



***PAN-EUROPEAN BIOLOGICAL AND LANDSCAPE
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**COUNCIL FOR THE PAN-EUROPEAN
BIOLOGICAL AND LANDSCAPE DIVERSITY STRATEGY**

**Draft Afforestation and Reforestation Guidelines
MCPFE and PEBLDS**

11th meeting
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Palais de Nations, Geneva (Switzerland)

*Document prepared by
the Joint Secretariat for PEBLDS*

Introduction

The Joint Secretariat of the PEBLDS MCPFE and the Liaison Unit-Warsaw organised jointly a workshop to develop pan European recommendations for afforestation and reforestation in the context of the United Nations Framework Convention on Climate Change (UNFCCC). The Workshop took place at the kind invitation of the Government of Lithuania in Vilnius, from 24-26 October 2006. The objectives of the workshop were to provide the latest knowledge on ecological, social and economic aspects of, and policy settings for, afforestation and reforestation in Europe, including climate change and biodiversity issues, and to review and discuss, review and amend draft pan-European recommendations for afforestation and reforestation in the context of the UNFCCC. A consultant was commissioned by the PEBLDS Joint Secretariat and the MCPFE Liaison Unit-Warsaw to write a background document on afforestation and reforestation and propose draft pan European recommendations for afforestation and reforestation guidelines (see Annex 1 of this document) based on the IUCN publication entitled "Afforestation and reforestation for climate change mitigation: potentials for pan-European action" to be reviewed at the workshop. The representatives to both the MCPFE and the PEBLDS processes were invited to send a national expert (or experts) to the workshop and observer countries and organisations were invited to participate in the workshop as well.

Workshop

A number of speakers were invited to the workshop to make presentations on the relevance of afforestation and reforestation activities with regards to a range of international political frameworks in the areas of biodiversity, climate change, land degradation and desertification, and forest genetic resources. Speakers were also invited to present on their country experiences concerning afforestation and reforestation activities. (See Annex 2 for the report of the meeting, the agenda and the presentations.)

The proposed recommendations were discussed in working groups at the workshop (see Annex 2 for the terms of reference for the working groups and the members) and the recommendations were amended as presented in Annex 2 of this document.

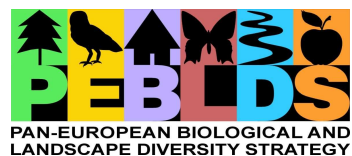
Outcome

There was very little representation from the PEBLDS process at the workshop, unfortunately. Only Sweden had comments on the original draft recommendations and apologised for not being able to attend the workshop. Hopefully there had been communication between the MCPFE and PEBLDS focal points at the national level and some agreement on the desired amendments to be made to the draft recommendations. Since the workshop, comments on the amended draft recommendations have been received by MCPFE from Finland, Germany and the United Kingdom and by PEBLDS from the BirdLife Forest Task Force. Sweden was generally pleased with the original draft recommendations but did not agree with the establishment of a new government authority to deal with afforestation and deforestation and queried the definition of fertiliser. The comments from the MCPFE country representatives on the final draft recommendations (see Annex 3) resulting from the workshop focus on issues such as the involvement of local communities in decision-making and prior informed consent. The language used in the draft recommendations was also problematic where it was the opinion of the governments that it would be impossible to come up with criteria and indicators to measure success in the implementation of some of the guidelines. It was also suggested to harmonise the text of the draft guidelines with previously adopted resolutions under the MCPFE. Birdlife had reservations on the amendments to the original draft recommendations and asked for the reinstatement of the original wording. They believe that the original draft recommendations gave special emphasis to the preservation of non-forest high ecological value areas and were stronger on use of invasive and genetically modified species and fertilisers. (The comments received are available if requested.)

Recommendation

Given the short time that remains until the MCPFE Warsaw Conference, the lack of input of the PEBLDS community in the Vilnius workshop, and the comments received so far, the PEBLDS Council may wish to recommend that further consultations on the guidelines should be organised as soon as possible. The Chair may wish to ask a few interested key PEBLDS and MCPFE representatives, both governmental and non-governmental, to hold a consultation in April or May in order to review the latest draft of the recommendations for guidelines and agree on the way forward. The Liaison Unit-Warsaw has assured the PEBLDS Secretariat that the MCPFE focal points see value in making efforts to produce the guidelines or possibly a joint statement so that biodiversity considerations are taken into consideration in afforestation and reforestation activities. They are eager for both processes to agree before the MCPFE Warsaw Conference takes place in November 2007. A new proposal for recommendations on afforestation and reforestation could be drawn up as a result of the consultations and put forward to the PEBLDS Council (via email) and to the MCPFE Expert Level Meeting (ELM) in June 2007 for their comments and endorsement. If both the PEBLDS Council and the MCPFE ELM agree on final guidelines or a joint statement, then these could be adopted at both the Belgrade and Warsaw Conferences.

The possibility exists to continue a slower pace of negotiations and leave the adoption until the Norwegian Chairmanship of the MCPFE takes place. However, both processes are certainly aware that decisions are already being taken at the pan European level in the energy sector, for example, and if a message is not given soon the opportunity may be lost to stress the need to practise sustainable forest management when looking to the biofuel industry to satisfy energy needs through afforestation and reforestation in the pan European region. The Joint Secretariat also believes that an effort to consult and agree on the guidelines or statement is advisable to avoid that the MCPFE and PEBLDS adopt different guidelines in the future which may send the wrong message to the pan European stake-holders as well as to the international policy processes to which the PEBLDS and the MCPFE make a contribution.



