The following document was submitted by Wolfram Kotzurek from the Institute for Marketecology (IMO). It contains his comments on a draft version of FSC Plantation Policies: An FSC Discussion Paper [FSC-DIS-31-001] written by T J Synnott in May 2002.

This paper is not an FSC document and does not represent an FSC position.

REVIEW OF FSC PLANTATION POLICIES: Second draft

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Based on:

FSC-DIS-31-001 “FSC Plantation Policies: An FSC Discussion Paper”

by T J Synnott. Draft of 30 May, 2002

Introduction:

The intention of this revision was to give a clearer structure to the policy which separates the general problems and policies (part 1) from the concrete requirements for forest management and the interpretation of the single criteria in relation to critical topics (part 2).

In relation to the first draft part 1 includes the chapters 1, 5.6, 9, 11-14 of the draft paper from 30 May 2002. The entire rest was integrated in part 2.

This restructuring and any relocation of phrases is not marked as change but any changes in the text itself (deletion or new parts) are indicated.

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1. Summary

1.1. Basic questions

Two alternatives for each problem	
1. Plantations are a completely different management approach which must be treated different from native forests and require a separate standard	2. Plantations are a starting point on the way to an ecologically improved forest management and land use system and are certified against the same standard like natural forests.
1. Monoculture management with only one species is acceptable to be certified.	2. At least small quantities of other products must be produced from certified companies, efforts for diversification are needed.
1. Criterion 6.3 does not apply for plantations.	2. Plantations must meet criterion 6.3, minimum requirements must be defined for it.
1. Criterion 10.5 (restoration) applies for all companies.	2. The criterion applies only for companies with less than e.g. 30% native forest cover.
1. Restoration must be done on formerly managed areas which includes a change in the land use system from plantation to restoration.	2. Restoration can be done by protecting existing areas which are not managed.
1. Restoration areas may be managed and therefore be a mixture from native and exotic species.	2. Restoration areas are only protection areas which may consist only from native species.

1.2. Missing definitions

Problem	Definition missing
Very short rotation tree crops can not be certified.	What does “very short” mean, how can it be defined in relation to natural life spans of trees, in relation to forest ecosystem structure or other indicators?
Up to which extend and under which conditions are exotic species accepted?	Indicators like percentage of area or description of structural key indicators of the forest ecosystems are needed.
Clear cut size	A maximum size should be defined on the international level plus some indicators which can be used for evaluating an acceptable impact.
What biodiversity values are expected in plantations?	It must be defined which percentage of native species must be included in plantation areas and in which distributional patterns and size of areas native species must exist.
Which indicators could be used to measure the	Criteria needed.

“diversification” of production?	

Part 1: Discussion of general aspects and problems

2. Basis for certification of plantations

2.1. Definitions of “Plantation” and “Natural Forest”

The FSC definition of Plantations is “Forest areas lacking most of the principal characteristics and key elements of native ecosystems as defined by FSC-approved national and regional standards of forest stewardship, which result from the human activities of either planting, sowing or intensive silvicultural treatments.”

In practice, most areas classified as “plantations” have been established by artificial regeneration (with seeds, seedlings or cuttings).

Forests, established by natural regeneration, which have had their structure and composition simplified or degraded by silviculture (in comparison to previous natural forest), sometimes lose the key elements of native ecosystems. They may correspond to the definition of plantations.

Early stages of natural succession in natural forests sometimes have a relatively simple structure and composition, apparently similar to plantations. However, if this simplicity is not the result of intensive silvicultural treatments, the forests would be classified as natural forests.

Some forests established or highly modified by artificial regeneration may, with time, achieve a structure and composition similar to original natural forest, and may then be classified as such. Examples include restoration planting, enrichment planting in tropical forests, and also combinations of natural and artificial regeneration aimed at achieving the structure and composition of natural forest.

These cases have some special implications for certification, with respect to conversion. CBs must evaluate each case on its merits. National standards may provide indicators.

Section 2.1 of the FSC Guidelines for CBs, Scope of Certification, determines that any planted area is eligible for certification if it has a structure compatible with FSC’s definition of plantations, and complies with all the P&C. This has justified the certification of plantations of rubber trees and, potentially, oil palms. It could justify certification for plantations of other trees providing NTFPs, with or without timber production.

