.1.10. If any of the parties so wishes, a trade-union representative shall take part in the implementation of 4.1.7-4.1.9.**

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<sup>12</sup> Forest land at altitudes above the nature conservation boundary as defined by the Swedish Society for Nature Conservation (the Swedish Society for Nature Conservation, 1988, ISBN 91-558-5201-7). Forestry in subalpine areas is described in 9.3.2.

**4.1.11. Managers shall ensure, through written agreement or documentation, that contractors or other assignees with employees commissioned for forestry activities on the landholding comply with the requirements for managers with employees outlined in Indicators 4.1.6.-4.1.10.**

4.1.1-4.1.3 *VER*: Checking contact with interested parties, affected trade unions. Forest management plan or equivalent field visits.

4.1.4 *VER*: Documented procedures regarding employment of local labour and/or contracting local contractors.

4.1.5 *VER*: Agreements with contractors.

4.1.6 *VER*: Documentation of competence

4.1.7-4.1.10 *VER*: Professional development schedules, checking contact/interviews with interested parties.

4.1.11 *VER*: Contract, interview

## **CRITERION 4.2**

*Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.*

**4.2.1. Managers shall ensure that the employees have a good working environment to prevent any physical, mental or social ailment.**

**4.2.2. Managers shall ensure that the employees are informed of and comply with current regulations for systematic management of the working environment (The Swedish Work Environment Authority Provision AFS 2001:1).**

**4.2.3. Managers with more than ten employees shall report basic social information related to their staff in the annual report or other documentation.**

**4.2.4. Managers with employees shall ensure that the best overall solution is selected when deciding upon methods and organisation of work, as well as when equipment is procured, taking into account the working environment, natural environment and economy. The natural environment shall not be prioritised at the expense of the working environment.**

**4.2.5. Managers with employees shall ensure that these are provided with occupational health service offering wide-ranging competence, when available with experience from the forestry sector. The enterprise shall provide properly organized adaptation and rehabilitation services.**

**4.2.6. Managers shall ensure, by written agreement or documentation, that contractors or other assignees with employees commissioned for forestry activities on the landholdings comply with the requirements in Indicators 4.2.1-4.2.5.**

**4.2.7. Managers shall ensure that the contractors commissioned and the manager agree upon consultation responsibility relating to working environment issues (The Working Environment Act, 6-7§ Chap 3,).**

4.2.1-4.2.7 *VER*: Availability of the SkogForsk (Forestry Research Institute of Sweden) safety file or the corresponding web service. Contract with occupational health service. Procedure for systematic management of the working environment. Contact with affected trade unions. Agreements with contractors.

### **CRITERION 4.3**

*The rights of workers to organize and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labour Organisation (ILO).*

**4.3.1. Managers shall guarantee the rights of workers to organize and negotiate as outlined in Conventions 87 and 98 of the International Labor Organization (ILO).**

**4.3.2. Managers shall comply with current legislation, shall be bound by collective agreements for their employees, and shall implement good labor market practices**

**4.3.3. Managers shall ensure that wages and conditions for employees within forest management conform to applicable Swedish central and local collective agreements.**

**4.3.4. Managers with employees shall offer lasting and secure conditions of employment, in the form of permanent tenure unless otherwise agreed upon. Priority shall be given to this form of employment. Duration of the assignment shall be taken into consideration.**

**4.3.5. In case of shortage of work<sup>13</sup>, managers shall promote, to the extent of their capacity, negotiations as stipulated in §§ 11 and 19 MBL (the law concerning right of participation in decision-making) with relevant trade-unions to reach agreement on mitigation measures for redundant staff.**

**4.3.6. In case of shortage of work due to operational changes, managers with employees shall set up programmes, appropriate to the magnitude of change, that outline how these changes will be implemented.**

**4.3.7. Managers shall ensure, by written agreement or documentation, that contractors or other assignees with employees commissioned for forestry activities on the landholdings comply with the requirements in Indicators 4.3.1-4.3.4.**

4.3.1-4.3.7 *VER*: Employment certificates, checking contact/interviews with interested parties. Membership of relevant employers' organisation or so-called sectoral collective agreement with the trade union affected Collective Agreement. Insurance in conformity with collective agreements. Contract agreements (including duration of contract). Negotiation protocols. Contacts with representatives of contractors and trade unions.

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<sup>13</sup> "Shortage of work" refers to the Swedish concept "arbetsbrist".

## CRITERION 4.4

*Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups (both men and women) directly affected by management operations.*

### **Intent box 4.4.1 – 4.4.8**

*The views of the local population or groups shall be taken into account through consultations that form the basis of the manager's decisions about measures to be taken. The primary purpose of the consultations is communication, not decision-making. Procedures for identifying and receiving comments, adapted to the size of the holding, specify the responsibilities within the organisation related to handling and evaluation of comments received. In general, Managers of major holdings and publicly owned forests, e.g. municipal and church forests, are expected to have in place more elaborated procedures.*

*Consultation shall be characterised by:*

- *clarity about scope and process;*
- *openness from all parties;*
- *confidence-creating dialogue.*

*Interested parties can be identified with the help of e.g. County Rural Councils that have regular contacts with local development groups in their respective county.*

*Local development groups:*

- work broadly for the development and best interests of the community*
- look after the joint interests of the community, and often represent the community in various contexts*
- are open to everyone in the community*
- are appointed and work democratically*
- act within a geographical area which is delimited by the population of the community, often a village or a parish.*

*Local interested parties refers to e.g.*

- *Environmental organisations (Swedish Society for Nature Conservation, Swedish Youth Association for Environmental Studies and Conservation, regional ornithological societies, etc.)*
- *Cultural and recreational societies and associations (Local Heritage Societies, Swedish Outdoor Life Confederation, sports associations, etc.)*
- *The rural development movement, municipal rural councils and local development groups*
- *Tenants (farming, hunting, fishing, tourism, etc.)*
- *People affected by forestry in proximity of urban areas*

*Usually, local interested parties are primarily affected by extensive measures, such as regeneration felling. However, consultations may be necessary also in the case of other major measures with substantial impact on local stakeholders.*

*In order to save time and simplify the consultation process, most consultations are held in the form of a meeting, preferably on site in the forest to clarify planned measures and requests from interested parties. Two meetings may be necessary in complex cases if, for example, several objects or stakeholders are affected.*

*Consultation documentation includes:*

*Notification, distribution list, maps, documentation of comments received and how they have been addressed, and any decisions taken.*

**4.4.1. Managers shall make available, through procedures adapted to the size and scale of forest management operations, information to directly affected groups and individuals on how to access information about planned forest activities<sup>14</sup>.**

**4.4.2. Managers shall implement systematic procedures, adapted to the size of landholding, for handling comments on their forest management.**

**4.4.3. Managers shall provide affected stakeholders with an opportunity for consultation prior to final felling that affect sites of special importance in terms of recreation, culture and economy of the local population.**

**4.4.4. Managers shall summon identified stakeholders, local development groups and others with a stated interest in the site to a consultation meeting by written notification stating time and place. A map outlining planned forest management shall be distributed to all identified stakeholders prior to the meeting.**

**4.4.5. Managers shall seek assistance from a neutral party to resolve difficult disputes**

**4.4.6. Managers shall document the consultation, including comments received, and specify where and when minutes from the meeting are available for comments. Meeting participants shall be given the opportunity to comment on the minutes and these comments shall be incorporated.**

**4.4.7. Managers shall prepare final documentation of the consultation, including minutes from the meeting, that explains how concerns have been addressed and provides rationale for decisions. Decision on measures shall be taken by the manager, after consultation has been finalized.**

**4.4.8. Managers shall communicate the documentation to the consultation participants prior to commencing forest management activities on the site.**

**4.4.9. Managers shall document and compile information on archeological monument and sites and valuable cultural sites on the landholding.**

**4.4.10. Managers shall plan, implement and monitor forest management so that archeological monument and sites and valuable cultural sites on the landholding are maintained.**

4.4.1-4.4.10 *VER*: Procedures. Documentation. Contact with stakeholders. High stumps to demonstrate valuable cultural sites. Consultation with authorities.

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<sup>14</sup> Felling notification/application are public documents, and can be obtained by request from the local Swedish Forest Agency office or equivalent.

## **CRITERION 4.5**

*Appropriate mechanisms shall be employed for resolving grievances and for providing fair compensation in the case of loss or damage affecting the legal or customary rights, property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such loss or damage.*

**4.5.1. Managers shall be aware of legal and customary tenure and use rights related to forest management on the landholding. Managers shall take account of these rights in planning so as to avoid loss or damage related to rights, property, resources, or livelihood of the local population.**

**4.5.2. Managers shall have clarified procedures and responsibility for handling and investigating complaints related to damage affecting the legal or customary rights, property, resources, or livelihood of the local population.**

**4.5.3. Managers shall provide reasonable compensation for any loss or damage related to legal or customary rights, property, resources, or livelihood of the local population.**

4.5.1-4.5.3 *VER*: Documentation. Procedures. Checking contact/interviews with interested parties.

## **PRINCIPLE 5: BENEFITS FROM THE FOREST**

Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.

### **CRITERION 5.1**

*Forest management shall strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.*

**5.1.1. Managers shall practice responsible long-term forest management with high utilization of the forest production potential, taking the natural and cultural environment as well as other interests into consideration, that creates opportunities for forest employment and further processing of forest products.**

**5.1.2. Managers of major holdings shall make publicly available a general description of how long-term economically viable forest management is combined with maintenance of biodiversity and safeguarding of cultural and social values. For other managers, these aims shall be ensured by compliance with §§ 10 – 11 of the Forest Act and the forest management plan of the property.**

**5.1.3. Managers of major holdings shall utilize forest production in accordance with the general public description (5.1.2.). Other managers shall act according to §§ 10 – 11 of the Forest Act and the forest management plan of the property.**

**5.1.4. Managers shall utilize a substantial part of the available forest production.**

**5.1.5. Managers shall plan the forest management, appropriate to the size and conditions of the landholdings, with the aim of achieving a balanced age class distribution, taking account of the growth dynamics of the forest.**

**5.1.6. Managers shall reforest all forest land after regeneration felling, unless nature conservancy agreements or authority decisions state otherwise.**

**5.1.7. Managers shall use regeneration, clearing and thinning measures that result in reliable, rapid reforestation and well-stocked productive stands in accordance with § 10 of Forest Act and its regulations.**

**5.1.8. Managers shall employ methods that limit the risks of damage by fungi, wind and insects through application of § 29 of Forest Act and its regulations.**

**5.1.9. Managers shall develop, in consultation with hunters and/or hunter organisations, a programme to limit damage by game. The programme shall take account of the size and conditions of the landholding, and shall be based on the best available knowledge. Potential measures shall include e.g. increased hunting pressure to reduce game populations and increased production of food for game.**

5.1.1 *VER*: Checking contact with interested parties, affected trade unions. Forest management plan or equivalent field visits.

5.1.2 *VER*: Descriptions and objectives for forest management, planning documentation, financial accounting.

5.1.3 *VER*: Planning documentation, felling estimations/proposals and felling, present and planned annual areas.

5.1.4-5.1.9 *VER*: Planning documentation, instructions, interviews, field visits.

## **CRITERION 5.2**

*Forest management and marketing operations shall encourage the optimal use and local processing of the forest's diversity of products.*

**5.2.1. Managers shall aim for methods of silviculture and forest management that generate optimal utilisation of a diversity of forest products.**

**5.2.2. Managers of major holdings shall implement, where relevant, marketing activities to encourage optimal use of a diversity of forest products, taking account of local economy under conditions of the market.**

5.2.1-5.2.2 *VER*: Policy/objectives.

## **CRITERION 5.3**

*Forest management shall minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.*

**5.3.1. Managers shall use felling techniques that safeguard the value of the timber and minimise damage to remaining forest and land, and continuously monitor the outcome.**

**5.3.2. Managers shall be aware of the environmental impacts of forest management, of appropriate environmentally and lifecycle-adapted input products, and of technologies that are considerate to people and to nature.**

**5.3.3. Managers that use their own forestry machinery, or that hire contractors, shall implement systematic and documented procedures for minimising hazardous emissions from machinery as well as for monitoring results of the operations and improving environmental performance where necessary.**

**5.3.4. Managers of major holdings shall implement procedures, adapted to the extent and scope of the activity, to ensure a good quality of work within the machine-environmental-technical area.**

5.3.1 *VER*: Instructions, interviews, field visits.

5.3.2-5.3.3 *VER*: Documentation, interviews.

5.3.4 *VER*: Procedures, interviews, field visits.