**MCPFE/PEBLDS Workshop
Afforestation and Reforestation in the Context of UNFCCC**

BACKGROUND DOCUMENT

Draft Recommendations for Afforestation and Reforestation in the Context of Climate Change Mitigation

1 Introduction

Afforestation and reforestation activities enjoy a prominent place on the policy agenda as potential measures for carbon sequestration as well as biomass production in order to mitigate climate change. In addition, a decrease in agricultural viability and the objective to increase forest cover also trigger afforestation of former agricultural land in certain areas in Europe. The establishment of such forested areas in the framework of the United Nations Framework Convention on Climate Change (UNFCCC) may have an impact on other environmental, economic and social services. Comprehensive approaches to afforestation and reforestation consider carbon sequestration, biodiversity conservation, soil protection as well as sustainable provision of raw material for forest industries and other goods and services in a balanced way.

In this context, European countries recognized the importance of promoting Sustainable Forest Management (SFM) in the context of UNFCCC in their Ministerial Conference on the Protection of Forests in Europe (MCPFE) commitments and clearly linking their implementation activities to the pan-European concept of SFM, as laid down in the “General Guidelines for the Sustainable Management of Forests in Europe” and the “Pan-European Criteria and Indicators for SFM”.

Consequently, the MCPFE countries committed themselves to promote SFM in the context of the UNFCCC process in the **Vienna Declaration** in 2003. They specifically addressed guidance on afforestation and reforestation in respective commitments in **Vienna Resolutions V4** and **V5**¹. Furthermore, the **MCPFE-Environment for Europe/Pan-European Biological and Landscape Diversity Strategy (Efe/PEBLDS) Framework for Cooperation**, also endorsed at the Vienna Conference, identifies the elaboration of recommendations for afforestation in the context of the UNFCCC process as priority issue. This Framework for Cooperation was also adopted by the 5th Ministerial Conference **Environment for Europe** in Kyiv in 2003 in its Kyiv Resolution on Biodiversity.

Corresponding to these commitments, the current **MCPFE Work Programme**, adopted in autumn 2003, identifies two actions which aim at encouraging SFM practices in carbon sequestration measures, in particular taking into account the conservation of biological diversity:

- As a first step, a **proposal** for guidance on afforestation and reforestation in the context of UNFCCC should be elaborated.
- Secondly, a **workshop** should develop draft European recommendations for afforestation and reforestation in the context of UNFCCC to be submitted to the decision-making bodies of MCPFE and PEBLDS.

The **PEBLDS rolling work programme** also addresses the implementation of this co-operative work in the same way.

In implementing the first action, IUCN² as a leading actor submitted a **publication** on “Afforestation and Reforestation for Climate Change Mitigation: Potentials for Pan-European Action” to the MCPFE Expert Level Meeting (ELM). The paper offers an overview on the issue and, most importantly, provides policy recommendations as a contribution for further discussions. The ELM in September 2005 decided to take these recommendations as **basis** for further discussions at this **workshop**. This background document builds upon the IUCN proposal and takes into account recent developments and specific considerations raised in the MCPFE and PEBLDS processes.

¹ See chapter 2

² IUCN – The World Conservation Union

The **goal** of this **workshop** is to reflect on the proposed recommendations, discuss issues arising and to give recommendations on **pan-European guidelines for afforestation and reforestation in the context of UNFCCC** to be submitted to the MCPFE ELM and the PEBLDS Council.

2 International Policy Framework

Global Processes

In the context of climate change mitigation policies forests are approached as sinks and afforestation and reforestation are used as tools for sequestering carbon to reduce greenhouse gas concentrations in the atmosphere. By signing the **United Nations Framework Convention on Climate Change** (UNFCCC), industrialised European countries (listed in Annex I to the Convention³) committed themselves to reduce carbon dioxide emissions. As outlined in the **Kyoto Protocol** and the **Marrakech Accords** to the UNFCCC, these countries may partly offset their domestic carbon dioxide emissions by sequestering carbon in *land-use, land-use change and forestry activities (LULUCF)*, *inter alia*, through afforestation and reforestation⁴. Developing countries are eligible to implement afforestation and reforestation projects.

During the first commitment period (2008 – 2012) all Annex I countries having ratified the Kyoto Protocol are obliged to report their accounted greenhouse gas (GHG) removals resulting from afforestation and reforestation after 1990. The net result of removals may be used to fulfil the national targets.

In this context three Kyoto mechanisms were defined:

- Through the *Joint Implementation* mechanism an Annex I Country may implement a respective project in the territory of another Annex I Party.
- *Emission trading* provides for Annex I Parties to acquire specific units from other Annex I countries. A surplus in reductions/removals of GHG could be traded.
- To foster co-operation on afforestation and reforestation between industrialised and developing countries, the Kyoto Protocol established the *Clean Development Mechanism (CDM)*. The CDM provides a platform for industrialised countries to initiate afforestation and reforestation projects in developing countries and to acquire respective carbon credits.

The Climate Convention defines *forest management* as “a system of practices for stewardship and use of forest land aimed at fulfilling relevant ecological (including biological diversity), economic and social functions of the forest in a sustainable manner”. In general, Parties to the UNFCCC are guided by the principle that land-use activities should contribute to biodiversity conservation and the sustainable use of natural resources. However, so far the Convention does not refer to a commonly agreed detailed concept of sustainable forest management as a basis for its forest related decisions and activities.

³ *Australia*, Austria, Belarus, Belgium, Bulgaria, *Canada*, Croatia, Czech Republic, Denmark, Estonia, European Economic Community, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, *Japan*, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, *New Zealand*, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, *United States of America* – Non-European countries in *Italics*

⁴ Article 3.3 of the Kyoto Protocol defines, *inter alia*, forestry activities, limited to afforestation, reforestation and deforestation since 1990 as measures to be accounted for in greenhouse gas (GHG) balances of the Parties.

The Conference of the Parties to the UNFCCC adopted good practice guidance for LULUCF activities as well as *modalities and procedures for afforestation and reforestation* activities under the CDM and further modified them in 2005⁵. Though it was agreed that socio-economic and environmental impacts should be taken into account in CDM projects, these modalities and procedures do not yet provide specific guidelines for afforestation and reforestation covering the relevant economic, environmental and social issues⁶.