The main question regarding this definition is which consequences it has if a forest is defined as plantation or natural forest. A more differentiated definition might be necessary if two different standards are applied, including industrial plantation, plantation, naturally managed forest and native forest. If different requirements are valid for plantation and natural forests more detailed guidance is needed for all situations in-between and for companies with both types of forest.

2.2. Long term goal and FSC commitment

The certification of plantations was accepted based on the understanding, that plantations cover an important part of the timber demand and are helping herewith to protect native forests from further exploitation. If they were planted on formerly degraded lands or other non-forest land they can be certified, if they origin from destruction of native forest they can't. But this definition is only a very first step and a starting position, the future perspective is missing. It is necessary to define the ecological minimum requirements a forest must meet in order to maintain the FSC certification.

The P&C ask each certified company for a long term commitment (criterion 1.6) to the FSC principles which request a combination of economical, social and ecological aspects by the management. Therefore a pure economically oriented plantation management would not be acceptable, an ecological minimum is also required. Since FSC always emphasises the process of improvement it is understandable that the plantations can start on a quite low level but they must follow clearly defined steps of improvement to a more ecological situation in total which is derived from the interpretation of the P&C.

The long term goal must be a forest management area which is as similar to a native forest ecosystem as possible.

Decision:

Would the basic understanding of a plantation be that

1. Plantations are a completely different management approach which must be treated different from native forests.

2. Plantations are a starting point on the way to an ecologically improved forest management and land use system.

No. 1 includes a kind of an honouring for bad management, because most of the ecologically relevant criteria would not be applicable in monoculture plantations due to the fact that intact ecosystems have been destroyed long ago. If there are no endangered species left protection means are quite simple to manage whilst any company trying to manage native forests is having much work to comply with the P&C. In total this would mean to favour plantations over native forests.

No.2 includes the need do define how an ecological plantation management would look like in relation to the "normal" plantation management. This would at the same time tell the difference between certified and uncertified. There is the risk that some (or many) certified companies would quit the FSC certification due to the required changes.

But another question is closely linked to this question: One or two standards? With interpretation 2 it should be one standard, with No. 1 most evidently two standards. So the decision of this basic question would make the discussion and decision on many other issues much easier.

3. Scope of Certificates and of the P&C

3.1. Plantations are certified against all ten Principles

The first point to clarify is whether plantations must be assessed against all ten principles or only against Principle 10.

Assessments for certification are based on compliance with the FSC Principles and Criteria. All certified forests must comply with Principles 1 - 8. In addition, they must also comply with Principle 9, if any High Conservation Value is identified in the certified area. In addition, they must also comply with Principle 10, if any part of the certified area contains forests which match the FSC definition of a plantation. So, a plantation, or any FMU containing plantations, must be assessed against all ten principles.

A certified forest may consist entirely of natural forests. Or it may consist of both plantation and natural forests or mixed stands and any other intermediate situation between pure plantation and natural forests. All certified plantations will include, at the very least, some areas dedicated to restoring natural forest (criterion 10.5). Therefore, all certification assessments must take account of natural forest management, even when most of the area is plantation.

Each certificate must have a defined scope (FSC Guidelines for Certification Bodies, Subject 2.1), covering the whole area of the certified FMU. When a certified FMU contains both natural forests and plantations, the ten P&C apply collectively over the whole area. Assessments take account of the forest management as a whole. Audit decisions are based on compliance with the ten P&C over the whole FMU, not on separate assessments and compliance in areas of natural forest and areas of plantation.

This interpretation does not allow a manager to compensate for defective or “bad” forest in some areas by means of acceptable or “good” forest management in other areas. It allows for environmental, social and economic objectives to be satisfied by a variety of combinations, ranging from FMUs consisting entirely of harvested natural forests, to FMUs consisting partly of more intensively managed plantations and partly of conservation and restoration areas of natural forest.