## CRITERION 5.4

*Forest management shall strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.*

### **Intent box 5.4 & 5.5**

*Sustainable forestry provides jobs, benefits the local economy and forms the basis of a living countryside. The forest can also be important for local trade and industry, e.g. tourism, hunting, berry and fungi picking, as a source of craft wood, and as grazing land for summer farmsteads. These are all practises that the manager can promote through sustainable forestry and/or adaptation of forest management.*

*The forest also has considerable recreation value for nearby residents, both in the countryside and in urban areas. These values can be perceived in different ways, depending on e.g. where the forest is located and how accessible it is. The manager may find it difficult to assess these values, identify people that are affected by changes to them, and to balance different, sometimes diverging views and interests. It is in the interest of local interested parties, trade and industry, to make themselves known and provide information to the manager about other benefits of the forest so that the manager can plan ahead for appropriate forestry measures.*

*Where the manager is alerted to that an area is of considerable recreation value, e.g. through a newly prepared forest management plan or comments received, a consultation process is recommended to facilitate communication and seek good solutions.*

*Forestry measures in areas with considerable recreational value shall be given particular attention, highlighting the importance of taking into account different views and, if necessary, to conduct consultations where managers and interested parties meet. This process may include adaptation of the management programme, expressed through changes in the forest management plan or in the planning of the detailed consideration measures. Examples of recreation values considered to be of considerable importance:*

*A. Recreation areas, trails and areas for outdoor life – as defined by authorities in general plans, approved by the manager and/or marked out in terrain or on maps.*

*B. “Forests in proximity of urban areas” – forests with facilities, such as trails, constructed rest areas, nature paths, exercise trails and parking places that increase the frequency of visitors. An urban area is defined in this context in Statistics Sweden’s (SCB) methodology: an area of at least 200 people who reside not more than 200 metres from one another.*

*Consultations related to hunting and fishing interests that go beyond normal use of land, e.g. fields with fodder for wild game, fixed fishing places or permanent installations like hunting cabins and sheds, are regulated through agreements with each specific association or party.*

**5.4.1. Managers shall be aware of the potential of the forest to produce various benefits for the local economy.**

**5.4.2. Managers shall take account of the views expressed by local economy representatives under normal conditions of the market. Managers of major holdings shall have procedures in place for documenting such views.**

5.4.1-5.4.2 VER: Planning documentation, procedures, interviews, field visits, the existence of consultation.

## **CRITERION 5.5**

*Forest management operations shall recognize, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.*

**5.5.1. Managers shall be aware of the potential of the forests to produce benefits and resources such as outdoor recreation, hunting and fishing and, where appropriate, implement demonstrable measures to maintain and enhance these values.**

**5.5.2. Managers shall use procedures, adapted to the size of the holdings, for taking account of views expressed by representatives of affected interest organisations, general public and authorities on forest benefits and resources in relation to harvesting and other forest management activities.**

**5.5.3. Managers shall agree, through contracts or other arrangements, on joint management of various natural resources in the same area where the parties find it necessary.**

**5.5.4. Managers shall plan and implement forest management activity measures that affect recreational values with particular attention.**

**5.5.5. Managers shall plan and implement forest management activity measures so as to maintain accessibility and avoid damage to frequently used paths.**

**5.5.6. Managers shall document hunting rights on the landholding and ensure that hunting is conducted sustainably in compliance with relevant hunting laws and regulations.**

**5.5.7. Equivalent to 6.5.17.**

5.5.1-5.5.5 *VER*: Instructions, documentation of more important installations and important ongoing activities, interviews, field visits, procedures.

5.5.6 *VER*: Documentation.

## **CRITERION 5.6**

*The rate of harvest of forest products shall not exceed levels which can be permanently sustained.*

**5.6.1. Managers of major holdings shall ensure that timber harvesting and other forest utilisation is sustainable in the long term. Documentation of long-term sustainable harvesting levels shall be available.**

**5.6.2. Other managers shall ensure that levels of timber harvesting are long-term sustainable through compliance with §§ 10-11 of the Forest Act and the forest management plan of the property.**

**5.6.3. Managers of major holdings shall implement procedures to ensure that harvesting over longer periods do not exceed stated long-term sustainable levels.**

5.6.1-5.6.3 *VER*: Felling estimations. Documentation. Interviews. Field visits.

## **PRINCIPLE 6: ENVIRONMENTAL IMPACT**

Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.

### **CRITERION 6.1**

*Assessment of environmental impacts shall be completed -- appropriate to the scale, intensity of forest management and the uniqueness of the affected resources -- and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations.*

**6.1.1. Managers shall document their landholdings in accordance with Annex 3A and 3B.**

**6.1.2. Managers of major holdings shall apply a landscape ecology perspective in their planning, taking account of the spatial configuration of the landholding and other local circumstances.**

**6.1.3. Managers of major holdings shall plan forest management with the aim of achieving an ecologically balanced age distribution in the landscape, with special attention to the proportion of older forest in landscapes where there is a deficit of such forest.**

**6.1.4. Managers of major holdings shall make publicly available ecological landscape plans, or equivalent documentation, with accompanying rationales.**

**6.1.5. Other managers shall ensure that regional biodiversity action plans or equivalent are taken into account when planning the forest management.**

**6.1.6. Managers shall not use untested forest management methods or materials with potentially serious adverse impacts on people or nature unless approved by FSC Sweden.**

**6.1.7. Managers shall assess biodiversity values<sup>15</sup> at stand level prior to any major forest management activities, document the results, and plan and implement forest management so as to minimize adverse impacts.**

6.1.1-6.1.3 *VER*: Control of planning instruments, gap analysis

6.1.4 *VER*: Procedures, interviews

6.1.5 *VER*: Planning documentation, awareness of regional action plans or equivalent

6.1.6 *VER*: Statement from the FSC national body.

6.1.7 *VER*: Interviews, field inspection, implemented assessments of biodiversity values.

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<sup>15</sup> In accordance with Annex 4.

## **CRITERION 6.2**

*Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping and collecting shall be controlled.*

**6.2.1. Managers shall exempt the following habitats from measures other than management required to maintain or promote natural biodiversity or biodiversity generated by traditional practices<sup>16</sup>.**

**a) Natural, conspicuously un-even-aged and stratified forests with an abundance of old/large trees and a high frequency of coarse dead woody debris in different stages of decomposition<sup>17</sup>.**

**b) Woodland key habitats according to the definitions and methodology of the Swedish Forest Agency, 1995.**

**c) Low/non-productive forest land (land with a total annual volume increment less than 1 cubic meter per hectare).**

**6.2.2. Managers shall ensure that woodland key habitats requiring active interventions are managed in accordance with defined and documented management objectives.**

**6.2.3. Managers shall evaluate and document information about occurrences of red-listed species (Annex 5) outside delimited woodland key habitats, and about consideration measures to be taken as regards such occurrences.**

**6.2.4. Managers shall take demonstrable measures to protect occurrences of red-listed species (in accordance with 6.2.2) outside delimited woodland key habitats. These can be generic, including detailed consideration or care-demanding patches at felling, or specific such as small-scale measures or setting aside forest land for nature conservation purposes.**

**6.2.5. Managers shall document known raptors' nests and capercaillie leks and take demonstrable measures to protect them.**

**6.2.6. Managers shall avoid harvesting operations in stratified forests dominated by broad-leaf trees during the breeding season of birds.**

**6.2.7. Managers shall not establish forests on:**

**a) delimited patches of open or spontaneously overgrowing cultural land less than 0.5 hectare in the forest landscape;**

**b) open and spontaneously overgrowing cultural land where the species composition is still conditioned by former traditional management practises (crofters' holdings, old cultivations).**

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<sup>16</sup> Measures to promote outdoor recreation may be taken on condition that they are not detrimental to the biodiversity values.

<sup>17</sup> The definition shall be applied in view of regional conditions taking into consideration the potential of the site and of the forest type. As to application of the definition in subalpine forests, see Indicator 9.3.2.

**6.2.8. Managers shall maintain or create, preferably traditionally managed, open forest edge zones as part of the regular management of the stand.**

**6.2.9. Managers shall plan their forest management so as to avoid future shading of sun-exposed forest edges, forest islets on arable land and other small habitats.**

**6.2.10. Managers shall strive to maintain the biological diversity of uncultivated meadows and pastureland where the species composition is still conditioned by former traditional management practises. Biodiversity values associated with large previously solitary trees and with tree and shrub species characteristic of traditionally managed areas shall be promoted.**

**6.2.11. Managers shall manage, where possible, any other afforested, previously open, cultural areas so that deciduous trees dominate throughout the rotation period in areas immediately adjacent to non-forested cultural land.**

**6.2.12. Managers shall monitor their landholding for signs of illegal hunting and fishing and take corrective and preventive measures as required.**

6.2.1-6.2.12 *VER*: Procedures. Documentation. Interviews. Field inspection.

### **CRITERION 6.3**

*Ecological functions and values shall be maintained intact, enhanced, or restored, including:*

- a) Forest regeneration and succession.*
- b) Genetic, species, and ecosystem diversity.*
- c) Natural cycles that affect the productivity of the forest ecosystem.*

**6.3.1. Managers shall adapt forest management measures to site conditions and document the measures.**

**6.3.2. Managers shall have knowledge about management methods that mimic important aspects of natural and traditional forest dynamics and when such management methods are preferable.**

**6.3.3. Managers shall make use of stands of seed trees, shelterwoods, group or tree selection systems and exploitation felling, when these methods produce successful regeneration with tree species that are appropriate for the site and for management objectives.**

**6.3.4. Managers shall retain all snags, windthrows and other trees that have been dead for more than 1 year except when they:**

- a) constitute a safety risk for forestry workers or for the general public within recreation areas,**
- b) block up frequently used paths and roads,**
- c) constitute small-dimension felling residues,**
- d) constitute breeding substrate for pest insects in case there is a documented risk of mass propagation<sup>18</sup>.**

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<sup>18</sup> In large connected areas of dead forests, management activities may be carried out to establish new forests in accordance with requirements of the Swedish Forestry Act.

**6.3.5. Managers shall retain all snags, windthrows and other trees that have been dead less than 1 year<sup>19</sup>:**

- a) that originate from trees with high biodiversity values (6.3.15) or other trees previously retained for nature conservation purposes**
- b) in areas set aside for nature conservation including care-demanding patches**
- c) on low/non -productive forest land with an annual increment less than 1 cubic metre per hectare.**

**6.3.6. Managers shall retain, on average, at least two coarse new windthrows per hectare when harvesting windthrown stems on final felled areas (in addition to windthrows addressed in 6.3.4 and 6.3.5).**

**6.3.7. Managers shall create, in average, at least three<sup>20</sup> high stumps<sup>21</sup> or girdled trees per hectare of areas harvested through regeneration felling and thick-stem thinning, striving to select for this purpose equal numbers of coarse pine, spruce, birch and aspen trees without high biodiversity values.**

**6.3.8. Managers shall plan and implement forestry measures so that, wherever natural conditions permit, broad-leaf trees constitute a minimum average of 10% of the stand volume<sup>22</sup>, including immediately adjacent land, at the time of regeneration felling, (5 % in areas north of the *limes norrlandicus*). Naturally present broad-leaf tree species shall generally be maintained in the stand.**

**6.3.9. Managers shall plan and manage the landholdings so that, over time, an area equivalent to at least 5 % of the total area of mesic and moist forest land<sup>23</sup>, suitable for natural regeneration and growth of broadleaf trees, carry deciduous rich stands dominated by broadleaf trees during the major part of the rotation period. The stands shall be managed in order to promote favourable conditions for biodiversity associated with broadleaf trees.**

**6.3.10. Managers with landholdings in the nemoral zone outside the natural range of spruce shall plan and manage the holdings so that, over time, less than 50 % of the productive forest land carries stands dominated by spruce (in addition to any stands dominated by exotic tree species).**

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<sup>19</sup> In forests in proximity of urban areas and along commonly used trails, management of dead wood may be modified to promote accessibility and safety. Measures may also be taken to ensure workers' safety.

<sup>20</sup> At regeneration felling in oak and beech stands dead wood is produced, making sure that at the time of the old stand wind-up there shall be on an average, at least two girdled trees or high stumps of the main tree species per hectare of the harvested area. No high stumps or girdled trees of other valuable broad-leaf tree species are required.

<sup>21</sup> Crosscutting shall be done at the maximum height considered safe.

<sup>22</sup> Including high stumps of broad-leaf trees.