Definition of afforestation and reforestation⁷

Afforestation and reforestation are defined by the UNFCCC as direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources. *Afforestation* can take place on land that has not been covered by forest for at least 50 years. *Reforestation* can occur on land that was historically forested, but was subject to another land use. (For the first commitment period, reforestation activities will be limited to reforestation occurring on those lands that did not contain forest on 31 December 1989).

(Source: FCCC/CP/2001/13/Add.1, decision 11/CP.7)

The **Convention on Biological Diversity** (CBD) addresses the potential impact of afforestation and reforestation on forest biological diversity (decision V/4) and other ecosystems. It urges Parties to the UNFCCC to ensure that activities targeted to carbon sequestration are in accordance with the conservation and sustainable use of biological diversity. In addition, it promotes the creation of synergies in implementing both conventions, the CBD and the UNFCCC. Furthermore, the report of a *CBD Ad-hoc Technical Expert Group on Biodiversity and Climate Change* provides advice on the integration of biodiversity considerations into the implementation of the UNFCCC.

Recently, the 8th Meeting of the Conference of the Parties to the CBD reaffirmed the need to promote *synergies* among *activities for biodiversity conservation, climate change mitigation and combating land degradation* in decision VIII/30. Countries are, *inter alia*, encouraged to integrate biodiversity considerations into national policies, programmes and plans in response to climate change, to develop respective regional co-operations and to address research gaps. However, no common guidelines have yet been discussed that would specifically address afforestation and reforestation for carbon sequestration.

The **United Nations Convention to Combat Desertification** (UNCCD) addresses sustainable management of natural resources and the sustainable development of livelihoods in fragile arid and semi-arid ecosystems. Its National Action Programmes aim at integrated land-use approaches with major multi-stakeholders involvement, in which natural and planted forests make a significant contribution in rehabilitation of degraded lands and combating desertification.

⁵ Documents FCCC/CP/2004/10/Add.2 and FCCC/KP/CMP/2005/8/Add.1

⁶ The guidance provided in the UNFCCC focuses on methodology related to carbon sequestration. At the moment there are 2 afforestation projects (respectively their methodologies) approved in the framework of the CDM. Most recently the forest related discussion in the UNFCCC focuses on deforestation in developing countries causing emissions.

⁷ In its Global Forest Resource Assessment FAO uses the following definitions:

Afforestation: Establishment of forest plantations on land that, until then, was not classified as forest. Implies a transformation from non-forest to forest.

Reforestation: Establishment of forest plantations on temporarily unstocked lands that are considered as forest.

The Sixth Session of the **United Nations Forum on Forests** (UNFF) agreed on four shared Global Objectives on Forests, which were approved by ECOSOC⁸. Global objective 1 refers to afforestation and reforestation as measures in SFM to reverse the worldwide loss of forest cover.

Most recently **FAO**⁹ developed a draft of a *Planted Forest Code*, which will be brought to the 18th meeting of the Commission on Forestry (COFO) for consideration. The Code aims at describing a guiding framework of principles for planted forests development. It should help to ensure that cultural, social, environmental and economic dimensions were considered in a balanced manner.

Regional Processes

Afforestation and reforestation are addressed at pan-European level in the context of SFM. The **MCPFE** refers to afforestation and reforestation issues in various commitments. Adopted in 1993, the *“General Guidelines for the Sustainable Management of Forests in Europe”* already state that afforestation should be conducted in a manner that does not negatively affect ecologically interesting or noteworthy sites and landscapes. The resolution underlines that afforestation needs to be well-suited to local conditions and capable of tolerating climatic and other stresses, *inter alia*, potential climate change. The *“Pan-European Criteria, Indicators and Operational Level Guidelines for Sustainable Forest Management”* adopted in 1998, provide the basis for development of environmentally sound carbon sequestration, balancing efforts on carbon sequestration with the need to conserve biological diversity and providing a tool to implement SFM at field level. They promote reforestation and afforestation with native species and local provenances that are well adapted to site conditions.

To meet further concerns regarding afforestation and reforestation in the context of climate change, the following already cited decisions have been taken in the MCPFE:

In *Resolution V5* the countries committed themselves to contribute to the implementation of the UNFCCC and the Kyoto Protocol, among others, by including guidance on afforestation and reforestation into national forest programmes or plans, which takes due regard of environmental (in particular biodiversity), economic and social values and aims at mitigating the potential negative effects of large scale afforestation. Furthermore, the elaboration of recommendations for afforestation in the context of UNFCCC, taking account of biodiversity interests, is defined as priority theme for co-operation between MCPFE and PEBLDS in Annex II to *Resolution V4*.

MCPFE commitments related to afforestation and carbon sequestration:

- *Resolution S2 – Conservation of Forest Genetic Resources* addresses the need for conserving genetic diversity to have sufficient diversity in the choice of afforestation material.
- *Resolution S5 – Expansion of the EUROSILVA Network of Research on Tree Physiology* emphasises the importance of carbon sequestration research.
- *Resolution H1 – General Guidelines for the Sustainable Management of Forests in Europe* defines how afforestation should be conducted in the frame of SFM.
- *Resolution H4 – Strategies for a Process of Long-Term Adaptation of Forests in Europe to Climate Change* refers to the potential of forests for carbon sequestration and the need for related research.
- *Resolution L2 – Pan-European Criteria, Indicators and Operational Level Guidelines for SFM* defines Criterion 1 as “Maintenance and Appropriate Enhancement of Forest Resources and their Contribution to Global Carbon Cycles” and Criterion 4 as “Maintenance, Conservation and Appropriate Enhancement of Biological Diversity in Forest Ecosystems”. The operational level guidelines promote afforestation and reforestation with native species and local provenances.

