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# **FINAL REPORT**

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## **Getting Small Forest Enterprises into Certification:**

An analysis of the barriers faced by small-scale farmers and communities producing timber outside a conventional forest matrix, and recommendations for progress

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# **An analysis of the barriers faced by small-scale farmers and communities producing timber outside a conventional forest matrix, and recommendations for progress**

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## **1 Summary**

The potential for promotion of non-forest wood within the Forest Stewardship Council (FSC) forest certification system is discussed. The practical and policy implications of non-forest wood certification are analysed. It is concluded that there is potential to certify non-forest wood within the FSC scheme. However, the FSC Principles and Criteria are not an appropriate basis for such certification. It is recommended that a new, shorter, more focussed set of criteria be developed specifically for the evaluation of non-forest wood sources. It is recommended that products made with wood certified under such criteria should be eligible to carry the FSC logo.

## **2 Introduction**

Many markets for forest products, particularly in Europe and North America are now demanding wood products which are independently certified as being products of well managed forests. Small businesses in the forest management and wood processing industries are faced with particular difficulties in meeting international standards and paying for third party certification, creating a barrier to their market opportunities. Certification bodies and national organisations have reported concern from small enterprises seeking certification but unable to gain access.

This paper has been produced as one of a series of studies commissioned by the UK Department for International Development (DFID) Forest Research Programme (FRP), to facilitate access to certification for small forest enterprises. This report looks at the specific problems faced by those producers who use wood produced outside a conventional forest matrix (e.g. from woodlots, farms or in an urban environment). The paper makes recommendations as to how these problems may be alleviated.

## **3 The problem**

The great majority of wood in international trade, by volume and by value, comes from forests and woodlands - areas of land dominated by trees. Forest certification systems such as the FSC scheme were developed to provide consumers with reliable information about the management of such forests and woodlands. Whilst there are concerns related to the cost effectiveness and practicality of certification for small woodlands, the general applicability of certification of forests and woodlands is widely recognised.

However, as forest certification becomes more widely established the number and variety of 'non-forest' sources of wood is becoming apparent. These sources are rarely dominant in terms of the volume or value of international trade. However, many are regarded as being environmentally and socially benign. They are often important to small scale operators. Demand for FSC certified products is already putting pressure on some users of such non-forest wood. Some face the loss of existing markets or inability to penetrate new markets, particularly when their marketing strategy aims to target environmentally and socially aware consumers.

No forest certification system has yet addressed these issues, and the challenges are not unique to the FSC system. However, the FSC system is the most successful and widely adopted and so has the greatest impact. FSC has the potential to create positive incentives for the utilisation of non-forest wood, but it also has the potential to create barriers to markets. For these reasons this paper concentrates its analysis on the FSC system.

This paper provides an initial analysis of the barriers to the certification of such non-forest wood production systems under the current FSC scheme. The paper makes recommendations as to how FSC could accommodate non-forest wood in the future.

#### **4 Sources and products**

Wood and fibre come from a wide variety of sources and systems apart from conventional 'forest' management. The following list is not considered complete but indicates the range of sources involved. The list is ordered to show a continuum from 'point sources' of wood, through to small woodlands in more conventional forest management.

- single 'specimen' trees - e.g. street trees, garden trees;
- groups of trees - e.g. urban park trees, hedgerow trees;
- farm trees - e.g. boundary trees, trees in hedgerows, wood pasture, windbreaks, riparian zones;
- wood from 'forest gardens';
- trees used within agricultural systems - e.g. tea and coffee shade trees;
- short rotation tree coppice systems - e.g. managed for energy, fibre, or small diameter products;
- scrub - e.g. trees invading agricultural land or heathland;
- 'traditional' coppice management of part of a woodland;
- agroforestry production systems - e.g. cork, poplar;
- wood as a secondary product of non timber production systems; orchards, coconut palm wood, rubber wood;
- farm or private woodlots;
- small woodlands - e.g. farm woodlands used primarily for game cover, hunting, or for recreation.

In addition to the variation in sources there is variation in the management objectives. In some systems the objective is in fact clearance of trees. In some management is one element of a wider sustained yield programme. In others management is itself a type of 'sustained yield' system.

- wood from large scale land clearance - e.g. for roads, urban or agricultural development;
- removal of plantations from inappropriate sites - e.g. restoration of heath or bog;
- wood from small scale land clearance - e.g. during clearance for construction of single buildings;
- removal of scrub, secondary or degraded woodland for agriculture or other objectives;
- ongoing control of trees on land allocated for other uses (e.g. clearance of encroaching trees from heathland, clearance of scrub from agricultural land);
- 'salvage' of dead trees - e.g. killed by pests or windblow, or as a result of old age;
- removal of trees or branches for safety reasons - e.g. old urban trees;
- removal of plantation species for restoration to natural forest;
- change of species within a forest management system.

Wood from at least some of these sources can substitute for wood in almost any product. However some products have attracted attention, because they use relatively high proportions of wood from non-forest sources, and/or because the products are competing with wood from certified forests. These include:

- Wood carvings (cleared invasive exotics, urban wood and boundary trees)
- Woodchips (urban wood)
- Furniture (wood from small scale land clearance, coconut palm wood)
- Doors and kitchenware (rubber wood)
- Charcoal (invasive exotics, woodlots, traditional coppice)

There are further sources of wood and fibre, such as recycled wood and fibre, pallet wood, 'reclaimed' wood such as construction timber or 'salvaged' wood such as driftwood. This paper focusses on production systems, and so does not focus on these sources. Nor does this paper consider non-wood sources of fibre, such as straw and hemp (e.g. for use in paper and board production). Nevertheless, some of the issues raised and discussed in this paper are also relevant to the debate on certification and labelling of products containing recycled and non-wood sources. It is recommended that decision makers address these issues at the same time as policy decisions are made with regard to non-forest sources of wood.

## **5 Some case examples**

Some examples of non-forest wood were selected for more detailed study. The examples are essentially self-selected - they are examples of enterprises that have approached certification bodies, seeking certification. Whilst each case is different, they provide examples of the potential benefits of non-forest wood use. This section presents a short sketch of each of the cases evaluated.