<sup>23</sup> Areas dominated by broad-leaf trees that have been set aside according to 6.4.1-6.4.3 may be included north of the *limes norrlandicus*. Subalpine forests at altitudes above the nature conservation boundary as defined by the Swedish Society for Nature Conservation (1988) are excepted from the requirements of 6.3.8.

**6.3.11. Managers of major holdings shall take demonstrable measures<sup>24</sup> to allow tree species sensitive to browsing by game to develop naturally into normal arborescent individuals.**

**6.3.12. Managers of major holdings shall take all reasonable measures to burn an area equivalent to at least 5 % of the regeneration area<sup>25</sup> on dry and mesic forest land over a five-year period. Felling and burning operations shall be designed to promote fire-dependent species and measures shall be taken to minimize leaching of plant nutrients directly into watercourses. (See also Annex 6 on burning.)**

**6.3.13. Managers of major holdings shall document all burning measures in planning documentation and forest registers.**

**6.3.14. Managers shall demarcate, preferably when the ground is free from snow cover, as care-demanding patches:**

- a. small habitats with specific biodiversity values
- b. any buffer zones required adjacent to habitats with specific biodiversity values

**6.3.15. Managers shall promote continuously forested, if possible stratified, transition zones conditioned by topographical, hydrological and ecological features adjacent to wetlands and low/non-productive forest land. Demarcation is preferably performed when the ground is free from snow cover.**

**6.3.16. Managers shall retain wind resistant trees of different species with good potentials to develop into large and old trees during the next rotation period, with the aim that the next stand shall contain at least 10 such trees<sup>26</sup> (including relevant biodiversity value trees according to 6.3.18) per hectare (in average for the productive forest land within the unit of operation, including transition zones and care-demanding patches).**

**6.3.17. Managers shall retain care-demanding patches, edge zones, groups of trees and biodiversity value trees (6.3.18), so as to avoid large treeless areas.**

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<sup>24</sup> The measures shall be based on an assessment in a landscape perspective and on best available knowledge and consultation with hunter organisations.

<sup>25</sup> Areas subject to the treatment shall preferably be areas previously influenced by fire, with the exception of lichen areas important to reindeer husbandry. Exceptions shall be permitted in regions where natural forest fires have had minor influence. Under this category come subalpine forests, the west Västergötland province, the west Småland province, the Halland and Skåne provinces, and the south Blekinge province. Exceptions shall also be permitted in forests in proximity of urban areas and on the islands of Öland and Gotland.

<sup>26</sup> In areas where trees with high biodiversity values are large oak or beech trees the number may be reduced.

**6.3.18. Managers shall retain and safeguard, as part of all forestry measures, all trees with high biodiversity values<sup>27</sup>:**

- a. aberrant, particularly large and/or old trees,**
- b. large trees with notably wide girth and thick-branched and/or flat crowns,**
- c. large, previously solitary growing spruces on pasture land,**
- d. large aspen and alders where these do not occur in abundance, in stands dominated by conifers,**
- e. arborescent goat willow, mountain ash, whitebeam, maple, lime, bird-cherry, wild cherry and large hazel in stands dominated by conifers,**
- f. large junipers,**
- g. trees with distinct open bole fire scars,**
- h. hollow trees and trees with stick nests of birds of prey,**
- i. trees with evident features of cultural importance,**
- j. individual or small groups of valuable broad-leaf trees in the boreal forest landscape.**

**6.3.19. Managers shall plan and manage their landholding so as to promote that a significant number of broadleaf trees, and an appropriate number of other trees, develop into trees with high biodiversity values.**

**6.3.20. Managers shall monitor and document compliance with Indicators 6.3.14-6.3.19 and take corrective and preventive measures in case of non-compliance.**

**6.3.21. Managers shall aim to maintain the natural processes and long-term productivity of soils, and to avoid negative impacts on other ecosystems and biodiversity values. Managers adding or restoring nitrogen/mineral plant nutrients shall demonstrate, with the support of generic documentation<sup>28</sup>, that these measures do not conflict with this aim.**

**6.3.22. Managers shall ensure that nitrogen fertilisers are used in accordance with the Swedish Forest Agency's regulations, general guidelines and recommendations and in accordance with Indicator 6.3.21.**

**6.3.23. Managers shall ensure that extraction of biofuel complies with the recommendations of the Swedish Forest Agency and that such practices are documented at stand level.**

**6.3.24. Managers shall ensure that any spread of ash, lime or nutrients to compensate for biofuel extraction, soil acidity, or nutritional imbalances, complies with the Swedish Forest Agency's regulations and general guidelines.**

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<sup>27</sup> Exceptions shall be permitted if the trees are included in the standard forest management program, for instance in saw-timber stands, shelterwoods, seed tree stands of less than 25 years' duration and main stems in stands of valuable broad-leaf trees. Exceptions shall also be granted for road constructions, if there is risk of injury or damage to buildings, and for trees close to power lines.

<sup>28</sup> See Annex 7 on nitrogen fertilization.

**6.3.25. Managers shall apply updated research-based knowledge about long-term forest land productivity in planning and implementation of their management activities.**

6.3.1 VER: Instructions, plans, field inspection, interviews, knowledge/training.

6.3.2-6.3.3 VER: Interviews, knowledge/training, field inspection.

6.3.2-6.3.8 VER: Field inspection, control of plans and instructions and also checking contact with the manager.

6.3.9-6.3.10 VER: Field inspection, present percentage of valuable broad-leaf forests, control of plans and instructions and also checking contact with the manager.

6.3.11 VER: Plans, field inspection.

6.3.12-6.3.13 VER: Documentation, burning plans, burning statistics, field inspection.

6.3.14-6.3.18 VER: Field inspection. Managers of major holdings and group representatives monitor and document the extent of consideration measures.

6.3.22-6.3.25 VER: Field visits and interviews, register of fertilized areas and areas where biofuel has been extracted.

#### **CRITERION 6.4**

*Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources.*

**6.4.1. Managers shall exempt a minimum of 5 % of the productive forest land area<sup>29</sup> (in accordance with Annex 8) from measures other than management required to maintain or promote biodiversity conditioned by natural processes or traditional land use practices.**

**6.4.2. Managers shall select areas according to 6.4.1., demarcated and prioritized based on their significance for biodiversity and landscape representativeness.**

**6.4.3. Within areas defined according to 6.4.1-6.4.2, managers may take actions to promote outdoor recreation provided that there is no negative impact on biodiversity.**

6.4.1-6.4 VER: Control of planning documentation. Field inspection.

#### **CRITERION 6.5**

*Written guidelines shall be prepared and implemented to: control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources.*

**6.5.1. Managers shall restrict site preparation to sites where such measures are necessary to achieve successful regeneration, and adapt techniques and intensities to the conditions of the site.**

**6.5.2. Managers shall use intermittent site preparation methods on moist soils and on erosion-prone soils, and shall not carry out mechanical site preparation in edge zones along water and wetlands.**

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<sup>29</sup> No felling shall be carried out in areas set aside for nature conservation during the breeding season of birds.

**6.5.3. Managers shall implement procedures for avoiding damage caused by heavy machinery, including appropriate methodology and technology for transports across watercourses<sup>30</sup>.**

**6.5.4. Managers shall implement procedures to act on substantial soil damage caused by vehicles.**

**6.5.5. Managers shall implement procedures to ensure that construction of new roads does not change the running of, or cause damage to, natural watercourses.**

**6.5.6. Managers shall remove obstacles to the migration of aquatic organisms when maintaining or reconstructing culverts.**

**6.5.7. Managers of major holdings shall develop action plans for removing obstacles caused by road culverts to the migration of aquatic organisms in watercourses with special biodiversity values,**

**6.5.8. Managers shall not establish new ditches for soil drainage on land which has not previously been ditched<sup>31</sup>.**

**6.5.9. Managers shall apply protective ditching only where such measures are clearly necessary to comply with the regeneration requirements of the Forest Act.**

**6.5.10. Managers shall ensure that ditches and road ditches do not discharge directly into watercourses, lakes or valuable wetlands. Exceptions may be applicable due to adverse topography or other special conditions.**

**6.5.11. Managers shall not maintain previously established ditches on peat land<sup>32</sup> with low forest production<sup>33</sup>.**

**6.5.12. Managers shall be aware of existing local and downstream biodiversity values, and of options for restoration, prior to clearing of ditches. Protective measures shall be applied and consideration shall be documented.**

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<sup>30</sup> Substantial ground damages refer to, for example, damages causing significant erosion and sediment transport to watercourses, wheel tracks changing the direction of water flows, damages in areas with specific biodiversity values, and wheel tracks in areas of particular importance to outdoor recreation, especially close to urban areas.

<sup>31</sup> Exceptions shall be permitted in the case of flooding which threatens the stand vitality on condition that the required permissions have been obtained from the authorities concerned.

<sup>32</sup> Classified as lichen type, lichen-rich type, poor dwarf-shrub type, Empetrum-Calluna type or Carex-Equisetum type according to Hägglund & Lundmark 1987. Bonitering, Del 1. Definitioner och anvisningar. The Swedish Forest Agency, Jönköping. 53 pp. ISBN 91-85748-64-1.

<sup>33</sup> Exceptions shall be permitted for maintenance of drainage ditches from other previously ditched forest stands with higher forest production than the site classes listed above.

**6.5.13. Managers that clear ditches, or apply protective temporary drainage, shall construct functional sedimentation ponds where necessary to minimise negative effects of sedimentation.**

**6.5.14. Managers shall implement procedures that promote continuously forested, if possible stratified, transition zones conditioned by topographical, hydrological and ecological features along watercourses and open water areas.**

**6.5.15. Managers shall plan and manage their landholding so that stands, dominated by broadleaf trees and with high potential for biodiversity, are maintained and/or established:**

- a. on moist sedimentary soils adjacent to watercourses and open water bodies;**
- b. in sediment ravines;**
- c. on other moist/wet land that is naturally dominated by broadleaf trees.**

**6.5.16. Managers shall take account of aquatic habitats when forest land is set aside for nature conservation purposes.**

**6.5.17. Managers shall consider wetland and aquatic habitats in a watershed perspective beyond the context of the landholding and take specific consideration measures to such habitats with high biodiversity values.**

**6.5.18. Managers of major holdings shall use procedures to assess the need for, and practical/economic possibilities of, re-creating water environments in their ecological landscape planning.**

**6.5.19. Managers of major holdings shall monitor and document compliance with Indicators 6.5.1-6.5.18 and shall take corrective and preventive measures in case of non-compliance.**

6.5.1-6.5.19 *VER*: Procedures, justifications, monitoring results, interviews, field visits, planning documentation.

## CRITERION 6.6

*Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organization Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimize health and environmental risks.*

**6.6.1. Managers shall limit the risks of damage caused by fungi, insects and wind through compliance with § 29 of the Forest Act.**

**6.6.2. Pesticides classified by National Chemicals Inspectorate as ‘very toxic’, ‘toxic’, ‘causing burns’, ‘dangerous to health’, or ‘dangerous for the environment’ (or pesticides classified as “Highly hazardous pesticides” according to FSC-POL-30-001), shall not be used on forest land<sup>34</sup> unless exceptions have been granted by FSC<sup>35</sup>.**

**6.6.3. If pesticides or treated seedlings are used, managers shall take all stipulated protective measures, restrictions and precautions to avoid damage or detriment to human health or to the environment. The best possible technique shall be used.**

**6.6.4. Instructions and safety data sheets in relevant languages shall be provided at the location of the activity.**

**6.6.5. Managers shall ensure that all employees and contractors that handle or apply pesticides or treated seedlings are adequately trained for their tasks<sup>36</sup>.**

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<sup>34</sup> By use on FSC certified forest land is meant planting of plants which have been treated against pine weevil attack in the forest nursery as well as subsequent treatment in the field. It does not refer to the use of other chemicals by forest nurseries.

<sup>35</sup> Exceptions for use of the pesticides on the FSC list of “Highly hazardous pesticides” can only be given by the FSC Policy and Standards Unit. In order to get exceptions for use of use pesticides which are included in the list, forest managers shall apply to FSC Policy and Standards Unit in accordance with FSC-POL-30-001 (2005) FSC Pesticides policy and associated documents. Regarding the use of such pesticides in Sweden, it is also necessary to apply for exceptions from FSC Sweden.

Regarding pesticides not classified as “Highly hazardous pesticides”, the board of the Swedish FSC can, after application, decide on exceptions from 6.6.2 if there are special reasons. The regulations for possible exceptions are decided upon by the Swedish FSC (see Annex 9 “Commitments, criteria and procedures for exceptions in respect of the use of chemical biocides to counter pine weevil”).

