

**CERTIFICATION OF SUSTAINABLE FOREST MANAGEMENT**

**A COMPARATIVE ANALYSIS OF THE  
PROGRAMS CERTFORCHILE  
AND THE FOREST STEWARDSHIP  
COUNCIL**



**JULY 2002**

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**BASED ON PROGRAMMATIC MATERIAL  
AVAILABLE AS OF JUNE 2002**



## **ABOUT EcoNATIVA**

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EcoNATIVA is an independent non-profit organisation engaged in research and public education with issues concerning the environment and natural resources. Its goal is to provide knowledge that will help people to make better decisions related with use and conservation of such resources and the improvement of environmental quality.

Recognising the complexity of the above issues, EcoNATIVA promotes the use of multidisciplinary analysis for its studies. Its scholars focus their research on forests, fisheries, mining, energy, water, biodiversity, pollution, climate change and sustainable development and related them with other topics such as government regulation, risk, ecosystem analysis and technology.

EcoNATIVA is committed to provide independent analysis of the highest quality. Its ultimate aim is to serve as a source of ideas for elevating the public debate about natural resources and the environment, under the principles of sustainable development.

## **EcoNATIVA CERTIFICATION PROGRAM**

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## INTRODUCTION

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### THE AIMS OF THE REPORT

Forest certification is a voluntary market tool that was devised in response to the failure of a series of policies aimed at forestalling deforestation and unsustainable practices in forests and which has become an influential tool for achieving sustainability as well as becoming a commercial platform in the marketplace for forestry based products.

This report is the result of the EcoNATIVA effort in order to overcome three main purposes:

1. To inform stakeholders, policy-makers, purchasers of wood and paper products, consumers, and the general public concerned with this issue, of the similarities and differences between these two programs. Each scholar has devoted an important part of their work to this topic –being member of one of these initiatives each, thus producing a balanced and independent analysis.
2. To have a common-basis of analysis in order to facilitate an eventual harmonisation and homologation of both programs for avoiding the co-existence of two standards of sustainable forest management for plantations in Chile.
3. To provide a basis for improving both programs in the future. Certification is not the only solution for: a) reducing and/or reversing the deforestation process; b) improving forest-based management, encouraging forests' multi-functionality, and c) reducing environmental negative impacts of forestry production, but as a new and influential tool, one have to exhaust its possibilities for achieving these goals in an efficient way.

## **SCOPE OF THE ANALYSIS**

There are several important aspects of the study that are critically important to fully understand the results and conclusions provided:

1. Although recognising the complexity of the task performed, the research group not only took advantage of previous and valuable efforts, such as the FSC/SFI comparison of the Meridian Institute, but also devised a methodology for facilitating the comprehension of the differences existing among the two programs. Sustainability is a hard-operating concept –which in fact has more than one hundred different definitions, so differences shown among the two programs should be understood more as an indication of the degree of divergence rather than a quantitative measure of absolute differences.
2. This report should be considered as a “paper analysis” –analogous to a “desk audit”, rather than a “field audit”. Authors believe that their work should be considered as a contribution for better understanding about the two programs, removing wrong presumptions and myths about both of them. A field study is beyond the scope of this report, but it would be advisable in the future for a full comprehension of the differences –if any, of FSC and CertforChile standards.
3. The methodology used for this comparison points out that the highest score is assigned to the higher requirement for each topic – regardless the program that has settled it. The authors will like to acknowledge that this practice could be misleading for further work, since that indication could be used for promoting a heightening of requirements in order to improve forest management. However, this tendency could lead to an intensification of those problems certification originally set out to resolve, since it ignores the unavoidable tradeoffs of a realistic path of sustainability and it could discourage medium-performers producers to get certified for seeing standards as unreachable or cost-unaffordable.
4. Given the rapid evolution of both programs, this study should be considered as a “snapshot in time”. The date when researchers stopped considering new written information regarding the current status of FSC and CertforChile programs was November 30, 2001. So this comparison is accurate only as of this date.

## **SCOPE OF THE ANALYSIS (2)**

In order to provide a basis for comparison, and given the objectives defined for this study as well as the level of development of CertforChile standard, three key program elements were considered:

1. Program philosophy, mission, history and structure
2. Standards
3. Oversight of certification bodies, certification process and chain of custody verification

In the case of the fundamental program elements pertaining to standards, researchers identified a total of 36 issue areas, considered as the most important points of comparison. Here, the work of the Meridian Institute for the SFI/FSC comparison was a milestone, which was improved with five new topics, in order to fully address the particular characteristics of the Chilean forestry sector.

## THE METRICS FOR COMPARATIVE ANALYSIS

Researchers developed a rating scheme to highlight the salient similarities and differences between the standards of the two programs. Readers should be aware of the “quantitative illusion” of using numbers –e.g. to add the scores obtained by each program for the different areas considered and then reflecting in a single index the relative excellence of them. One of the most controversial issues about sustainability is the degree of substitution among areas, i.e. the degree in which a deterioration of one dimension –e.g. increased pollution, could be “compensated” by an improvement in other –e.g. poverty alleviation. Authors strongly recommend focusing analysis of comparative scores just case by case, i.e. isolating conclusions for each one of the 35 areas considered.

The following table summarises the rating scheme:

Score	Criteria for Assignment
5	The highest score is assigned to the maximum-level requirement of one of the programs, whatever this will be
4	A program fully address one issue by setting an stringent standard, but this one imposes a lower restriction than the other program
3	The program addresses the issue in a direct way, but requirements are significantly lower than the other program
2	The program addresses the issue, but requirements express just a declaration of intention, a long-term change in forest practices or a conditional commitment
1	There is at least one indicator for this issue in the program, but it settles a vague requirement
0	There is not indicator in the program for this issue –i.e. the program standard does not address the issue at all

It is important to notice that both programs are on a different stage of development. CertforChile initiative is a natural continuer of an early work carried out by one of the institutions that sponsored this new program, and it has a draft that has considered by their supporters as

very closely to the final edition that would be available in 2002Q1. FSC-Chile initiative is still in a preliminary stage, so for comparison purposes, three accredited certification bodies by FSC were considered, Woodmark –Soil Association, SCS -Scientific Certification Systems, and SGS - Société Générale de Surveillance.

## **ORGANISATION OF THE REPORT**

In order to facilitate full understanding of the report, Section A provides the minimum requirements of reading. It contains the comparisons, results analysis and conclusions of the study. Section B describes the CertforChile program and Section C does the same for the Forest Stewardship Council initiative. These last two sections provide full documentation for special interest readers who seek in-deep information.

# **SECTION A**

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**PROGRAMS PHILOSOPHY, MISSION,  
HISTORY AND STRUCTURE**

**STANDARDS**

**COMPARISON RESULTS**

**CONCLUSIONS**

## **PROGRAMS PHILOSOPHY, MISSION, HISTORY AND STRUCTURE**

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### **PRIMARY PURPOSE AND MISSION OF THE PROGRAM**

The mission and purpose of the two programs are similar to the extent that they are aimed at advancing the overarching goal of improving forest management practices guided by sustainable development principles.

Additionally, both were established to encourage the forest products market to reward “exemplary” forest management through the labelling of wood products coming from “sustainable forests”, the one that should be independently certified as meeting a predefined set of forest management and chain-of-custody standards.

Moreover, both programs explicitly address that “sustainability” implies the improvement of social, environmental and economic dimensions, so they translate this concern to specific standards that should be met.

The main difference between the two programs lies on the geographic scope of them. FSC is an international program supported by national initiatives to help assure regional responsiveness and relevance. Meanwhile, CertforChile program is primarily focused on Chilean plantations.

### **PROGRAM GENESIS AND EVOLUTION OVER TIME**

FSC claims derivation from seminal events in sustainability –such as the Brundtland Report of 1987 or the Rio Summit in 1992, and came formally into life in 1993. FSC conceptualisation and formation was largely, although not exclusively, a result of the efforts of environmental and social equity non-governmental organisations.

CFCH is a national initiative lead by a non-profit organisation – Fundación Chile, jointly with Instituto Forestal, the Chilean government agency for forest research and official statistics. In 1997, the EU funded Instituto Forestal in order to develop a standard of sustainable forest management. In early 2000, the Development and Innovation Fund of the Industrial Promotion Agency–Corfo, funded the development of CFCH, asking specifically to Fundación Chile for a joint venture with

Instituto Forestal, in order to take advantage of the previous effort carried out by them.

The Environmental Agency –Conama, private industrial landowners – represented by Corma, forestry professionals, academics, environmental and other non-governmental organisations, supported CFCH then.

### LEGAL STATUS

FSC is registered in Mexico as an association of members. As described in Section C, FSC logo is owned and managed by FSC International. CFCH is a program of Fundación Chile, but soon (2002Q2) it will become a non-profit organisation, registered in Chile as a “foundation”.

### PROGRAM STRUCTURE AND GOVERNANCE

Researchers believe that three main features should be considered for a comprehensive characterisation of each program in this area: membership and structure, liaison of the accreditation body with the program and relative influence of industrial forest landowners in decision-making. The following table summarises this program characterisation.

Features	FSC	CFCH
Membership and structure	<ul style="list-style-type: none"> <li>▪ FSC is a membership organisation with three chambers representing environmental, economic and social interests. Each chamber has an equal voice in decision making</li> <li>▪ At international level, chambers are divided into equal sub chambers to represent “North” and “South” interests</li> <li>▪ FSC employs its own staff</li> </ul>	<ul style="list-style-type: none"> <li>▪ CFCH is structured in two levels. The Ruling Board establishes P&amp;C of the standard. The Technical Board settles technical specifications for C&amp;I</li> <li>▪ Currently there is no CFCH staff –members are part of the organisations that support the initiative, but when became an independent foundation, CFCH will employ its own staff</li> </ul>

Features	FSC	CFCH
Accreditation body	FSC has internalised the function of accrediting certifying bodies	It will operate through external accreditation. INN, the Chilean Institute for Standardisation will accredit certifying bodies
Influence of industrial forest landowners	The interest of forest landowners is concentrated in the economic chamber, constituting one-third of the voting power	The Ruling Board has eight members and one of them represents industry interests. The Technical Board has nine members and one of them is a representative of the industry

## FUNDING

Approximately 85% of the revenue to support FSC International activities come from contributions from private foundations. The remaining 15% come from membership and accreditation fees. Foundations resources also serve as a source of indirect support for the FSC through grants to environmental and social NGOs that actively support the FSC.

In the case of CFCH, 75% comes from the Development and Innovation Fund of the Industrial Promotion Government's Agency – CORFO, 24% comes from revenues of private companies and 1% contributed directly by Fundación Chile.

## STANDARDS

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### **STANDARD GENERATION AND SETTING. STAKEHOLDERS PARTICIPATION**

Both standards are developed through a participatory process that involves input from environmental, business and social sectors. The way in which public consultation is expressed differs amongst programs.

In the case of FSC, ultimate authority for modifications to the FSC standard resides with the members and the International Board of Directors. Members are affiliated to one of the three Chambers – environmental, social and economic, each of which has one-third of the voting power.

Establishment and modification of standards has alternative ways for proceeding, being the obvious one a vote at the General Assembly of the FSC. In general, any modification to the standard must follow a explicit consultation procedure and require stakeholder outreach beyond FSC members.

In the case of CFCH there is a past and a future for standard setting. To produce the current standard, a task force was settled led by external advisors –thus in fact, are FSC auditors. This group took contact with all relevant Chilean stakeholders and produced a draft that took into account the ongoing work of Instituto Forestal, stakeholders' propositions and contents of other certification standards –being FSC an obvious reference. Then, a Ruling Board constituted by key stakeholders' representatives settled the nine principles of the standard, and a Technical Board –again fairly representative since industry has 1/9 of the voting power, settled the relevant criteria and indicators, corroborated by some pilot experiences directed by external advisors. Public consultation was carried out and the final draft became available. In the future, CFCH will become an independent organisation that will update P+C+I periodically upon requests from stakeholders or at least every two years.

## STRUCTURE & HIERARCHY

Both programs have the same hierarchical structure, going from the general to the specific. The following table summarises it.

FSC	CFCH
<ul style="list-style-type: none"> <li>▪ 10 overarching Principles (one specific for Plantations)</li> <li>▪ 56 criteria embedded within the 10 Principles</li> <li>▪ A number of indicators for each criteria established and utilised by FSC-accredited certification bodies until national or regional standards are ratified</li> </ul>	<ul style="list-style-type: none"> <li>▪ 9 overarching Principles (the standard itself is developed for Chilean plantations)</li> <li>▪ 43 criteria embedded within the 9 Principles</li> <li>▪ 180 verification indicators (as a reference FSC national indicators for USA are 138)</li> </ul>

In the case of FSC, principles and criteria are internationally applicable and indicators are specifically developed for each country/region. In the case of CFCH, the standard itself has been made for the Chilean context.

Another feature worth to be mentioned is that both programs permit only third-party certification.

## LABELING

Both programs use a graphic symbol in combination with initials or words for the purpose of a program logo and product label. The use of the logo is related with the concept of providing market rewards through the labeling of forest products that allows consumers to recognise sustainable forest management.

Currently FSC permits the use of its logo as a product label only for products that contain wood generated from a FSC-certified forest operation. Meanwhile CFCH, after assessing other standards of SFM, recognizes wood coming from FSC or PEFC certified forests for completing the composition requirements.

The minimum percentage composition requirements today is the same for both standards (70% for solid wood products and 30% for wood

chip or fiber products). Precise percentage based claim are required for using the logo as a product label.

In terms of chain of custody, FSC is based upon physical verification of all inputs and outputs. CFCH settles flexible requirements (physical separation, %in/%out and/or minimum percentage claim), where every operation can choose the system more appropriate to their particular characteristics.

Finally, both standards rely upon the same forest management and chain-of-custody certification processes regardless of who is the original landowner.

## COMPARISON RESULTS

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In the following pages a matrix was developed for showing main results, identifying key issues for the environmental, social and economic dimensions, similarities and differences among both programs and the scores for each aspect according to the criteria defined in the introduction of this report. For FSC, four main certifiers' indicators were used, SGS, Smartwood, SCS and Soil Association, the ones that account for 98% of FSC current certified area. Given the fact that comparison among these certifiers is not an objective of this research, there was no individual identification in the comparison matrix, but people interested in the subject can check Appendix C.

### HIGHLIGHTS OF THE COMPARISON

- There were found no significant differences between FSC and CFCH standards, or for their individual environmental, social and economic dimensions of forest sustainable management.
- From the environmental dimension, the use of GMO would be probably the most controversial issue to be tackled in order to produce some sort of harmonisation between standards. At a structural level, it is noted that FSC has a strong focus on natural forests, considering plantations as a way to restore natural balance. For CFCH standard –explicitly developed for plantations, plantations and natural forests can co-exist complementarily, the former reducing extractive pressure over the latter, and both of them enhancing water and soil protection as well as biodiversity conservation.
- From the social perspective, CFCH seems to be slightly more proactive towards forest's workers welfare, particularly regarding the issue of training and career-development. FSC seems to be more oriented to communities living inside the forest –not the case in Chile, so setting aside indicators that are not relevant for comparison purposes, differences seem to be non-significant, at least at a desk-level.
- From the economic dimension of sustainability, the differences are negligible, being FSC more specific on waste reduction requirements and CFCH in the remaining issues, particularly long-term commitment with sustainable forestry.
- Although it was not an aim of the research, differences among different FSC's certifiers were significant. Given the fact that at the heart of forest certification lies the concept of **credibility**, further work should be carried out to avoid discretionariness

## CONCLUSIONS

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1. Establishing comparability and equivalence amongst different forest management certification schemes is not an easy task. Although this premise has been shared by most of the specialists, several attempts have been carried out in the past -their purposes varying depending on who is making the comparison. Our main goal here was to inform stakeholders, policy-makers, purchasers of wood and paper products, consumers, and the general public concerned with this issue, of the similarities and differences between FSC and CFCH programs for achieving and promoting sustainable forest management.
2. Although a number of differences were found amongst both programs, they were non-significant as a whole, according to the rating scheme developed. Both programs promote the enhancement of forest practices towards sustainable management, taking into account environmental, social and economic dimensions. Deviations seem to express different expectations of local/international stakeholders respect Chilean/general forests, rather than differences in philosophy, scope, public representation or stringency of the programs.
3. According to main findings, an eventual harmonisation and homologation of both programs for avoiding the co-existence of two standards of sustainable forest management for plantations in Chile seems feasible, at least based on their salient similarities. Likelihood of a merge is a topic that goes beyond the scope of this report.
4. Based purely in past experience and on a vis-à-vis comparison of both programs, an alternative tool for mutual recognition could be a series of addendum in which complementary indicators added to a main standard could lead to a full-certification according to the other program –e.g. CFCH plus addendum indicating prohibition for using GMO could be equivalent to an FSC certification and vice versa.
5. Procedures like the aforementioned could promote a continuous and reciprocal heightening of requirements, what can be seen as an appealing practice, since it could force the improvement of forest management. However, this tendency could lead to an intensification of those problems certification originally set out to

resolve, since it could discourage poor and medium performers producers to get certified for seeing standards as unreachable or cost-unaffordable. In fact, this is one of the main failures of current practices on forest certification, named a “rich boys club”, for the massive presence of large producers from developed countries. Forests matters, so as equity does.