⁸ Economic and Social Council of the United Nations

⁹ Food and Agriculture Organization of the United Nations

- *Vienna Living Forest Summit Declaration*: Countries commit themselves to promote the concept of SFM in relation to UNFCCC and its Kyoto Protocol.
- *Resolution V4 – Conserving and Enhancing Forest Biological Diversity in Europe* promotes the restoration of forest biological diversity in forests established on former forestlands or other landscapes as well as the enhancement of incentives to promote natural regeneration and regeneration with native tree species and provenances.
- *MCPFE/EfE PEBLDS Framework for Co-operation* identifies the elaboration of recommendations for afforestation as a priority issue.
- *Resolution V5 – Climate Change and SFM in Europe*: Countries commit themselves to include guidance on afforestation and reforestation into national forest programmes taking into account economic, social and environmental values, in particular biodiversity.

In addition to the MCPFE process, the **Pan-European Biological and Landscape Diversity Strategy** (PEBLDS) identifies the harmonisation of afforestation policies with nature conservation and landscape policies as priority for action. As mentioned above the respective *Work Programmes* of MCPFE and PEBLDS tackle afforestation and reforestation issues and aim at a joint pan-European approach to afforestation and reforestation in the context of climate change mitigation.

The **European Community's** (EC) afforestation activities were mainly developed in the framework of the Common Agricultural Policies. The *Rural Development Regulation* contains forestry measures, including afforestation of agricultural land. Afforestation of agricultural land is supported, provided that such planting is adapted to local conditions and is compatible with the environment. These European Union (EU) policies focus mainly on expanding woodlands in agricultural areas. Their implementation has been approached differently by the EU Member States, partly raising concerns that large tracts of marginal land may be turned into forests negatively impacting native biodiversity. However, the *Biodiversity Strategy and the Action Plan for the Conservation of Natural Resources* define the objective to ensure the conservation and sustainable use of biodiversity in the implementation of the Rural Development Regulation. The latest biodiversity-related *Communication of the European Commission* confirms that goal and emphasizes the need to prevent, minimise and offset any potential damages to biodiversity arising from climate change adaptation and mitigation measures¹⁰.

EC's regulations and policies on afforestation and carbon sequestration:

- *Rural Development Regulation* (1698/2005, 1257/1999¹¹) and related regulations focus especially on the restructuring and competitiveness of agriculture and, in addition, regard afforestation as means to increase supplies for certain forestry products and as important for soil use and the environment.
- *Forest Focus Regulation* (2152/2003) addresses the monitoring of biodiversity and carbon sequestration.
- *Forest Strategy* (COM/1998/649) proposes to contribute to carbon storage through afforestation of agricultural land with species adapted to local conditions, preferably native species or local provenances.

¹⁰ COM(2006) 216 Halting the Loss of Biodiversity by 2010 – and Beyond

¹¹ Regulation (EC) No 1257/1999 should be repealed from 1 January 2007 with the exception of certain provisions concerning less favoured areas which should be repealed at a later date.

- *Biodiversity Strategy* (COM/1998/0042) includes the objective to promote carbon sequestration and to ensure that afforestation does not negatively affect ecologically interesting or noteworthy sites and ecosystems.
- *Biodiversity Action Plan for the Conservation of Natural Resources* (COM/2001/0162) includes the Action to ensure that conservation and sustainable use of biodiversity is being promoted by the Rural Development Regulation.
- *Biodiversity Communication* (COM(2006) 216) emphasizes the need to prevent, minimise and offset any potential damages to biodiversity arising from climate change adaptation and mitigation measures.
- *EU Forest Action Plan (COM/2006/302/F) adopted by the Commission 15/06/2006*: Key actions aim at facilitating co-ordinated EU-response to the UNFCCC provisions related to afforestation and reforestation, developing national afforestation guidelines and promoting afforestation for environmental and protective objectives.

Recently an *EU Forest Action Plan* has been developed. It defines facilitating EU-compliance with the obligations of the UNFCCC as key action, referring particularly also to a co-ordinated response to the provisions on afforestation and reforestation (Article 3.3 of the Kyoto Protocol). In the context of forest protection the Action Plan proposes afforestation for environmental and protective objectives and the development of national afforestation guidelines. In addition, it promotes the use of forest biomass for energy generation, *inter alia*, to support climate change mitigation. The Forest Action Plan is expected to be adopted by the European Council in fall 2006.

3 Economic, ecological and social considerations

In general, the conversion of non-forested land to forest land is usually associated with benefits in **carbon sequestration** as forests accumulate carbon in the biomass. Furthermore, afforestation aiming at the **production of renewable energy** derived from woody biomass will contribute to the reduction of GHG emissions through substituting fossil fuels. Nevertheless, the carbon balance of afforestation may vary considerably according to a wide range of factors, which have to be considered.

The focus on carbon sequestration or biomass production (especially valuing these functions over other ecosystem services activities) in afforestation and reforestation may conflict with a balanced approach to SFM and sustainable development and may cause **negative impacts** on the environment and people's livelihoods. Certain afforestation activities may be effective in storing carbon or contributing to the reduction of GHG emissions, but might not comply with the principles of sustainable management of natural resources.

The Kyoto Protocol and the Marrakech Accords refer to the importance of ensuring that climate change mitigation activities contribute to the objectives of the CBD, but they do not explicitly exclude practices negatively impacting on ecosystem integrity and the provision of goods and services as well as practises leading to loss of native biodiversity, e.g. plantations of fast growing non-native trees and afforestation of native non-forest habitats that threaten natural biodiversity and may reduce ecosystem services. Since the adoption of the Kyoto Protocol in 1997, the **environmental, economic and social implications of afforestation and reforestation** in climate change mitigation have been widely discussed.