Case 1: Urban trees - UK

Case 2: Wood from scrub clearance - generic

Case 3: Neem for wood carving - Kenya

Case 4: Woodlots - generic

Case 5: Trees on agricultural reservoirs - India

Case 6: Riverside coppice - UK

### **Case 1: Urban trees - UK**

Tree management is the responsibility of the local government administration ('local council'). Management includes amenity woods, parks, gardens and street trees. The main methods of disposal of wood are by dumping on rubbish tips, or by burning. The ability to turn the wood into higher value woodchips or charcoal is promoted through certification. Wood is produced from branches from tree surgery (for aesthetic or health and safety considerations), from the removal of whole trees when they are dead or dying, vandalised, or too large for their site, or from developments such as road widening or site development.

### **Case 2: Wood from clearance of invasive trees - generic**

Trees can invade habitats in conflict with existing management objectives. Often, though not always, such invasive trees are non-indigenous. Examples include invasion of rough pasture (main management objective, grazing); invasion of heathland or grassland (main management objective, conservation); invasion of natural forest or plantation (various management objectives, including conservation and timber production). Wood is produced from the clearance operation. In some cases it is converted to charcoal, creating a value added product for what would otherwise be a costly operation.

### **Case 3: Neem for wood carving - Kenya**

The success of the Kenyan wood carving industry has undermined the natural resource on which it is based: slow-growing hardwoods such as ebony and 'muhuhu' mahogany. The felling of 50 000 trees per year degrades forest habitat and leads to the loss of nest sites and shelter for rare, forest dependent animals. The livelihoods of 80 000 carvers and their families, as well as globally important forest biodiversity, are under threat. Carvers are aware of the threat and have identified tree species such as neem, jacaranda, grevillea and mango as alternatives. These are fast growing, multipurpose trees common in Kenya. Current supplies of neem are generally from the properties of private landowners in the town, who want the trees removed because they are old or fallen. Neem could be classed as an invasive exotic in Kenya. It grows along roadways as well as on private property. It regenerates freely from abundant seed as well as resprouting from cut stumps. In some situations it may have negative environmental impacts (e.g. invasion of native forest). In domestic situations it is renowned as a multi-purpose tree with useful pesticidal as well as forage values. In future, small-scale farmers who grow neem on their land could earn additional income from the sale of neem logs for carving.

### **Case 4: Woodlots - generic**

In several cases small landowners are being encouraged to manage woodlots on their own land, for future sale of wood to larger concerns. This can provide sufficient land to grow trees to support a local wood industry, whilst avoiding the acquisition of large areas of land by single, large companies. For the farmers this may provide an opportunity to gain a steady financial return from otherwise low value and unproductive land. Details vary from case to case, but one model is that seedlings, advice and support are supplied to farmers free of charge. The farmer is then paid an annual fee for the use of the land and the tending of the trees. In other models the farmer is paid for the timber produced. The farmers are often reluctant to commit their land to tree use indefinitely. They may be more worried about their ability to remove the roots once the trees have been felled, rather than the ability to guarantee a second rotation.

### **Case 5: Trees on agricultural reservoirs - India**

*Acacia nilotica* subs. *indica* has been planted on the edges of 'tanks'. 'Tanks' are areas of land surrounded by raised earth walls, built to collect water during the monsoon season for subsequent crop irrigation. Tank construction of this sort has been practiced since at least the 19<sup>th</sup> century in Tamil Nadu, India. The planting of *A. nilotica* is a secondary land use aimed to provide a source of fuelwood. There is a complex division of responsibilities for management. The trees are managed on a 10 year coppice cycle. Felling is carried out by contractors following auction of the standing trees. Revenue is divided between local communities and the Forest Department. A local 'Community Trade' company has been set up which uses wood from *A. nilotica* for the production of high value products for export, and supports a wide range of community projects with the proceeds.

### **Case 6: Riverside coppice - UK**

*Alnus glutinosa* (alder) growing along river banks in Shropshire, England was traditionally coppiced, and the wood used for the production of wooden 'clogs' (an old type of wooden work shoe). The market for clogs disappeared in the early 20<sup>th</sup> century, leaving the riverside trees to grow unmanaged. As the trees now reach maturity they are dying and not being replaced. The banks are often accessible to livestock, and regeneration does not take place. This has negative environmental and landscape impacts on the river and its surroundings. A project has been set up to bring the trees back into a coppice rotation, making charcoal out of the wood. The trees mainly occur in broken lines and small clumps along the river banks, on farmland owned and managed by a variety of farmers.

These cases are considered in more detail in sections 8 & 9 of this paper.

## **6 Should FSC certification extend to non-forest wood?**

The selected cases show some of the potential advantages of extending certification to non-forest wood. These include:

- Substitution (hence reduction) of demand for wood produced from destructive forest 'management' (e.g. Cases 3, 5), or for the timber of rare or difficult to manage tree species;
- Reduction of the environmental and other costs of disposal through productive use of urban wood (e.g. Case 1);
- Avoiding incineration or burning through use of urban wood, scrub, or wood from land clearance (e.g. Cases 1, 2);
- Adding value to otherwise low value timber (e.g. which may be felled in any case for other reasons, or have died through natural causes) - and therefore funding better forestry (e.g. Cases 1, 5);
- Creating business opportunities for people and countries with limited forest resources, with associated social and financial benefits (e.g. Cases 4, 5);
- Making use of wood which is a by-product of another production system - improving the financial sustainability for those systems, and avoiding waste (e.g. from rubber wood);
- Creating a financial incentive for restoration of habitats which would be improved by the removal or management of trees (e.g. Cases 6).

However, there are also potential disadvantages:

- Competition from non-forest wood may lower the price of wood from well managed forests - reducing incentives for good management of more natural forests;
- Wood from 'environmentally neutral' sources may compete with wood from 'environmentally positive' sources in a limited market, with an overall reduction in the level of environmental benefit;
- Apparently valueless wood may in fact have high non financial values - e.g. large dead standing trees, hedgerow trees, scrub and riparian trees may be high value habitats in their own right; trees may have a high social value as low cost firewood, or as landscape or historical features;
- Informal markets for 'waste' wood may also provide a market for illegally felled wood;
- There is the risk of creating incentives for the 'sustainable production' of exotic invasives, rather than their elimination;
- Intensively managed pasture, orchards, rubber, coconut or oil palm plantations have their own environmental and social impacts - these may not be considered environmentally and socially benign sources of wood;
- The companies and individuals achieving endorsement and/or a premium for timber from the restoration of habitats may be the same companies and individuals that damaged or destroyed the habitats in the first place. This may not appear equitable.