#	KEY ISSUES	Similarities and Differences CFCH and FSC	SCORES					
			CFCH	FSC				Avg.
				A	B	C	D	

**ENVIRONMENTAL**

1	Special and unique forest areas	Both programs explicitly address the protection of special and unique forest areas, requiring the protection and annual monitoring of "High Conservation Value Forests", as well as sites of special, cultural, ecological or religious significance.	5	4	3	4	5	4,0
2	Use of chemicals	For the FSC standard, FMU's management system should promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. Under the CFCH standard, the use of environmentally friendly chemicals is preferred. Chemicals, fuels, lubricants, other contaminants and their containers are used in such a way as to prevent contamination of soil and water. Also, CFCH encourages the minimization of negative impacts of herbicides.	5	5	4	4	5	4,5
3	Use of genetically modified organisms (GMO)	The CFCH standard allows the use of GMO under the precautionary principle in accordance with "...careful scientific analysis, validated by a recognized scientific entity, considering its environmental impacts and will include all regulations stemming from the national laws and the binding international protocols". The FSC standard explicitly bans the use of GMO.	3	5	5	5	5	5,0
4	Use and management of exotic species	FSC allows the use of exotic species carefully controlled and actively monitored to avoid adverse ecological impacts and they shall be used only when their performance is better than that of natural species. CFCH requires that the species selected for planting are adapted to the soil and climatic conditions of the site as well as the objectives of forest management. Special care should be taken to avoid the invasion of natural forests or other vegetation of high conservation value by exotic/alien invasive species.	5	5	5	5	4	4,8
5	Conversion of natural forests to plantations	Both programs require that plantations should not replace natural forests or other natural vegetation of high environmental value, neither productive natural forests nor natural corridors. CFCH explicitly forbids the conversion of high environmental value and FSC specify that forest conversion to plantations or non-forest land uses shall not occur, except in certain specific circumstances, but also does not endorse certification to converted forest areas after November 1994.	5	5	5	5	5	5,0

#	KEY ISSUES	Similarities and Differences CFCH and FSC	SCORES					
			CFCH	FSC				Avg.
				A	B	C	D	
6	Plantation management complementarity with biodiversity conservation	Both programs address that ecological functions and values of the forest shall be maintained intact, enhanced or restored, including forest regeneration and succession, genetic, species and ecosystem diversity and natural cycles that affect the productivity of the forest ecosystem. However, FSC is strongly focused on a stand basis, while CFCH adopts a more comprehensive approach, adopted to a stand and/or a broader geographical area.	5	4	4	4	5	4,3
7	Sustained yield	For CFCH, the harvest level of forest products is clearly justified by the management plan and should promote the maintenance and growth of the production of goods and services over time. For FSC, the rate of forest products harvested shall not exceed levels which can be permanently sustained.	5	5	4	4	5	4,5
8	Water quality and riparian zone protection	For the FSC standard, forest management operations shall recognize, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries. CFCH standard promotes watershed protection and minimization of impacts on the quantity and quality of water resources, taking into account the needs of downstream communities.	5	4	3	4	5	4,0
9	Soil protection	For CFCH standard, the management plan should define potential land use at the FMU on a stand basis. Forest management is performed considering such definition, the one that is based on site characteristics. The productive capacity of soil should be maintained or, if necessary restored. Forest operations are planned and carried out so as to minimise erosion. Chemicals, fuels and lubricants are used in such a way as to prevent contamination of soil and staff involved in planning and forest operations must have an adequate knowledge about soil fragility and appropriate management practices for soil protection. For FSC standard, written guidelines shall be prepared and implemented to control erosion. Measures shall be taken to maintain or improve soil structure, fertility, and biological activity.	5	5	4	4	5	4,5
10	Forest protection from fire, pathogens and diseases	Under FSC standard, plantations must be carefully monitored to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts. Also, measures shall be taken to prevent and minimize outbreaks of pests, diseases, fire and invasive plant introductions. CFCH requires for measures to prevent, detect, early suppress and control forest fires, pathogens and diseases. Every action must be taken minimizing its environmental impacts.	5	5	4	5	4	4,5

#	KEY ISSUES	Similarities and Differences CFCH and FSC	SCORES					
			CFCH	FSC				Avg.
				A	B	C	D	
11	Clear-cutting and even-aged management	CFCH requires a long-term plan to reduce the size of very large compartments with the purpose of reducing the negative impacts upon natural resources, particularly regarding to clear felling of large areas. Even-aged management has been considering implicitly in the requirements for sustained yield. For FSC, the design and layout of plantations should promote the protection, restoration and conservation of natural forests, and not increase pressure on natural forests. Also, the scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape	4	5	4	4	5	4,5
12	Forest regeneration and reforestation	Both programs explicitly address this issue, but in a different manner. FSC strives to maintain natural forest attributes, making explicit requirements about the types of silvicultural methods to be used, expressing a preference for natural regeneration but accepting artificial regeneration if it contributes to diversity. CFCH places emphasis on early successful regeneration, irrespective of the silvicultural methods employed.	4	4	3	4	5	4,0
13	Road building and maintenance	For CFCH, roads are planned, built and maintained so as to minimise erosion and the carriage of sediments into watercourses. Roads are used under the conditions for which they were designed. FSC settles that written guidelines must be prepared and implemented to minimize damage during road construction.	5	4	4	4	5	4,3
14	Maintenance and conservation of biological diversity	For both programs, conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Natural forest conservation and restoration objectives shall be explicitly included in the management plan.	5	4	3	4	5	4,0
15	Maintenance of ecological function	CFCH requires that plantations must not be established in areas containing forests or other high conservation value natural vegetation or in areas that make significant contributions to biodiversity. Those areas will be managed so as to maintain the biodiversity they provide. For FSC, ecological functions and values shall be maintained intact, enhanced, or restored, including forest regeneration and succession, genetic, species, and ecosystem diversity and natural cycles that affect the productivity of the forest ecosystem	5	4	4	4	5	4,3
16	Assessment of environmental impacts	FSC requires forest management to include the research and data collection needed to monitor environmental and social impacts of harvesting and other operations.	4	5	3	3	5	4,0

#	KEY ISSUES	Similarities and Differences CFCH and FSC	SCORES					
			CFCH	FSC				Avg.
				A	B	C	D	
		Under the CFCH standard, there should be procedures for regular evaluation of the condition of the forest resources and of the significant environmental, social and economic impacts of forestry operations. Afforestation are subject of an environmental impact assessment, prior to activities start.						
17	Introduction of new technology	For CFCH, large scale application of new technologies must be assessed and monitored and it will be used only if there is no scientific evidence that it could produce significant environmental, economic and social negative impacts. For FSC, the management plan shall incorporate new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.	5	5	4	4	4	4,3
18	Periodic monitoring of environmental conditions and adaptative management	Both programs include feedback loops that lie at the heart of the concept of adaptative management. For FSC, 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. CFCH settles that monitoring procedures should be consistent, replicable over time and able to allow a comparison of the results of change. The FMU must incorporate the results of monitoring in order to continuously improve forestry operations' performance. The effectiveness and efficiency of the forest management system should be regularly evaluated.	5	5	4	4	4	4,3

## SOCIAL

19	Consultation and public reporting between forest managers and key stakeholders groups and the surrounding communities	Both programs explicitly address public reporting. For CFCH there should be regular meetings with representatives of nearby communities and a person responsible for communications with local communities and public consultation for key issues on forestry management. For FSC, appropriate mechanisms shall be employed to resolve disputes over tenure claims and use rights. Consultations shall be maintained with people and groups directly affected by management operations, as well as other relevant stakeholders.	4	4	5	4	4	4,3
20	Health, safety and general welfare of employees and contractors	For FSC, forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families. The rights of workers to organize them and voluntarily negotiate with their employers shall be guaranteed. CFCH explicitly addresses the general welfare and financial benefits accruing to employee and contractors. It includes training, career-development opportunities, rights to organize and adequate and equitable compensation, among others.	5	4	3	4	4	3,8

#	KEY ISSUES	Similarities and Differences CFCH and FSC	SCORES					
			CFCH	FSC				Avg.
				A	B	C	D	
21	Compliance with applicable laws and regulations	Both standards have a specific principle that mandates compliance with all applicable laws, regulations and binding international agreements.	5	5	5	5	5	5,0
22	Recognition of indigenous people's rights	For both programs, forest managers must respect the traditional and customary uses and rights of indigenous people, maintaining good neighbourhood relations with them and supporting the development of local capacities that contribute to the improvement of their quality of life. Forest managers will take into account declared agreements and documented commitments and they will respect the legally established rights and the traditional knowledge of indigenous peoples to use and manage their lands and resources.	5	5	5	5	5	5,0
23	Recognition of traditional knowledge	For CFCH, indigenous communities are fairly compensated for any use of their traditional knowledge about forest management and the specific use of indigenous plant species by forest managers. FSC standard requires that 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.	5	4	4	4	5	4,3
24	Identification and protection of cultural, archeological, and historic resources and sites	Both programs require the identification and protection of cultural, archeological, and historic resources and sites. Identification requires stakeholders' consultation.	5	5	3	4	5	4,3
25	Visual impacts and aesthetics	For CFCH, the visual impact of forestry operations is taken into account in areas close to villages, busy roads, places of great scenic beauty and especially in areas where tourism is an important activity. For FSC, assessment of environmental impacts shall include landscape level considerations.	5	4	5	5	5	4,8
26	Education and outreach	For both programs, the communities within, or adjacent to the forest management area should be given opportunities for employment, training, and other services.	4	4	4	4	5	4,3
27	Forest management research	Both programs do not require landowners or managers to financially contribute to forest management research. They do explicitly require active monitoring and assessment of the significant environmental, social and economic impacts of forestry operations, what may be viewed as an indirect encouragement for R&D.	5	5	4	4	5	4,5
28	Management of conflicts	Both programs place significant emphasis on forest managers' willingness to resolve conflicts. There should be a compensation mechanism when people or their goods and properties are damaged by forestry activities in the FMU.	5	5	5	5	5	5,0

#	KEY ISSUES	Similarities and Differences CFCH and FSC	SCORES					
			CFCH	FSC				Avg.
				A	B	C	D	
29	Public access and use opportunities	Both programs require the landowners and managers to accommodate traditional and customary use by local citizens in a way consistent with conservation of forest resources and the objectives of the management plan.	5	5	4	4	5	4,5
30	Assessment of social impacts	Both programs require periodic assessment of the social impacts of forest operations.	5	5	4	4	5	4,5
31	Contribution of socioeconomic benefits to local community and/or region	FSC requires landowners and forest managers to provide for a wide range of social benefits, with an emphasis on local welfare. CFCH does require similar contributions, placing significant emphasis on the local use and processing of the forests' diversity of products. Communities within, or adjacent to, the forest management area, are given fair opportunities for employment, training, and other services.	4	4	4	4	5	4,3

### ECONOMIC AND OPERATIONAL

32	Long-term financial viability of the forest operation	For FSC, forest managers shall demonstrate a long-term commitment to the FSC Principles and Criteria. CFCH standard requires a comprehensive long-term management plan demonstrating the intention of continuing with sustainable forestry operations in the FMU.	5	4	4	4	5	4,3
33	Efficiency of resource utilization	Both programs address this issue in a similar manner. They have to perform forest management considering site potential and waste minimization.	4	5	4	4	5	4,5
34	Competency and adequacy of forest management staff	For FSC, forest workers receive adequate training and supervision to ensure proper implementation of the management plan. For CFCH, there should be competency and adequacy of the forest management staff ensuring proper implementation of the management plan.	5	5	4	4	4	4,3
35	Management planning framework	For CFCH, there is a formally documented commitment to comply with the standard in the forest management policy. The management plan clearly defines land uses in the FMU. There is a management plan for all areas containing high conservation value natural vegetation. Management plans are periodically revised in order to incorporate the conclusions of monitoring and evaluation. For FSC, the management plan and supporting documents shall provide a description of the forest resources to be managed and environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands. Also, 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.	5	5	4	4	4	4,3

#	KEY ISSUES	CFCH References	FSC References
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## ENVIRONMENTAL

1	Special and unique forest areas	CR 2.1; CR 2.2; CR 2.3; CR 2.4; CR 6.1; CR 5.2; CR 9.2	CR 6.3; CR 6.4; CR 6.10; CR 9.1; CR 9.2; CR 9.3; CR 9.4; CR 10.5
2	Use of chemicals	CR 3.2; CR 3.3; CR 3.4; CR 4.4	CR 6.6; CR 6.7; CR 10.7
3	Use of genetically modified organisms (GMO)	CR 1.7	CR 6.8
4	Use and management of exotic species	CR 1.5; CR 2.1; CR 2.4	CR 6.9; CR 10.4
5	Conversion of natural forests to plantations	CR 2.1; CR 2.2; CR 2.3	CR 6.10; CR 10.9
6	Plantation management complementarity with biodiversity conservation	CR 2.3; CR 2.4; CR 2.5	CR 6.2; CR 6.4
7	Sustained yield	CR 1.4; CR 1.8; CR 9.1	CR 5.6; CR 8.2
8	Water quality and riparian zone protection	CR 4.1; CR 4.3; CR 4.4; CR 4.5; CR 4.6	CR 5.5; CR 6.5; CR 10.2
9	Soil protection	CR 1.3; CR 1.5; CR 4.1; CR 4.2; CR 4.3; CR 4.4; CR 4.6; CR 9.1	CR 6.3; CR 6.5; CR 10.6
10	Forest protection from fire, pathogens and diseases	CR 3.1; CR 3.2; CR 3.3; CR 3.4	CR 6.6; CR 6.8; CR 10.4; CR 10.7
11	Clear-cutting and even-aged management	IN 1.3.4; CR 1.8; IN 5.2.5	CR 6.3; CR 10.2; CR 10.3
12	Forest regeneration and reforestation	CR 1.2; IN 1.4.2; CR 1.8; CR 2.3; IN 9.18	CR 6.3; CR 10.1; CR 10.3
13	Road building and maintenance	CR 4.3	CR 6.5
14	Maintenance and conservation of biological diversity	CR 2.1; CR 2.2; CR 2.3	CR 6.2; CR 6.3; CR 10.2; CR 10.3
15	Maintenance of ecological function	CR 2.1; CR 2.2; CR 2.3; CR 2.4	CR 6.3; CR 6.4
16	Assessment of environmental impacts	CR 1.6; CR 1.8; CR 9.1; CR 9.2	CR 6.1; CR 8.2
17	Introduction of new technology	CR 1.6; IND 9.1.9	CR 7.2
18	Periodic monitoring of environmental conditions and adaptative management	CR 1.2; CR 1.5; CR 3.2; CR 5.5; CR 9.1; CR 9.2;	CR 6.5; CR 7.2; CR 8.1; CR 8.2; CR 8.4; CR 8.5; CR 9.4; CR 10.7; CR 10.8