A respective discussion on European activities should take into account the following issues:

Ecological issues

- *Ecosystem and landscape diversity, native non-forest habitats, monocultures*

There is the threat that the emerging market for carbon sequestration and biomass could encourage afforestation and reforestation based on large scale forestry schemes, which focus on simple forest types and land with good growth rates. While planting trees on formerly forested land can enhance biodiversity and environmental services, especially when native species are used, planting trees on natural non-forest ecosystems is likely to lead to loss of native flora and fauna and associated ecosystem services. In addition, the establishment of single species plantations may decrease biological diversity and landscape diversity and degrade soils. Furthermore, support for afforestation can cause the loss of non-forest habitats based on traditional land uses with high ecological value, if the incentives for afforestation are higher than for the traditional use or conservation measures.

➤ *Native biodiversity, exotic/invasive alien species, genetically modified organisms*

The focus on carbon sequestration or biomass production might trigger an increased use of exotic or genetically modified species to improve growth rates. If severe degradation hampers the regeneration of native species, the establishment of non-invasive exotic species as a nurse crop may be useful in restoration of natural forest ecosystems in order to assist in the recovery of key primary processes such as nutrient cycling. Nevertheless, using alien invasive species for forest establishment will adversely affect environmental services and create negative side effects. In addition, the use of genetically modified species entails risks of genetic pollution and other negative environmental impacts¹². Genetic diversity is seen as an important factor for adapting to climate change.

➤ *Use of pesticides, herbicides and fertilisers, degradation of sites*

The application of chemicals in controlling pest populations in order to retain biomass for carbon sequestration is likely to pollute air, soil and groundwater and may affect populations of non-target species negatively. The use of fertilisers to increase forest growth rates and hasten the accumulation of woody biomass may cause eutrophication leading to a loss of local biodiversity. Fertilisers may also contribute to greenhouse gas emissions through enhancing nitrogen oxide emissions and decreasing methane oxidation. Harvesting techniques that extract all above ground biomass of trees for energy production might seriously diminish the nutrient flow causing a degradation of sites.

Socio-economic issues

➤ *Provision of goods and services, relation between livelihoods and afforestation activities, generation of income*

Afforestation and reforestation may change landscapes and may have an impact on the provision of landscape-related goods and services. The supply with goods and services benefiting people and societies and the conservation of traditional cultural landscapes as well as landscape ecology need to be taken into account in respective activities. If afforestation is to contribute to socio-economic sustainability, the relation between livelihoods, the generation of income and forest activities need to be evaluated, too.

➤ *land tenure, traditional management/knowledge, existing land-use practices, rights of indigenous people*

¹² The CBD recommends Parties to take a precautionary approach to genetically modified trees in decision VIII/19.

Clarity of land tenure is fundamentally important for an effective sustainable management of afforestation and reforestation. The legal basis has to provide for clear, formal and long term recognition of rights and responsibilities. Insecure rights and related land tenure may cause unsustainable activities, overexploitation etc. In this context traditional management as well as traditional knowledge, existing land-use practices and indigenous peoples rights, may play an important role to be considered and recognized.

➤ *sustainable development and permanence of carbon sequestration, illegal harvesting*

Afforestation and reforestation projects also could bear risks for sustainable development in general, especially in developing countries¹³. The land use change for development may become highly constrained if large tracts of land are locked up in contracts for carbon sequestration. If an afforestation or reforestation project is perceived as being an impediment to local livelihoods, it may create an incentive for illegal harvesting or clearing, also threatening the permanence of carbon sequestration.

In general, projects in the framework of the UNFCCC, notably also in the CDM, should ensure social, economic and environmental improvements, should contribute to sustainable development through enhancing the productivity and resilience of existing land-use practices and should provide for generation of additional income.

¹³ Several project reports and case studies (see e.g. the IUCN publication in the Annex) point at this issue.

Draft Recommendations for Pan-European Guidelines for Afforestation and Reforestation

Countries participating in the MCPFE and PEBLDS are asked to jointly develop **recommendations for pan-European guidelines for afforestation and reforestation** to be forwarded to their **decision-making bodies**. The following recommended guidelines should serve as a basis for discussion.

Introduction

In both industrialised and developing countries, afforestation and reforestation activities in the framework of climate mitigation processes require an enabling framework at the national and international levels, i.e. effective institutions, policies and legislation.

The specific European policy recommendations set out below aim to provide a **reference framework** for implementing economically viable, environmentally sound and socially equitable afforestation and reforestation activities and projects and strengthen **synergies** in implementing the provisions of the UNFCCC, CBD and other relevant **international commitments**. Furthermore, they address **specific European issues** in balancing afforestation needs and the conservation of sites of high ecological value and offer respective guidance to policymakers at national and regional level.

The recommendations for pan-European guidelines for afforestation and reforestation also aim at serving as a contribution to further **deliberations** in the UNFCCC in reviewing modalities and procedures for afforestation and reforestation activities under the CDM. In addition, this common pan-European approach may be used as a **model** for other regions to address the issue.

The co-operation of European countries¹⁴ with developing countries outside Europe on carbon sequestration under the CDM entails the need to consider socio-economic and environmental impacts of afforestation and reforestation also in these countries. In this specific context the pan-European recommendations aim to serve as **guidance** to the designated national authorities of European countries for **assessing CDM-projects**¹⁵.

General Guidelines

References to sustainable forest management and sustainable development

1. Ensure that all afforestation and reforestation measures for increasing carbon sequestration are in line with SFM and take into account environmental, social and economic aspects in a balanced way.
2. Use the Pan-European Criteria and Indicators for Sustainable Forest Management as an overall framework for establishing and managing afforestation and reforestation as well as the Pan-European Operational Level Guidelines for SFM as a framework to promote the sustainable management of afforestation and reforestation at the field level.
3. Apply the principles of the ecosystem approach to afforestation and reforestation activities.
4. Ensure that an afforested landscape possesses the necessary goods and services to fulfil biodiversity and sustainable livelihood objectives to increase the permanence of the project's emission reductions; in this context also ensure that afforestation and reforestation activities do not damage vulnerable sites.