This simple analysis suggests that the promotion of non-forest wood could be environmentally and/or socially beneficial. However, it does not suggest that all non-forest wood sources are *necessarily* beneficial. This paper goes on to consider whether FSC-based certification could be a tool for identifying and promoting the 'beneficial' examples. Section 7 evaluates FSC-based

certification as a *methodology* for evaluation of non-forest wood, and section 8 evaluates the FSC Principles and Criteria as a *standard* for evaluation of non-forest wood.

## **7 FSC-based certification as a tool**

In practice it is difficult to completely separate consideration of certification as a methodology, from consideration of the use of the FSC Principles and Criteria as a standard. The technique of certification is closely tied to the standard being evaluated.

However, it is useful to try to identify issues which are related to the methodology rather than the standard, in order to evaluate whether the methodology itself is appropriate. Three main aspects of FSC certification are considered. That FSC certification is:

- site-based
- 'manager'-based
- standards-based

The applicability of each of these aspects to certification of non-forest wood can be tested.

### **7.1 FSC certification is site-based**

FSC certification originated with the aim of certifying forest management. The concept of the 'local forest management unit' (LFMU) has been implicit in its development from an early stage. Similarly, ISO based certification is based on the identification of a specified 'site', which is the subject of certification.

The previous sections of this paper identified a number of 'off-site' considerations to the evaluation of whether a particular product might be considered socially/environmentally beneficial in a wider context.

In three of the case examples (clearance of invasive trees; neem for woodcarving in Kenya; tank-grown acacia in India) an implicit or explicit case has been made that the generic nature of the resource makes its use environmentally and/or socially desirable. Thus it is argued that neem wood, by virtue of the species being used, is an environmentally and socially benign product. To a lesser extent, it has been argued that the use of charcoal from clearance of an exotic invasive species would be beneficial by definition, without requiring detailed evaluation of the case-specific management impacts at source. This has led to the concept of 'species-based' certification, as an alternative to 'site-based' certification. Species based certification could be a quick and cheap tool to promote the use of such beneficial non-forest sources. A similar concept of 'non-forest wood category' certification could be developed. Thus once a category of non-forest wood has been evaluated, the whole category would be eligible for promotion without further, site-based, evaluation.

The authors' opinions on the viability of this concept are divided. On the one hand the potential reduction in cost of evaluation and chain of custody are clear. Species- or category-based certification could be simple and cheap. On the other hand concerns were raised as to whether there is potential for unrecognised costs to emerge - to what extent is the use of neem *whatever* the source, benign? Are there environmental/social impacts which are significant, but not fully recognised? There is a further concern that the principle of species-based certification, established in a relatively simple case, might subsequently create difficulties in other cases. The issues related to the use of neem may not be the same as those related to the use of jacaranda or grevillea. They



are sure to be different to the issues raised by the use of rubber wood from Malaysia. What guidelines are needed to ensure that social/environmental impacts are properly evaluated?

In practice, the project in Kenya does not rely only on species-based certification. The project has carried out significant work on the potential social and environmental impact of the choice of species, within a limited geographical area (Malindi District). It is implicitly recognised that some level of site-related, social and environmental impact assessment is required. However, having completed such an analysis it is proposed that the day-to-day basis of certification and labelling should be species-based. Social and environmental impacts will also be monitored.

The principle disadvantage of a site-based system is its expense, relative to the value of the non-forest resource. The aim must be to minimise costs, whilst maintaining an appropriate level of evaluation and monitoring of impacts. In the case of forest certification the major technique for reducing the costs of certification is 'group certification'. It is likely that this will also be important in the case of certification of non-forest wood. However, if systems for certification of non-forest wood are explored, it is recommended that the potential for reduction of costs through an initial evaluation on the basis of species, or category, should be considered.

In conclusion, it is recommended that some level of site-based evaluation is necessary for evaluation of impacts to take place. Species- or category-based evaluations may be a useful element of a certification system, for example as a way of defining the scope of evaluation or simplifying the requirements for tracking and tracing the timber. Certification only on the basis of species or category identification, without this being supported by a methodology including site-evaluations, is not recommended. The specification of minimum requirements within which such systems might operate is discussed further in section 8.

## **7.2 FSC certification is 'manager'-based**

Both FSC and ISO certification systems are based on the identification of managers, who are responsible for the implementation of certification requirements within the scope of an evaluation. The managers are an essential link in the process. If elements of a standard are not met, it is a manager's responsibility to carry out corrective actions before a certificate is issued. It is the manager's responsibility to ensure that standards are maintained during the validity of the certificate, and it is the manager's responsibility to take corrective actions if problems are identified during monitoring.

In many cases management responsibilities are divided amongst many individuals. Group certification is an example of this. In group certification the certificate holder is responsible for the overall implementation of all the requirements of the scheme, and must demonstrate the authority to ensure that the scheme is properly implemented. However, the actual implementation may be by other site managers and/or owners. The cases of neem, woodlot, and riverside coppice are all examples in which group certification could be used. In each case a 'project manager' would be responsible for applying for certification and ensuring that the requirements of the scheme, whatever they are, are implemented. In the case of urban trees in the UK and wood from clearance of invasive trees it is assumed that a unified management organisation with clear management responsibility would be the certificate holder. In the case of certification of reservoir grown acacia in India, the lack of clarity of management responsibilities between the Forest Department and local communities was identified as a potential barrier to certification. However, in principle a group certification structure could be developed.

There are clear advantages to 'manager'-based certification and it is not clear whether there are viable alternatives applicable to non-forest wood. 'Regional' certification, developed as a methodology in Finland, appears to be a rather loose form of group certification. In this case a Forest Owners' Association holds a type of group certificate and is responsible for implementing the scheme. In theory the Forest Owners' Association has the responsibility of ensuring that all group members meet the requirements of the scheme. 'Species based' certification, described above, is in practise dependent on a project with associated management responsibilities.

In principle it is possible to develop an evaluation system applicable across an identified area, without identifying a 'certificate holder' responsible for continued implementation of any management requirements. The system would essentially monitor results of management, and a certificate could be issued, valid for a specified period of time, on the basis of such monitoring. Such certification could provide the basis for promoting specific products of particular countries or regions. Schemes for the promotion of national products are essentially based on this concept - the argument is made implicitly or explicitly that standards within a given area are generally high, and that this can be promoted by a label accessible to all producers within the area. The Forest Industry Committee of Great Britain (FIC-GB) ran such a scheme in the 1990's for the promotion of British grown timber.