## SOCIAL

19	Consultation and public reporting between forest managers and key stakeholders groups and the surrounding communities	CR 1.1; IN 1.6.2; CR 5.1; CR 5.2; CR 5.3; CR 5.4; CR 5.5; CR 6.1; CR 6.2; IN 9.1.1; IN 9.1.5; CR 9.2	CR 2.3; CR 3.2; CR 4.4; CR 5.5; CR 6.4; CR 7.4; CR 8.5; CR 9.1; CR 9.3; CR 10.5
20	Health, safety and general welfare of employees and contractors	CR 7.1; CR 7.2; CR 7.3; CR 7.4; CR 7.5; CR 8.1; IND 9.1.6	CR 4.2; CR 4.3; CR 4.5;
21	Compliance with applicable laws and regulations	CR 2.2; CR 2.3; CR 8.1; CR 8.2; CR 8.3;	CR 1.1; CR 1.2; CR 1.3; CR 1.4; CR 1.5; CR 4.5; CR 6.2; CR 6.8
22	Recognition of indigenous people's rights	PPLE 5; PPLE 6	PPLE 3
23	Recognition of traditional knowledge	CR 6.3	CR 3.4
24	Identification and protection of cultural, archeological, and historic resources and sites	CR 6.1	CR 3.3
25	Visual impacts and aesthetics	CR 5.2	CR 6.1; CR 10.3
26	Education and outreach	CR 4.6; CR 7.1	CR 4.1
27	Forest management research	CR 1.3; CR 9.1	CR 8.2

#	KEY ISSUES	CFCH References	FSC References
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**SOCIAL**

28	Management of conflicts	CR 5.4; CR 6.2; CR 7.2; CR 8.4	CR 2.3; CR 4.5
29	Public access and use opportunities	CR 1.8; CR 2.2; CR 5.1; CR 8.4	CR 4.1; CR 6.2; CR 10.8
30	Assessment of social impacts	CR 5.1; CR 5.2; CR 9.1	CR 4.4; CR 8.2; CR 10.8
31	Contribution of socioeconomic benefits to local community and/or region	CR 1.8; CR 5.1; CR 5.2;	CR 4.1; CR 4.4; CR 5.2; CR 10.8

**ECONOMIC AND OPERATIONAL**

32	Long-term financial viability of the forest operation	CR 1.2; CR 1.5; CR 5.2	CR 5.1; CR 5.2; CR 5.4; CR 5.6; CR 10.2; CR 10.3
33	Efficiency of resource utilization	CR 1.5	CR 5.3
34	Competency and adequacy of forest management staff	CR 1.1; CR 7.1	CR 7.3
35	Management planning framework	CR 1.2; CR 1.3; CR 2.3; CR 3.1; IN 8.4.2; CR 9.1; CR 9.2	CR 7.1; CR 7.2; CR 9.3

FSC Standard	# Indicators			
	A	B	C	D
<b>PRINCIPLE 1: Compliance with Laws and FSC Principles</b>				
1.1	8	2	5	3
1.2	10	1	3	1
1.3	4	3	2	5
1.4	3	2	2	1
1.5	3	3	2	3
1.6	3	3	5	1
<b>PRINCIPLE 2: Tenure and Use Rights &amp; Responsibilities</b>				
2.1	4	1	2	3
2.2	6	2	3	3
2.3	4	3	3	5
<b>PRINCIPLE 3: Indigenous People's Rights</b>				
3.1	5	2	3	3
3.2	4	2	3	4
3.3	6	3	5	4
3.4	2	2	2	3
<b>PRINCIPLE 4: Compliance with Laws and FSC Principles</b>				
4.1	6	1	5	2
4.2	15	4	6	8
4.3	5	3	3	2
4.4	5	5	5	2
4.5	3	3	3	2
<b>PRINCIPLE 5: Benefits from the Forest</b>				
5.1	2	1	4	5
5.2	2	4	3	1
5.3	6	2	6	2
5.4	2	2	5	4
5.5	3	2	4	2
5.6	3	4	7	5
<b>PRINCIPLE 6: Environmental Impacts</b>				
6.1	6	4	5	2
6.2	10	5	7	11
6.3	4	2	10	8
6.4	2	3	4	0
6.5	6	8	6	13
6.6	7	7	7	14
6.7	5	1	3	4
6.8	3	2	3	3
6.9	5	4	3	10
6.10	4	4	3	0
<b>PRINCIPLE 7: Management Plan</b>				
7.1	9	6	6	14
7.2	2	3	5	3
7.3	6	2	5	2
7.4	2	1	4	1
<b>PRINCIPLE 8: Monitoring and Assessment</b>				
8.1	7	3	3	3
8.2	7	2	4	8
8.3	2	3	3	3
8.4	4	2	3	1
8.5	1	1	2	2

**PRINCIPLE 9: High Conservation Value Forests**

9.1	3	2	3	2
9.2	1	3	2	0
9.3	3	3	3	1
9.4	4	2	4	1

**PRINCIPLE 10: Plantations**

10.1	3	2	3	2
10.2	8	2	5	3
10.3	3	3	3	2
10.4	3	3	4	3
10.5	3	3	4	2
10.6	12	4	5	2
10.7	11	2	4	2
10.8	5	3	4	3
10.9	3	1	2	1

	268	156	223	200
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## **SECTION B**

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**STANDARD FOR A SUSTAINABLE FOREST  
MANAGEMENT IN CHILE  
"CertforChile"**

# PRINCIPLE 1

## PLANNING AND LONG TERM OBJECTIVES

The use of the forest resources must be planned and managed so as to provide a sustained flow of products and services in successive rotations, according to a comprehensive long term management plan appropriate to the scale of operations and applicable to the Forest Management Unit (FMU), whether it belongs to a single owner or group of them

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
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### CRITERION 1.1

Forest managers are formally committed to sustainable forest management and can demonstrate their intention to continue with forestry activities in the FMU for at least one more rotation

1.1.1 There is a formally documented commitment to comply with this standard in the forest management policy	<ul style="list-style-type: none"> <li>▪ There is a formally documented policy of sustainable forest management</li> </ul>
1.1.2 There is a comprehensive long-term management plan which demonstrates the intention of continuing with forestry operations in the FMU	<ul style="list-style-type: none"> <li>▪ A comprehensive management plan for a duration of more than one rotation</li> </ul>
1.1.3 Forest managers demonstrate a commitment to sustainable forest management	<ul style="list-style-type: none"> <li>▪ Forest managers demonstrate a knowledge of key aspects of sustainable forest management and are committed to it</li> </ul>

### CRITERION 1.2

There is a forest management plan which is actualised and implemented. The plan clearly specifies the objectives of forest management

1.2.1 There is a comprehensive management plan for the FMU	<ul style="list-style-type: none"> <li>▪ Existence of a management plan containing at least: management objectives for the forest resource, a general description of the resources of the FMU and a description of the principle forestry activities to be carried out</li> </ul>
1.2.2 The management plan includes a description of the environmental and social factors that must be considered in forest management	<ul style="list-style-type: none"> <li>▪ An inventory of native forests and other native vegetation</li> <li>▪ A register of sites of high conservation value</li> <li>▪ Identification of possible social impacts</li> </ul>
1.2.3 There is a procedure for periodical revision of the plan	<ul style="list-style-type: none"> <li>▪ A procedure exists / or previous plans demonstrate that revision has been carried out at least every five years</li> </ul>
1.2.4 The management plan is economically viable in the long term	<ul style="list-style-type: none"> <li>▪ There is a financial projection that demonstrates the economic viability of the plan</li> </ul>

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
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### CRITERION 1.3

The management plan clearly defines land uses in the Forest Management Unit

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| 1.3.1 The management plan includes maps clearly showing the different uses to which land is dedicated   | <ul style="list-style-type: none"> <li>▪ The boundaries of protection zones, forests and other native vegetation as well as commercial plantation compartments are clearly shown on a map</li> <li>▪ The entire forest estate is covered by maps appropriate to the scale and intensity operations</li> <li>▪ There is a register that defines the state of the land holdings at the time of certification</li> </ul> |
| 1.3.2 The maps are periodically updated so that they reflect any changes in land use as well as the situation of the forest resources   | <ul style="list-style-type: none"> <li>▪ The maps correspond to the reality in the field</li> </ul>   |
| 1.3.3 The situation on the ground corresponds to the prescriptions of forest management specified for each site in the plan of operations   | <ul style="list-style-type: none"> <li>▪ There is correspondence</li> </ul>   |
| 1.3.4 There is a long-term plan to reduce the size of very large compartments with the purpose of reducing the negative impacts upon the soil, upon the hydrological system and upon the landscape, in particular with regard to clear felling of large areas | <ul style="list-style-type: none"> <li>▪ There exist a long-term plan</li> </ul>  |

### CRITERION 1.4

The level of harvest of forest products is clearly justified by the management plan and should promote the maintenance or the growth in the production of goods and services over time, subject to the productive capacity of the FMU and the market conditions

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| 1.4.1 For large FMU's the levels of harvest should ensure a sustained flow of forest products    | <ul style="list-style-type: none"> <li>▪ A short, medium and long term harvest plan</li> </ul>   |
| 1.4.2 All forest harvested must be re-established  | <ul style="list-style-type: none"> <li>▪ A harvest plan that includes replanting or natural regeneration approved by CONAF</li> <li>▪ Regeneration is carried out within the time limits established by law</li> </ul> |
| 1.4.3 All of the assumptions used in the projections of harvest levels are technically supported | <ul style="list-style-type: none"> <li>▪ Expected yields, plantation management prescriptions, cutting ages, areas harvested and the expected value of future rotations</li> </ul>                                     |

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
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### CRITERION 1.5

Forest management is performed considering site potential and its characteristics

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| <p>1.5.1 The species selected for planting are shown to be adapted to the soil and climatic conditions of the site as well as for the objectives of forest management</p> | <ul style="list-style-type: none"> <li>▪ There is evidence of successful planting of the same species in the area for at least one rotation</li> <li>▪ There are studies that prove the adaptation of the species to the site</li> </ul> |
| <p>1.5.2 There is a system to control the origin of seeds and seedlings used in the plantations</p>   | <ul style="list-style-type: none"> <li>▪ Seed origin is documented</li> </ul>  |
| <p>1.5.3 Forest management practices take into account the characteristics of the site</p>  | <ul style="list-style-type: none"> <li>▪ There is an analysis of the site and its characteristics prior to defining the management practices</li> </ul>  |
| <p>1.5.4 Plantations in the FMU make good use of the site, according to the management objectives</p>   | <ul style="list-style-type: none"> <li>▪ Silvicultural practices of the plantations are justified throughout the rotation</li> </ul>   |
| <p>1.5.5 Harvesting practices make efficient use of the forest products</p>   | <ul style="list-style-type: none"> <li>▪ There is no evidence of merchantable timber left in the forest</li> <li>▪ There is no evidence of significant mechanical damage to commercial logs</li> </ul>                                   |

### CRITERION 1.6

The large scale application of new technologies will be evaluated and monitored by the FMU by forest managers and will be used, only if, there is no scientific evidence that it could produce significant environmental, economic and social negative impacts

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| <p>1.6.1 There is a documented and well established procedure for carrying out environmental impact assessments</p>   | <ul style="list-style-type: none"> <li>▪ There is an environmental impact assessment procedure which at least meets the requirements of the relevant law</li> <li>▪ There is a procedure to identify and evaluate the impacts of forestry activities</li> <li>▪ There is a procedure to limit significant environmental social and economic impacts</li> <li>▪ There is procedures to prevent and control environmental emergencies and accidents</li> <li>▪ Documentation of evaluations carried out</li> </ul> |
| <p>1.6.2 Environmental impact evaluations include procedures for consulting interested and affected parties. The concerns of interested and affected parties are taken into account</p> | <ul style="list-style-type: none"> <li>▪ A consultative procedure which at least meets the requirements of the law</li> <li>▪ Documentation of consultative procedures</li> </ul>  |

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
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**CRITERION 1.7**

The use at commercial scale of genetically modified organisms will be subject to a careful scientific analysis, validated by a recognized scientific entity, considering its environmental impacts, and will include all regulations stemming from the national laws and the binding international protocols

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|--|---|
| 1.7.1 The UMF forest managers know the national regulations and the binding international protocols referred to the use of GMO's   | <ul style="list-style-type: none"> <li>▪ There is an updated register of the national regulations and the binding international protocols</li> </ul>  |
| 1.7.2 The use of GMO's in a particular trial has proved to not have significant negative impacts after a period of 5 years of experimental use   | <ul style="list-style-type: none"> <li>▪ There is an environmental impact study demonstrating that there aren't significant negative impacts derived from the use of GMO's. This study takes into account the conclusions and recommendations of independent and recognized scientific sources</li> </ul> |
| 1.7.3 The use at commercial scale of GMO's meet the national regulations, the binding international protocols and the experimental period stated in the indicator 1.7.2  | <ul style="list-style-type: none"> <li>▪ The stated requisites are met</li> </ul>   |
| 1.7.4 The UMF forest managers have a scientific report, supported by a recognized scientific academy or the national correspondent, demonstrating that there aren't significant environmental impacts for the use of GMO's at a commercial scale | <ul style="list-style-type: none"> <li>▪ There is a report</li> </ul>   |

**CRITERION 1.8**

Prior to any new afforestation activities an environmental impact assessment must be carried out .

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|--|---|
| 1.8.1 Prior to any afforestation activity a checklist indicating environmental impacts should be available   | <ul style="list-style-type: none"> <li>▪ Existence of a checklist where the impacts related with afforestation activities have been identified</li> </ul>   |
| 1.8.2 When the individual or contiguous area to be afforested is extensive, an environmental declaration should be carried out, which must be made available to the public | <ul style="list-style-type: none"> <li>▪ Existence of an environmental declaration of the impacts derived from the afforestation activities</li> <li>▪ The environmental declaration is available for third parties interested</li> </ul> |

# PRINCIPLE 2

## BIODIVERSITY AND NATURAL ECOSYSTEMS

The use of forest resources should be planned and managed so that the environmental values of the natural ecosystems contained in the Forest Management Unit are protected and significant negative impacts on biodiversity are avoided

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
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### CRITERION 2.1

Plantations will not be established in areas that contain forests or other native vegetation types of high conservation value or in commercially productive native forests or in areas that make significant contributions to biodiversity

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|---|---|
| <p>2.1.1 Area within the FMU suitable for afforestation have been identified</p>  | <ul style="list-style-type: none"> <li>▪ Maps showing areas suitable for afforestation</li> <li>▪ The areas identified do not contain native vegetation of high conservation value or commercially productive native forests</li> </ul> |
| <p>2.1.2 Pre-afforestation planning takes into account biodiversity and social values in accordance with criterion 1.8</p>  | <ul style="list-style-type: none"> <li>▪ There is a classification of the soils according to the extent of their degradation, with regard to their relative tree coverage</li> </ul>  |
| <p>2.1.3 Plantations should not replace natural forests or other native vegetation of high environmental value, neither productive natural forests, nor natural corridors</p> | <ul style="list-style-type: none"> <li>▪ Evidence that biodiversity evaluations have been carried out before the decision to establish new plantations</li> </ul>   |
| <p>2.1.4 New plantations should not increase the fragmentation of areas of native vegetation</p>  | <ul style="list-style-type: none"> <li>▪ Areas identified as corridors are not planted</li> <li>▪ Maps showing the distribution of natural vegetation and identifying corridors are available</li> </ul>                                |

### CRITERION 2.2

The planning system of the FMU takes into account the existence, environmental value and management needs of different types of native vegetation and recognises the presence of wildlife in danger of extinction

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| <p>2.2.1 All areas of native vegetation in the FMU have been identified, their distribution and size</p>                | <ul style="list-style-type: none"> <li>▪ A map of native areas indicating about the areas of different native forest types in the FMU is available</li> </ul>  |
| <p>2.2.2 Area of native vegetation have been classified according to their importance for biodiversity conservation</p> | <ul style="list-style-type: none"> <li>▪ There is a method for classifying the value of native vegetation for conservation of biodiversity</li> </ul>  |
| <p>2.2.3 A significant proportion of the FMU is devoted for conservation purposes</p>                                   | <ul style="list-style-type: none"> <li>▪ At least 10% of the FMU's total area is destined for conservation purposes</li> <li>▪ For accounting the FMU total area, sand soils, dunes or highly eroded soils are not considered</li> </ul> |