3.2. Does FSC recommend separate standards for plantations and natural forests

Recommendation: Where possible, FSC recommends national working groups to prepare one Forest Stewardship Standard for management of all forest types within the defined geographical region. The standard may include indicators and verifiers that refer to specific situations, but many of the criteria and indicators will be applied in common.

If the FSC national initiative decides that it is necessary or preferable to prepare separate standards for separate forest types within the same region, FSC will accept them for evaluation and endorsement, separately or together, but will closely scrutinize them for harmonization. Unless there are clear individual justifications, there should be no significant differences in Principles 1-8, as applied to FMUs with plantations compared to FMUs without plantations. Conflicts would occur if a certified forest which is mostly plantations finds itself bound to handle legal or labour issues in its natural forest areas very differently from a nearby certified forest which is mostly natural.

In effect, a manager responsible for both natural and plantation forests may request to be assessed against either the plantation standard overall (Principles 1-10), or separately against the plantation standard (P.1-10) in the plantation areas, and the natural forest standard (P.1-9) in the natural forest areas. This should not result in any important differences in the CARs.

Decision:

Considering the implications of using one or two standards (see also chapter 1.2) the question is who should decide about this point:

1. FSC should take this decision himself centrally or

2. It should be left to national initiatives or CBs.

4. Restoration of non-forest vegetation, by clearing plantations

Some conservation programmes involve clearing unsuitable vegetation, including plantations or invasive exotics, to restore native non-forest vegetation. FSC-endorsed certification has not been designed to endorse these projects. FSC has a strong presumption against certification of management that consists in converting forests or plantations to non-forest vegetation.

Management which includes clearance and conversion of plantations to non-forest may be eligible for certification, under the following circumstances:

* the non-forest vegetation that is being restored has "High Conservation Values", as identified by the HCVF Toolkit. (This would apply mainly where vegetation with a HCV was cleared from the site where the plantation was established, and would be restored after clearing the plantation)

* the certificate covers a long-term forest management unit, in which forests and plantations will continue to be managed, while only some parts of the plantations are cleared. (A certificate implies a commitment to long-term management planning and implementation, which will not apply if the whole FMU will cease to carry forest)

* the areas to be cleared of plantations will be restored to an appropriate mixture of forest and non-forest vegetation, characteristic of the natural vegetation and landscape of the region.

* the system of restoration of natural forest or non-forest vegetation has been proven successful on that management unit. (...to make sure that this is a genuine and realistic restoration activity). The CB has the duty to check the success of the system, and may postpone the certification until satisfied.

5. History and background information about conversion

5.1. Conversion of natural forests to plantations or non-forest land uses. Criterion 6.10

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 in high conservation value forest areas; and (c) will enable clear, substantial, additional, secure, long term conservation benefits across the forest management unit.

The interpretation of “conversion” has caused some confusion. The FSC definitions of “plantation” and “natural forest” should be consulted.

Tree planting is often used in north temperate or boreal forests to re-establish forests with the structure, density, composition and diversity resembling the results of natural regeneration. In these cases, tree-planting does not necessarily amount to conversion, and may be certifiable.

Tree planting is also used, after heavy logging of natural forests, to establish forests with a greatly reduced density, composition and diversity, in relation to the original natural forest. In extreme cases, this replanting is better classed as conversion than as a legitimate way of re-establishing natural forest stands.

5.2. Conversion and cut-off dates. Criterion 10.9

Criterion 10.9: “Plantations established in areas converted from natural forests after November 1994 normally shall not qualify for certification……”

The FSC ruling against replacement of natural forests by plantations or other land uses was included in the earliest versions of the Principles and Criteria, including the version of Principle 9 which was ratified by FSC Founding Members, and published in November 1994. These P&C formed part of the first accreditation contracts in 1996.

The ruling was not intended to prevent certification of well-managed plantations in cases where original natural forest was cleared many years or even centuries earlier. FSC did not intend to penalize forest managers for activities carried out by earlier managers, or earlier generations, before the Principle was adopted by FSC. FSC did not wish to prevent certification in areas of old or historic deforestation, but certainly wished to discourage continued clearance and conversion. A cut-off date was needed.