The great advantage of such schemes is that they may be cheap, or even free, to the individual user. Costs of implementation must however be paid, and so the schemes depend on the identification of an individual or organisation that considers payment to be worthwhile. However, individuals within such schemes have no direct, personal commitment or responsibility to comply with the scheme's requirements. This creates the risk of individuals gaining the benefits of the scheme, whilst failing to meet its commitments. Ultimately this would damage the credibility of the scheme as a whole. A second challenge relates to the 'chain of custody' of products from such schemes. A system is required to ensure that wood in fact originates within the region, and is not brought in from outside the region and re-exported.

In the case of non-wood forest wood a regional scheme which would need to incorporate the necessary level of compliance and control of the chain of custody to generate public trust. Some level of ongoing management control is likely to be needed to achieve this.

It is concluded that continued reliance on managers, responsible for implementing the requirements of certification within a specific area, is likely to be a requirement of a scheme for certification of non-forest wood.

### **7.3 FSC certification is standards-based**

FSC certification is currently based on the use of standards designed to implement the FSC Principles and Criteria of Forest Stewardship at the local level. Use of the FSC Principles and Criteria for the certification of non-forest wood is considered in more detail in the following section. However, the use of any standard implies limitations on the techniques that might be used to promote non-forest wood. Is a standard necessary at all? More specifically, does a standard have to be applied to the non-forest source, or might it be sufficient to promote non-forest wood in the absence of standards?

In section 6 it was argued that there are potential advantages to the promotion of non-forest wood, but also potential disadvantages. It was concluded that a simplistic embracing of *all* non-forest wood products would not be appropriate. Nevertheless, could there be *some* non-forest wood products which are so clearly beneficial that they can be promoted without case by case evaluation

against a standard? In the case of neem, might it be appropriate simply to promote carvings made of neem without evaluating the advantages and disadvantages against an explicit standard?

Each case example was considered to identify issues where generic approval might cause concern. Examples are listed below:

### **Urban trees**

- Overall tree cover should be maintained. Wood from gradual removal of trees from an urban area should not be promoted
- Use of chemicals is relevant in an urban setting
- Health and safety issues for urban workers (e.g. tree surgeons) are relevant

### **Wood from clearance of invasive trees**

- Clearance should be carried out within the context of an overall management plan
- Consideration of environmental impacts of harvesting should take place
- In the case of large clearances a public explanation would be useful

### **Neem for wood carving**

- Neem cutters should agree not to cut other species illegally
- Neem cutters should ensure that their sources have the legal right to sell them the trees
- Care must be taken where neem trees are property markers
- Worker safety should meet legal minimum requirements
- More natural forests should not be replaced by neem plantations

### **Woodlots**

- An amalgamated 'conservation plan' for a property may be appropriate
- Replacement of valuable habitats with woodlots should be avoided
- Social issues are relevant

### **Trees on reservoirs**

- There are potential social issues relating to local competition for wood
- Sustainable yield is an issue in this case
- In practice much wood was not sourced from the reservoirs in the local study area

### **Riverside coppice:**

- Important to leave nesting sites and some older trees
- Important to protect vulnerable wetland habitats
- Important to protect rare species (e.g. locally rare orchids) within management areas
- Health and safety issues significant

The analysis above was not the primary focus of this study, and is likely to be incomplete. These cases were selected as being likely candidates for certification, and may demonstrate 'best case scenarios' to some extent. There is also a tendency to identify issues in the context of the existing FSC requirements, since this was the structure within which the evaluation took place. Nevertheless the evaluations did identify potential concerns, which suggests that approval without evaluation or monitoring against a standard would be unwise. However the relatively small number of issues raised suggest that evaluation against the full range of issues included in the FSC Principles and Criteria might not be necessary. This possibility is addressed in section 8 of this paper. The initial conclusion is that there is no reason, in principle, why a standards based approach should not be used to evaluate non-forest wood.

The analysis does raise the possibility of many, separate standards. Each standard would be developed to deal with the specific issues considered most significant for a particular category of non-forest wood. The advantage of this approach would be highly specialised, appropriate standards. The most obvious alternative would be a generic standard, or set of principles, within which case-specific standards would be developed. FSC's approach to the certification of non timber forest products (NTFPs) would be an example of this. The use of general standard provides a framework for consistent evaluation, and improves transparency. Consistency is likely to be important if the wood is to be promoted using a single label and marketing scheme, as is the case for the FSC scheme. Case-by-case evaluations lack these advantages. If it proves possible, the development of single standard, or framework, is recommended.

This brief analysis raised another possibility. In the case of trees on farms, the management of trees is one part of a wider set of policies and objectives. In this context there may be opportunities to build standards for the certification of wood onto existing standards aimed primarily at other aspects of management. For example, some farms already have 'farm conservation plans'. Such plans could provide a framework for evaluation of the environmental/social benefits of trees on the farm, even in the absence of a 'forest management plan' or equivalent. Similarly, a wider set of social/environmental policies for town planning could provide a structure within which consideration of trees would be a relatively simple addition.

#### **7.4 Conclusions**

Overall it is concluded that certification could be a useful tool for the evaluation of the social and environmental impacts of non-forest wood. The basic technique of inspection to a standard and can be applied. The identification of a 'manager' responsible for maintaining the requirements of certification, a standard specifying the requirements, and the identification of a specific geographical area to which the standard would apply were all considered useful.

As for small forest areas, cost remains a concern. Group certification may provide a flexible methodology to address this. Nevertheless, the potential to reduce the complexity and cost of certification through incorporation of species- or category- based approaches should not be excluded.

Doubts are raised as to whether the FSC Principles and Criteria for Forest Stewardship (1999) are an appropriate standard for the certification of non-forest wood. The possibility of developing a new generic standard was raised. These issues are considered further in the next section, and in section 10.

### **8 The FSC Principles and Criteria as the basis of a standard**

The previous section suggested that the FSC Principles and Criteria might not be the best standard for certification and labelling of non-forest wood. Nevertheless, if the FSC Principles and Criteria *can* be used as the basis of evaluation, there is no reason in principle why they should not be. There would be advantages to this in terms of providing a consistent message to the public. This section therefore evaluates the application of the FSC Principles and Criteria to the certification of non-forest wood.

Each case was evaluated against each criterion of the FSC Principles and Criteria for Forest Stewardship (1999). The results were subsequently collated, and are presented in Annex 1.

The following general conclusions are drawn.