¹⁴ Nearly all European countries participating in the MCPFE and PEBLDS are Annex I Parties.

¹⁵ CDM projects need approval of all involved parties through their designated national authorities.

5. Ensure that afforestation and reforestation activities for biomass/energy production are within the framework of SFM and are in line with these guidelines; assess their balance of positive impacts on reducing GHG and possible negative environmental impacts.

References to policies and institutional frameworks

6. Review policies, legislation and programmes related to forestry, biodiversity, land use, integrated water management and agriculture to harmonise them with afforestation and reforestation guidelines that are in line with SFM; use stakeholder participation procedures in adapting them.
7. Promote the integration of such afforestation and reforestation guidelines in all relevant sector policies (land-use planning, environment, development and financial policy processes) to avoid a purely sectoral approach and to enhance co-ordination between different government agencies.
8. Include afforestation and reforestation guidelines into national forest programmes and National Biodiversity Strategies and Action Plans.
9. Establish a government authority responsible for afforestation and reforestation activities related to the UNFCCC process to facilitate co-ordination of relevant agencies.

References to monitoring and assessment

10. Establish a framework for monitoring and evaluating afforestation and reforestation activities, including the monitoring of emission reductions; connect this framework to information on vulnerable sites.
11. Establish mechanisms (e.g. remote sensing techniques) to monitor the spontaneous succession of forests due to loss of economic viability of agricultural land use.
12. Assess environmental and socio-economic impacts of afforestation and reforestation activities, including influences outside the project area, through adequate approaches; connect these assessments to existing environmental impact assessments procedures, where applicable.

Ecological Guidelines

13. Take measures against the conversion of naturally non-forested land, especially native grasslands and peat lands
14. Take measures to conserve non-forest areas of high ecological value, which are part of traditional landscapes and subject to traditional land use; compile information on these areas and increase incentives for land owners to keep the traditional use.
15. Include information on areas of high ecological value, ecological networks and protected areas in policy development and planning procedures for afforestation and reforestation activities to ensure their effective protection.
16. Increase carbon sequestration through other measures in SFM, e.g. extended rotation periods in existing forest ecosystems, as alternatives to afforestation and reforestation in those cases which may negatively impact on the environment.
17. Promote afforestation and reforestation of native tree species on land that was historically forested and the use of origins of native species and local provenances that are well adapted to site conditions, *inter alia* through natural regeneration.

18. Restrict the use of non-native species; support afforestation and reforestation with non-native species only as initial step to restore natural forests; only those introduced species, provenances or varieties should be used whose impacts on the ecosystem and on the genetic integrity of native species and local provenances have been evaluated, provided that negative impacts can be avoided or minimised.
19. Support afforestation for biomass/energy production, which use natural forest ecosystems and traditional short rotation harvest practices, e.g. coppices of autochthonous species.
20. Take measures against the use of invasive alien species and genetically modified species for afforestation and reforestation.
21. Promote species compositions and structural diversity in line with the natural diversity of the specific habitats in afforestation and reforestation; promote the development of natural dynamics of forest ecosystems and in this context restrict the suppression of natural dynamics.
22. Promote afforestation and reforestation activities that contribute to the restoration of ecological connectivity and ecological corridors.
23. Take measures against the use of fertilizers to increase forest growth rates and hasten the accumulation of woody biomass; fertilizers should only be used as initial measures in establishing or restoring forest ecosystems on degraded lands.
24. Seriously limit the use of toxic chemicals to control pest populations in order to retain biomass for carbon sequestration.
25. Take into account the maintenance and protection of all ground and surface water resources in all afforestation and reforestation activities.
26. Increase public awareness-raising and awareness-raising among land owners on environmental issues related to afforestation and reforestation.

Socio-economic Guidelines

27. Enhance incentives for the private sector to promote environmental and socio-economic objectives, e.g. sustainable rural employment, improvement of environmental services, including biodiversity, and improvement of economic viability for farmers and foresters.
28. Associate all incentives for afforestation and reforestation with the guidelines for afforestation and reforestation and promote specific nature conservation measures through additional incentives.
29. Take into account all landscape values, including maintenance of cultural landscape and cultural heritage sites and sacred cultural sites, in the elaboration of policies and planning procedures for afforestation and reforestation activities; promote forest landscape restoration as an approach to afforestation and reforestation.
30. Clarify land tenure rights and access to and control of resources in assessing afforestation and reforestation projects.
31. Promote the establishment of criteria for environmentally sound and socially equitable projects to be used by investment funds of financial institutions and accounting and certification firms; encourage project developers and implementers to demonstrate that they have considered all relevant social and environmental issues in their project design.
32. Strengthen legislation, so that afforestation and reforestation for carbon sequestration do not overwhelm existing safeguards for SFM and existing priorities for environmental management,

income generation and poverty alleviation; ensure that CDM projects do not only benefit carbon sequestration, but also social, economic and environmental conditions.

33. Assess and take into account risk factors affecting the permanence of emission reductions, which are specific for afforestation and reforestation projects including storms, pests, disease, fire and animal browsing.

ANNEX
Relevant Policy Documents

United Nations Framework Convention on Climate Change (UNFCCC)

United Nations Framework Convention on Climate Change, United Nations, 1992.

Kyoto Protocol to the UNFCCC, United Nations, 1997.

FCCC/CP/2001/13: Report of the Conference of the Parties at its seventh session.

FCCC/CP/2001/13/Add.1: Report of the Conference of the Parties at its seventh session.
Addendum.

FCCC/CP/2001/13/Add.1/Corr: Report of the Conference of the Parties at its seventh session.

FCCC/CP/2003/6: Report of the Conference of the Parties at its ninth session.

FCCC/CP/2003/6/Add.1: Report of the Conference of the Parties at its ninth session.