In 1996, the FSC E.D. proposed adopting 1994 as the cutoff date, noting that Principle 1-9 had been approved by FSC in 1994, and that applicants for certification should not be penalised for failing to comply with the P&C before they had been developed. In June 1998, after consultations, this Cut-Off date was included in the FSC Guidelines for Certification Bodies, Subject 2.9. It was set at January 1996, because the concept of cut-off dates had been first introduced in 1996.

In September 1998, the FSC Principle 9 Working Group proposed new versions for Criteria 6.10 and 10.9 (above), incorporating the cut-off date of November 1994 into the P&C. The Working Group proposed November 1994 because it was the publication date of the first officially endorsed set of P&C. The board and the membership approved these versions, and the P&C were revised accordingly in January 1999.

Forest clearance and conversion before November 1994 does not disqualify an enterprise from being certified, or have any impact on the certification decision. Conversion after November 1994 disqualifies an enterprise from certification, except that “Certification may be allowed in circumstances where sufficient evidence is submitted to the certification body that the manager/owner is not responsible directly or indirectly of such conversion”. In cases where the forest manager (legal entity or private owner) has changed since November 1994, or since the conversion took place, then certification may be possible, subject to the decision of the CB.

This criterion refers to conversion carried out by the same forest manager. For the purpose of this criterion, the forest manager is the legal entity which holds or applies for the forest management certificate.

This policy applies to commitments by forest managers in all forms of ownership and management, including:

* forests owned by individuals, communities, trusts, companies, associations, cooperatives, governments or administrative units such as counties, districts, provinces or states.

* concessions or licence areas, which include responsibilities for management.

This criterion sets a major limitation to certification for corporations in which a single Chief Forester may be responsible for large forest properties, with widely different objectives and plans in different regions, where conversion of natural forest has continued in some regions but not in others. These cases will be considered as they arise.

5.3. Cut-off dates for other past activities

No cut-off dates have been set for activities other than conversion of natural forests. Clearance of bushlands or herbaceous vegetation does not necessarily disqualify an enterprise from certification, and there is no cut-off date prescribed.

However, managers are expected to comply with Principle 6 and 9. These principles require the protection of rare, threatened and endangered species and their habitats, in all cases. Special vigilance is required when the area contains High Conservation Values which should be maintained or enhanced. This indicates that the conversion of non-forest habitats to plantations may sometimes be incompatible with P 6 and 9. Such conversion, prior to assessments, may not disqualify an area from being certified, but would typically be the subject of CARs, to ensure that rare species and habitats and HCVs are not affected in future. CBs have the right to postpone certification until satisfied that the conversion has in fact ceased.

Before issuing a certificate, CBs must be satisfied that CARs will be implemented. If they have identified activities which must cease immediately, or be implemented immediately, they should not issue certificates unless satisfied by the assurances of their client. Case by case, CBs must determine the level of assurance required.

In cases of current or past activities which would be major failures at the level of an FSC Principle, or which have caused major confrontations or controversies, CBs are expected to be more cautious. They would not be satisfied only by seeing changes in a Management Plan or even an annual workplan. They should often require a demonstration in practice that CARs are being implemented, before issuing the certificate. Therefore, although there are no fixed cut-off dates, CBs have mechanisms for ensuring and checking that non-compliances have ceased before issuing a certificate.

6. Conservation of non-forest habitats

All certified forests must comply with the conservation elements of Principle 6, with special provision for rare, threatened and endangered species. Certification should ensure a high degree

of protection for high-diversity grasslands, bushlands or woodlands, for wetlands, and for any other rare non-forest habitats and vegetation types.

Certified forests must also comply with P.9 for High Conservation Value Forests. The “forest areas” mentioned in the definition of HCVFs are interpreted to mean forest management units, FMUs. Therefore, the extra requirements for assessments, consultations and annual monitoring would become necessary if the FMU under evaluation is found to contain any High Conservation Values, whether or not these are inside a closed forest. (Note that many conservation values are covered by other principles; only the classified High Conservation Values introduce obligations under P.9.)