1. Many of the issues relating to non-forest timber sources are the same as those for small woodlands in general - for example concerns about the implications of health and safety requirements on small landowners, and the relative effort of producing management plans and monitoring documentation for small operations.
2. Many criteria were considered problematic in principle, but could be met if sufficient flexibility is permitted - for example requirements relating to management planning (Principle 7) and monitoring (Principle 8). In practice this would often mean that generic documents are prepared at the level of a group of properties, and site specific documentation is minimal.
3. Many criteria were considered problematic in terms of cost and effort of implementation, compared to the expected benefit - e.g. the requirement for applicants to carry out social or environmental impact assessments. To some extent these problems can also be addressed by carrying out evaluations at the level of the group, and not requiring evaluation at the level of the site.
4. Some requirements were considered inapplicable - the standard could be shortened in specific cases by removing the requirement, but the standard can be met if 'not applicable' is an acceptable response - for example requirements relating to High Conservation Value Forests, and Indigenous Peoples were commonly considered inapplicable.
5. Many requirements were considered irrelevant, unnecessary or inappropriate. Whilst it is possible to 'prepare written guidelines to control erosion, minimise forest damage during harvesting and road construction and all other mechanical disturbances, and to protect water resources' in many non-forest situations considered this would be a wasted effort.
6. Some requirements were simply impossible to meet without ignoring the letter and/or spirit of the criterion. For example sustained yield (criterion 5.6) cannot be maintained if the objective is to clear an invasive species; forest regeneration and succession cannot be maintained in a street (criterion 6.3); 'wildlife corridors, streamside zones and a mosaic of stands of different ages and rotation periods' (criterion 10.2) cannot be maintained in the context of a woodlot or urban park.

None of these conclusions are particularly surprising. The Principles and Criteria were designed with 'forests' of a functional size in mind. The specific context of this paper is wood which does not come from such forests. It can also be argued that it does no harm to include inapplicable or irrelevant requirements. An inspector's job is to interpret the requirements intelligently, and to ensure that the conclusions are justified in a publicly available report.

However, the danger is that the inclusion of large numbers of inapplicable or poorly focussed requirements makes the whole evaluation appear inappropriate, and devalues the certification process. It also makes the process appear unnecessarily complex to potential applicants. A shorter, clearer, more focussed evaluation of the critical issues that are important in non-forest contexts would be of greater value.

Finally, there are the relatively small number of issues that constitute clear failures of individual criteria. These generally occur in respect of the particular issues that distinguish forest management objectives from 'non-forest' objectives - issues such as sustained yield, maintenance of ecosystems, protection of natural forest areas. Certification bodies could apply additional 'flexibility' of interpretation - arguing that the importance and consequences of failure on these Criteria do not constitute failure of individual Principles. There is a consensus, however, that this approach would be inappropriate. Failure on these Criteria is, rightly, pointing up that the management systems do not constitute 'forest stewardship'. A policy decision is required as to the circumstances, if any, in which the wood from such systems can nevertheless benefit from FSC endorsement. This is considered in section 9 of this paper.

A number of specific conclusions are drawn from this evaluation:

- In the examples considered (with the exception of reservoir grown acacia in India), a large number of the FSC Criteria were inapplicable, irrelevant or inappropriate to the circumstances;
- In all the examples considered, the majority of the FSC Criteria *could* be applied, given sufficient flexibility of interpretation and effort of implementation;
- In three of the examples - clearance of invasive trees; urban trees; and woodlots - the examples failed specific FSC Criteria. These examples should be difficult or impossible to certify without modification of the FSC Principles and Criteria.

A number of recommendations are made on the basis of these results and the findings of section 7:

- FSC-based certification could provide an appropriate methodology for the evaluation of non-forest wood;
- The complete set of the FSC Principles and Criteria does not provide an efficient standard for such certification;

The conclusion must be that *if* FSC-based certification is to be used for the evaluation and promotion of non-forest wood, then a new standard or set of Principles should be developed, focussed specifically on the issues which are most relevant to the certification of non-forest wood sources. The context within which FSC might develop such a standard (or possibly, standards) is considered in the next section.

## 9 The FSC policy context

FSC has a number of current policy statements which are relevant to the consideration of non-forest wood products. These are presented in the 'FSC Guidelines for Certification Bodies' (June 1998). Relevant policy statements are presented in the box:

Section reference in FSC Guidelines for Certification Bodies	Relevant issues	Summary of current policy
2.1 The scope of forest certification	Orchards, Silvo-pastoral production systems, agro-forestry production systems, plantations managed primarily for non-timber products (e.g. coconut palm, oil palm, rubber).	All such situations are evaluated according to whether the land is a forest, defined as 'a tract of land dominated by trees'. Subsequently the land is considered to be certifiable if all the requirements of the FSC Principles and Criteria (1999) are met. Such decisions would be made on a case by case basis.
2.2 Clearance of encroaching forest	Non woodland habitat restoration and maintenance	Clearance operations may be carried out in the context of an integrated forest management plan, in order to remove exotic species and/or to protect the habitat of rare, threatened or endangered species. Once the trees have developed into 'well developed secondary forest' clearance is not permitted.
2.13 Partial certification of large ownerships	Separate evaluation of different stands, species or management regimes within a single forest area	Areas may be certified separately if they are 'clearly separated management units', and if the manager demonstrates commitment to the FSC Principles and Criteria. No specific mention is made of the possibility of separate certification of e.g. an area of coppice without certification of the rest of the woodland, or

		exclusion of particular species within a forest matrix. Certification of broadleaved stands but not integrated conifer stands is ruled out.
2.20 Products from land clearance	Removal of wood from e.g. conversion to agriculture, pastureland, construction sites	These sources are not considered eligible for certification under the FSC system because they are not derived from forest stewardship.
2.21 Very small private forests	Woodlots, agroforestry, windbreaks	Products from sites defined as 'very small' (e.g. 'one to several hectares') might be considered 'neutral'. They would be treated like recycled fibre for the purpose of labelling in combination with FSC certified wood. This proposal was circulated for discussion, but was not implemented.

These policy statements represent FSC's current position. FSC recognises that policies will require further development over time. Nevertheless, it is possible to identify the main assumptions on which the policies are based:

- 1) FSC certification is based on specific, identified sites (it is 'site-based')
- 2) FSC standards are designed to identify and promote 'good forestry' at an identified site
- 3) The definition of 'good forestry' is compliance with the complete FSC Principles and Criteria of Forest Stewardship
- 4) The FSC label promotes products from certified sites of 'good forestry'

These assumptions are coherent, and support FSC's mission to 'support environmentally appropriate, socially beneficial, and economically viable management of the world's forests'. The resultant policy guidelines show that FSC generally interprets its mission in terms of the promotion of 'more and better forest management'.