<sup>36</sup> Biocides	AFS 1998:6
Chemical working environment risks	AFS 2000:4
Systematic working environment work	AFS 2001:1
Use of personal protective equipment	AFS 2001:3
First aid and crisis support	AFS 1999:7
Minors	AFS 1996:1
Design of the workplace	AFS 2000:2

**6.6.6. When purchasing seedlings, managers shall require that the plant producer minimize the use of pesticides in the nursery and unwanted impacts of pesticides.**

6.6.1 *VER*: Decisions on exceptions.

6.6.2 *VER*: Instructions in relevant languages, procedures, field inspection, interviews with affected interested parties and affected trade unions. Regulations, instructions, guidelines and checklists from concerned authorities.

6.6.3-6.6.5 *VER*: Environmental management system at the nursery.

6.6.6. *VER*. Requirements for purchasing seedlings.

## **CRITERION 6.7**

*Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall be disposed of in an environmentally appropriate manner at off-site locations.*

**6.7.1. Managers shall implement procedures for legal and environmentally appropriate handling and disposal of chemicals, fuels, oils and non-organic waste.**

**6.7.2. Managers shall ensure that all employees and contractors that handle chemicals, fuels, oils and non-organic waste have sufficient competence.**

6.7.1-6.7.2 *VER*: Instructions and procedures, field inspection, interviews, documentation.

## **CRITERION 6.8**

*Use of biological control agents shall be documented, minimized, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.*

**6.8.1. Managers shall ensure that only scientifically proven and effective biological control agents are used.**

**6.8.2. Managers shall use appropriate techniques and methods for any application of biological control agents so as to minimize the use and avoid damage or detriment to human health or to the environment.**

**6.8.3. Instructions and safety data sheets in relevant languages shall be provided at the location of the activity.**

**6.8.4. Managers shall ensure that anyone handling or applying biological control agents is adequately trained for their tasks.**

**6.8.5. Managers may use biological control agents in case of mass propagation of pest insects in accordance with terms stated by the Swedish Chemicals Agency.**

**6.8.6. Managers shall not use genetically modified organisms.**

6.8.1-6.8.6 *VER*: Instructions and procedures, field inspection, interviews, possible decisions by the Swedish Chemicals Agency.

## **CRITERION 6.9**

*The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.*

**6.9.1. Managers who establish and/or manage stands with exotic tree species shall be aware of production and quality advantages compared to native tree species, and of potential negative impacts, through generic documentation, trials and/or experience.**

**6.9.2. Exotic tree species may be used, with considerable restraint, after trials or experience have demonstrated that the species:**

- provides considerable production benefits or other advantages over native tree species;
- is ecologically well adapted to the conditions of the sites where it is used;
- is not invasive;
- does not cause significant negative impacts on other ecosystems or biodiversity;
- does not cause substantial negative impacts on natural soil processes or long-term productivity.

**6.9.3. Managers shall limit any use of exotic tree species so that the total area of newly established stands of such species, as from 2009, does not exceed 5 % of the productive forest area<sup>37</sup>.**

**6.9.4. Managers that establish or manage stands with exotic tree species shall implement procedures for such tree species.**

**6.9.5. Managers who establish new stands with exotic tree species in accordance with 6.9.2 shall take additional and more extensive consideration measures in support of important biodiversity and environmental values. The scope and implementation of the measures shall clearly relate to the area of newly established stands of exotic tree species. Measures shall be selected and implemented based on analyses of important biodiversity and environmental values in need of enhancement in the landscape. Managers shall regularly report on their plans and measures in a publicly available format<sup>38</sup>.**

**6.9.6. Managers of major holdings who establish new stands with exotic tree species shall adapt conservation strategies and landscape planning to conform with 6.9.5.**

**6.9.7. Managers of major holdings that establish or manage stands with exotic tree species shall plan the use in a landscape perspective so as to avoid and minimise adverse ecological effects, e.g. invasive propagation and negative impacts on areas of high biodiversity value. This shall imply e.g. that exotic tree species are not established in the majority of landscapes that contain less than 2 % of such species at the landscape level.**

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<sup>37</sup> Reforestation with exotic tree species on land previously dominated by such species shall not subject to the area restrictions.

<sup>38</sup> Examples of such measures are more extensive setting aside of land for conservation purposes, more extensive consideration taken in forestry measures, special measures of care for threatened or endangered species, more extensive care and re-creation of areas of high biodiversity value. By more extensive is meant such measures which are obviously more far-reaching than prescribed by other indicators in this standard, and which otherwise would not have been undertaken.

**6.9.8. Managers shall actively monitor their use of exotic tree species, through procedures adapted to the extent and intensity of the use, so as to avoid adverse ecological impacts.**

**6.9.9. Managers that use exotic tree species shall have a programme for mitigating potential adverse ecological impacts that include active measures, e.g. limitation and removal of self propagated seedlings.**

**6.9.10. Managers that use exotic tree species shall document and monitor their measures.**

6.9.1-6.9.10 VER: Interviews. Field visits. Knowledge and documentation of exotic tree species. Monitoring systems and results. Procedures. Documentation, analysis and account of extra measures for nature conservation. Programme for managing adverse ecological aspects.

*Comments: The use of exotic species of tree has a bearing on important current issues such as climate change. Other issues of importance are increased productivity, risks in relation to new pests and altered conditions of ecosystems. Within the Swedish FSC, it is anticipated that the issue of exotic tree species will be strongly influenced by the more integrated view of intensive management systems, which is expected to be reflected in an imminent review of FSC's Principles and Criteria.*

*Ongoing changes and re-evaluations mean that the Indicators under 6.9 are considered as interim, and that an unbiased re-evaluation will be made in the next review against the background of the regulations and knowledge that then need to be considered. Thus, the parties are aware and accept that all aspects addressed under 6.9 will be re-evaluated on the basis of new knowledge and experience at the next review without giving any precedence to the interim formulations (including the percentage figures of 6.9.3 and 6.9.7.).*

## **CRITERION 6.10**

*Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:*

- a) entails a very limited portion of the forest management unit; and*
- b) does not occur on high conservation value forest areas; and*
- c) will enable clear, substantial, additional, secure, long term conservation benefits across the forest management unit.*

**6.10.1. Managers shall not convert forest land to other use for other purposes than developing forest management or social-related infrastructure, research, improving conditions for outdoor recreation, or maintaining cultural environments or biodiversity. Rationales for conversion of forest land shall be documented and justified.**

**6.10.2. Conversion of forest land shall only be permitted for:**

- important forestry-and social-related infrastructure in accordance with applicable legal requirements, official land-use planning and/or forest-management planning**
- the consolidation of important cultural and environmental values**

**6.10.3. Managers shall not convert forest land within High Nature Conservation Value forest areas (see 9.1).**

**6.10.4. Where forest conversion does occur the manager shall ensure that this only entails a very limited portion of the forest management unit and is in accordance with relevant legislation.**

6.10.1-6.10.4 *VER*: Forest management plan. Interviews. Field visits. Required permits such as, for example, exceptions from the Forest Act.

## **PRINCIPLE 7: MANAGEMENT PLAN**

A management plan -- appropriate to the scale and intensity of the operations – shall be written, implemented, and kept up to date. The long term objectives of management, and the means of achieving them, shall be clearly stated.

### **CRITERION 7.1**

*The management plan and supporting documents shall provide:*

- a) Management objectives.*
- b) Description of the forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands.*
- c) Description of silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories.*
- d) Rationale for rate of annual harvest and species selection.*
- e) Provisions for monitoring of forest growth and dynamics.*
- f) Environmental safeguards based on environmental assessments.*
- g) Plans for the identification and protection of rare, threatened and endangered species.*
- h) Maps describing the forest resource base including protected areas, planned management activities and land ownership.*
- i) Description and justification of harvesting techniques and equipment to be used.*

*Under Principle 7 there are references to Annexes 3A and 3B which are parts of this Standard. The aims are to facilitate technical use by structuring requirements relating to plans and documentation and to enable managers to demonstrate compliance with the Standard to the certifier.*

**7.1. a-b. Managers shall comply with requirements for planning documentation in accordance with Annex 3A and 3B.**

**7.1. c. Managers shall describe how management methods are selected based on the ecological conditions of the forest and inventories of the present forest condition, site conditions, specific biodiversity values etc. in accordance with Annex 3A and 3B.**

**7.1. d-e. Annual timber harvest level and tree species selection shall be decided upon and monitored by using established area and management planning systems.**

**7.1. f. Forest management activities in, or adjacent to, areas with particularly high cultural and biodiversity values shall be based on site-specific management instructions.**

**7.1. g. Equivalent to 6.1.7.**

**7.1. h. Managers shall comply with requirements for documentation in accordance with Annex 3A and 3B.**

**7.1. i. Managers shall describe and justify the felling techniques and the equipment being used as addressed by Indicators 5.1.7; 5.2.1; 5.3.2 and 6.3.1., as well as by 6.6.1-6.6.6.**

7.1.a-7.1.i VER: Planning documentation, interviews, instructions, method for assessment of biodiversity values, field inspection.

## CRITERION 7.2

*The management plan shall be periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.*

**7.2.1. Managers shall use systematic procedures, adapted to the size and conditions of the landholding, to regularly update management planning and documentation based on the results of monitoring, new information (from authorities, research, etc.), and changing environmental, social and economic conditions.**

*Comment: Forest management plans older than 10 years shall be revised when it is required for monitoring and control.*

7.2.1 VER: Planning documentation, procedures.

## CRITERION 7.3

*Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan.*

**7.3.1. Managers shall ensure that employees and contractors are adequately trained<sup>39</sup> for their tasks, and that they are given the instructions and supervision necessary to ensure proper implementation of the management plan.**

7.3.1 VER: Procedures. Interviews. Certificates of knowledge. Employment certificates. Agreement on contract by tender (i.a. period of agreement), affected trade unions

## CRITERION 7.4

*While respecting the confidentiality of information, forest managers shall make publicly available a summary of the primary elements of the management plan, including those listed in Criterion 7.1.*

**7.4.1. Managers shall ensure that a summary of the primary elements is publicly available, including those listed in 7.1.**

**7.4.2. Documentation on the protection of species sensitive to disturbance or crime shall be confidential.**

7.4.1 VER: Procedures for accessibility of documentation.

7.4.2 VER: Procedures for the accessibility of plans.

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<sup>39</sup> For competence see Indicators 4.1.6 – 4.1.8.

## **PRINCIPLE 8: MONITORING AND ASSESSMENT**

Monitoring shall be conducted -- appropriate to the scale and intensity of forest management -  
- to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.

### **CRITERION 8.1**

*The frequency and intensity of monitoring should be determined by the scale and intensity of forest management operations as well as the relative complexity and fragility of the affected environment. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessment of change.*

**8.1.1. Managers shall ensure the implementation of replicable monitoring procedures that allow comparisons of results and evaluations of changes related to relevant Indicators of this Standard.**

**8.1.2. Managers shall use monitoring procedures adapted to the size and conditions of the landholding.**

8.1.1-8.1.2 *VER*: Procedures, plans, documents and monitoring results.

### **CRITERION 8.2**

*Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators:*

- a) Yield of all forest products harvested.*
- b) Growth rates, regeneration and condition of the forest.*
- c) Composition and observed changes in the flora and fauna.*
- d) Environmental and social impacts of harvesting and other operations.*
- e) Costs, productivity, and efficiency of forest management.*

**8.2. a. Managers shall provide general documentation on the harvesting of traditional forest products upon request.**

**8.2. b.1. Managers shall document implemented management measures in the management plan or the equivalent.**

**8.2. b.2. Managers shall use systematic procedures to monitor forest condition and regeneration. Major changes shall be documented.**

**8.2. c. Managers shall use systematic procedures to evaluate information on changes in flora and fauna, obtained from authorities, researchers and interest organisations, in their planning.**

**8.2. d.1. Managers shall use systematic procedures to regularly evaluate information, obtained from authorities and researchers, of relevance for the implementation of the Standard.**

**8.2. d.2. Managers shall be willing to contribute to research and data collection of relevance for the Standard**

**8.2. d.3. Managers shall collect information and, where relevant update their planning documentation, as specified in Annex 3A and 3B. In addition, managers shall implement monitoring procedures that ensure compliance with the following indicators:**

- **5.3.4: Environmental impact of machinery.**
- **6.6.1-6.6.6: Use of chemical pesticides.**
- **6.7.1: Legal handling of non-organic waste, fuel, and oils.**
- **6.8.1: Use of biological control agents.**

**8.2. d.4. Managers shall take account of, and where necessary monitor, social impacts of forest management based on information obtained through implementation of Indicators 3.1.2, 4.2.1, 4.3.4-4.3.6, 4.4.1, 4.4.2.**

**8.2. d.5. Managers that commission contractors shall use systematic procedures to monitor the implementation of agreements and/or field instructions necessary to ensure compliance with the Standard.**

**8.2. e. Managers shall use systematic procedures to monitor income, cost, productivity and efficiency of forest management.**

8.2. a *VER*: Procedures, documents.