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
2.2.4 Areas in which rare and endangered species are found have been identified. Hunting of rare and endangered species is prohibited in the FMU	<ul style="list-style-type: none"> <li>▪ Rare and endangered species listed in the red data books have been identified and their position in the FMU is known and recorded</li> <li>▪ There is a system for surveying the FMU and for identifying and adding any new endangered species found</li> <li>▪ Hunting of these species is forbidden in the FMU</li> </ul>	
2.2.5 Forest Managers have a reasonable knowledge of the conservation status of native vegetation types found in the FMU	<ul style="list-style-type: none"> <li>▪ A national or provincial classification of vegetation exists and is available to managers</li> </ul>	

### CRITERION 2.3

Areas with high conservation value native vegetation are managed so as to maintain the biodiversity they provide

2.3.1 There is a management plan for all areas with high conservation value native vegetation	<ul style="list-style-type: none"> <li>▪ A management plan for all areas of high conservation value native vegetation exists</li> <li>▪ The management actions prescribed in the plan are implemented</li> <li>▪ The management plan will comply with the standards required by the 'National Standard for Native Forest Management'</li> <li>▪ Areas containing rare and endangered species shall have a high priority for protection in case of fire</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>The requirement of compliance with the " Chilean National Management Standard for Native Forests" will be verified once the Standard is defined</i></li> </ul>
2.3.2 There is a management plan for plantations with contingent presence of native vegetation of high conservation value	<ul style="list-style-type: none"> <li>▪ The plan exists and recommendations are implemented</li> </ul>	
2.3.3 Where possible corridors of native vegetation are left in order to join nearby areas of native vegetation	<ul style="list-style-type: none"> <li>▪ A formal method for defining natural corridors across the FMU exists</li> </ul>	

### CRITERION 2.4

Forestry operations are carried out in such a way as to minimise negative impacts on biodiversity and on the landscape

2.4.1 There are procedures to prevent negative impacts on the biodiversity values by forestry activities (plantation establishment, thinning, harvesting, road building, use of chemicals)	<ul style="list-style-type: none"> <li>▪ There are plans to protect such areas</li> <li>▪ The procedures are carried out</li> </ul>	
2.4.2 Trees are not felled into areas of native vegetation excluded from the management plan and plantation trash is not left in such areas	<ul style="list-style-type: none"> <li>▪ Directional felling is used in areas close to native vegetation</li> <li>▪ Thinning trash is not left in areas of native vegetation</li> </ul>	

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
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2.4.3 Measures are taken to avoid the large scale invasion of native forests or other vegetation with high conservation value by exotic/alien invasive species	<ul style="list-style-type: none"> <li>▪ There is no evidence of large scale invasion by commercial forestry species into native vegetation in the FMU</li> </ul>	
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## CRITERION 2.5

All personnel (own labour or contractor labour) working in the FMU know about the importance of biodiversity protection. They have been trained to carry out their work so that they can avoid damaging protected areas and they know where these areas are

2.5.1 All staff receives regular training with respect to different aspects of biodiversity protection	<ul style="list-style-type: none"> <li>▪ All staff has attended courses that increase their environmental awareness</li> <li>▪ Relevant staffs have been trained in operational procedures to prevent damage to protected areas in forestry operations</li> <li>▪ Teaching materials and a training programme is available</li> <li>▪ There is a system for assessing competencies acquired in the training programs. Evaluations are available</li> </ul>	
2.5.2 Plans and maps showing protected areas are available to all staff	<ul style="list-style-type: none"> <li>▪ Cartographic materials are available</li> </ul>	
2.5.3 There is a person responsible for biodiversity protection and other conservation values	<ul style="list-style-type: none"> <li>▪ There is an appropriately qualified person with responsibility for protection</li> </ul>	
2.5.4 There are management prescriptions for native forests and these are available to all relevant staff	<ul style="list-style-type: none"> <li>▪ Prescriptions exist and are available</li> </ul>	

# PRINCIPLE 3

## PRODUCTIVITY MAINTAINANCE

Forest resources should be managed so as to maintain their health, vitality and productivity, by protecting them from fires and other damaging agents

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
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### CRITERION 3.1

There are effective measures for the prevention, detection, early suppression and control of forest fires. These may make use of the resources of the FMU or contracted services

3.1.1 There is a plan or procedure to prevent the occurrence of forest fires	<ul style="list-style-type: none"> <li>There is a documented protection plan which is implemented in the field</li> </ul>	<ul style="list-style-type: none"> <li>It is recognized that fire, under given circumstances, represents a useful silvicultural tool, and its use could be allowed if there exists a clear indication that the results of its use will be favorable in the balance of positive and negative effects</li> </ul>
3.1.2 There is a person responsible for matters relating to the prevention and fighting of fires	<ul style="list-style-type: none"> <li>There is a responsible qualified person in charge of the prevention and fighting of fires</li> </ul>	
3.1.3 There is a system for classifying risk and assigning priorities in fire fighting	<ul style="list-style-type: none"> <li>A map showing risk zones and priorities drawn up by a competent person</li> <li>There are methods for reducing the fuel load in areas with the highest fire risk</li> </ul>	
3.1.4 There is a system for the determination of a fire danger index and for detecting fire	<ul style="list-style-type: none"> <li>The fire danger is monitored and forestry activities are adapted in situations of high fire danger</li> <li>There is a system for detecting forest fires and for dispatch of fire fighting units (internal, external or by agreement)</li> </ul>	
3.1.5 There is a plan or procedure for fire emergencies	<ul style="list-style-type: none"> <li>A plan or procedure identifying responsible people and specifying resources available and actions to be taken</li> </ul>	
3.1.6 All staff have been trained with respect to the importance of preventing forest fires and where relevant in fire fighting	<ul style="list-style-type: none"> <li>There is training material</li> <li>There is a training programme that has been carried out</li> <li>There are staff (internal or external) who are trained in fire fighting</li> </ul>	
3.1.7 There are public awareness campaigns to prevent forest fires	<ul style="list-style-type: none"> <li>A record of campaigns conducted or supported indicating that this happens at least once a year</li> </ul>	

### CRITERION 3.2

The control of pathogens and other damaging agents is carried out according to the principles of integrated pest management. Activities are carried out so as to minimize negative environmental impacts

3.2.1 Control of pathogens in plantations is done using the best management practices available and limits the use of chemicals to situations where no alternatives are economically viable and effective	<ul style="list-style-type: none"> <li>There is a system for integrated control of pathogenic agents</li> <li>The use of chemical products is explicitly justified and methods of control using biological agents, mechanical or silvicultural techniques are considered first</li> </ul>
3.2.2 The planning and control of pests and diseases takes into account the possibility of using natural barriers	<ul style="list-style-type: none"> <li>There are evaluations of the effectiveness of using natural barriers</li> </ul>

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
3.2.3 There is a person responsible for the control of pests and diseases	<ul style="list-style-type: none"> <li>There is an adequately trained person</li> </ul>	
3.2.4 The plantations and native forests with high conservation value are protected from grazing and browsing by cattle	<ul style="list-style-type: none"> <li>Plantations and native forests with high conservation value are protected by the same vigilance system of the FMU</li> </ul>	
3.2.5 Plantations and native forests with high conservation value are protected from illegal harvesting and timber theft	<ul style="list-style-type: none"> <li>Plantations and native forests with high conservation value are protected by fences or by permanent vigilance</li> </ul>	

### CRITERION 3.3

In forest operations the use of environmentally friendly chemicals will be preferred. Chemicals, fuels, lubricants, other contaminants and their containers are stored, recycled or disposed of in a safe and environmentally friendly way

3.3.1 World Health Organisation 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 not be used	<ul style="list-style-type: none"> <li>There is no evidence of the use or storage of these in the FMU</li> </ul>	
3.3.2 There are procedures, manuals or plans for the appropriate use and management of chemicals, fuels and lubricants in accordance with the law and the manufacturers instructions	<ul style="list-style-type: none"> <li>There is a plan, manual; or procedure for use and management</li> <li>All chemical products taken into the field are in clearly marked containers that are removed once the product has been used</li> <li>There is a special plan in case of people affected with chemical's use</li> </ul>	<ul style="list-style-type: none"> <li>Transport is included</li> </ul>
3.3.3 There is a register of chemical products, purchased, stored and used	<ul style="list-style-type: none"> <li>There is a register of products used</li> <li>There is a register of chemicals purchased and stored.</li> <li>Registers have adequate information about amounts used</li> <li>There is a register of applications for chemical products</li> </ul>	
3.3.4 The storage of chemicals, lubricants and fuels is in an appropriate place and in which the contents of the containers are clearly labelled	<ul style="list-style-type: none"> <li>The storage site is appropriate and adheres to legal requirements.</li> <li>Each container is correctly labelled</li> </ul>	
3.3.5 There are procedures, manuals or plans for the disposal of all types of waste as well as empty chemical containers	<ul style="list-style-type: none"> <li>Procedures for disposal of wastes and containers</li> <li>There are procedures for the disposal of singular waste, such as batteries</li> </ul>	
3.3.6 There are procedures to prevent, clear up and notify spillages of chemicals, fuels and lubricants	<ul style="list-style-type: none"> <li>Procedures exist</li> <li>There is a register of spillages</li> </ul>	
3.3.7 All relevant staff have been trained and have the necessary safety equipment for the use and handling of chemicals	<ul style="list-style-type: none"> <li>There is a training programme that has been implemented</li> <li>Staff have adequate safety equipment</li> </ul>	

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
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|---|--|--|
| 3.3.8 In all applications of chemicals measures are taken to prevent the spillage and drift of them | <ul style="list-style-type: none"> <li>▪ A procedure exists to prevent spillage of chemicals during application</li> <li>▪ Third parties are advised prior to the application of chemicals that could affect them</li> </ul> |  |
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### CRITERION 3.4

The control of plantation weeds should be carried out so as to maximise the growth of trees while minimising the negative effects of the use of herbicides

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|--|---|--|
| 3.4.1 There is a plan for the management and control of weeds in plantations   | <ul style="list-style-type: none"> <li>▪ There is a plan</li> <li>▪ Integrated weed control is used</li> </ul>                            |  |
| 3.4.2 The use of chemicals in weed control is explicitly justified having considered alternative methods of analogous effectiveness  | <ul style="list-style-type: none"> <li>▪ There are Cost-Effectiveness studies of alternative weed control methods</li> </ul>              |  |
| 3.4.3 Chemical weed control is not carried out in areas close to streams, agricultural land, houses and others that may be affected  | <ul style="list-style-type: none"> <li>▪ There are procedures for determining the critical area where chemicals cannot be used</li> </ul> |  |
| 3.4.4 In areas not included in the plantation programmes, chemicals are not used if these produce a significant increase in the danger of a forest fire as a consequence of the presence of dead or dried vegetation | <ul style="list-style-type: none"> <li>▪ There are procedures for determining the chemical application areas</li> </ul>                   |  |

# PRINCIPLE 4

## WATER AND SOIL PROTECTION

Forest resources are managed so as to promote soil conservation and to minimize adverse impacts on the quantity and quality of water resources, taking particular account of the needs of downstream communities

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
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### CRITERION 4.1

There is a classification of soil, water bodies and rivers presents in the FMU

4.1.1 There is a map of soil types that indicates their degree of erosion and fragility	<ul style="list-style-type: none"> <li>▪ Existence of soil's cartography based on the available information at national level</li> <li>▪ The method of determining soil fragility at least takes into account, slope, rainfall and soil series available at national level</li> </ul>	
4.1.2 There is a map identifying the characteristics of water bodies and rivers	<ul style="list-style-type: none"> <li>▪ Map showing characteristics of water bodies and rivers</li> <li>▪ The map is available to workers</li> </ul>	

### CRITERION 4.2

The productive capacity of soils is maintained or if necessary restored

4.2.1 There is a plan for maintaining soil productivity and it is implemented	<ul style="list-style-type: none"> <li>▪ There is a plan that is implemented. The plan contains: Structure of soil and the long term effect of the species on the site</li> <li>▪ Field operations in areas that are susceptible to erosion are preceded by an inspection of the site</li> </ul>	
4.2.2 In forestry operations machinery and methods are chosen according to slope, fragility of soils and rainfall in order to minimise soil erosion and soil compaction	<ul style="list-style-type: none"> <li>▪ There are documented procedures for the selection of technologies appropriated to soil characteristics</li> <li>▪ There are documented procedures for ensuring the use of techniques appropriate to the soil characteristics</li> <li>▪ There is evidence of erosion control when it is significant</li> <li>▪ There is no evidence of soil compaction caused by forestry activities</li> <li>▪ No forestry operations are carried out in fragile soils that are saturated with water</li> </ul>	
4.2.3 In soils with severe soil compaction actions are taken to improve their structure	<ul style="list-style-type: none"> <li>▪ Corrective actions such as: scarification, subsoiling etc. are taken</li> </ul>	
4.2.4 The use of fire as a management tool is only considered on soils where it does not cause an irreversible loss of productivity and when other methods of establishment are not possible or appropriate	<ul style="list-style-type: none"> <li>▪ No evidence of use of fire in such soils</li> <li>▪ Burning practices minimise the risk of damage to the site</li> <li>▪ The use of fire is carried out according to prescriptions</li> </ul>	

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
4.2.5 Prior to reforestation soils showing serious nutrient deficiencies are restored using appropriate methods	<ul style="list-style-type: none"> <li>▪ There is a system to determine soil fertility</li> <li>▪ There is evidence of that application of restoration methods on degraded soils</li> </ul>	
4.2.6 Unused roads and other areas without vegetation cover are restored by revegetation when it is necessary	<ul style="list-style-type: none"> <li>▪ There is evidence of reforestation of old disused forest roads</li> </ul>	
4.2.7 Harvesting trash is disposed of on site in such a way as to allow the recycling of nutrients and to avoid soil erosion	<ul style="list-style-type: none"> <li>▪ There is evidence that trash has been arranged on site prior to reforestation</li> </ul>	
4.2.8 Any soil damage that could lead to erosion is repaired before rainfall season	<ul style="list-style-type: none"> <li>▪ Corrective actions have been taken before the area is left</li> </ul>	

### CRITERION 4.3

Forest operations are planned and carried out so as to minimise erosion and the carriage of sediments into watercourse

4.3.1 Roads are planned, so as to minimise erosion, earth movements and the carriage of sediments into watercourses	<ul style="list-style-type: none"> <li>▪ Road planning is documented</li> <li>▪ In planning the number of river crossings is minimised</li> </ul>	
4.3.2 Roads are built and maintained to minimise erosion and the carriage of sediments into watercourses	<ul style="list-style-type: none"> <li>▪ There is no evidence of significant erosion on roads and their surroundings</li> <li>▪ There is a road maintenance programme</li> <li>▪ Roads cross-rivers and drainage lines at an appropriate angle</li> <li>▪ Drains are sufficient to cope with the flow of water</li> <li>▪ Drains are in a good condition (open and clear)</li> </ul>	
4.3.3 Roads are used under the conditions for which they were designed	<ul style="list-style-type: none"> <li>▪ Weight limits and seasons of use are adhered to</li> </ul>	

### CRITERION 4.4

Chemicals, fuels and lubricants are used in such a way as to prevent pollution of soils and waters

4.4.1 In all application or use of chemicals, fuels and lubricants the necessary precautions are taken to avoid contamination of waters	<ul style="list-style-type: none"> <li>▪ There are procedures or manuals for use and management of chemical products in order to avoid water pollution on the hydrological resource affected by the FMU</li> <li>▪ There is an emergency plan in case of spillovers</li> </ul>	
4.4.2 In all application or use of chemicals, fuels and lubricants the necessary precautions are taken to avoid contamination of soils	<ul style="list-style-type: none"> <li>▪ There are procedures or manuals to avoid contamination of soils and these are applied</li> <li>▪ There are clearly defined areas for the handling of fuels and lubricants</li> <li>▪ There is an emergency plan in case of spillovers</li> </ul>	