The requirements for assessments and monitoring are especially important for new plantations, because they can have impacts on wildlife habitats, including non-forest habitats, even when these habitats are not planted. Drainage, fencing, roads, fertilizers and pesticides can all have an impact far from the intended focus. Critical habitats inside and outside the planted area need protection, even when the management activities themselves are within the thresholds for plantation certification. The same concerns apply to archaeological and other cultural sites.

Indicators should be developed in national standards. CBs will assess these areas for the presence of rare species and HCVs, for compliance with Principles 6 & 9.

7. Short rotation tree plantations

The FSC Guidelines for Certification Bodies, Subject 2.1, covers the subject of “very short rotation tree crops”, such as Christmas trees and Salix or Populus coppice.

This section accepted that such crops may constitute a forest, as “a tract of land dominated by trees”, but it indicated that FMUs in which short rotation tree crops are the main or single object of management would usually not comply with Criteria 6.2, 6.3, 6.4, 10.1, 10.2, 10.3 and 10.5, and so would not usually be certifiable. However, FMUs containing short rotation tree crops as part of a larger area devoted mainly to long-term forest management systems could be certifiable.

This policy has operated since 1998. No changes are currently proposed.

A clearer definition of “very short” in relation to a rotation period is missing. The rotation period of 10 to 14 years for eucalyptus plantations could be called a very short rotation in relation to the natural life span of a eucalyptus up to several 100 years. This would consequently prevent a pure eucalyptus plantation from being certified.

Decision:

A definition what relation between natural life span and rotation period is acceptable to meet the status of a long term forest management. This definition could also include a descriptive part on the forest ecosystem or tree structure of an adult forest/tree.

8. Water management

8.1. Criterion 5.5: Watersheds and water catchment values and Principle 9

Criterion 5.5 requires that certified forests maintain and enhance the value of watersheds. Plantations have large impacts on the amount of rainfall absorbed into the soil and the aquifer, and

on rates of evaporation and transpiration, and on seasonal runoff, sedimentation and streamflow. The economic and social importance of water supplies is growing worldwide.

Managers are expected to evaluate the impacts of past, present and future plantation management on water catchment values, and to mitigate past negative impacts and avoid future negative impacts. Certification assessments will cover these elements of management, and may result in CARs for mitigation and avoidance of negative impacts. These changes may significantly limit the layout, establishment techniques and harvesting rates on certain sites.

The environmental, social and economic values of critical catchment areas are covered by Principle 9. They will be identified and audited individually (using the HCVF Toolkit)

National standards should include indicators for protection of sensitive water catchment areas.

8.2. Wetlands, stream courses and water resources. Criteria 10.6, 10.8

Watercourses and wetlands are mentioned in criteria 5.5, 6.5, 10.6, 10.8, and are implicitly covered by many other criteria. If they include high conservation values, they are covered by Principle 9.

Land preparation, planting and harvesting affect water quality, causing changes in acidity and sedimentation, affecting aquatic organisms including fisheries. Large, new plantations can have major regional impacts, which need special consideration during plantation assessments.

The following concepts have emerged in national standards and in CB's generic standards. They are included here for discussion, and for guidance for national standards and CB's generic standards.

* Wetlands should be protected and conserved. They should not be drained, inundated or affected by accelerated sedimentation. Stream courses should not be diverted.

* Wetlands should not be converted to plantations, but artificial regeneration may be used to restore indigenous swamp or peatland forests (e.g. swamp cypress, Taxodium, in S USA, peatswamp forests in Borneo).

* Vegetation along watercourses, including non-forest vegetation, should be protected. It should not be converted to plantations, except for restoration of natural indigenous forests which were previously cleared.

National standards should refer to regulations governing vegetation along rivers and stream, and should include indicators for drainage (including the digging of new drains, and essential roadside drainage and culverts), and other aspects of wetlands and water resources. Standards groups should consider indicators for drainage, which may include restrictions of new drains.

9. Other plantation issues

The FSC P&C do not provide definitive or complete guidance on all the environmental, social and economic issues and challenges facing forest managers today. This section takes note of some major issues which are currently outside the scope of FSC certification, but for which FSC may consider further work in future.

9.1. Public Access

Public access is a significant social and political issue in forest management, especially in enterprises which are supported by public money or subsidies. Many large plantations depend on the support of public funds, directly through planting grants or indirectly in the form of road access. Most certification assessments include assessment of the provisions for public access.