8.2. b *VER*: Procedures, documents, field visits.

8.2. c *VER*: Inventories, statistics, awareness of information from research/authorities/organisations, procedures.

8.2. d *VER*: Procedures, documentation, awareness of information from research/authorities/organisations, agreements, inventories, interviews.

8.2. e *VER*: Procedures, bookkeeping, documentation.

### **CRITERION 8.3**

*Documentation shall be provided by the forest manager to enable monitoring and certifying organizations to trace each forest product from its origin, a process known as the “chain of custody.”*

**8.3.1. Timber marketed as FSC timber shall be labelled at the timber landing so as to enable identification of the felling area and the manager.**

**8.3.2. Timber stacks on roadsides shall be tagged prior to further transport.**

**8.3.3. Managers shall ensure that documents enabling tracing of timber origin, e.g. sales contracts or measurement verifications, are available for inspection.**

8.3.1-8.3.3 *VER*: Procedures, stack tags, field inspection.

### **CRITERION 8.4**

*The results of monitoring shall be incorporated into the implementation and revision of the management plan.*

**8.4.1. Management activities, plans and instructions shall be evaluated and, where necessary, revised to reflect the results of monitoring.**

8.4.1 *VER*: Planning documentation, procedures, monitoring results, field inspection.

## **CRITERION 8.5**

*While respecting the confidentiality of information, forest managers shall make publicly available a summary of the results of monitoring indicators, including those listed in Criterion 8.2.*

**8.5.1. Managers shall make publicly available a summary of monitoring results including those elements listed in 8.2.**

8.5.1 VER: Monitoring results.

## PRINCIPLE 9: MAINTENANCE OF HIGH CONSERVATION VALUE FORESTS

Management activities in high conservation value forests shall maintain or enhance the attributes which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.

### CRITERION 9.1

*Assessment to determine the presence of the attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management.*

*High Conservation Value Forests (HCVF) are those that possess one or more of the following attributes:*

- a) forest areas containing globally, regionally or nationally significant :
  - concentrations of biodiversity values (e.g. endemism, endangered species, refugia) (HCVF1)
  - large landscape-level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance (HCVF2)*
- b) forest areas that are in or contain rare, threatened or endangered ecosystems (HCVF3)*
- c) forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control) (HCVF4)*
- d) forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health) (HCVF5) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities) (HCVF6).*

#### **9.1.1. Managers shall identify as High Conservation Value Forests (HCVF) in the Swedish context the following forest types:**

- a) Forest areas of national interest and/or of recognised nation-wide significance, with a concentration of key habitats and/or habitats for red-listed species outside defined key habitats (HCVF 1, HCVF 3);**
- b) Subalpine forests at altitudes above the nature conservation boundary<sup>40</sup>, (HCVF2);**
- c) Protective forests as defined by §15 Forest Act (HCVF 4);**
- d) Forests within protection areas for sources of water supply (HCVF 4).**

<sup>40</sup> As defined by the Swedish Society for Nature Conservation, 1988, ISBN 91-558-5201-7.

**9.1.2. Managers shall document the presence of High Conservation Value Forests and classify the types in accordance with 9.1.1 within managed parts of the landholdings. The category of subalpine forests at altitudes above the nature conservation boundary denotes those forests that comply with definitions 1 and 2 in Annex 10.**

9.1.1-9.1.2 *VER*: Planning documentation.

## **CRITERION 9.2**

*The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.*

**9.2.1. Managers with landholdings that contain High Conservation Values areas shall consult with relevant stakeholders and/or expertise on how to maintain or enhance the identified values.**

**9.2.2. Managers with landholdings that contain High Conservation Value shall report on the consultative process to the certifier at the time of certification/audit.**

9.2.1-9.2.2 *VER*: Documentation of consultative process.

## **CRITERION 9.3**

*The management plan shall include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. These measures shall be specifically included in the publicly available management plan summary.*

**9.3.1. Managers with landholdings that contain High Conservation Values shall prepare and implement specific management plans that incorporate a precautionary approach to the maintenance or enhancement of these values.**

**9.3.2. Managers with landholdings at altitudes above the nature conservation boundary (9.1.1b) shall ensure compliance with Annex 10.**

**9.3.3. Managers with protective forests (9.1.1c) shall ensure that this forest is managed in compliance with §§15 and 16 Forest Act, with associated regulations and general guidelines.**

**9.3.4. Managers with landholdings within areas protected as sources of water supply (9.1.1d) shall ensure compliance with current regulations.**

**9.3.5. Managers of major holdings with landholdings containing forest with High Conservation Values shall make publicly available a summary specification of the measures taken to maintain and/or enhance the identified conservation attributes.**

**9.3.6. Other managers shall document measures taken to maintain or enhance High Conservation Values when updating or revising their forest management plans and make this information available upon request.**

9.3.1-9.3.2 *VER*: Planning documentation, field inspection.

9.3.3-9.3.4 *VER*: Field inspection, felling permits, map and regulations from the County Administrative Board or from the municipality.

9.3.5-9.3.6 *VER*: Planning documentation, procedures for public availability.

#### **CRITERION 9.4**

*Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.*

**9.4.1. Managers of major holdings with landholdings that contain High Conservation Values shall annually monitor measures taken to maintain or enhance these values, and evaluate the effectiveness of the measures at appropriate intervals<sup>41</sup>.**

**9.4.2. Other managers with landholdings that contain High Conservation Values shall monitor measures taken to maintain or enhance these values and evaluate the effectiveness of the measures when updating or revising their forest management plans.**

9.4.1-9.4.2 *VER*: Planning documentation. Results of evaluations carried through.

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<sup>41</sup> Exceptions are permitted in the case where the measures do not consist of active management.

## PRINCIPLE 10: PLANTATIONS

*Plantations shall be planned and managed in accordance with Principles and Criteria 1 - 9, and Principle 10 and its Criteria. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.*

### **Intent to Principle 10.**

The Swedish forests have been managed and regenerated as a source of timber and other forest products for centuries. As a result of this, most forest stands have lost some of their natural structure, dynamics and diversity of species. On the other hand, the rotation periods are long (often about a hundred years), the intervals between management measures are comparatively long, and most of the stands have a long, unbroken continuity as forest land. Almost all species, species of trees included, are native, and the Swedish forest landscape still contains a considerable part of its original flora and fauna with many species in managed areas as well – from clear-felled areas to mature stands. Most of the Swedish forest land, over 20 million hectares, can thus be considered to have been transformed into a semi-natural state.

Active reforestation of former arable land during the twentieth century has added a further few million hectares of land used for forest production. While such stands often form a mosaic in the larger forest landscape and normally consist of native trees, these are often planted in rows, management is more intensive and other growth more scarce under the compact canopy. The stand hydrology is often modified through ditching and the soil composition and plant nutrient circulation reflect the previous use of the land. Such stands on former arable land lack most of the character and species diversity of the natural forest. They are considered to be plantations and their establishment and management is addressed in the tenth Principle of the Swedish FSC Standard.

## CRITERION 10.1

*The management objectives of the plantation, including natural forest conservation and restoration objectives, shall be explicitly stated in the management plan, and clearly demonstrated in the implementation of the plan.*

**10.1.1. Managers shall have forest management plans which describe the conditions and management objectives of forest stands, plantation stands and conservation areas within their landholdings.**

10.1.1 VER: Planning documentation, instructions, procedures, field inspection, interviews.

## **CRITERION 10.2**

*The design and layout of plantations should promote the protection, restoration and conservation of natural forests, and not increase pressures on natural forests.*

*Wildlife corridors, streamside zones and a mosaic of stands of different ages and rotation periods, shall be used in the layout of the plantation, consistent with the scale of the operation. The scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape.*

**10.2.1. Managers shall not actively reforest open or spontaneously overgrowing, clearly delimited areas of arable land with an area less than 0.5 hectare.**

**10.2.2. Equivalent to 6.2.7 a and b.**

**10.2.3. Equivalent to 6.2.8.**

**10.2.4. Equivalent to 6.2.9.**

**10.2.5. Managers shall adapt the layout of stands to the topography and structure of the landscape when establishing new plantation stands on former arable land.**

**10.2.6. Equivalent to 6.5.13.**

**10.2.7. Equivalent to 6.3.4.**

**10.2.8. Equivalent to 6.3.7.**

10.2.1, 10.2.5 VER: Planning documentation, instructions, procedures, field inspection.

### **CRITERION 10.3**

*Diversity in the composition of plantations is preferred, so as to enhance economic, ecological and social stability. Such diversity may include the size and spatial distribution of management units within the landscape, number and genetic composition of species, age classes and structures.*

**10.3.1. Equivalent to 10.2.5.**

**10.3.2. Equivalent to 6.3.10.**

*The distribution of stands on abandoned arable land is mainly determined by the historic localisation of fields and in most cases in Sweden these stands are already integrated in more diverse landscape mosaics. Active reforestation of former arable land occurs at present only to a small extent.*

## **CRITERION 10.4**

*The selection of species for planting shall be based on their overall suitability for the site and their appropriateness to the management objectives. In order to enhance the conservation of biological diversity, native species are preferred over exotic species in the establishment of plantations and the restoration of degraded ecosystems.*

*Exotic species, which shall be used only when their performance is greater than that of native species, shall be carefully monitored to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts.*

**10.4.1. Equivalent to 6.9.1.**

**10.4.2. Equivalent to 6.9.2.**

**10.4.3. Equivalent to 6.9.3.**

**10.4.4. Equivalent to 6.9.4.**

**10.4.5. Equivalent to 6.9.5.**

**10.4.6. Equivalent to 6.9.6.**

**10.4.7. Equivalent to 6.9.7.**

**10.4.8. Equivalent to 6.9.8.**

**10.4.9. Equivalent to 6.9.9.**

**10.4.10. Equivalent to 6.9.10.**

## **CRITERION 10.5**

*A proportion of the overall forest management area, appropriate to the scale of the plantation and to be determined in regional standards, shall be managed so as to restore the site to a natural forest cover.*

**10.5.1. Equivalent to 6.4.1-6.4.3.**

**10.5.2. Equivalent to 6.3.9.**

**10.5.3. Equivalent to 6.3.10.**

*As plantation stands on former arable land constitute a small proportion of the total management units in most cases, the Swedish FSC Standard addresses set-aside and restoration through general proportional requirements related to the entire landholdings. However, in practise restrictions concerning use of spruce and other regionally non-native tree species in southern Sweden (see 6.3.10) constitute additional requirements for restoration primarily related to plantation stands on former arable land.*

## **CRITERION 10.6**

*Measures shall be taken to maintain or improve soil structure, fertility, and biological activity. The techniques and rate of harvesting, road and trail construction and maintenance, and the choice of species shall not result in long term soil degradation or adverse impacts on water quality, quantity or substantial deviation from stream course drainage patterns.*

**10.6.1. Equivalent to 6.3.1.**

**10.6.2. Equivalent to 6.3.25.**

**10.6.3. Equivalent to 6.5.1.**

**10.6.4. Equivalent to 6.5.2.**

**10.6.5. Equivalent to 6.3.15.**

**10.6.6. Equivalent to 6.5.3.**

**10.6.7. Equivalent to 6.5.4.**

**10.6.8. Equivalent to 6.5.5.**

**10.6.9. Equivalent to 6.5.6.**

**10.6.10. Equivalent to 6.5.7.**

**10.6.11. Equivalent to 6.5.10.**

**10.6.12. Equivalent to 6.5.12.**

**10.6.13. Equivalent to 6.5.13.**

**10.6.14. Equivalent to 6.5.14.**

## **CRITERION 10.7**

*Measures shall be taken to prevent and minimize outbreaks of pests, diseases, fire and invasive plant introductions. Integrated pest management shall form an essential part of the management plan, with primary reliance on prevention and biological control methods rather than chemical pesticides and fertilizers. Plantation management should make every effort to move away from chemical pesticides and fertilizers, including their use in nurseries. The use of chemicals is also covered in Criteria 6.6 and 6.7.*

**10.7.1. Equivalent to 6.6.1.**

**10.7.2. Equivalent to 6.6.2.**

**10.7.3. Equivalent to 6.6.3-6.6.5.**

**10.7.4. Equivalent to 6.6.6.**

**10.7.5. Equivalent to 6.9.2.**

**10.7.6. Equivalent to 6.9.7.**

**10.7.7. Equivalent to 6.9.8.**

**10.7.8. Equivalent to 6.9.9.**

**10.7.9. Equivalent to 6.3.21.**

**10.7.10. Equivalent to 6.3.22.**

*Swedish forestry relies on integrated measures stipulated in the Forest Act with associated regulations for preventing and handling outbreaks of pests. Forest authorities regularly check the risk of outbreaks of pest insects at regional level, and issue additional temporary regulations if necessary. Chemical biocides, sparingly used to treat seedlings in nurseries to prevent damage by pine weevil after planting in the forest, are in the processes of being phased out at the national level.*

*Outbreaks of forest fires are monitored, both by voluntary efforts and by authorities, and the rescue services fight most fires before they spread. Fire fighting and prevention has been so successful that some intentional burning has become necessary to mimic natural boreal disturbance dynamics and maintain biological diversity (see 6.3.12).*

## **CRITERION 10.8**

*Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessment of potential on-site and off-site ecological and social impacts, (e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and social well-being), in addition to those elements addressed in principles 8, 6 and 4. No species should be planted on a large scale until local trials and/or experience have shown that they are ecologically well-adapted to the site, are not invasive, and do not have significant negative ecological impacts on other ecosystems. Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access.*

### **10.8.1. Equivalent to 6.9.2.**

*Plantation stands on former arable land are normally subcomponents of more diverse forest mosaics. Monitoring of these integrated mosaics is holistically addressed under Principles 4, 6 and 8 in this Standard. Further aspects related to the use of exotic and regionally non-native occurring species of trees are addressed under 6.3.9 and more generally under Criterion 6.9. Ownership of arable land is well regulated in Sweden and normally only the landowner has use rights<sup>42</sup>.*

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<sup>42</sup> In the reindeer herding area, the right to conduct reindeer herding can also occur.