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
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#### CRITERION 4.5

Forest management planning is done considering hydrological availability of significant water flows and waterbodies that supply downstream communities

4.5.1 Forest operations are planned and carried out ensuring an adequate disposal of solid and liquid waste	<ul style="list-style-type: none"> <li>▪ There are procedures for use and disposal of solid and liquid waste</li> <li>▪ Procedures are verified in practice</li> </ul>	
4.5.2 The company knows about downstream uses of important watercourses passing through the FMU	<ul style="list-style-type: none"> <li>▪ There is a register of uses of permanent watercourses</li> </ul>	
4.5.3 The company knows about the use of waterbodies on the banks included in the FMU	<ul style="list-style-type: none"> <li>▪ There is a register of waterbodies in the FMU</li> </ul>	
4.5.4 In areas with water deficit, a strategy will be defined to minimize adverse effects of operations for downstream communities	<ul style="list-style-type: none"> <li>▪ While selecting the forest management practices, careful attention will be paid to its effects upon the hydrological balance in deficit areas</li> <li>▪ In areas of water shortage the use of less water consuming species is preferred</li> </ul>	
4.5.5 Protective fringes are left on the banks of streams and waterbodies. Their width is related to type of stream, type of the slope and to the water quality needs of the downstream resource	<ul style="list-style-type: none"> <li>▪ Procedure for determining protective fringes according to: Slope, water demands of downstream owners, other uses of the water</li> </ul>	
4.5.6 There are procedures to prevent harvest trash and soil particles from roads and bridges entering watercourses	<ul style="list-style-type: none"> <li>▪ There are procedures that are implemented</li> <li>▪ There is little evidence on the ground of trash or soil entering rivers in significant magnitudes</li> </ul>	

#### CRITERION 4.6

All staff involved in planning and forest operations must have an adequate knowledge about the fragility of soils and the most appropriate management practices for them. They must also demonstrate knowledge of methods for protection of watercourses and of the means of conducting forest operations close to the banks of watercourses

4.6.1 The staff is trained and is aware of the need to maintain soil productivity. They know ways and techniques for avoiding damage	<ul style="list-style-type: none"> <li>▪ There is a training programme that has been implemented</li> <li>▪ There is training material</li> <li>▪ There is a register of trained workers</li> </ul>	
4.6.2 Staff is trained and is aware of the need to maintain the quantity and quality of water and know ways and techniques for avoiding losses	<ul style="list-style-type: none"> <li>▪ There is a training programme that has been implemented</li> <li>▪ There is training material</li> <li>▪ There is a register of trained workers</li> </ul>	
4.6.3 There is a person responsible for issues related to soil productivity and conservation	<ul style="list-style-type: none"> <li>▪ The responsible person has received adequate training</li> </ul>	
4.6.4 There is a person responsible for issues related to water quality and quantity	<ul style="list-style-type: none"> <li>▪ The responsible person has received adequate training</li> </ul>	

# PRINCIPLE 5

## LOCAL COMMUNITIES

Forest managers must respect the traditional and customary uses and rights of local communities, maintaining good neighbour relations with them and supporting the development of local capacities that contribute to the improvement of their quality of life

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
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### CRITERION 5.1

Forest managers have knowledge of the impact of their activities on local communities

5.1.1 Forest managers have information about the social conditions in nearby communities Forest managers have information about the social conditions in nearby communities	<ul style="list-style-type: none"><li>▪ Maps showing the situation of communities in the area of influence and the location of basic services: hospitals, schools, fire brigade</li><li>▪ There are social and economic indicators of the communities where the FMU operates</li></ul>
5.1.2 Forest managers know about the impacts of their activities upon local communities	<ul style="list-style-type: none"><li>▪ The impact of management activities on nearby communities has been identified and evaluated</li></ul>
5.1.3 Forest managers know any historic or current disputes with nearby communities	<ul style="list-style-type: none"><li>▪ There is a historical record of disputes with local communities</li></ul>
5.1.4 There are channels for regular communication and information exchange between forest managers and local communities	<ul style="list-style-type: none"><li>▪ There are regular meetings with representatives of nearby communities</li><li>▪ There is a record of discussions with local communities</li></ul>
5.1.5 Local communities have access to a representative identified by forest managers in order to discuss their worries and problems	<ul style="list-style-type: none"><li>▪ There is a person responsible for communicating with local communities</li><li>▪ The responsible person is available when needed</li></ul>

### CRITERION 5.2

Forest managers make contributions towards improving the quality of life of neighbouring communities

5.2.1 Wherever possible priority is given to the sale of forest products from the FMU to processing plants in the same region as the timber is produced, providing that the prices and terms of the contract offered are similar	<ul style="list-style-type: none"><li>▪ There is a policy to this effect</li><li>▪ Policy is implemented</li></ul>
5.2.2 Whenever possible, priority will be given to the sale of products coming from the FMU to local mills, when price and other conditions are the same	<ul style="list-style-type: none"><li>▪ There is a policy to this effect</li></ul>
5.2.3 Contributions and donations are made to support the development of local communities	<ul style="list-style-type: none"><li>▪ There is evidence of a history of contributions to this type of programmes</li></ul>

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
5.2.4 Local communities have an agreed access to the FMU to collect firewood, mushrooms, herbs and wild fruits, providing these activities do not compromise the management objectives of the plantations	<ul style="list-style-type: none"> <li>▪ Written evidence of permits</li> </ul>	
5.2.5 Members of local communities have preference for employment provided that they are equally qualified to other applicants	<ul style="list-style-type: none"> <li>▪ There is a policy to favor hiring local community people in identical conditions with regard to others candidates, and this policy is applied</li> </ul>	
5.2.6 The visual impact of forestry operations is taken into account in areas close to villages, busy roads, places of great scenic beauty and especially in areas where tourism is an important activity	<ul style="list-style-type: none"> <li>▪ Sites of great scenic beauty have been identified</li> <li>▪ Areas where there is tourism development have been identified</li> <li>▪ There is a plan for managing the aesthetic impact of forestry operations in areas needing it</li> </ul>	
5.2.7 Forest managers contribute to local education programmes in themes associated with forestry activities and the environment	<ul style="list-style-type: none"> <li>▪ There is evidence for this kind of support to local communities</li> </ul>	

### CRITERION 5.3

#### Forest managers protect local communities against risks associated with forestry operations

5.3.1 There are procedures to minimise the risks and damage to local communities associated with the harvest and transport of timber	<ul style="list-style-type: none"> <li>▪ There are measures to avoid accidents to third parties during harvesting and transport</li> <li>▪ There are procedures for ensuring the proper stevedoring of trucks</li> <li>▪ There are measures to avoid damage to public infrastructure</li> </ul>
5.3.2 There are measures to avoid damage to third party property during forest operations.	<ul style="list-style-type: none"> <li>▪ There are documented procedures that are applied</li> </ul>
5.3.3 There are ways of informing the public about the dangers of forestry activities	<ul style="list-style-type: none"> <li>▪ Community information programmes</li> <li>▪ There is proper signage in areas where forestry operations are going on that could present a risk to third parties</li> </ul>
5.3.4 There is a programme to inform the public about the risks associated with the use of chemicals	<ul style="list-style-type: none"> <li>▪ There is a regular information programme</li> <li>▪ Forest managers inform neighbouring communities about the areas where chemicals are being used, when and where is applicable</li> </ul>
5.3.5 Forest managers have a strategy to protect the lives and property of inhabitants of local communities from the occurrence of fire in the plantations	<ul style="list-style-type: none"> <li>▪ There is a strategy included in the FMU protection specific plan</li> </ul>

### CRITERION 5.4

#### Forest managers keep good neighbour relations with local communities

5.4.1 There is a policy and a programme of good neighbourliness with local communities	<ul style="list-style-type: none"> <li>▪ There is a written policy about good neighbour relations with neighbouring communities</li> </ul>
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INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
5.4.2 There is willingness on the part of forest managers to resolve conflicts	<ul style="list-style-type: none"> <li>▪ There is a conflict resolution procedure that is applied</li> <li>▪ There is a register of complaints, communications and resolutions with regard to these</li> <li>▪ In cases where conflicts cannot be resolved by negotiation legal procedures are used</li> </ul>	
5.4.3 Inhabitants of local communities are not impeded in moving to their homes or their workplaces	<ul style="list-style-type: none"> <li>▪ There is a policy of regulated access for those who need it</li> <li>▪ Local community complaints are taken care of according to a pre-established procedure</li> </ul>	
5.4.4 There is a mechanism for compensation when people or their goods are damaged by forestry activities in the FMU	<ul style="list-style-type: none"> <li>▪ There is a compensation procedure</li> <li>▪ Local community complaints are taken care of according to a pre-established procedure</li> </ul>	
5.4.5 Forest managers respect and protect sites of special interest or significance to local communities	<ul style="list-style-type: none"> <li>▪ There is a register indicating sites of special interest or significance</li> <li>▪ Management plans include special prescriptions for sites of interest to the community</li> <li>▪ Forest workers are trained or educated in issues related to the management of sites of special interest</li> </ul>	

### CRITERION 5.5

Forest managers regularly make available information about their management practices to interested third parties

5.5.1 Forest managers are disposed to giving out (non-commercially confidential) information about their forest management practices and their environmental impacts	<ul style="list-style-type: none"> <li>▪ Evidence that information has been given to communities when asked for</li> </ul>	
5.5.2 Forest managers provide periodic reports regarding the forest management practices	<ul style="list-style-type: none"> <li>▪ Los informes existen y están disponibles</li> </ul>	

# PRINCIPLE 6

## INDIGENOUS PEOPLES, TRADITIONAL KNOWLEDGE

Forest managers will take into account declared agreements documented commitments and respect the legally established rights and the traditional knowledge of indigenous peoples to use and manage their lands and resources

*Note: Criteria and Indicators of Principle 5 are equally valid for the case of indigenous peoples*

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
<b>CRITERION 6.1</b>		
Forest managers are aware of the presence of indigenous peoples in the area of their management activities and they know the rights of these peoples and respect them		
6.1.1 There is a register of neighbouring indigenous communities to the FMU.	<ul style="list-style-type: none"> <li>▪ A map shows the indigenous communities and their lands.</li> </ul>	
6.1.2 There is a register of declared agreements and documented obligations with indigenous peoples.	<ul style="list-style-type: none"> <li>▪ Register of agreements and obligations between the FMU and the indigenous communities</li> <li>▪ Map showing traditional rights of accesses and use of resources</li> <li>▪ Forest managers have held documented meetings with indigenous peoples</li> </ul>	
6.1.3 Forest managers respect the rights and the culture of indigenous communities	<ul style="list-style-type: none"> <li>▪ There is a procedure that incorporates the rights and the culture of indigenous communities regarding the practices undertaken in the FMU</li> <li>▪ There is a training program for the personnel working in the FMU regarding the rights and culture of the local indigenous communities, according to their responsibility</li> </ul>	
6.1.4 There are formal communication channels with indigenous communities	<ul style="list-style-type: none"> <li>▪ There is a procedure for formal communication with indigenous communities</li> <li>▪ There is a record of regular meetings and communication with indigenous communities</li> </ul>	
6.1.5 Forest managers respect and protect sites of special interest or significance to indigenous communities	<ul style="list-style-type: none"> <li>▪ There is a register of sites of special interest or significance</li> <li>▪ Management plans have specific prescriptions for sites that are protected or of special significance</li> </ul>	

### CRITERION 6.2

Forest managers are inclined to resolve conflicts with indigenous communities in a framework of mutual respect

6.2.1 Forest managers clearly define areas of potential or actual conflict	<ul style="list-style-type: none"> <li>▪ Map showing areas of the estate formerly belonging to 'Mercedes'. (Indigenous peoples land holdings).</li> <li>▪ Areas of conflict have been identified</li> <li>▪ History of land titles of these areas for the last 50 years</li> </ul>	
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INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
6.2.2 Forest managers are prepared to resolve conflicts about property and use rights with indigenous peoples according to the legally established mechanisms	<ul style="list-style-type: none"> <li>▪ Forest managers are open to discussions with the pertinent official agencies and with communities that make their complaints known by established channels</li> <li>▪ Forest managers will act with the aim of solving land conflicts with indigenous peoples</li> <li>▪ In case of an agreement for the judicial transfer or sale of land to pertinent official agencies, the transfer will be made in a prompt and orderly way</li> </ul>	
6.2.3 There is a system to ensure that timber coming from areas in legal dispute is not sold as certified, until the conflict has been resolved, unless there is an agreement with the community in dispute	<ul style="list-style-type: none"> <li>▪ There is no evidence that timber from areas in legal dispute is sold as certified</li> </ul>	
6.2.4 When a transfer of land to an indigenous community is made, forest managers will present a proposal for continuing with forestry activities on the land if it is asked, favoring afforestation agreement and will be granted preference when buying final harvest timber	<ul style="list-style-type: none"> <li>▪ There are examples of management proposals and plans submitted by the community</li> </ul>	

### CRITERION 6.3

Indigenous communities are fairly compensated for any use of their traditional knowledge about forest management and the specific use of indigenous plant species by forest managers

6.3.1 All use of indigenous knowledge in forest management in the FMU (both in terms of management and species used) has been recorded	<ul style="list-style-type: none"> <li>▪ There is a study of applications of traditional knowledge of the neighbouring indigenous communities to the FMU. (*)</li> <li>▪ There is a list of medicinal uses of forest plants</li> </ul>	<ul style="list-style-type: none"> <li>▪ These applications could refer, among others, to the use of forest species or management systems.</li> </ul>
6.3.2 Indigenous communities are aware of the uses of their knowledge and the potential benefits of them	<ul style="list-style-type: none"> <li>▪ There is a system to ensure that indigenous communities are informed about the use of their traditional knowledge prior to any use of it</li> <li>▪ Record of communication with indigenous communities in this respect</li> </ul>	
6.3.3 Indigenous communities have been compensated adequately for any use of their knowledge according to an agreement reached with them prior to the use	<ul style="list-style-type: none"> <li>▪ There is a process agreed between the forest managers and the community to determine an appropriate level of compensation and this is used in any case of the use of traditional knowledge and it is implemented</li> </ul>	

# PRINCIPLE 7

## FOREST WORKERS & LABOR RELATIONS

Forest managers will respect the rights of the forest workers, compensating them fairly and equitably, safeguarding their health and safety at work

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
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### CRITERION 7.1

Forest managers ensure that forest workers are trained so that they can carry out their work in a productive manner and that they also have opportunities for development

7.1.1 Workers receive adequate training for the work they carry out	<ul style="list-style-type: none"> <li>▪ There are specific training programmes for each activity</li> <li>▪ There is training material</li> <li>▪ All those carrying out dangerous work have been trained</li> <li>▪ The training courses include environmental aspects</li> <li>▪ There is a register of trained workers</li> </ul>	
7.1.2 There is a person specialised in training issues	<ul style="list-style-type: none"> <li>▪ The responsible person has been adequately trained</li> </ul>	
7.1.3 The FMU offers development opportunities to its workers	<ul style="list-style-type: none"> <li>▪ There is evidence that workers have been promoted to higher responsibility posts in the FMU</li> </ul>	

### CRITERION 7.2

Forest managers respect the rights of workers and recognize the benefits of organising themselves and of collective bargaining

7.2.1 Forest workers have a basic knowledge of their legally established rights and responsibilities	<ul style="list-style-type: none"> <li>▪ A brochure has been drawn up with the rights and responsibilities of workers and this has been distributed to them</li> <li>▪ The workers receive regular information about issues relating to labour law in Chile</li> </ul>	
7.2.2 Forest managers recognise the rights of workers to organise freely and to bargain individually or collectively by means of unions, committees or other forms of association	<ul style="list-style-type: none"> <li>▪ Existing unions, committees or other forms of association are recognised</li> <li>▪ There are no impediments to the formation of unions in the company or any contracting companies</li> <li>▪ Union representatives know their rights and responsibilities</li> <li>▪ Unionised workers are able to bargain collectively</li> <li>▪ Workers that unite themselves in other kinds of associations recognized by the FMU, will be able to bargain collectively</li> </ul>	
7.2.3 No minors may work except under training	<ul style="list-style-type: none"> <li>▪ No juveniles workers under the age of 18 except under training</li> </ul>	
7.2.4 There are formal dialogue mechanisms with the workers	<ul style="list-style-type: none"> <li>▪ There are procedures for conflict resolution.</li> <li>▪ There is evidence of periodic communication between workers and the managers of the FMU</li> </ul>	