FCCC/CP/2003/6/Add.2: Report of the Conference of the Parties at its ninth session.

FCCC/CP/2004/10/Add.2: Report of the Conference of the Parties at its tenth session.

FCCC/KP/CMP/2005/8/Add.1: Report of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its first session.

FCCC/SBSTA/2006/5: Report of the Subsidiary Body for Scientific and Technological Advice at its twenty-fourth session.

FCCC/SBSTA/2006/misc1: The numerical value for forest management under Article 3, paragraph 4, of the Kyoto Protocol inscribed for Italy.

FCCC/SBSTA/2006/misc5: Issues relating to reducing emissions from deforestation in developing countries and recommendations on any further process.

Convention on Biological Diversity (CBD)

Convention on Biological Diversity, United Nations, 1992.

UNEP/CBD/COP/5/23 Decisions adopted by the Conference of the Parties to the Convention on Biological Diversity at its fifth meeting.

UNEP/CBD/COP/6/20 Decisions adopted by the Conference of the Parties to the Convention on Biological Diversity at its sixth meeting.

UNEP/CBD/COP/7/21 Decisions adopted by the Conference of the Parties to the Convention on Biological Diversity at its seventh meeting.

UNEP/CBD/SBSTTA/9/11 Climate change.

UNEP/CBD/SBSTTA/9/INF/12 Biological diversity and climate change.

UNEP/CBD/COP/8/2 Report of the Subsidiary Body for Scientific, Technical and Technological Advice at its tenth meeting.

UNEP/CBD/COP/8/3 Report of the Subsidiary Body for Scientific, Technical and Technological Advice at its eleventh meeting.

UNEP/CBD/COP/8/31 Decisions adopted by the Conference of the Parties to the Convention on Biological Diversity at its eighth meeting.

UNCCD

www.unccd.org

UNFF

E/2006/42, E/CN.18/2006/18 United Nations Forum on Forests. Report of the sixth session.

FAO

FAO. 2001. *Global Forest Resources Assessment FRA 2000 – Main report*. Rome

Ministerial Conference on the Protection of Forests in Europe (MCPFE)

MCPFE Strasbourg Resolution S2: Conservation of Forest Genetic Resources, 1990.

MCPFE Strasbourg Resolution S5: Expansion of the EUROSILVA Network of Research on Tree Physiology, 1990.

MCPFE Helsinki Resolution H1: General Guidelines for the Sustainable Management of Forests in Europe, 1993.

MCPFE Helsinki Resolution H4: Strategies for a Process of Long-Term Adaptation of Forests in Europe to Climate Change, 1993.

MCPFE Lisbon Resolution L2: Pan-European Criteria, Indicators and Operational Level Guidelines for Sustainable Forest Management, 1998.

MCPFE Vienna Resolution V4: Conserving and Enhancing Forest Biological Diversity in Europe, 2003.

MCPFE Vienna Resolution V5: Climate Change and Sustainable Forest Management in Europe, 2003.

MCPFE Work Programme - Pan-European Follow-up of the Fourth Ministerial Conference on the Protection of Forests in Europe in Europe, Vienna, 2003.

Pan-European Biological and Landscape Diversity Strategy (PEBLDS)

Pan-European Biological and Landscape Diversity Strategy endorsed at the Third Ministerial Conference “Environment for Europe”, Sofia, 1995.

Pan-European Biological and Landscape Diversity Strategy, STRA-CO (2003) 9, Rolling Work Programme of the PEBLDS.

European Community (EC)

Council Regulation (EC) No 1698/2005 of 20 September 2005 on support for rural development by the European Agricultural Fund for Rural Development

Council Regulation (EC) No 1257/1999 of 17 May 1999 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF) and amending and repealing certain Regulations.

Council Regulation (EC) No 1268/1999 of 21 June 1999 on Community support for pre-accession measures for agriculture and rural development in the applicant countries of Central and Eastern Europe in the pre-accession period.

Commission Regulation (EC) No 445/2002 of 26 February 2002 laying down detailed rules for the application of Council Regulation (EC) No 1257/1999 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF).

Commission Regulation (EC) No 963/2003 of 4 June 2003 amending Regulation (EC) No 445/2002 laying down detailed rules for the application of Council Regulation (EC) No 1257/1999 on

support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF).

Commission Regulation (EC) No 2603/1999 of 9 December 1999 laying down rules for the transition to the rural development support provided for by Council Regulation (EC) No 1257/1999

Commission Regulation (EC) No 1783/2003 of 29 September 2003 amending Regulation (EC) No 1257/1999 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF).

Commission Regulation (EC) No 817/2004 of 29 April 2004 laying down detailed rules for the application of Council Regulation (EC) No 1257/1999 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF).

Regulation (EC) No 2152/2003 of the European Parliament and of the Council of 17 November 2003 concerning monitoring of forests and environmental interactions in the Community (Forest Focus).

817/2004,

COM/2002/0404 Proposal for a European Parliament and Council Regulation concerning monitoring of forests and environmental interactions in the Community (Forest Focus).

COM/1998/42 Communication of the European Commission to the Council and to the Parliament on a European Community Biodiversity Strategy.

COM/2001/0162 (01) Communication from the Commission to the Council and the European Parliament - Biodiversity Action Plans in the areas of Conservation of Natural Resources, Agriculture, Fisheries, and Development and Economic Co-operation.

COM/2001/0162 (02) Communication from the Commission to the Council and the European Parliament - Biodiversity Action Plan for the Conservation of Natural Resources.

COM/2001/0162 (03) Communication from the Commission to the Council and the European Parliament - Biodiversity Action Plan for Agriculture.

COM(2006) 216 Halting the Loss of Biodiversity by 2010 – and Beyond

Council Resolution of 15 December 1998 on a forestry strategy for the European Union (1999/C 56/01).