## **CRITERION 10.9**

*Plantations established in areas converted from natural forests after November 1994 normally shall not qualify for certification. Certification may be allowed in circumstances where sufficient evidence is submitted to the certification body that the manager/owner is not responsible directly or indirectly of such conversion.*

**10.9.1. No areas of the forest management unit that are managed as plantation shall be on land that was natural forest (see glossary, Annex 11) as of November 1994.**

10.9.1 VER: Planning documentation.

*Much Swedish arable land was originally forest, but this transformation is historic and natural forest has not been converted to arable land for almost a century. Thus, in practise the above indicator will seldom if ever be applied.*

## **Annex 1: List of the national and local forest laws and administrative requirements which apply in the country or region in which the standard is to be used**

The list presents statutes for the natural environment and the working environment that currently (March 2009) are relevant for Swedish forestry. Updates on laws and statutes are available on [www.lagrummet.se](http://www.lagrummet.se). Statutes listed entail regulations and direct requirements for individual forestry actors (e.g. forest land owners, forest companies, contractors). The statutes listed are applicable to the whole country. Information about regional statutes or local regulations, e.g. statutes of county administrations or communes and local regulations decided by the Swedish Forestry Board, is provided by the respective local authorities.

### **FÖRFATTNINGAR TILL SKYDD FÖR YTTRE MILJÖ**

#### **Övergripande miljöförfattningar**

Miljöbalk (1998:808)  
Plan- och bygglag (1987:10)

#### **Skogshushållning, naturvård och kulturminnesvård**

Kulturminnesförordning (1988:1188)  
Kulturminneslag (1988:950)  
Områdesskyddsförordning (1998:1252)  
Skogsvårdsförordning (1993:1096)  
Skogsvårdslag (1979:429)  
Terrängkörningsförordning (1978:594)  
Terrängkörningslag (1975:1313)  
Täkt- och samrådsförordning (1998:904)

Skogsstyrelsens föreskrifter (SKSFS 2007:5) om skogsskydd och virkeslagring vid stormskador

Skogsstyrelsens föreskrifter (SKSFS 2007:1) om skogsskydd och virkeslagring vid stormskador

Skogsstyrelsens föreskrifter (SKSFS 1993:2) till skogsvårdslagen

Skogsstyrelsens föreskrifter (SKSFS 1991:3) om fjällnära skog

Skogsstyrelsens föreskrifter (SKSFS 1983:1) om svårföryngrad skog och skyddsskog

Naturvårdsverkets föreskrifter (NFS 2007:1) om natura 2000-områden

Naturvårdsverkets föreskrifter (NFS 1984:10) om uppgiftsskyldighet vid täktverksamhet

#### **Miljöfarlig verksamhet**

Förordning (1998:1709) om avgaskrav för vissa förbränningsmotordrivna mobila maskiner

Förordning (1998:899) om miljöfarlig verksamhet och hälsoskydd  
Lag (1998:1707) om åtgärder mot buller och avgaser från mobila maskiner  
Lag (2001:1080) om motorfordons avgasrening och motorbränslen

Naturvårdsverkets föreskrifter (NFS 2003:24) om skydd mot mark- och vattenförorening vid lagring av brandfarliga vätskor

Strålsäkerhetsmyndighetens föreskrifter (SSMFS 2008:16) om hantering av aska som är förorenad av cesium 137

### **Skydd mot brand, explosioner och olyckor**

Förordning (1988:1145) om brandfarliga och explosiva varor  
Förordning (2006:311) om transport av farligt gods  
Lag (1988:868) om brandfarliga och explosiva varor  
Lag (2006:263) om transport av farligt gods  
Olycksskyddsförordning (2003:789)  
Olycksskyddslag (2003:778)

MSB-myndighetens föreskrifter (MSBFS 2009:2) om transport av farligt gods på väg och i terräng ADR-S

MSB-myndighetens föreskrifter (SRVFS 2006:10) om förvaring av explosiva varor

MSB-myndighetens föreskrifter (SRVFS 2006:9) om säkerhetsrådgivare

MSB-myndighetens föreskrifter (SRVFS 2004:7) om explosionsfarlig miljö - hantering av brandfarliga gaser och vätskor

MSB-myndighetens föreskrifter (SÄIFS 2001:2) om gasol i manskapsbodar m.m.

MSB-myndighetens föreskrifter (SÄIFS 2000:4) om krav på cisterner m.m.

MSB-myndighetens föreskrifter (SÄIFS 2000:2) om hantering av brandfarliga vätskor

MSB-myndighetens föreskrifter (SÄIFS 1998:7) om hantering av brandfarlig gas i lös behållare

MSB-myndighetens föreskrifter (SÄIFS 1997:9) om öppna cisterner och rörledningar

MSB-myndighetens föreskrifter (SÄIFS 1996:3) om hantering av brandfarliga varor

MSB-myndighetens föreskrifter (SÄIFS 1995:3) om tillstånd för hantering av brandfarliga gaser och vätskor

### **Avfall och renhållning**

Avfallsförordning (2001:1063)

Batteriförordning (2008:834)

Deponiförordning (2001:512)

Spilloljeförordning (1993:1268)

Naturvårdsverkets föreskrifter (NFS 2005:3) om transport av avfall

Naturvårdsverkets föreskrifter (NFS 2004:4) om hantering av brännbart avfall

## **Kemikaliehantering**

Förordning (2007:846) om fluorerade växthusgaser och ozonnedbrytande ämnen  
Förordning (2008:245) om kemiska produkter och biotekniska organismer  
Växtskyddsmedelsförordning (2006:1010)

Naturvårdsverkets föreskrifter (NFS 1997:2) om spridning av bekämpningsmedel  
Naturvårdsverkets föreskrifter (NFS 1993:7) om brandsläckare med halon

Jordbruksverkets föreskrifter (SJVFS 2007:76) om tillstånd och kunskapskrav för användning av växtskyddsmedel

Kemikalieinspektionens föreskrifter (KIFS 2008:3) om bekämpningsmedel  
Kemikalieinspektionens föreskrifter (KIFS 2008:2) om kemiska produkter och biotekniska organismer

## **Växtskydd och genetik**

Växtskyddslag (1972:318)

Skogsstyrelsens föreskrifter (SKSFS 2008:4) om genetiskt modifierade skogsträd  
Skogsstyrelsens föreskrifter (SKSFS 2002:2) om produktion, saluföring, in-, utförsel skogsodlingsmaterial

Jordbruksverkets föreskrifter (SJVFS 1995:94) om växtskydd (omtryck senast genom SJVFS 2004:34)

## **FÖRFATTNINGAR TILL SKYDD FÖR ARBETSMILJÖ**

### **Övergripande arbetsmiljöförfattningar**

Arbetsmiljöförordningen (1977:1166)

Arbetsmiljölagen (1977:1160)

Arbetstidslag (1982:673)

### **Arbetsmiljöverkets föreskrifter**

Arbetsmiljöverkets föreskrifter (AFS 2008:3) om maskiner

Arbetsmiljöverkets föreskrifter (AFS 2007:5) om gravida och ammande arbetstagare

Arbetsmiljöverkets föreskrifter (AFS 2006:4) om användning av arbetsutrustning

Arbetsmiljöverkets föreskrifter (AFS 2005:16) om buller

Arbetsmiljöverkets föreskrifter (AFS 2005:15) om vibrationer

Arbetsmiljöverkets föreskrifter (AFS 2004:6) om användning av traktorer

Arbetsmiljöverkets föreskrifter (AFS 2001:3) om användning av personlig skyddsutrustning

Arbetsmiljöverkets föreskrifter (AFS 2001:1) om systematiskt arbetsmiljöarbete

Arbetsmiljöverkets föreskrifter (AFS 2000:4) om kemiska arbetsmiljörisker

Arbetsmiljöverkets föreskrifter (AFS 2000:2) om användning av motorkedjesågar och röjsågar

Arbetsmiljöverkets föreskrifter (AFS 1998:6) om bekämpningsmedel

Arbetsmiljöverkets föreskrifter (AFS 1996:1) om minderåriga  
Arbetsmiljöverkets föreskrifter (AFS 1986:13) om hantering av oljor  
Arbetsmiljöverkets föreskrifter (AFS 1982:3) om ensamarbete

## Annex 2: List of the multilateral environmental agreements and ILO Conventions

### Agreements:

- Förenta Nationernas ramkonvention om klimatförändringar och Kyotoprotokollet
- Europeiska landskapskonventionen
- Konvention om skydd av europeiska vilda djur och växter samt deras naturliga miljö,
- Konvention om skydd av flyttande vilda djur, CMS
- Konvention om internationell handel med utrotningshotade arter av vilda djur och växter, CITES
- Konvention om biologisk mångfald, CBD
- Konvention om våtmarker av internationell betydelse, i synnerhet såsom livsmiljö för våtmarksfåglar

Source:

<http://www.naturvardsverket.se/sv/EU-och-Internationellt/Internationella-konventioner>

### ILO conventions: (not all are ratified by Sweden)

- 29 Konvention om tvångs- eller obligatoriskt arbete, 1930.
- 87 Konvention angående föreningsfrihet och skydd för organisationsrätten, 1948.
- 90 Rekommendation angående lika lön för män och kvinnor för arbete av lika värde.
- 97 Konvention om migrerande arbetare, 1949.
- 98 Konvention angående tillämpningen av principerna för organisationsrätten och den kollektiva förhandlingsrätten, 1949.
- 100 Konvention angående lika lön för män och kvinnor för arbete av lika värde, 1951.
- 105 Konvention angående avskaffande av tvångsarbete, 1957.
- 111 Konvention angående diskriminering i fråga om anställning och yrkesutövning, 1958.
- 131 Konventioner om minimilöner, 1970.
- 135 Konvention om arbetstagarrepresentanters skydd inom företaget och åtgärder för att underlätta deras verksamhet
- 138 Konvention om minimiålder för tillträde till arbetsmarknaden, 1973.
- 141 Konventionen om landsbygds arbetsorganisationer, 1975.
- 142 Konventionen om utveckling av mänskliga resurser, 1975
- 143 och 97 Om migrerande arbetstagare, 1975.
- 146 Rekommendation om minimiålder för tillträde till arbete
- 154. Konvention angående främjandet av kollektivförhandlingar
- 155. Konvention om arbetarskydd och arbetsmiljö, 1981.
- 156 Konventionen om jämställdhet mellan manliga och kvinnliga arbetstagare med familjeansvar, 1981
- 163. Rekommendation angående främjandet av kollektivförhandlingar

169 Konventionen om ursprungsfolk och stamfolk i självstyrande länder., 1989.

182 Konvention om förbud mot och omedelbara åtgärder för avskaffande av de värsta formerna av barnarbete, 1999

187 Konventionen om ett ramverk för att främja arbetsmiljö, 1998

135 Rekommendation om fastställande av minimilön Recommendation 135, 1970.

### Annex 3A: Publicly available information

The table presents the information which shall be made publicly available. The certifier shall, if required, have access to all the documentation required by different Standard items (see Annex 3B).