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
7.2.5 There is a regulation for internal discipline procedures	<ul style="list-style-type: none"> <li>▪ Regulation for discipline procedure exists</li> <li>▪ The workers know the regulation</li> <li>▪ Workers may not be dismissed for disciplinary reasons without a prior investigation of the causes and the application of the disciplinary procedure</li> </ul>	
7.2.6 Workers have the right to receive information from union representatives	<ul style="list-style-type: none"> <li>▪ There is no evidence of hampered communications between representatives and workers and the FMU managers</li> </ul>	
7.2.7 There is no discrimination in employment, promotion or remuneration of workers with the same responsibilities and productivity on the basis of sex, age, religion or racial origin	<ul style="list-style-type: none"> <li>▪ There is an explicit non-discrimination policy</li> <li>▪ There is no evidence discrimination against workers or their representatives</li> </ul>	
7.2.8 Workers are not forced to work in excess of the hours permitted by law	<ul style="list-style-type: none"> <li>▪ The normal working week will not exceed 48 hours</li> <li>▪ Workers will be paid for their overtime hours</li> <li>▪ Overtime is subject to the limits and exceptions established in the work law and its regulations</li> </ul>	

### CRITERION 7.3

#### Workers receive an adequate and equitable compensation for their work

7.3.1 Forest workers have contracts in accordance with Chilean Law	<ul style="list-style-type: none"> <li>▪ All workers have valid contracts</li> <li>▪ Workers understand the terms and conditions of their contracts</li> </ul>	
7.3.2 Compensation levels for workers are determined upon several factors: current legislation, individual or collective bargaining, implicit risk of the occupation, and the worker's responsibility level	<ul style="list-style-type: none"> <li>▪ There is a remuneration policy that considers the level of qualification, experience, responsibility and productivity of the worker. The only allowed deductions from the salaries, are those established in the law and regulations</li> <li>▪ The pay will be at least the minimum prescribed by the law excluding bonuses and gratification</li> <li>▪ Remuneration is paid promptly</li> </ul>	
7.3.3 All contracted employees have access to the social benefits of health provision and social security	<ul style="list-style-type: none"> <li>▪ All amounts for health care and prevention funds deducted from pay will be paid to the relevant institutions (AFP, ISAPRE, FONASA and INP)</li> <li>▪ Amounts are paid promptly</li> <li>▪ Certificates of affiliation of individual workers are held</li> </ul>	
7.3.4 Bonuses and gratification are paid in accordance with contracts	<ul style="list-style-type: none"> <li>▪ When compensation is tied to productivity, workers know the bonuses modality payment, premiums and the way in which they are established</li> <li>▪ There is a policy with respect to the payment of bonuses for employees and for contractors and this is known</li> <li>▪ The system of productivity incentives does not lead to unsafe working practices</li> </ul>	

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
7.3.5 Workers whose contracts are unilaterally terminated by the employer with no fault on the part of the employee will be compensated with at least the minimum established by the law	<ul style="list-style-type: none"> <li>▪ There is no evidence of legal claims against the FMU for not complaining with its workers for the last year</li> </ul>	
7.3.6 Forest managers seek to have labour stability, subscribing permanent employment contracts and minimizing seasonal variations in labour	<ul style="list-style-type: none"> <li>▪ The employer seeks to minimise seasonal variations in labour, training his workers in a larger number of activities so that they can rotate to different works around the year</li> </ul>	

## CRITERION 7.4

### Forest managers safeguard the health and safety of workers

7.4.1 Workers have been trained in issues of occupational health and safety	<ul style="list-style-type: none"> <li>▪ There is educational material in safety issues</li> <li>▪ There is a training programme</li> <li>▪ There are records of staff training</li> <li>▪ The workers are trained to operate safely</li> </ul>	
7.4.2 Workers have access to health services in the case of accidents at work or of occupational diseases	<ul style="list-style-type: none"> <li>▪ There is an agreement with a mutual safety association</li> <li>▪ There are health services for workers in or around the workplace or there are ambulances for transporting them to such services</li> </ul>	
7.4.3 There is a health and safety regulation and a prevention committee to deal with these issues	<ul style="list-style-type: none"> <li>▪ There are regulations and workers have copies of them</li> <li>▪ There is a preventative committee established according to the law that meets regularly.</li> <li>▪ Resolutions of the committee are implemented</li> </ul>	
7.4.4 There is a risk prevention programme for the FMU	<ul style="list-style-type: none"> <li>▪ There has been a risk evaluation for all activities</li> <li>▪ There is a risk prevention strategy developed under the guidance of a mutual safety association and, the workers know it</li> <li>▪ There is a person responsible for risk prevention</li> <li>▪ There is at least one person trained in first aid at all operations</li> </ul>	
7.4.5 Forest managers provide and maintain all safety equipment that is required for forestry activities and take measures to ensure their use	<ul style="list-style-type: none"> <li>▪ Safety equipment is provided and everyone is trained in its use</li> <li>▪ Safety equipment is maintained</li> <li>▪ There is a disciplinary procedure to be used in case of failure to use safety equipment</li> <li>▪ There are first aid kits in all sites where forestry operations are being conducted</li> </ul>	
7.4.6 There is a system or procedure to suspend operations that put the safety of workers at risk without any penalty on the person taking the decision	<ul style="list-style-type: none"> <li>▪ There is a procedure or system that defines the circumstances under which operations can be stopped</li> </ul>	

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
7.4.7 The equipment and machines are appropriate to the task carried out	<ul style="list-style-type: none"> <li>▪ The machines used are adequate for the task and the conditions of the work</li> <li>▪ Machines and equipment are used correctly</li> <li>▪ The selection of new machines and equipment is carried out under a process of trials, discussions and training of the users</li> </ul>	
7.4.8 Forest managers respect the code of practice developed under the auspices of the Ministry of Labour and Social Security	<ul style="list-style-type: none"> <li>▪ The FMU managers know the Chilean Forestry Practices Code</li> <li>▪ There is a policy of spreading the code within the FMU</li> </ul>	

## CRITERION 7.5

Forest managers provide field workers adequate transport, accommodation, rest and food

7.5.1 Workers are transported in a safe manner	<ul style="list-style-type: none"> <li>▪ Vehicles used for transporting workers are in accordance with the ruling legislation</li> <li>▪ Vehicles are not overloaded</li> <li>▪ The driver has the necessary licence for the vehicle driven and drives in appropriate conditions</li> <li>▪ Vehicles have their technical test certificate up to date</li> </ul>	
7.5.2 Forestry workers have adequate rest periods during the working day	<ul style="list-style-type: none"> <li>▪ There is a procedure establishing the rest periods, according to the works performed by workers</li> <li>▪ There is evidence that the above is accomplished</li> </ul>	
7.5.3 Forest workers receive adequate food for the work carried out	<ul style="list-style-type: none"> <li>▪ The nutritional supply is in accordance with the work performed</li> <li>▪ Food is prepared by trained cooks and in hygienic conditions</li> </ul>	
7.5.4 The design and construction of camps complies with prescriptions of the governing legislation	<ul style="list-style-type: none"> <li>▪ The camps have sufficient space for each person</li> <li>▪ Each worker has his own bed with shelter appropriate to the zone and climate</li> <li>▪ Bathrooms have toilets and shower</li> <li>▪ There are appropriate places and methods for disposal of rubbish</li> <li>▪ There is a place for preparation of food.</li> <li>▪ Camps have electricity, drinking water and energy</li> </ul>	
7.5.5 If the locality of the operations permits it is preferable for workers to overnight at home	<ul style="list-style-type: none"> <li>▪ There is evidence that transport is supplied to the workers</li> </ul>	

# PRINCIPLE 8

## LAW AND INTERNATIONAL AGREEMENTS

Forest managers respect the laws of Chile and international agreements and legally binding treaties and will take into consideration any other agreements and treaties, to which Chile is a signatory

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
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### CRITERION 8.1

Forest managers know and respect national legislation applicable to their activities

8.1.1 The FMU managers know and apply the law and regulations in their activities, including among others the following: forestry, environmental, labour, sanitary, taxes, transport and the use and rights to land ownership	<ul style="list-style-type: none"> <li>▪ The FMU managers keep an updated record of laws and regulations</li> <li>▪ The FMU managers know the legislation regulating their operations</li> <li>▪ The management plan objectives and procedures are adjusted to the law and regulations</li> </ul>	
8.1.2 There is no evidence of failures in compliance with the law es	<ul style="list-style-type: none"> <li>▪ Compliance with the law and regulations is reviewed periodically</li> <li>▪ There are corrective actions where there is incompliance with the national and local law, regulations or administrative procedures with regard to forest management</li> </ul>	
8.1.3 All forest management activities in the FMU are regulated according to management plans approved by the corresponding authority	<ul style="list-style-type: none"> <li>▪ There are CONAF approved management plans and they have been implemented</li> </ul>	
8.1.4 Forest Managers comply with the policies, the procedures and instructions of subscribed or self defined practice codes	<ul style="list-style-type: none"> <li>▪ There are policies, procedures and instructions of subscribed or self-defined practice codes, which are known by forest managers and all workers</li> <li>▪ There is no evidence of non-compliance with the current rules</li> </ul>	

### CRITERION 8.2

Forest managers know and respect the agreements and the legally binding international treaties to which Chile is a signatory and take into consideration those that don't have such a character

8.2.1 Forest managers know about the implications of CITES in the region and have implemented appropriate control methods to ensure that its clauses are respected	<ul style="list-style-type: none"> <li>▪ Forest managers have copies of the relevant appendices of CITES</li> <li>▪ There are appropriate export licences that are available for inspection</li> <li>▪ There is no commercial use of species indicated as endangered by CITES (*)</li> </ul>	Convention for the International Trade of Endangered Species (CITES), ILO Conventions, Convention for Biological Diversity, Ramsar, among others.
8.2.2 Forest managers have knowledge of the conventions of the ILO applicable in Chile and have implemented appropriate methods to ensure that their clauses are respected	<ul style="list-style-type: none"> <li>▪ Copies of ILO conventions 87, 98 and 138 are available</li> <li>▪ There is evidence of fulfilment of such conventions</li> </ul>	

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
8.2.3 Forest managers know the implications of the Convention on Biodiversity in their region and have implemented appropriate means to ensure that its clauses are respected	<ul style="list-style-type: none"> <li>▪ Forest managers have copies of the relevant Chilean policy documents prepared in response to the convention</li> <li>▪ Forest managers are aware of and adhere to the Chilean regulatory framework with respect to biodiversity</li> </ul>	
8.2.4 There are copies of relevant non-legally binding international agreements and they are taken into consideration	<ul style="list-style-type: none"> <li>▪ There is a list of non-binding international agreements related to the FMU</li> <li>▪ There is knowledge of their impact on operations</li> </ul>	

### CRITERION 8.3

All taxes, permits, patent fees, royalties, honoraria, duties and other charges are paid regularly

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| 8.3.1 There is evidence of payment of all taxes and other relevant charges | <ul style="list-style-type: none"> <li>▪ There is proof of payment</li> <li>▪ All payments are made on time</li> <li>▪ There are no pending cases with respect to these payments</li> </ul> |
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### CRITERION 8.4

Tenancy and use rights over land and forest resources are clearly defined, documented and legally established

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| 8.4.1 Forest managers have an up to date register of all land titles, agreements and contracts for the land and forests that they manage  | <ul style="list-style-type: none"> <li>▪ There is an archive containing all ownership titles, agreements and land leases of lands included in the FMU</li> <li>▪ There are letters of intent or contracts</li> </ul> |
| 8.4.2 The FMU has a map in which the property status of each area is indicated  | <ul style="list-style-type: none"> <li>▪ There is a map of the landholding indicating the status of the property for each area</li> </ul>  |
| 8.4.3 The boundaries of lands and forests administered by the FMU are legally determined. In the case of conflicts the procedures established by the law have been searched or followed | <ul style="list-style-type: none"> <li>▪ There are no conflicts about boundaries or these are in the process of being resolved by negotiation or judicial process</li> </ul>   |
| 8.4.4 For rented land, agreements and the purchase of lands or forests all agreed charges are paid to the proprietor  | <ul style="list-style-type: none"> <li>▪ There is no evidence of justified complaints or pending court cases</li> </ul>  |

# PRINCIPLE 9

## MONITORING AND CONTROL

Regular monitoring of the forest resources, the management system and the responsible companies and owners of the FMU, will be conducted with the purpose of evaluating the progress in achieving the stated principles

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
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### CRITERION 9.1

There are procedures for regular evaluation of the condition of the forest resources and of the significant environmental social and economic impacts of forestry operations. Monitoring procedures are consistent, replicable over time and allow for comparison of the evaluation of the results of change

9.1.1 The FMU has a system, appropriate to the size and scale of operations to evaluate and monitor the significant environmental, social and economic impacts of forestry operations	<ul style="list-style-type: none"> <li>▪ There is a scientific methodology for monitoring and evaluating the impacts</li> <li>▪ There is a responsible person in charge of monitoring</li> </ul>	
9.1.2 There is a system for evaluating and monitoring environmental impacts	<ul style="list-style-type: none"> <li>▪ There is a system for monitoring habitats with red listed species</li> <li>▪ There is a system for monitoring the area and condition of high conservation value native vegetation</li> </ul>	
9.1.3 The FMU has a system for periodically measuring the productivity of the site, the growth of the plantations and for determining forest health	<ul style="list-style-type: none"> <li>▪ There are procedures for measuring the growth of plantations</li> <li>▪ There are procedures for measuring the productivity of the site in subsequent rotations</li> <li>▪ There are procedures for monitoring eroded soils</li> <li>▪ Plantation health is regularly monitored</li> <li>▪ There is a system to monitor the standing volume in the plantations</li> </ul>	
9.1.4 There is an appropriate system for regular monitoring of the financial results of the FMU	<ul style="list-style-type: none"> <li>▪ There is a financial control and accounting system</li> <li>▪ There is a long-term financial planning system.</li> <li>▪ There is an identified person responsible</li> <li>▪ There is a system for monitoring the costs and productivity of forestry activities</li> </ul>	

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
9.1.5 There is a system for measuring the social impacts of the FMU	<ul style="list-style-type: none"> <li>▪ There is a system for measuring the support of the FMU to the community</li> <li>▪ There is a system for monitoring the rate of accidents and occupational diseases of workers in the FMU</li> <li>▪ There is a system for regularly monitoring the income and working conditions of workers.</li> <li>▪ There is a system for evaluating the interaction with local communities and indigenous peoples</li> <li>▪ There is a person responsible for these systems</li> <li>▪ There is a register of the number of visitors to recreational sites</li> </ul>	
9.1.6 The FMU has a system for evaluating the performance of its contractors	<ul style="list-style-type: none"> <li>▪ Compliance with labour laws is verified</li> <li>▪ There are accident statistics of contractors</li> <li>▪ The compliance with environmental, social and safety procedures is evaluated</li> <li>▪ There is a system for monitoring the contractors with respect to the code of practice of the FMU</li> </ul>	
9.1.7 The FMU has a system for measuring the return of non-timber forest products and services when in the portfolio of products sold by the FMU managers	<ul style="list-style-type: none"> <li>▪ The collection of mushrooms, herbs, fruits, firewood, etc, is quantified</li> </ul>	
9.1.8 There are regular inspections to detect changes in the water quality. In dry areas, changes in the hydrological balance are monitored after new afforestation	<ul style="list-style-type: none"> <li>▪ There is a procedure for inspecting water quality in the FMU</li> <li>▪ There is a procedure for measuring water flow in dry areas</li> </ul>	
9.1.9 The FMU has a system to make relevant staff aware of the results of research and the development of new technologies	<ul style="list-style-type: none"> <li>▪ There is a responsible person</li> <li>▪ There is access to the results of research</li> </ul>	
9.1.10 The FMU has a system for measuring and informing about the contribution to carbon cycling of its forests	<ul style="list-style-type: none"> <li>▪ There is an estimate of the amount of carbon stored</li> <li>▪ The annual carbon capture has been estimated</li> </ul>	