However, FSC also permits the FSC label to be used on products containing up to 82.5% recycled (or 'neutral') material. Thus FSC does not interpret its mission as requiring the promotion of certified wood to the exclusion of other 'neutral' sources. In fact, FSC promotes products in which the recycled content may be four times as great as the certified content.

Many FSC members actively promote and support the use of recycled as well as FSC-certified wood. The use of recycled material can contribute to the better management of the world's forests by relieving pressures to intensify management and/or expand plantation areas at the expense of natural forest. The same argument can be applied to non-forest wood.

An additional advantage of the inclusion of recycled and non-forest wood within the FSC label is a strategic one. It avoids imposing limitations on manufacturers and retailers who wish to promote FSC labelled products. It presents consumers with a single, clear choice - to buy wood products with, or without, the FSC label. The message is already complicated by an apparent conflict between recycled (non FSC labelled) and FSC labelled goods. FSC should have strong reasons for making the situation still more complex by excluding other 'environmentally and socially benign' sources.

The possibility exists to give wood from non-forest sources a special status within the FSC system, for example giving it 'neutral' status with regard to labelling, or permitting the use of a different design of label. 'Neutral' status would imply that FSC accepts the use of such wood in a mixture with certified wood but does not actively promote it for its own sake. A separate label would imply that FSC does promote non-forest wood, but considers it to be a different 'product'. In either case guidelines or standards would be required to identify the circumstances in which non-forest wood would qualify for inclusion in an FSC scheme.

A 'lower' level of social and/or environmental benefit might be required in order for sources to be accepted as 'neutral' than for them to carry the FSC label in their own right. These possibilities are not mutually exclusive. Guidelines could be developed for both levels. Achievement of the lower level would be required for inclusion as 'neutral' material, and achievement of the higher level would be required for active promotion under an FSC label.

Clearly the possibility of 'neutral' status would not be useful where the products are sold as solid wood products, rather than as mixtures of wood from forest and non-forest sources. This possibility would not therefore provide a solution to the barriers created by FSC certification in all circumstances. The possibility of a separate label would be applicable in the case of solid wood products, but would require an additional communication effort on the part of FSC. It would also create complications in the case of products containing a mixture of forest and non-forest wood. Whilst neither possibility should be rejected without consideration, on grounds of simplicity this paper proposes that the best solution would be to permit the labelling of non-forest wood with the standard FSC label. In either case FSC would need to provide guidance as to the circumstances in which non-forest wood qualifies for use. In either case FSC would need to review its requirements for 'on-product' labelling.

The conclusions to this and the previous section of this paper are that:

- Incorporation of non-forest wood into FSC systems is recommended on the basis that its use supports FSC's mission to "support environmentally appropriate, socially beneficial, and economically viable management of the world's forests".
- Non-forest wood could be incorporated into FSC products under 'neutral' status, or through use of a modified label. Neither of these solutions is totally satisfactory. The simplest solution would be to permit its promotion using the existing FSC label.
- The use of the FSC logo to promote non-forest wood would have strategic benefits for FSC and is recommended.
- If non-forest wood is to be incorporated into FSC labelled products, standards for its evaluation are required. The FSC Principles and Criteria are probably not an efficient basis for the evaluation of non-forest wood. Development of an alternative basis for evaluation is recommended.
- If non-forest wood is to be incorporated into FSC labelled products, the requirements with regard to 'on-product' statements would need to be reviewed.

## **10 Towards a standard for non-forest wood**

The application of the FSC Principles and Criteria to non-forest sources was considered in detail in section 8 of this paper. It was concluded that the FSC Principles and Criteria are often not applicable. This raises the question of the basis for recognition of non-forest sources.

Freed of the specific constraints of the FSC Principles and Criteria it should be possible to develop an appropriate standard specifically designed to facilitate the promotion of non-forest wood. The FSC Principles and Criteria provide a starting point to identify issues which are of central importance to FSC members. Requirements can then be developed which are designed for the effective evaluation of non-forest sources.



Some FSC Principles could be adapted to the different requirements of non-forest situations. FSC Principle 7 (Forest Management Plan) and Principle 6 (Environmental Impact) could be replaced by the concept of a 'Farm Conservation Plan', or 'Urban Tree Programme'. Consideration should be given to the opportunities for cooperation with other schemes such as organic agricultural certification under which farm level conservation standards are already being developed.

Other Principles (e.g. FSC Principles 3, 9) may be eliminated, with any relevant elements being incorporated into other Principles.

The scope for application of such a standard would need to be defined, with clarification as to the cut-off point between a 'non-forest' and a 'small forest'.

These considerations should permit the development of an effective tool for the evaluation of the social/environmental impacts of non-forest wood within a defined physical area. Further consideration is required with respect to the relationship between 'on-site' and 'off-site' impacts.

In analogy with the use of recycled wood, a case may be made that the off-site impacts of non-forest wood are in general benign or neutral, in which case evaluation of on-site impacts should be sufficient to determine whether such sources may be considered 'neutral'. A more complex alternative would be to require an additional evaluation of the 'off-site' context of a particular source. It is proposed that this issue be considered explicitly in the process of developing a non-forest standard, even if it is ultimately rejected.

## **11 Conclusions and recommendations**

This paper has tried to analyse the barriers to certification of timber produced outside a conventional forest matrix, and make recommendations for progress. It has focussed on the FSC certification system, and considered both the policy and technical implications of promotion of non-forest timber.

The following conclusions and recommendations have been reached:

- The use of non-forest wood is likely to be socially and environmentally positive in some, but not all, situations. If FSC is to promote such sources a methodology for evaluating the social/environmental impacts is required.
- Incorporation of non-forest wood into FSC systems is recommended on the basis that its use could support FSC's mission to "support environmentally appropriate, socially beneficial, and economically viable management of the world's forests'.
- Incorporation of non-forest wood into FSC systems would have strategic benefits for FSC and is recommended.
- If certification of non-forest wood is to be encouraged within the FSC system:
  - A new standard or set of Principles should be developed, focussed specifically on the issues which are most relevant to the certification of non-forest wood sources
  - Non-forest wood certified to this standard should be promoted with the existing FSC logo

- The requirements with regard to 'on-product' statements would need to be reviewed and minor changes made

## **12 References**

FSC Guidelines for Certification Bodies, June 1998, FSC

Implications of forest certification for community managed plantations in Tamil Nadu, India.