Public access is a topic that may be addressed in national standards and in each certification decision. FSC has provided no global guidelines, but we recommend that national standards provide indicators and verifiers covering access for amenities, recreation, sport and public rights of way, including indicators of compliance with national legislation and best-practice guidelines.

National standards should clarify the legal framework for public access under Principle 1. They may also include other provisions developed by the national standards group, going beyond basic legal requirements.

9.2. Implications of climate change

Plantations are more susceptible than natural forests to diseases and to fluctuations in climate. Current trends in climate change are adding to the risks. Negative impacts on plantations will have corresponding social, environmental and economic impacts. Managers should consider the risks and the best available advice. National standards may develop indicators. At present, these considerations add to the importance of increasing monitoring and the variety of species and genotypes in plantations.

9.3. Carbon sequestration

An increasing number of candidate forests are including carbon sequestration among their objectives of management, and among their justifications for seeking investment funds. Certification bodies need to assess fulfillment of the stated objectives of management, in order to certify compliance with Principle 7 and to avoid misleading or false claims. Unfortunately, it is easier to claim carbon sequestration than to prove it.

Plantations can contribute to carbon sequestration, but they can also accelerate release of carbon from soils, especially when they involve drainage in wetlands. The objectives and methods used for sequestering carbon may have strong implications for rotation lengths and planting techniques. National standards may include guidance on how to handle this issue.

10. Complaints and disputes

Stakeholders have reported practices in certified plantations which appear to be infractions of FSC guidelines. FSC and accredited CBs have several ways of dealing with them, before and after certification. Policy problems have arisen from two causes:

(1) FSC P&C and guidelines are not always clear or precise, leading to different and contradictory

interpretations by different assessors, managers and FSC members, and

(2) It is difficult of to draw a precise line between what is just acceptable and certifiable, and what is not quite acceptable or certifiable.

Part 2: Interpretation of individual critical

11. Diversification of production - Principle 5.4

Principle 5.4 requires that “Forest management should strive to [...] diversify the local economy, avoiding dependence on a single forest product.

This is not fulfilled if only one species is used. The extreme situation is the production of chips for the pulp production by a short rotation eucalyptus plantation (only one product). A pine plantation will offer at least logs and industrial timber for pulp or particle boards, but not more than two to three types of products.

Decision: How many products and which efforts can be expected from a company to comply with this requirement?

Definition: Which indicators could be used to measure the “diversification” of production?

12. Ecological functions and values - Principle 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.

NONE of the three indicators is met by a monoculture plantation managed by large sized clearcuts. So what is expected as a minimum requirement by plantations?

Clear changes of the management of a plantation are necessary step by step. Possible improvements are the leaving of mature trees whilst harvesting each site, the enrichment of the regeneration with native species, to allow natural regeneration of non commercial species and a reduction of the clear cut size in order to get smaller patterns which are more adopted to natural regeneration cycles.

Decision:

Does this criterion apply for plantations? If it does, minimum requirements must be defined.

13. Restoration objective - Principle 10

13.1. Principle 10 requires that “plantations….should ….promote the restoration and conservation of natural forests”.

Criterion 10.5: “A proportion of the overall 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.”

This criterion applies to certified FMUs with plantations. In addition, Criterion 6.2 requires any certified unit to have conservation zones and protection areas to protect rare, threatened and endangered species, and P.9 requires protection and maintenance of HCVs.

Restoration is also covered in Criteria 10.1, 10.2, and 10.4. The following interpretations are drafted for compatibility with the P&C.

FSC recognizes that well-managed and well-located plantations can play an important role in diverse and healthy rural economies and landscapes; they provide many forest products consumed by society, especially timber, fibre, firewood and other wood products, as well as other benefits, including resin, fruits and shelter. Globally, by providing these products and benefits, plantations reduce the demand to provide these materials from natural forests. Ideally, plantations enable more natural forest areas to be conserved.