## CRITERION 9.2

The FMU must incorporate the results of monitoring in order to continuously improve its forestry operations. The effectiveness and efficiency of the forest management system should be regularly evaluated

9.2.1 The results of regular evaluations are compared and analysed so as to determine changes in the performance of the FMU	<ul style="list-style-type: none"> <li>▪ There is an annual report of the social environmental and economic performance</li> </ul>
9.2.2 Forest managers regularly analyse the results of the evaluations and monitoring	<ul style="list-style-type: none"> <li>▪ There are meetings at least once a year to analyse the results of evaluations, monitoring and the performance of the forest management system</li> </ul>

INDICATOR	MINIMUM COMPLIANCE LEVEL	COMMENTS
9.2.3 Management plans are periodically revised in order to incorporate the conclusions of monitoring and evaluation	<ul style="list-style-type: none"> <li>▪ Management plans are reviewed at least once a year</li> </ul>	
9.2.4 There are procedures for emergency situations and forest managers are immediately informed	<ul style="list-style-type: none"> <li>▪ There are documented procedures</li> <li>▪ There is a register of emergencies and of communication to forest managers</li> <li>▪ There is a corrective action procedure</li> </ul>	

### CRITERION 9.3

There is a procedure to trace and account for the quantity of wood coming from certified forests (the FMU itself or purchased from other certified forests) that supply processing plants and other demandants, from its origin in the forest to its point of sale (a procedure known as chain of custody)

9.3.1 Forest management includes a system for identifying, in a unique and unambiguous manner, the identity and source of the wood	<ul style="list-style-type: none"> <li>▪ There is a way of identifying the origin of the wood</li> </ul>
9.3.2 There is a procedure to follow wood or other forest products from their point of origin in the forest to the processing site	<ul style="list-style-type: none"> <li>▪ There is a document recording the origin that accompanies the timber from its point of origin to destination</li> <li>▪ Invoices or dispatch notes have a clear identification of origin, date of sale, quantity, technical specification and the point at which the purchaser takes control of the timber</li> </ul>
9.3.3 Forest managers keep control from the origin of their own timber or from third parties up to the point of its final destination. This system is regularly subjected to third party audit	<ul style="list-style-type: none"> <li>▪ There is a procedure for accounting for the volume of timber sold according to its origin</li> <li>▪ There is a procedure to assure the percentage of timber coming from certified forests sold to each processing plant, that is regularly audited by third parties</li> </ul>

## **SECTION C**

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**FSC STANDARD  
"Principles and Criteria"**

# FSC 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 There are no substantiated outstanding claims of non-compliance with national and local laws and administrative requirements related to forest management.
- 1.1.2 Forest managers demonstrate awareness of relevant codes of practice, guidelines or agreements.
- 1.1.3 There is compliance with the spirit of any relevant codes of practice, guidelines or agreements.

### CRITERION 1.2

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

- 1.2.1 Forest managers can provide evidence that applicable fees, royalties, taxes and other applicable charges have been paid

### 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 Forest managers are aware of implications of the Convention on International Trade in Endangered Species (CITES) in region, and implement appropriate controls to ensure that its provisions are respected.
- 1.3.2 Forest managers are aware of implications of the ILO conventions applicable in their region, and implement appropriate controls to ensure that their provisions are respected. Implementation of ILO conventions 87 and 98 is a minimum requirement for certification
- 1.3.3 Forest managers are aware of implications of the ITTA in their region, and implement appropriate controls to ensure that its provisions are respected.
- 1.3.4 Forest managers are aware of implications of the Convention on Biological Diversity applicable in their region, and implement appropriate control to ensure that its provisions are respected.
- 1.3.5 Other international agreements are respected

### 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 Conflicts between laws, regulations and the FSC Principles and Criteria are identified by the forest managers, and brought to the attention of the inspection

### CRITERION 1.5

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

- 1.5.1 The forest management unit is protected from harvesting activities and other activities not controlled by forest managers or local people with use rights (e.g. settlement, illegal harvesting, poaching)
- 1.5.2 Systems to monitor and prevent unauthorised activities are in place

1.5.3 Managers have taken all reasonable measures to stop illegal or unauthorised uses of the forest.

## **CRITERION 1.6**

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

1.6.1 Forest managers must provide a statement declaring their long-term commitment to comply with FSC Principles and Criteria.

## FSC 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 The name and legal status of the entity managing the forest is stated.
- 2.1.2 Legal ownership or tenure can be proved and is not subject to dispute. A map is available clearly showing legal boundaries.
- 2.1.3 Land is dedicated to long term forest management.

#### 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 All legal or customary tenure or use rights to the forest resource of all legal communities are clearly documented and mapped by the forest managers
- 2.2.2 All legal or customary tenure or use rights to the forest resource of all local communities are recognized and respected in forest management planning and practice.
- 2.2.3 Local communities exercise control over forest operations to the extent necessary to protect their rights and resources.

#### 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 magnitudes involving a significant number of interests will normally disqualify an operation from being certified

- 2.3.1 Appropriate mechanisms exist for resolution of disputes between the forest managers and the local community over tenure claims and use rights
- 2.3.2 Existing mechanisms for dispute resolution are respected in the event of any dispute between local communities and forest managers regarding tenure claims and use rights.
- 2.3.3 Management policy and operational procedures exist which require that, in case of a dispute or disagreement between the local community and the forest managers concerning land rights, forestry operations which prejudice the future enjoyment of such rights by the community are halted until the dispute is resolved
- 2.3.4 All reasonable efforts are made to provide local communities without legal or customary land rights with access to forest resources, where such access does not prejudice the achievement of management objectives.
- 2.3.5 There is no evidence of any unresolved dispute of substantial magnitudes involving a significant number of interests regarding tenure and use rights.

## FSC PRINCIPLE 3

### Indigenous peoples' rights

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

#### CRITERION 3.1

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

- 3.1.1 The identity, location and population of all indigenous and traditional peoples including migratory groups living in the vicinity of the management area are documented by the forest managers.
- 3.1.2 All claims to lands, territories or customary rights within the management area are documented and clearly mapped
- 3.1.3 No forest management operations of any sort take place in the area mapped in norm 3.1.2 above, without clear evidence of the free and informed consent of the indigenous or traditional peoples claiming such land, territory or customary rights.

#### CRITERION 3.2

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

- 3.2.1 Before a forestry operation under outside management commences near an indigenous people's lands, any potential shared boundaries of the community's lands must have been physically demarcated under the supervision of the community.
- 3.2.2 The forestry management operation must have documented any potential threats, direct or indirect, to the resources or rights of such indigenous peoples (e.g. disturbance to water resources and wildlife)
- 3.2.3 The forestry management operation must have appropriate documented policies and procedures to prevent any encroachment, or direct or indirect threat to the resources or rights of such indigenous
- 3.2.4 Inadvertent damage to indigenous and traditional resources on, or near, indigenous and traditional lands must be compensated as determined by the indigenous and traditional communities themselves.

#### CRITERION 3.3

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

- 3.3.1 Policies and procedures for the identification, recording and mapping of sites of archaeological, religious, historical or other cultural sensitivity prior to the commencement of forest management activities in the forest management area as a whole are documented and have been implemented.
- 3.3.2 The policies and procedures include the involvement of indigenous peoples in the identification of such areas
- 3.3.3 Policies and procedures for the identification and protection of such sited during management operations (e.g. harvesting, road building, etc) are documented and implemented
- 3.3.4 Policies and procedures for the appropriate protection or management of identified sites are documented and implemented. All plans for the protection or management of such sites are subject to the full and informed consent of appropriate representatives of indigenous peoples

### 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 have recorded all known applications of traditional knowledge (e.g. regarding the use of forest species or management systems) in the forest operations.
- 3.4.2 Local communities have been informed of all such applications, including the potential commercial benefits of such applications to the forest management enterprise.
- 3.4.3 Local communities are fairly compensated for any such applications, in accordance with prior agreements.

# FSC 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 All reasonable efforts are made to employ, and if necessary provide training, for workers from local communities before workers are sought from further afield.
- 4.1.2 All reasonable efforts, appropriate to the size, type and location of the forest management enterprise, are made to ensure that members of local communities have access to basic services (e.g. health and education).

### 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 are familiar with relevant health and safety guidelines and regulations
- 4.2.2 Managers have assessed the risk to workers of particular tasks and equipment, and take all reasonable measures to reduce or eliminate such risks.
- 4.2.3 Safety training is carried out, appropriate to the tasks of workers and the equipment used.
- 4.2.4 Workers are provided with safety equipment, appropriate to the tasks of workers and the equipment used.
- 4.2.5 Managers take all reasonable measures to ensure that workers use any safety equipment that is provided.
- 4.2.6 Managers record all work related accidents and deaths of employees and their causes, record actions taken to prevent similar accidents in future, and implement such preventative actions.
- 4.2.7 There is assured compensation benefits in case of accidents.
- 4.2.8 Health and safety measures comply with national minimum requirements.

### 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 Organization (ILO)

- 4.3.1 Employment conditions comply with International Labour Organization convention 87 (see Appendix 2)
  - This Convention relates to the rights of workers to: freedom of association and protection of the right to organize.
- 4.3.2 Employment conditions comply with International Labour Organization convention 98 (see Appendix 2)
  - This Convention relates to the rights of workers to: organize and bargain collectively

#### CRITERION 4.4

Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups directly affected by management operations.

4.4.1 Managers have completed and implemented an evaluation of the social impact, appropriate to the size and intensity of their operations which:

- Identifies affected groups
- Includes consultation with affected groups
- Identifies the main impacts of the operation on those groups
- Specifies measures to ameliorate identified negative impacts
- Provides for regular contact with affected groups to monitor effectiveness of measures.

4.4.2 Results of social impact evaluation are incorporated into management decisions.

#### 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 Appropriate mechanisms for resolving grievances are documented and implemented

4.5.2 Appropriate mechanisms exist and are implemented for providing fair compensation to local people where their legal or customary rights, property, resources or livelihoods have been damaged.

# FSC 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 should 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 There is a work plan and budget for the forest management enterprise showing expected costs and revenues for at least the current financial year.
- 5.1.2 The income predicted in the annual budget is consistent with the expected rate of harvest of forest products (see 5.6).
- 5.1.3 The income predicted in the annual budget is consistent with product values comparable to regional or national norms.
- 5.1.4 The annual budget incorporates stumpage, royalties or rents as required.

### CRITERION 5.2

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

- 5.2.1 Forests managers make a proportion of their production available to local enterprises, such as small-scale industries and processing operations, unless there is an overriding reason preventing this.  
(See 5.4 below for related norms)

### CRITERION 5.3

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

- 5.3.1 New on-site processing machinery is selected taking into account the need to minimize timber waste.
- 5.3.2 Timber is extracted and processed promptly after felling.

### CRITERION 5.4

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

- 5.4.1 Managers have information on the range of the forest's potential products and services, including "lesser known" timber species, Non Timber Forest Products (NTFPs) and opportunities for forest recreation.
- 5.4.2 Managers are aware of the role of these products and services in the local economy (whether as trade goods or for subsistence)
- 5.4.3 Managers have assessed the possibility of utilization of lesser known species and NTFPs on their own account or by local enterprises.
- 5.4.4 Managers encourage the utilization of lesser known species and NTFPs by local enterprises where this does not jeopardize other management

## 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 Forest managers have information on the down stream uses of water from the forest watershed.

(See Criterion 6.5 for norms with respect to maintenance of water resources and fisheries)

5.5.2 Forest Managers have information on the fisheries above, in and below the forest watershed.

(See Criterion 6.5 for norms with respect to maintenance of water resources and fisheries)

## CRITERION 5.6

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

5.6.1 The silvicultural system on which management is based is clearly stated.

5.6.2 The expected level of harvesting on an annual basis, and in the long term (over more than one rotation) is clearly stated.

5.6.3 The expected level of harvesting is clearly justified in terms of the permanently sustainable yield of the forest products on which the management plan is based.

5.6.4 All assumptions regarding regeneration, growth, abundance, quality and size distribution of the main commercial species are explicit, and in line with the best available data for the locality from relevant research and/or inventories.

5.6.5 The expected level of harvesting in the long term does not exceed local or regional expectations of sustainable yield, taking into account any special silvicultural treatments that have been applied.

# FSC 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 A system is specified which ensures that an appropriate assessment of environmental impact is made before commencement of any site-disturbing operations.

The system:

- Is appropriate to the scale and intensity of the forest management
- Takes account of landscape level considerations
- Is appropriate to the uniqueness of the affected resources.

6.1.2 There is a system to ensure that results of the impact assessment are taken account of in subsequent operations.

### CRITERION 6.2a

Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g., nesting and feeding areas).

6.2.1 The likely presence of rare, threatened and endangered species and their habitats (e.g. nesting and feeding areas) has been assessed on the basis of the best available

6.2.2 Area containing or likely to contain such species or are identified and marked on maps.

6.2.3 Effective procedures are documented and implemented to safeguard such species and their habitats.

### CRITERION 6.2b

Conservation zones and protection area shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources..

6.2.4 Areas of special regional importance for biodiversity are identified on maps, and protected from harvesting and other site disturbance.

6.2.5 At least 10% of the forest area is designated as a conservation zone, identified on maps, and managed with biodiversity as a major objective

6.2.6 At least half of this area (i.e. 5% of the total forest area) is designated as a protected area, identified on maps, and is fully protected from commercial harvesting

6.2.7 Selection of conservation zones and protected areas is justified in terms of their potential to maximize their contribution to the maintenance or enhancement of biodiversity.

6.2.8 The protected area includes examples of all existing ecosystems within the forest area.

6.2.9 The movement of key plant and animal species between reserved and harvested areas is encouraged by retaining corridors of uncut forest based on streamside with links up slopes and across ridges to connecting any large patches of forest which will not be harvested.

### CRITERION 6.2c

Inappropriate hunting, fishing, trapping and collecting shall be controlled.

- 6.2.10 Measures for controlling hunting, fishing, trapping and collecting of animals or plants are documented
- 6.2.11 All reasonable measures are taken to prevent hunting or trapping of protected species.

### 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 The silvicultural system adopted is appropriate to the ecology of the forest
- 6.3.2 Systems which use small clearfell areas, selective felling and create varied age class have been considered.
- 6.3.3 Forestry operations must, if appropriate to the silvicultural system, aim for a mixture of compartments differing in size, shape, species, and date of planting and felling, in harmony with the landscape.
- 6.3.4 The scale of felling (e.g. coupe size) is commensurate with the natural dynamics of the forest type and the area under consideration (unless clearly justified silvicultural reasons are given).
- 6.3.5 Management of the forest area as a whole is designed to ensure that the full complement of tree species regenerates successfully in the forest area over the duration of the rotation
- 6.3.6 Selective felling and thinning regimes are designed to maintain genotypic diversity
- 6.3.7 Biodiversity is routinely maintained by the retention of marginal habitats e.g. streamside vegetation, vegetation on rocky outcrops, swamps and heaths.
- 6.3.8 Standing and fallen dead wood habitats are retained, appropriate to the local situation.

### 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 See 6.2.8

### CRITERION 6.5a

Written guidelines shall be prepared and implemented to: control erosion; minimize damage during road construction, and all other mechanical disturbances;

- 6.5.1 There are written policies and procedures for new road building and road maintenance
- 6.5.2 Policies and procedures include the following norms for the design and building of new roads:
  - New roads are planned in advance on topographical maps showing existing streams
  - Roads are fitted to the topography so that a minimum of alterations to the natural features will occur
  - Wherever possible roads are located on natural benches, ridges and flatter slopes.
  - Road construction in steep, narrow valleys, slip-prone or other unstable areas, natural drainage channels and streambanks is minimized.
  - Roads are not be aligned through environmentally sensitive area.
  - Embankments and cuttings are stabilized to resist erosion.
  - Drains and culverts are designed to minimize erosion
- 6.5.3 Machinery operators receive adequate training and are aware of the requirements with respect to protection of water resources.