Louise Aukland. (1999). M.Sc. Forestry and its relation to land use, Oxford University.

Help save the 'wooden rhino' - FSC endorsed certification: a tool to make the Kenyan woodcarving industry sustainable. Susanne Schmitt, People and Plants Initiative, WWF and UNESCO

'Chonga' Good Wood News, Issue 2, April 2000, People and Plants Initiative, WWF and UNESCO

## Annex 1: Analysis of cases

FSC Criterion	Comments
1.1	General: Evaluation of this requirement for many very small owners is onerous if fully implemented
1.2	
1.3	
1.4	
1.5	Reservoir planting - encroachment onto planted areas generally seen by community as acceptable - though technically illegal. In a social forestry operation is this a reasonable solution?
1.6	General: not clear what this means in many situations
2.1	Urban trees - proving ownership of individual sites can be problematic
2.2	
2.3	
3.1	Urban trees: Not appropriate in urban situation Neem - not applicable
3.2	Urban trees: Not appropriate in urban situation Neem - not applicable
3.3	Urban trees: Not appropriate in urban situation Neem - not applicable
3.4	Urban trees: Not appropriate in urban situation Neem - not applicable
4.1	
4.2	Woodlots: This requirement can be a major problem for small owner-managed woodlots where there is no history of use of protective equipment and the owner is not interested in using it. If it is not used there are risks of accident. However, in practice it is very hard to force someone who owns and manages their own land to change.  General: Health and safety compliance for small landowners recognised as an expense and complication
4.3	
4.4	Clearance of invasives: Social impact assessment is expensive and difficult for small operations moving around from one site to another  Woodlots: Social impact assessment is expensive and difficult for small operations or farmers. If there are significant social issues they might be missed. However, most are likely to be revealed through consultation  Reservoir planting: an evaluation is being carried out to determine whether the trees cause siltation or increased water loss from the reservoir planting - if this assessment determines they are damaging, presumably they should be removed on social grounds - but would then fail certification on social and sustained yield basis.  General: Specific evaluations of social impacts by individual small landowners probably irrelevant, though this may be appropriate for large groups and projects. Consultation by cb should identify major social impacts. SIA by individual landowners should not be required.
4.5	

FSC Criterion	Comments
5.1	<p>Urban trees: management is a cost to councils - there are efforts to reduce costs and increase value of sales, but operation is unlikely to be viable on its own.</p> <p>Clearance of invasives: Clearance of invasive trees is usually a transitory operation and does not fit long term planning of this type</p> <p>Invasives: The aim of clearing invasive trees is that it should be transitory - it is a cost which one hopes to avoid in the future. Selling the product offsets the cost, but in the long term, if successful, employment and income is reduced.</p> <p>Neem - note that for true financial sustainability cost of certification should be covered by labelling scheme.</p> <p>Woodlots: Woodlots may be a small component of a larger landuse operation and so it is often impossible to see if the woodlot (or forest) component is viable in itself. If the woodlot is not economically viable, it is less likely to be replaced. However, it may be inappropriate to replace it in some circumstances.</p>
5.2	
5.3	
5.4	<p>Clearance of invasives: These systems are often designed to produce a single product - they are generally locally based - so long as this is considered to be diversification in its own right this is achievable.</p> <p>Invasive trees - the long term aim is to remove these - effort to create more than one 'product' from the trees is not obviously a major concern.</p> <p>Woodlots: Woodlots are usually one-offs in that they are grown over 15-25 years and then harvested by the owner who may replant but will certainly not produce a continuous supply that will benefit the local economy. This criteria is geared towards operations which are large enough to have a significant impact on the local economy. For small operations its removal is unlikely to make much difference.</p>
5.5	<p>Urban trees: Not usually appropriate in urban situation</p> <p>Neem - not appropriate</p>
5.6	<p>Urban trees: the objectives of harvest are aesthetics, safety, road widening, change in land use... not sustained yield. However council could aim to maintain overall level of tree cover in their area.</p> <p>Invasive trees - the objective of clearance is specifically to eliminate long term harvest - this is impossible to meet.</p> <p>Neem - not appropriate where neem is being removed from valuable natural habitats. But in general neem is overabundant and the cost of evaluating 'sustained yield' is seen as unnecessary and irrelevant in the context of the volumes used for carving.</p> <p>Woodlots: This can only be met if it is interpreted to mean one harvest every rotation. This is a basic requirement of 'sustainable forest management'. Must be recognised that whole site may be clearfelled, and then regrown. Is it appropriate to require landowner to regrow?</p>
6.1	<p>Neem: impacts can be evaluated at project level</p> <p>Reservoir planting - Formal environmental impact assessment likely to be expensive - this might be carried out informally by the certification body through consultation during the evaluation.</p> <p>General: Specific evaluations of environmental impacts by individual small landowners probably irrelevant, though this may be appropriate for large groups and projects</p>
6.2	<p>Urban trees: generally irrelevant, though if sites are discovered they can be protected</p> <p>Woodlots: For small scale woodlots the farmer is very unlikely to have information on rare species or the capacity to conserve 'zones and areas' (see also 6.4 below). Again, this is a criterion more appropriate to larger forest areas. Lack of protection of rare species could be a problem. 6.2, 6.3, 6.4 are unlikely to be fully applicable at the level of an individual woodlot, tree, or coppice block. They could be amalgamated to be considered within a 'Farm Conservation Plan' or equivalent at level of group.</p> <p>Reservoir planting - Formal environmental impact assessment likely to be expensive - this might be carried out</p>