Plantations may promote restoration and conservation of natural forests either inside or outside the certified FMU when, for example, (1) a plantation is established to provide firewood for a village, thus enabling the community to stop the degradation of the natural vegetation, and to conserve or restore it for NTFPs and other benefits, or when (2) profits from a certified plantation are dedicated to improved management, conservation or restoration of natural forests, in or out of the certified FMU.

However, the existence of plantations is not always associated directly with better management or conservation of natural forests. On the contrary, the development of successful plantation techniques has sometimes accelerated the elimination or conversion of natural forests. The “restoration objective” of Principle 10 is intended to lead to more visible and effective linkage between management of plantations and conservation of natural forests.

Restoration activities may include the re-establishment of natural forest cover on sites previously cleared, and practical action to improve the authenticity of the natural forest cover, in terms of species, structure and age distribution. Actions may include treatments or simply total protection. Restoration objectives are usually achieved inside the certified FMU, but may also be designed to have impacts in the wider landscape (e.g. by providing corridors or migration routes).

Overall, the proposed interpretation of C.10.5 is that all certified forests that consist mainly of plantations or heavily altered natural forest must have one or more designated areas, managed to

maintain or restore natural forest habitats. Criterion 6.2 and Principle 9 may also impose additional obligations to protect and maintain some non-forest areas.

This requirement may be achieved either by (i) establishing or restoring areas of natural forest in open, degraded or deforested areas, or by (ii) managing, protecting and improving existing areas of natural forest, or (iii) converting plantations to natural forest.

The criterion does not specify the appropriate size of these areas in different regions or sizes of enterprises. National standards should provide indicators.

Discussion:

What precisely is meant by restoration? Is simple protection of remaining forests enough or is an improvement of formerly degraded or destroyed areas expected? Which quality of the restored forest and up to which extend of the area it would be expected? Natural forest ecosystems normally demand a certain area to provide the function of ecosystems with natural dynamics offering habitats for native species.

Decision:

Restoration is necessary for

1 Every company

2 Only companies with less than e.g. 30 % native tree cover in the FMU

Restoration requires from companies

1. Measurable increment of forest area and quality including active measures like planting of trees on unforested or degraded areas or

2. Simple protection of existing native forests is enough

13.4. “Native species are preferred ... in … the restoration of degraded ecosystems”. Criterion 10.4

Within the limits of “restoration objectives”, and within the language of standards, this phrase is best interpreted as requiring that the manager uses or protects only (or mainly) native species in all activities related to restoration.

Discussion:

Would the management of restored areas be allowed? Would a mixture of native and exotic species qualify as restoration area?

Restoration must result in

1. mixed forests with a majority of native species which are managed and commercially used
2. unmanaged protection areas with only native species

14. Landscape values. Criteria 10.2, 10.3

The P&C include several references to landscape level considerations:

* Criterion 6.1: "assessments shall include landscape level considerations…."

* Criterion 10.2: "The scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape"

* Criterion 10.3: "Diversity….. is preferred……Such diversity may include the size and spatial distribution of management units within the landscape……"

* HCVs include: …large landscape level forests…..

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

All plantations have impacts on landscape values, positive and/or negative. These impacts may be highly negative if plantation management is insensitive to existing values, landscapes and conservation areas. Certification assessments and consultations should explicitly cover the impact of plantation management on landscape values. When a CB considers that previous practices have caused unacceptable negative impacts on landscape values, they should assess the efforts of current management to mitigate these impacts, and set CARs accordingly.

FSC may need to provide more guidelines for landscape values, in plantation management.

There is also a definition missing for the biodiversity and explanation what must be done to meet this criterion (10.3). To increase the biodiversity of the entire managed area it is necessary to have a mixture of the main economical species with native species on the site in small scale within each ha. Native species must be given some space in-between the exotic species. If there is no natural regeneration the plantation of native species is necessary.

15. Exotic and native species Species selection. Criterion 10.4

Native species are given preference by criteria 6.9 and 10.4. This policy is best interpreted as follows:

FSC recognizes that plantations of exotic species typically contribute less to the conservation of environmental, biodiversity and landscape values than natural forests. FSC also recognizes that well-managed plantations of all kinds provide long-term benefits, including products, shelter and secure, productive livelihoods. In general, plantations (especially with species outside their natural range) carry a greater risk of disease than most native forests, although this risk is not always high. As with other elements of forest management, a balance and a trade-off is often possible.