## CRITERION 6.5b

Written guidelines shall be prepared and implemented to: protect water resources

- 6.5.4 Policies and procedures for the design and building of new roads include the following norms with respect to protection of water resources, which are implemented:
- Stream crossings are planned before operations begin and shown on relevant maps.
  - The number of stream crossings is minimized
  - Stream crossings are at right angles to the stream.
  - Valley bottom roads and tracks kept as far back from the stream as possible.
  - Culverts are designed so they do not obstruct the migration of fish, create fast water velocities or stream beds unsuitable for fish
  - Drains do not drain into natural watercourses. Where this is unavoidable, regularly emptied silt traps are installed.
- 6.5.5 New roads are not constructed in streambeds. Existing roads in streambeds are closed and replacements are constructed.
- 6.5.6 Buffer zones in which harvesting does not take place are established around all permanent watercourses
- 6.5.7 There is no evidence of siltation or other damage to water sources

## CRITERION 6.5c

Written guidelines shall be prepared and implemented to: minimize forest damage during harvesting

- 6.5.8 There are written policies and procedures to minimize forest damage during harvesting and extraction.
- 6.5.9 Policies and procedures include the following norms, which are implemented;
- Protected areas are physically demarcated, at least temporarily, before any forest operations start on near by land
  - Harvesting machinery must not enter streams except at designated and designed stream crossings
  - Lop and top may not be pushed into streams
  - Extraction is stopped when soils are saturated
  - The use of brush mats is specified, where appropriate
- 
- 6.5.10 Harvesting techniques are designed to minimize erosion and run off.
- 6.5.11 Harvesting and extraction methods are designed to minimize damage to residual trees and regeneration.
- 6.5.12 New harvesting and extraction machinery is selected taking into account the need to minimize damage to soils, residual trees and regeneration
- 6.5.13 Workers receive appropriate training in harvesting and extraction methods

## CRITERION 6.6a

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

- 6.6.1 Document pest, disease and weed control strategies are available
- 6.6.2 Procedures are in place to record all use of synthetic chemicals by the forest management enterprise
- Records of chemical use include:
- A) Name of the product
  - B) Location of the site treated;
  - C) Area of the site treated;
  - D) Method of application;
  - E) Date chemical use started;
  - F) Date chemical use finished;
  - G) Total quantity of the chemical used;

- 6.6.3 Chemicals are only used when absolutely necessary to achieve defined management aims.
- 6.6.4 Synthetic chemicals are only used where there is no known non-chemical alternative not entailing excessive cost
- 6.6.5 A procedure is in place to record the most appropriate non-chemical alternative, which was considered and rejected prior to use of the synthetic chemical, together with the justification for use of the chemical rather than the non-chemical alternative
- 6.6.6 Chemicals are used only in minimum effective quantities, with strict observation of controls and regulations

#### CRITERION 6.6b

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.

- 6.6.7 The use or storage of these chemicals on certified units is prohibited
- 6.6.8 The use or storage of seed and seedling dressings based on mercurial, organophosphate and organochlorine compounds (including Gamma HCH, Lindane and BHC), or other long-lasting chemicals which can accumulate in food chains or the ecosystem is prohibited. .

#### CRITERION 6.6c

If chemicals are used, proper equipment and training shall be provided to minimize health and environmental risks.

- 6.6.9 Training and appropriate equipment are provided to all operators.
- 6.6.10 Fuel tanks and stores are located so that spillage from damage, defects or refueling will not enter watercourses
- 6.6.11 All equipment for the transport, storage and application of chemicals must be maintained in a safe and leakproof condition.
- 6.6.12 Application of chemicals within 10m of watercourses and 30m around reservoirs and lakes is prohibited
- 6.6.13 Application if heavy rain is expected, during wet weather, on frozen snow-covered ground or ground, which has baked dry during drought, is prohibited.
- 6.6.14 Soaking of seedlings treated with chemicals in drains or watercourses prior to planting is prohibited.11 All equipment for the transport, storage and application of chemicals must be maintained in a safe and leakproof.

#### CRITERION 6.7

Chemical, containers, liquid and solid non-organic wastes including fuel and oil shall be dispensed of in an environmentally appropriate manner at off-site solutions

- 6.7.1 Off-site locations have been identified for the disposal of chemicals, containers, liquid and solid non-organic waste in an environmentally appropriate manner
- 6.7.2 There is a system in place for taking waste to the appropriate locations for disposal
- 6.7.3 Disposal does not take place in watercourses or lakes or by burying
- 6.7.4 There is no evidence of waste left in the forest

#### 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 There is a procedure in place for the documentation and monitoring of all use of biological control agents
- 6.8.2 Biological control agents are used only when absolutely necessary to achieve defined management aims as part of integrated pest management system (use of naturally occurring organisms is permitted)
- 6.8.3 There is no use of genetically modified organisms by the forest management enterprise

## CRITERION 6.9

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

6.9.1 All use of exotic species is documented and justified. There is a procedure in place for the documentation and monitoring of all use of biological control agents

## 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 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; an
- c) Will enable clear, substantial, additional, secure, long-term conservation benefits across the forest management unit

# FSC 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 7.1a

The management plan and supporting documents shall provide: Management objectives.

7.1.1 There is a clear statement of the objectives of forest management

### CRITERION 7.1.b(i)

The management plan and supporting documents shall provide a description of the forest resources to be managed and environmental limitations

7.1.2 There is a clear description of the area under management control

7.1.3 There is a description of the physical aspects of the management area (e.g. topography, soils, geology, and water resources), appropriate to the extent and intensity of the management programme.

7.1.4 There is a clear description of any areas under management control, which are excluded from harvesting, for whatever reasons. 6

7.1.5 Areas that have been harvested in the past are known, and are marked as such on maps.

7.1.6 There is an evaluation of the timber resource (inventory) sufficient in detail and rigor to justify the planned harvesting for the full rotation, and to demonstrate convincingly that yields will be permanently sustainable in successive rotations

(see also Criterion 5.6)

### CRITERION 7.1b(ii)

The management plan and supporting documents shall provide a description of land use and ownership status, socio-economic conditions, and a profile of adjacent lands.

7.1.7 There is a description of the land use and ownership status, including a brief summary of previous use and ownership status ..

### CRITERION 7.1c

The management plan and supporting documents shall provide a description of the silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories.

7.1.8 The silvicultural system on which management is based is clearly stated and justified in terms of the ecology of the forest.

7.1.9 The management prescriptions and procedures required to implement the silvicultural system are clearly stated, as, for example:

- Identification and marking of trees to be retained for future extraction, as seed sources, or to maintain biodiversity;
- Selection criteria of trees for felling:
- Method of marking trees or area selected for felling
- Method of ensuring

### CRITERION 7.1.d

The management plan and supporting documents shall provides rationale for rate of annual harvest and species selection

No additional requirements.

### CRITERION 7.1e

The management plan and supporting documents shall provide provisions for monitoring of forest growth and dynamics.

7.1.10 Procedures for monitoring forest regeneration and growth are documented and implemented.

### CRITERION 7.1f

The management plan and supporting documents shall provide: Environmental safeguards based on environmental assessments

7.1.11 The need for fire management and control has been properly evaluated and is documented

7.1.12 In fireprone areas, or those in which fire is an integral feature of the ecology of the forest, there is a fire management plan based on appropriate maps and consideration of:

- i) Known ignition sources;
- ii) Direction of main threat;
- iii) Fuel, distribution and flammability;
- iv) Ecological features and processes in the forest;
- v) Special features e.g. archaeological sites, rare fire susceptible flora;
- vi) Neighboring communities;
- vii) Local assets requiring protection;
- viii) Access, firebreaks and fuel reduction measures;
- ix) Fire detection and suppression procedures;

### CRITERION 7.1g

The management plan and supporting documents shall provide: Plans for the identification and protection of rare, threatened and endangered species.

7.1.13 There are maps showing planned management activities in the short (e.g less than five years) and medium (for example 5 – 20 years) term.

7.1.14 Maps are accessible, clear and usable.

### 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 There is a system in place for the regular revision and updating of the management plan

7.2.2 Managers are aware of relevant research being undertaken or planned in the area, e.g. concerning forest management, timber production and biology/ecology

7.2.3 There is evidence that significant findings of such research, as well as the results of monitoring by the forest management enterprise, are incorporated into updated policies, plans and procedures.

### CRITERION 7.3

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

7.3.1 There are records of any training provided to forest workers.

7.3.2 All workers receive training appropriate to their tasks and responsibilities

## 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 above

7.4.1 A summary of management activities is available to all interested parties, within the accepted norms of commercial confidentiality

(N.B. A summary of the main elements of the management plan listed in Criterion 7.1 above will be included in Soil Association's public summary of the evaluation, if a certificate is awarded)

# FSC 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 environmental. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessment of change

- 8.1.1 There is an effective system for monitoring the impacts of forest operations on the site
- 8.1.2 The frequency and expense of monitoring is appropriate to the scale and intensity of forest management operations as well as the relative complexity and fragility of the affected environment.
- 8.1.3 Procedures are consistent and replicable over time to allow comparison and assessment of change.
- 8.1.4 Monitoring records are maintained in a well-ordered, up-to-date and accessible form.

### CRITERION 8.2a

Forest management should include the research and data collection needed to monitor: Yield of all forest products harvested.

- 8.2.1 Yields of all forest products harvested are recorded.

### CRITERION 8.2b

Forest management should include the research and data collection needed to monitor: Growth rates, regeneration and condition of the forest.

- 8.2.2 Where reliable information on regeneration or growth rates of commercial species is not known, there is an appropriate programme in place to collect detailed information for future management
- 8.2.3 The condition of the forest (presence of pests, diseases, evidence of soil compaction, erosion etc) is regularly monitored and reviewed

### CRITERION 8.2c

Forest management should include the research and data collection needed to monitor: The composition and observed changes in the flora and fauna.

- 8.2.4 Conservation areas (see 6.2) are regularly monitored to ensure that there is no evidence of deterioration or disturbance
- 8.2.5 Forest managers provide for appropriate monitoring of the effects of forestry operations on plant and animal species, including aquatic habitats (names, abundance, distribution, habitat requirements, biology, ecology, behavior) commensurate with the extent and intensity of the forest management, and the rarity and fragility of the forest ecosystem and known species within it.

### CRITERION 8.2d

Forest management should include the research and data collection needed to monitor: Environmental and social impacts of harvesting and other operations.

- 8.2.6 There are regular meetings with representatives of local communities, at which any concerns regarding the impacts (social or environmental) are recorded

- 8.2.7 Monitoring programmes are designed, documented and implemented to collect data related to any concerns raised by the local community. Such data might relate to : water quality, seasonal water flow, fish populations, wildlife populations, etc.

#### CRITERION 8.2e

Forest management should include the research and data collection needed to monitor : Costs, productivity, and efficiency of forest management.

- 8.2.8 There are clear accounts for the forest enterprise

#### 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 Forest products that are to sold as certified are readily identifiable as originating from the evaluated forest. This may be achieved through physical marking of the timber, a system of paper control, daily or weekly production records, or a combination of these and similar techniques.
- 8.3.2 The forest management enterprise maintains control of the chain of custody of the timber up to the point of sale.

#### CRITERION 8.4

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

- 8.4.1 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.
- 8.4.2 Forest managers agree to make the results of the monitoring programmes available to all interested parties, within the accepted norms of commercial confidentiality, on request.

#### 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 in Criterion 8.2

- 8.5.1 A summary monitoring activities listed in Criterion 7.4 above will be included in public summary of the evaluation, if a certificate is awarded
- 8.5.2 Forest managers agree to make the results of the monitoring programmes available to all interested parties, within the accepted norms of commercial confidentiality, on request

## FSC PRINCIPLE 9

### Maintenance of High Conservation Value Forests

Management activities in high conservation value forests shall maintain or enhance the attributes that define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary 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 area 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 Cupertino with such local communities).

#### 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.

9.1.1 The presence of High Conservation Value Forests has been assessed appropriately

9.1.2 Areas identified as High Conservation Value Forests are marked on maps.

#### CRITERION 9.2

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

(The certification inspectors will place emphasis on the identified conservation attributes and the options for their maintenance)

#### 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 Specific protection measures are detailed and implemented for areas identified as High Conservation Value Forests.

(Soil Association will summarize these measures in the public summary of the evaluation, if a certificate is issued)

#### 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 A programme of at least annual monitoring, appropriate to the size and vulnerability of the conservation attributes, is documented and implemented.

# FSC 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.

### 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 Natural forest conservation and restoration are explicitly included within the objectives of plantation management.
- 10.1.2 Strategies and procedures for achieving these objectives are clearly documented in the management plan, and are effectively implemented.

### CRITERION 10.2a

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

- 10.2.1 Plantation management on land that was previously natural forest is designed to maintain or enhance remaining characteristics of the earlier natural forest.
- See norms of Principle 6, especially 6.3, and see 9.8 below.

### CRITERION 10.2b

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.

- 10.2.2 There are documented policies and procedures which ensure that:
  - Where there are corridors of natural vegetation by streamside or in gullies these are protected from planting and harvesting operations, and developed into streamside reserved areas;
  - Adjoining permanent or periodically flooded areas are incorporated into streamside reserved areas, rather than being planted;
  - The deliberate drainage of bodies of water to permit planting does not take place.(See 6.2 and 6.3 for other norms).

### CRITERION 10.2c

The scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape.

- 10.2.3 Both general siting and internal design of plantations are in harmony with the landscape of the area

### 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 Opportunities are taken to modify the species composition and dimensions of timber products to provide for local needs, by planting or retaining trees or other species of plants which are valued locally or by encouraging animals that may be hunted or fished.

10.3.2 No more than 75% of the managed area is taken up by a single tree species, unless this is consistent with the natural distribution pattern for the species in the region concerned.

(In the case exotic species, no more than 75% of the managed area may be taken up by a single exotic species)

(See 6.3. for other relevant norms).

### 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 There is a clear justification for the choice of species and genotypes chosen for the plantation, which takes into account the objectives of the plantation, and the climate, geology and soils at the planting sites

10.4.2 Where an exotic species has been selected this choice must be explicitly justified. The best alternative native species must have been identified, and reasons be given for its rejection.

10.4.3 Before any exotic species is planted an assessment must have been carried out as to the risk that it will become invasive in the surrounding area. Invasive exotics are not planted.

See 8.2b for monitoring norms.

### 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 Consistent with Criterion 6.2b, at least 10% of the area of the plantation must be managed to enhance its natural characteristics and with biodiversity as a major objective.

10.5.2 Consistent with Criterion 6.2b, at least 5% of the area of the plantation must be managed to re store the area ultimately to a natural forest cover

### 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 The use of synthetic chemical fertilizers is minimized.

10.6.2 Plans and procedures for reforestation after harvesting are designed to minimize exposure of bare soil, and to ensure that trees are re-established as rapidly as possible. (See also 6.5b and 6.5c)

## 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 There is a documented integrated pest management strategy.

(See 6.6a, b and c for further norms related to chemical use)

10.7.2 The need for fire management and control has been properly evaluated and is documented. (See 7.1f)

10.7.3 Measures are taken to control or eradicate exotic invasive plants.

## 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 There is no large scale planting of species that have not been shown to be appropriate to the site on the basis of local trials or experience

10.8.2 Plantations are not established on sites of important or sensitive ecosystems; area of high or unique biological diversity; planned conservation or protection areas or where there are possible adverse effects on an important water catchment area

10.8.3 All new plantations or new plantings greater than 5.000 ha are subject to a formal environmental and social impact assessment. T

(See Criterion 4.4 for related norms)

## 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 for such conversion.

10.9.1 The plantation is not established on land converted from natural forest after November 1st, 1994 (but see 6.10 and 10.9), unless there is clear evidence that the current owner(s) and manager(s) were not directly or indirectly responsible for the conversion