<b>Indicator</b>	<b>Contents</b>	<b>Applies only to Managers of major holdings (&gt; 5 000 hectares)</b>	<b>Example of documentation</b>
5.1.2	Forest management objectives		
1.6.2	Policy long-term commitment	X	
6.1.4	Ecological landscape plans	X	
7.1	Planning documentation Objectives for nature conservation Description of initial state, objectives, management and map and register with map of: Key habitats (6.2.1) Areas set aside for nature conservation purposes (6.4.1-6.4.3) High conservation value forests (9.1.1, 9.3.1, 9.3.3)		Map of areas set aside for nature conservation purposes and high conservation value forests and a summary of primary elements in the management plan.
9.1.2	Occurrence and classification of high conservation value forests		
9.3.5	Measures taken to maintain and/or enhance identified conservation values in high conservation value forests		Catalogue of measures taken to maintain or enhance conservation attributes (including set-asides for nature conservation purposes) in areas with high conservation values
6.9.5 & 6.9.6	Measures to enhance significant environmental and biodiversity values		

**Annex 3B : Summary of the documentation which, if required, shall be made available to the certifier in addition to public information stated in Annex 3A.**

<b>Indicator</b>	<b>Contents</b>	<b>Valid for manager category (no information means that the requirement applies to all categories)</b>
1.2.2	Paid taxes, fees, royalties and other charges	
1.4.1	Evaluation of any conflicts between the FSC Standard and legislation	
2.1.1	Evidence of the right to forest management on the landholdings (ownership conditions, ownership information and contracts, if any)	
2.2.3	Legal claims	
2.3.3	Process to reach an agreement regarding disputes over right of use.	
3.1.2	Consultation minutes from consultation with the Sami village in the reindeer husbandry area	
3.1.4	Consultation minutes stating the shelving of the issue to a future consultation	
3.1.5	Mediation minutes stating the process and results of mediation	
3.1.6	Documentation from evaluation meetings proving that such meetings have been conducted	
3.1.9	Documentation proving that information has been obtained from the affected Sami villages	
3.2.1	Significant occurrences of fruticose arboreal lichens within the reindeer husbandry area	
3.3.1	Areas and sites of special cultural,	

	ecological, economic or religious significance to the Sami people within the reindeer husbandry area	
4.1.6	The employees' competence within the work area in question	Managers with employed forest workers
4.1.7-4.1.10	Employees' individual professional development schedules	Managers with employed forest workers
4.2.3	Basic social information on the staff	Managers with more than 10 employed forest workers
4.4.9	Information on archaeological monuments and sites and valuable cultural remains	
5.5.6	Holders of hunting permits	
5.6.1	Long-term sustainable levels of felling volumes	Managers of major holdings
6.1.7	Assessments of biodiversity values	
6.2.3	Presence and consideration of red-listed species outside key habitats	
6.2.5	Presence and consideration of known nests of birds of prey and capercaillie leks	
6.3.1, 8.2.b.1	Forest management measures	
6.3.13	Burning measures	Managers of major holdings Managers of major holdings
6.3.20	Compliance with 6.3.14-6.3.19	
6.3.21	General information on the adequacy of fertilising	
6.3.21	Application of nitrogen/minerals	
6.3.23	Extraction of biofuel on a stand level	
6.5.7	Action plan for road culverts for watercourses with special biodiversity values	Managers of major holdings

6.5.12	Consideration during clearing of ditches	
6.5.19	Compliance with 6.5.1-6.5.18	Managers of major holdings
6.8	Use of chemical biocides	
6.9	Use of exotic tree species & documentation of monitoring and measures taken	
7.1	<p>Planning documentation</p> <ul style="list-style-type: none"> <li>-area distribution of land use classes</li> <li>-map with boundaries of landholdings, land use classes, and the Sami people's reindeer husbandry area</li> <li>-legal claims</li> <li>-stands dominated by broad-leaf trees</li> <li>-game preservation plan or equivalent</li> <li>-fertilising</li> <li>-exotic tree species</li> <li>-annual harvesting volumes and regeneration tree species</li> </ul>	
7.1	<p>Planning documentation</p> <ul style="list-style-type: none"> <li>-land registry with map</li> <li>-distribution of age classes, site classes, and timber volume</li> <li>-action plan for road culverts</li> <li>-plan to achieve a balanced age class distribution on a landscape level</li> <li>-grazing-sensitive tree species</li> </ul>	Managers of major holdings
8.1.1, 8.1.2	Replicable monitoring procedures	
8.2.a	Extraction of traditional forest products	
8.2.b.1	Implemented management measures in forest registers or equivalent	
8.2.b.2	Documentation of forest conditions and significant changes	
8.2e	Monitoring of the income, cost, productivity and efficiency of forest management	
8.3	Chain of custody documentation	

## Annex 4: Guidelines for site assessments related to biodiversity

FSC certified managers are required to carry out impact assessments prior to major site-disturbing activities in line with criterion 6.1. Such site-level assessments may form part of the planning procedures at the landscape or holding level, or be performed on a site-by-site basis prior to operations.

The objective of the assessment is to identify values related to biodiversity. Such assessments serve the dual purpose of informing conservation planning and the selection of set-aside areas, and site-level planning to minimise negative impacts and to enhance positive impacts of operations.

Analysis of the biodiversity values of an area, based on the *actual* presence of plant and animal species with special habitat requirements, demands extensive fieldwork and a high level of biological competence. More appropriate for most landowners and managers is an approach based on systematic assessments of the *potentials* for biodiversity in an area, as reflected by the presence of habitat features and environmental conditions related to forest-dependent flora and fauna.

Considering the habitat requirements for different groups of organisms, the scope of such an assessment must be sufficient to illustrate:

- topography and soil conditions
- hydrology
- stand climate
- composition and qualities of the tree layer
- trees with special qualities
- different kinds of dead wood
- plant cover/fertility
- dynamics of natural disturbances
- historical utilisation

The assessment methodology must be carefully structured and tested so as to deliver consistent and replicable results, and include instructions for implementation and use.

The certifier evaluates and approves of the methodology and monitors its implementation. Managers of major holdings provide a comprehensive description of the methodology upon request.

## **Annex 5: Reference to official list of endangered species in Sweden**

Gärdenfors, U. 2005. RÖDLISTADE ARTER I SVERIGE 2005 - THE 2005 REDLIST OF SWEDISH SPECIES. SLU, Uppsala, Sweden.

Official homepage: <http://www.artdata.slu.se/om.asp>

## Annex 6: Guidelines for burning

1. In the case of burning in accordance with 6.3.12, the actual burnt area is considered. By actual burnt area is meant the area of productive forest land which actually burnt, i.e., parts of the object which were not affected by fire are not included.
2. If burning takes place in areas which are classified in terms of production and the remaining timber volume amounts to over 15 % of the original volume, the actual burnt area is multiplied with an upward adjustment factor according to the table given below. If burning in production-classified areas is followed by natural regeneration without mechanical site preparation, the actual burnt area is multiplied by an upward adjustment factor of 1.2.

Burning in production-classified areas	Upward adjustment factor
Remaining volume at least 15 % of the original volume	1.5
Remaining volume at least 30 % of the original volume	2

Remaining volume refers to consideration of nature and should not subsequently be removed.

3. In the case of burning in areas which are included in the manager's areas which are set aside for nature conservation purposes (in accordance with Indicator 6.4.1-6.4.3), the actual burnt area shall be multiplied with an upward adjustment factor of 3. Principles and guidelines for selection and management according to 6.4.1-6.4.3 do, however, generally apply in these areas as well. Planning of any felling and burning measures is exclusively in the form of conservation management with clearly defined conservation objectives for the specific area, and is intended to maintain or re-create biodiversity values in accordance with 6.4.1-6.4.3. Such areas are documented in planning documents and forest registers, as, for example, ecological landscape plan. Decisions on set-aside of burnt or fire-ravaged areas can be made after the fire.

## **Annex 7: Literature and data on nitrogen fertilization**

Nohrstedt, H-Ö., Westling, O. (1995) Miljökonsekvensbeskrivning av STORA SKOGs gödslingsprogram, Del 1, faktaunderlag. Institutet för Vatten och Luftvårdsforskning B1218 Aneboda, pp 1-59.

Westling O, Nohrstedt H-Ö. (1995) Miljökonsekvensbeskrivning av STORA SKOGs, Del 2, bedömning. Institutet för Vatten och Luftvårdsforskning B1219 Aneboda, pp 1-59.

Högbom L, Jacobson S. (2002) Nitrogen 2002 - an impact assessment of forest fertilisation in Sweden. The Forestry Research Institute of Sweden. Redogörelse nr. 6, Uppsala, pp 42. ISSN 1103-4580.

## Annex 8: Guidelines for 6.4

A minimum of 5 % of the productive forest land area is exempt from measures other than the management required to maintain or promote the natural biological diversity of the habitat. At selection and demarcation, areas are given priority according to their significance for biodiversity and landscape representativeness. (Exceptions apply to landholdings smaller than 20 hectares of productive forest land having no areas with high biodiversity values or areas that may develop such values in the near future.) Measures to promote outdoor recreation may be taken on condition that they are not detrimental to the biodiversity values.

The following areas may be included:

- established/restored forest wetlands
- areas according to Indicator 6.2.1. sections a & b
- share of jointly owned nature conservation forest areas
- other woodlands with a crown closure of at least 25 % where the intensity of forest grazing or hay-making is sufficient to provide favourable conditions for condition-created flora/fauna
- areas for which nature conservancy agreements have been concluded with the local Swedish Forest Agency office
- where applicable, the area of private landholdings where nature reserves or habitat protection areas have been established after a reduction equivalent to the area for which an amount of compensation has been paid.
- transition zones adjacent to areas set aside for nature conservation and restoration purposes according to the provisions of Indicator 6.3.14.b.

The following areas may not be included:

- care-demanding patches and transition zones, which in ordinary management are demarcated during felling operations
- areas that have been sold for nature conservation purposes (nature reserves etc.).  
However, areas covered by such nature reserve agreements may be included if it is evident that they are voluntary removals with no or symbolic compensation.

If formal protection of previously voluntary undertakings means that the voluntarily protected area according to 6.4. is less than 5 % the following applies:

If compensation areas have been obtained during the process of formal protection the manager shall set aside new areas meeting the requirements defined under 6.4.

However, if the manager has received financial compensation the manager shall set aside new areas meeting the requirements defined under 6.4. and/or identify/set aside areas that will be subject to other equivalent nature conservation commitments. The selection of areas and type of commitment is made considering biodiversity values and ecological functions on a landscape level. The selection of areas shall be guided by expected nature conservation benefits so that areas with high potential for biodiversity values are prioritised. The nature conservation commitments intended may be, for instance, protection of young stratified forests, successions of varying age dominated by broad-leaf trees, burnt areas with large amounts of organic residues and restoration of different types of wetland.

As an alternative to protection of areas exclusively with nature conservation objectives, alternative management methods combining production and nature conservation objectives may be applied in suitable areas. The area requirement shall in these cases be adjusted to the extent of the nature conservation objective. For example, an adaptation of management methods with a 25 % nature conservation objective counts four to one on an area basis; for instance requirements for 10 hectares of new nature conservation set aside areas may be exchanged for 40 hectares with combined objectives.

If financial compensation has been received the requirements above apply as long as the formally protected part of previously voluntary undertakings does not exceed 1 % of the landholding in question. The manager does not have to set aside new compensatory areas or make new commitments for the part that exceeds 1 %.

In prioritising areas for restoration and assessing the landscape representativeness, the extent to which different forest types are presently protected by law must be considered.

The wording of the Standard is based upon the present framework of rights, liabilities and financing methods in Swedish society. Certified managers, irrespective of category, are presumed not to be discriminated against compared to non-certified managers relating to the right to financial compensation for different kinds of legal restriction of rights.

Government payment to managers is presumed for areas according to 6.4 that exceed 5 %.

If any of these rights, liabilities or financing methods is substantially altered, a review of the Standard wording is considered by the FSC national body.