FSC Criterion	Comments
	informally by the certification body through consultation during the evaluation.
6.3	<p>Urban trees: this is impossible to meet in an urban situation.</p> <p>Neem - generally impossible to meet</p> <p>Woodlots: As above</p> <p>Reservoir planting: 'forest' is an acacia monoculture planted on a manmade structure whose primary purpose is to collect water, in a highly populated area with a lot of livestock. Maintenance of a natural ecosystem is not the main issue. Flexibility required.</p>
6.4	<p>Urban trees: this is impossible to meet in an urban situation - but council can implement in other areas.</p> <p>Neem: impossible to meet</p> <p>Woodlots: Set aside of 'representative areas of existing ecosystems' in a small farm woodlot is not possible economically and makes no sense ecologically</p> <p>Reservoir planting: as above</p>
6.5	<p>Urban trees: inappropriate in an urban situation - but could be adapted to require protection of other trees during e.g. tree surgery or other operations.</p> <p>Neem - generally impossible to meet and/or irrelevant</p>
6.6	Urban trees: non chemical options (e.g. silvicultural) not possible in urban situation - but pest resistant species and diversity of species can be encouraged
6.7	Neem: may be relevant to carvers
6.8	
6.9	Neem - is an exotic invasive in some contexts. In others it is a highly valued multi-purpose tree. The project can attempt to encourage removal from valuable sites.
6.10	<p>Urban trees: trees are sometimes removed for roadwidening, site development rather than conservation - this should be acceptable if overall tree cover maintained.</p> <p>Clearance of invasives: clearance usually applied to the entire area - and may lead to the complete loss of trees - this is incompatible with sustainable forest management - may require social/environmental analysis of costs/benefits</p> <p>Neem: mostly irrelevant in the urban context</p> <p>Woodlots: This could be an issue if the area is not replanted. Could lead to loss of tree-covered area. While replanting is needed for 'sustainable forest management' it may not be appropriate in many circumstances and would still be consistent with 'sustainable timber production'</p> <p>General: Could be addressed by considering many units within a group. But where removing invasive species is an objective, or wood from land clearance is considered, this is a fundamental issue.</p>
7.1	<p>Urban trees: Too much detail required for urban situation</p> <p>Invasive trees - a management plan for the removal of trees would be onerous and unnecessary - but a plan for removal of such trees could be part of a wider plan for, e.g. a farm or area, which doesn't require the detail specified in 7.1.</p> <p>Neem: many of the requirements for management planning are inappropriate and/or irrelevant</p> <p>Woodlots: Requires a lot of writing for what may be a very small operation. Total lack of a 'management plan' could result in lack of proper planning. More flexibility in what constitutes an adequate plan</p> <p>General: Management planning is repeatedly identified as a problem for small producers. Generally the acceptance of high degree of flexibility and/or group level planning can usually address the issue.</p>

FSC Criterion	Comments
7.2	
7.3	<p>Woodlots: When woodlots are part of farms and are planted and managed by the owner (small farmer) it is often extremely difficult to enforce the use of safety equipment. Failure to use safety equipment could result in injury. It does seem odd to carry out health and safety evaluation of someone working for themselves on their own land to rules they disagree with.</p> <p>General: As for health and safety, training and supervision of a one person and their dog operation is not realistic in many situations.</p>
7.4	<p>Invasive trees - if the operation is temporary the preparation and public availability of a plan would be difficult In the case of large clearances a public explanation could be appropriate.</p> <p>Neem: not useful</p> <p>Woodlots: If the management plan is very brief then is a public summary really useful? Lack of information could be a problem for large woodlots, but is unlikely to be for small ones.</p> <p>General: As for small woodlands, this has been identified as a generally onerous requirement with little obvious benefit. Again, addressing this requirement when there are groups managed as projects may be appropriate, but not for individuals.</p>
8.1	
8.2	<p>Urban trees: ok in principle but requires adaptation to something more appropriate for monitoring of street trees.</p> <p>Invasive trees: Most of the specific requirements are inappropriate. Flexibility required.</p> <p>Neem: not useful</p> <p>Woodlots: Most of the specific requirements are inappropriate. Lack of monitoring data may be an issue if woodlot is, for any reason, contentious</p> <p>Reservoir planting: much of this monitoring is inappropriate to the type, scale and intensity of management.</p>
8.3	
8.4	<p>Invasive trees: requirements for management plans and monitoring should be minimal.</p> <p>Woodlots: This may be an issue where both management plans and monitoring are minimal Lack of improvement over time for larger organisations</p> <p>General: If management plan and monitoring are themselves limited, then the application of this requirement will also be limited.</p>
8.5	<p>Invasive trees: See 7.1, 7.4</p> <p>Woodlots: See 7.1</p>
9.1	<p>Urban trees - not appropriate</p> <p>Neem - not applicable</p> <p>General: In general HCVF attributes are not possessed and this is quick to establish - so criteria a safety check rather than a burden</p>
9.2	<p>Urban trees - not appropriate - do not need to evaluate</p> <p>Neem - not applicable</p>
9.3	<p>Urban trees - not appropriate - do not need to evaluate</p>

FSC Criterion	Comments
	Neem - not applicable
9.4	Urban trees - not appropriate - do not need to evaluate Neem - not applicable
10.1	Neem - not applicable Woodlots: cf 7.1 General: See 7.1
10.2	Urban trees - impossible as they are not in position to conserve or restore natural forests Neem - not applicable Woodlots: 'Wildlife corridors, streamside zones etc' difficult to develop in a small on-farm woodlot. Trees will provide little or no environmental benefit. Reservoir planting - most of these requirements are irrelevant. Opportunities might still be sought to optimise 'naturalness' in a highly artificial situation. General: Many of the specific requirements are relevant only in larger plantations - they are inapplicable or irrelevant at the scale of woodlots, trees, coppice blocks. The underlying issues would be better addressed through a conservation plan.
10.3	Neem - not applicable Woodlots: Very difficult to provide diversity in a small woodlot Reservoir planting - mostly irrelevant given the limitations of reservoir planting General - As above
10.4	Neem - not applicable
10.5	Urban trees - impossible to restore a natural forest in a street Neem - not applicable Woodlots: Woodlots: For small farmers, particularly in places where land is scarce, the idea of 'restoring' part of their farm to 'natural forest' is unlikely to be popular. It is also unlikely to have any serious environmental benefits if the area is small and the resources available are insufficient to make the restoration work. Reservoir planting - due to site conditions (periodic flooding) a return to a natural forest is probably impossible - in the situation it is not clear that it is appropriate - though efforts could be made to encourage some elements of 'naturalness'. General: Restoration to 'natural forest cover' can be a big concern to farmers who are often anxious to avoid this. However, there may be opportunities to gain environmental, social and practical benefits from requiring some long term tree planting - e.g. hedging, boundaries, shade, etc. Guidance is required.
10.6	Urban trees - impossible to improve soil structure in a street - trees are often surrounded by tarmac and/or concrete, and the adverse impact of the tree on the soil or water is not an issue. Neem - not applicable Reservoir planting - much of the requirement is impossible to evaluate.
10.7	Neem - not applicable
10.8	Urban trees - could be adapted for use in urban situation Neem - not applicable
10.9	Neem - not applicable

Generic consideration: environmental and social evaluations and planning may be relevant for projects involving many participants, but are unnecessary for single participants. FSC requirements for group schemes already allow these requirements to be met by the group managers.