Species-selection decisions sometimes turn out to be mistaken. When the wrong species was planted in the past, a manager may be faced with disease-ridden or degraded plantations. In these cases, good management involves taking action to mitigate the impacts of past mistakes, and replacing the unsuitable species with more suitable ones. FSC does not require that the replacement must use native species, but indicates that native species “are preferred”.

One implication of this interpretation is that, in principle, existing plantations of the wrong species, in bad condition, may be eligible for certification, when the manager is now implementing good management in compliance with the P&C.

New plantations of many kinds, including exotic species, are eligible for certification, but managers must evaluate the balance of risks and benefits and take decisions accordingly. Certification assessors evaluate the system of risk management and its implementation.

National standards may include indicators for the use of exotics.

These comments contain no advise at all, no concrete statement or criterion! A clear definition is required how this criterion can be implemented.

16. Felling areas. Criterion 10.6

Criterion 10.6 covers techniques and rate of harvesting. The criteria of Principles 5 and 6 cover environmental and other impacts of harvesting. National standards should provide indicators.

The size and layout of felling areas, especially clear-felling areas, is a critical element of plantation management, and often cause serious controversies. Clear felling can seriously accelerate run-off, erosion and silting, causing damage to water-catchment values and the fauna and flora of waterways, especially when the plantations have little ground-cover vegetation. The size and distribution of felling areas often also have major impact on visual landscape values. Managers are expected to take account of landscape features, amenity values, cutting cycles, site characteristics (soil type, slope, erodibility) and climate.

National standards may include indicators and verifiers for harvesting practices, including limitations to the size of clearfelling areas, which may vary according to local or regional conditions. Most FSC-endorsed standards avoid giving management prescriptions, but they may provide quantitative indicators for suitable sizes and layouts.

For example, a national standard may develop indicators for harvesting in plantations, along the following lines (adapted from the UK standard)

* Rate of felling: In plantations of, say, >20 ha, no more than 25 % shall be felled during any 5 year period. In smaller plantations, greater flexibility is accepted, within the limits of other criteria governing environment conservation and regeneration.

* Size of felling areas: The maximum size of an individual coupe is, say, 20 ha, except that larger areas may be locally justified by a combination of windthrow risk, landscape features and a restructuring of the plantation design, as explained and justified in the Management Plan.

National regulations may include rules on the sizes and designs of felling areas. If so, they should be referenced in the national standards.

FSC does not currently regulate the size of felling areas. Rather, FSC expects CB assessors to determine whether current felling practices comply with national regulations and with the FSC P&C. National standards may set more precise indicators, if they can reach a suitable agreement.

In praxis most national standards are not giving any precise criteria for this question, especially in plantations large clear cut areas of more than 100ha are the standard. A maximum size should be defined on the international level plus some indicators which can be used for evaluating an acceptable impact.

17. Control of weeds and pests. Criterion 10.7

The interpretation of the FSC Principles and Criteria with respect to chemical pesticides is covered in detail in another document, “Chemical Pesticides in Certified Forests - Interpretation of the FSC

Principles and Criteria” (latest version dated 15 February 2002). FSC has not yet developed guidelines for non-chemical pesticides including biological control. The following guidelines are proposed as additional interpretations of the P&C.

Biological control methods must be treated with as much caution as the introduction of exotic species. Certification bodies must assess all use of biological control with as much care as they assess the use of permitted chemical pesticides.

Criterion 10.7 requires that “Plantation management should make every effort to move away from chemical pesticides and fertilizers, including their use in nurseries”. FSC recognizes that some chemical pesticides are justified in the management of existing plantations. However, FSC interprets C.10.7 to mean that management plans should not be based on the continued operation of plantation programmes which rely on, or appear to justify, the continued use of chemical pesticides. FSC members are increasingly questioning whether FMUs should be certified for compliance with the C.10.7 if they plan to continue to implement plantation programmes which depend for their viability on long-term use of chemical pesticides.