The following exceptions and modifications of the standard are applicable:

- Exceptions shall apply to landholdings smaller than 20 hectares of productive forest land that lack areas with high biodiversity values or areas that may develop such values in the near future.
- For forest management on landholdings where areas as per 6.2.1 a and b (for which the manager has not received financial compensation) significantly exceed 5 % of the productive forest land, relevant quantitative parts of the Standard may be adjusted by agreement with the certifier.
- Landholdings within subalpine areas at altitudes above the nature conservation boundary as defined by the Swedish Society for Nature Conservation (1988) shall be exempted from the requirements of 6.4.

## **Annex 9: Commitments, criteria and procedures for exceptions in respect of the use of chemical biocides to counter pine weevil.**

*Comments: The Swedish FSC can only make possible exceptions for the use of chemical biocides that are not included in the FSC "List of Highly hazardous pesticides". Permission to use these chemicals can only be given by the FSC IC (See FSC-GUI-30-001 VERSION 2-0 EN).*

### **1. Commitments**

- 1.1 Managers contribute to research and development of alternatives to chemical treatment of plants. The contribution is equivalent to at least SEK 0.03 per treated plant.
- 1.2 Managers have procedures for adapting forest management methods in order to minimise damage by pine weevil (see, for example, Forest management measures against pine weevil ([www.slu.se](http://www.slu.se))).
- 1.3 Managers with larger areas than 5 000 hectares and own forest nurseries, contribute to or implement in-house research and development input, including field trials (in excess of SEK 0.03 per treated plant) with the aim of eliminating or minimising the use of chemically treated plants.
- 1.4 Managers request and prioritise the use of plants with functioning non-chemical protection when this is available in the market.

### **2. Criteria for exceptions**

- 2.1 Managers can verify that they comply with the Commitments, including Criterion 6.6.
- 2.2 Managers' development programmes in accordance with 1.3 have the ambition of eliminating or minimising the use of chemically treated plants as soon as possible, taking into account the need of large-scale field trials.
- 2.3 Managers can demonstrate that the use of chemically treated plants is declining, however, the objectives according to the management plan (Indicator 7.1) shall not be put at risk and the provisions of the Swedish Forestry Act as regards approved regeneration shall be complied with.
- 2.4 Managers can demonstrate that they use non-chemically treated plants to an extent which is in relation to practical usability and access in the market.
- 2.5 There is a documented requirement. Managers can demonstrate that chemical protection against pine weevil, because of lack of access to or lack of usability of alternatives on a practical scale of chemical treatment of plants, cannot entirely be replaced, despite the Commitments in accordance with the above (1.1-1.4).

### **3. Procedures for decisions on exceptions**

- 3.1 The board of the Swedish FSC conducts a yearly overview of the technical development situation, biological results, costs and market situation of alternatives to chemically treated plants. Guidelines and procedures for exceptions in this document (1-2, 3.2-3.4) are reviewed and updated as part of the annual overview.
- 3.2 Managers with larger areas than 5 000 hectares and holders of group certificates report annually to the Swedish FSC as to what measures are taken to minimise or eliminate the use of chemically treated plants, and what results have been achieved.
- 3.3 Managers who wish to use chemical biocides for treating plants apply annually for exception, not later than 31 August.

3.4 The board of the Swedish FSC decides annually on any exceptions for the use of chemical biocides. The decisions are made not later than 15 October. Any requests for renewed examination shall be made within two weeks, and processed within a further two weeks.

3.5 These guidelines and procedures for exceptions apply until further notice, however until not later than the year 2010.

## Annex 10: Guidelines applicable to subalpine forest areas

Primarily due to climatic and topographical conditions, coniferous forests in subalpine areas have special features distinguishing them from other inland forests. Forests in subalpine areas are comparatively unaffected by forest management, they often hold high biodiversity values and are of significant importance to reindeer husbandry as well as having an intrinsic value in the total areal magnitude of habitat connectivity. The continuity of these fragile forests is here and there broken by areas affected by previous management. The extent of this impact diminishes towards the altitudinal limit for productive forest land.

The potential for forest management in subalpine areas is, however, of great importance in terms of securing the employment and support of the local population, and with this, the economy of local communities. Certified forest management in subalpine areas ensures that the high biodiversity values are not endangered, that the needs of reindeer husbandry are respected, and that the local population can feel secure as regards ongoing utilisation of forest resources.

Managers carrying out forest management above the nature conservation boundary (the Swedish Society for Nature Conservation, 1988, ISBN 91-558-5201-7) will, on application, be awarded FSC certification provided the managers undertake to comply with the guidelines 1-3 set out below, in addition to applicable parts of the general FSC Criteria.

Managers who declare in writing that they do not intend to carry out forest management activities above the nature conservation boundary, or any future revision of this boundary, are considered to comply with the certification requirement. The above guidelines apply in relation to the 1988 nature conservation boundary until motives for revising the boundary are presented in documentation. A revision shall then be done in a local process of consensus, and the guidelines 1-3 shall after that apply in relation to the revised boundary.

**1. Areas of virgin-type forests according to the FSC main Criteria\*** are exempt from forestry measures unless the objective of the activity is to promote the natural biodiversity. All other key habitats are also included in this category.

*\*(For forests in subalpine areas, the specific definition of virgin-type forest is as follows): No, or occasional felling stumps, a continuity of old windthrows, an abundance of wood fungi such as Fomitopsis rosea, Amylocystis lapponica, and Phlebi centrifuga, and an abundance of large windthrows, often 15-20 per hectare. Diverse age structure and pronounced stratification. Plenty of natural stumps and dead standing trees.*

**2. Other forests of significance for biological diversity**, located in strips or enclaves adjacent to areas of virgin-type forests and forming a natural integrated unity with these areas, belong to Category 1 and are exempt from all forestry measures except those with the objective of promoting natural biodiversity. (*Definition: Evident signs of dimension felling. A moderate frequency of old windthrows and sparse or isolated occurrences of the fungi listed above. Often diverse age structure and stratification. Sparse dead standing trees*).

Other areas of Category 2 may be managed by selective felling and intensified nature conservation measures, where this is required for maintenance of the local forest trade and

industry, and thus for employment and economy of the local communities.

**3. Forest areas that are neither of Category 1 nor 2** may continuously be utilised in accordance with other parts of the Standard, however with the exceptions mentioned below. Areas of this category are primarily recently managed areas or other severely affected areas with broken continuity.

### **Exceptions in subalpine forests**

Due to the special management required in areas of Category 2, the Indicators stating that 5 % of the area is exempt from management (6.4.2) and that 5 % of the area is broad-leaf tree-dominated stands (6.3.8) do not have to be complied with within subalpine forests as per Indicator 9.3.2.

## Annex 11: Glossary

Words in this document are used as defined in most standard English language dictionaries. The precise meaning and local interpretation of certain phrases (such as local communities) should be decided in the local context by forest managers and certifiers. In this document, the words below are understood as follows:

**Biological diversity:** The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems. (see Convention on Biological Diversity, 1992)

**Biological diversity values:** The intrinsic, ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components. (see Convention on Biological Diversity, 1992)

**Biological control agents:** Living organisms used to eliminate or regulate the population of other living organisms.

**Chain of custody:** The channel through which products are distributed from their origin in the forest to their end-use.

**Chemicals:** The range of fertilizers, insecticides, fungicides, and hormones which are used in forest management.

**Criterion (pl. Criteria):** A means of judging whether or not a Principle (of forest stewardship) has been fulfilled.

**Customary rights:** Rights which result from a long series of habitual or customary actions, constantly repeated, which have, by such repetition and by uninterrupted acquiescence, acquired the force of a law within a geographical or sociological unit.

**Ecosystem:** A community of all plants and animals and their physical environment, functioning together as an interdependent unit.

**Endangered species:** Any species which is in danger of extinction throughout all or a significant portion of its range.

**Exotic species:** An introduced species not native or endemic to the area in question.

**Forest integrity:** The composition, dynamics, functions and structural attributes of a natural forest.

**Forest management/manager:** The people responsible for the operational management of the forest resource and of the enterprise, as well as the management system and structure, and the planning and field operations. **In this standard forest managers refers to:**

- a) forest owners with their own forest management certificate
- b) forest owners who are members of a certified group scheme.

**Genetically modified organisms:** Biological organisms which have been induced by various means to consist of genetic structural changes.

**Indigenous lands and territories:** The total environment of the lands, air, water, sea, seice, flora and fauna, and other resources which indigenous peoples have traditionally owned or otherwise occupied or used. (Draft Declaration of the Rights of Indigenous Peoples: Part VI)

**Indigenous peoples:** "The existing descendants of the peoples who inhabited the present territory of a country wholly or partially at the time when persons of a different culture or ethnic origin arrived there from other parts of the world, overcame them and, by conquest, settlement, or other means reduced them to a non-dominant or colonial situation; who today live more in conformity with their particular social, economic and cultural customs and traditions than with the institutions of the country of which they now form a part, under State structure which incorporates mainly the national, social and cultural characteristics of other segments of the population which are predominant." (Working definition adopted by the UN Working Group on Indigenous Peoples).

**High Conservation Value Forests:** High Conservation Value Forests are those that possess one or more of the following attributes:

- a) forest areas containing globally, regionally or nationally significant : concentrations of biodiversity values (e.g. endemism, endangered species, refugia); and/or large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance
- b) forest areas that are in or contain rare, threatened or endangered ecosystems
- c) forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control)
- d) forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

**Landscape:** A geographical mosaic composed of interacting ecosystems resulting from the influence of geological, topographical, soil, climatic, biotic and human interactions in a given area.

**Local laws:** Includes all legal norms given by organisms of government whose jurisdiction is less than the national level, such as departmental, municipal and customary norms.

**Long term:** The time-scale of the forest owner or manager as manifested by the objectives of the management plan, the rate of harvesting, and the commitment to maintain permanent forest cover. The length of time involved will vary according to the context and ecological conditions, and will be a function of how long it takes a given ecosystem to recover its natural structure and composition following harvesting or disturbance, or to produce mature or primary conditions.

**Low/no productive forest land:** land with a total annual volume increment less than 1 cubic meter per hectare).

**Major holdings:** Managers with holdings of over 5 000 hectares of productive forest land. Other managers are thus managers with less than 5 000 hectares of productive forest land.

**Native species:** A species that occurs naturally in the region; endemic to the area.

**Natural cycles:** Nutrient and mineral cycling as a result of interactions between soils, water, plants, and animals in forest environments that affect the ecological productivity of a given site.

**Natural Forest:** Forest areas with many of the characteristics and key elements (such as complexity, structure and diversity) which, according to FSC:s approved national and regional standards of forest management, characterize natural-like native ecosystems. This standard refers to forest areas characterized by a mixed age structure and a multilayered canopy, large numbers of old/coarse trees and large amount of dead wood in different stages of decomposition. These forests are usually classified as woodland key habitats according to the definition and the methodology of the Swedish Forestry Agency (1995).

**Non-timber forest products:** All forest products except timber, including other materials obtained from trees such as resins and leaves, as well as any other plant and animal products.

**Other forest types:** Forest areas that do not fit the criteria for plantation or natural forests and which are defined more specifically by FSC-approved national and regional standards of forest stewardship.

**Plantations:** Forest planted on arable land can be managed as plantations according to the indicators under P10 in the Swedish forest management standard. Usually they consist of native tree species, trees are often planted in rows, management is intensive and plant undergrowth is sparse under the dense canopy. The stand hydrology is often modified through ditching and the soil composition and nutrient circulation reflect the past land use. Such stands on former arable land lack most of the character and species diversity of natural forests.

**Precautionary approach:** Tool for the implementation of the precautionary principle. (6 The definition of Precautionary Approach was ratified during the 1999 FSC General Assembly in June 1999.)

**Principle:** An essential rule or element; in FSC's case, of forest stewardship.

**Shortage of work:** refers to the Swedish concept “arbetsbrist”.

**Silviculture:** The art of producing and tending a forest by manipulating its establishment, composition and growth to best fulfil the objectives of the owner. This may, or may not, include timber production.

**Subalpine forest:** Forest land at altitudes above the nature conservation boundary as defined by the Swedish Society for Nature Conservation (the Swedish Society for Nature Conservation, 1988, ISBN 91-558-5201-7).

**Succession:** Progressive changes in species composition and forest community structure

caused by natural processes (nonhuman) over time.

**Tenure:** Socially defined agreements held by individuals or groups, recognized by legal statutes or customary practice, regarding the "bundle of rights and duties" of ownership, holding, access and/or usage of a particular land unit or the associated resources there within (such as individual trees, plant species, water, minerals, etc).

**Threatened species:** Any species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

**Use rights:** Rights for the use of forest resources that can be defined by local custom, mutual agreements, or prescribed by other entities holding access rights. These rights may restrict the use of particular resources to specific levels of consumption or particular harvesting techniques.