COM/1998/649 Communication from the Commission to the Council and the European Parliament on a Forestry Strategy for the European Union.

Second Report of the European Community to the Convention on Biological Diversity, Thematic Report on Forest Biodiversity based on the Questionnaire provided by the CBD Secretariat, October 2002.

COM/2006/302/F Communication from the Commission to the Council and the European Parliament on an EU Forest Action Plan.

Other publications

IUCN – The World Conservation Union, 2002. Carbon, Forests and People. Towards the integrated management of carbon sequestration, the environment and sustainable livelihoods.

Proceedings of the Vilnius Workshop
(See attached PDF file)

**Draft Recommendations on Pan-European Guidelines for Afforestation and Reforestation in the Context of
Climate Change Mitigation
Vilnius Draft**

Introduction

Afforestation and reforestation¹⁶ activities in the framework of climate mitigation processes require an enabling framework at the national, regional¹⁷ and international levels, i.e. effective institutions, policies and legislation.

The specific pan-European policy recommendations set out below aim to provide guidelines for implementing economically viable, environmentally sound and socially equitable afforestation and reforestation activities and projects and strengthen **synergies** in implementing the UNFF, UNFCCC, CBD, UNCCD, and other relevant forest-related **international commitments**. Furthermore, they address **specific pan-European issues** in balancing afforestation needs and the conservation of sites of high ecological and cultural value and offer respective guidance to policymakers.

This set of pan-European guidelines on afforestation and reforestation is also a contribution to further **deliberations** in the **UNFCCC** in reviewing modalities and procedures for afforestation and reforestation activities under the CDM. The efforts made so far based on the work of A/R working group and the Executive Board of the CDM of the Kyoto Protocol should be acknowledged. There is a need to clearly ensure that the project design document (PDD)¹⁸ reflects the procedures and modalities for CDM A/R project activities in particular those related to environmental and socio-economic aspects.

The cooperation of pan-European countries with other countries on carbon sequestration under the CDM entails the need to consider socio-economic and environmental impacts of afforestation and reforestation. In this context, the pan-European guidelines could be used, if appropriate, when **assessing CDM-projects**¹⁹.

¹⁶ Afforestation and reforestation are defined by the UNFCCC as direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources. *Afforestation* can take place on land that has not been covered by forest for at least 50 years. *Reforestation* can occur on land that was historically forested, but was subject to another land use. (For the first commitment period, reforestation activities will be limited to reforestation occurring on those lands that did not contain forest on 31 December 1989). (Source: FCCC/CP/2001/13/Add.1, decision 11/CP.7).

¹⁷ Regional in this case means more than one country, for example, pan-European.

¹⁸ Appendix B to the annex to decision 5/CMP.1 and Appendix A to the annex to decision 6/CMP.1 of the Kyoto Protocol (FCCC/KP/CMP/2005/8/Add.1).

¹⁹ CDM projects need approval of all involved parties through their designated national authorities.

General Guidelines

34. Ensure that all afforestation and reforestation measures for increasing carbon sequestration and biomass/energy production are in line with SFM²⁰ and take into account environmental, social and economic aspects in a balanced way.
35. Use the Pan-European Criteria and Indicators for Sustainable Forest Management as an overall framework for establishing and managing afforestation and reforestation as well as the Pan-European Operational Level Guidelines for SFM as a framework to promote the sustainable management of afforestation and reforestation at the management unit level.
36. Ensure that an afforested landscape possesses the necessary goods and services to fulfil biodiversity and sustainable livelihood objectives to increase the permanence of the project's emission reductions.
37. Promote the consideration of these afforestation and reforestation guidelines in national policies, legislation and programmes related to forestry (e.g. National Forest Programmes), biodiversity (e.g. National Biodiversity Strategies and Action Plans), land use and management, integrated water management and agriculture.
38. Afforestation and reforestation can be used as a cross-cutting platform on carbon sinks at the national level to promote synergies among relevant national and regional programmes related to international commitments under UNFF, UNCCD, UNFCCC, and CBD.
39. Recommend establishing or improving the lines of communication and information sharing between relevant authorities involved in afforestation and reforestation activities to ensure a better cooperation among them.
40. Recommend the assessment of environmental and socio-economic impacts of afforestation and reforestation activities.
41. Encourage research on afforestation and reforestation in the context of climate change mitigation.

Ecological Guidelines

42. While developing policies and planning procedures for afforestation and reforestation activities take measures to avoid negative impacts to areas of high ecological values, high soil carbon stock, or traditional land use, emphasising good practices and methods for site selection.
43. Increase carbon sequestration through other alternative measures in SFM in those cases where afforestation and reforestation may negatively impact on the environment.
44. Promote afforestation and reforestation with native tree species or provenances of species that are well adapted to site conditions now and in the future.
45. To develop the research on and promote the use of well-adapted species and provenances on regard to climate change.
46. Only those non-native species²¹, provenances or varieties should be used whose impacts on the ecosystem and on the genetic integrity of native species and local provenances have been evaluated, and if negative impacts can be avoided or minimised²². Take measures to avoid invasive alien species²³.

²⁰ It is understood by the MCPFE and the PEBLDS processes that SFM, as defined and further developed by the MCPFE, is consistent with the application of the Ecosystem Approach to forest ecosystems in the pan-European region (Source: MCPFE/PEBLDS 2006, Joint position of the MCPFE and the Efe/PEBLDS on the Pan-European understanding of the linkage between the ecosystem approach and sustainable forest management).

²¹ FRA 2005 uses the following definition of native species: A native species is one which naturally exists at a given location or in a particular ecosystem, i.e. it has not been moved there by humans (CBD, 2002, p.154). The term native species is synonymous with indigenous species.

²² H1 Resolution under General guidelines for the sustainable management of forests in Europe states (point 9) that "Native species and local provenances should be preferred where appropriate". The Pan-European operational level guidelines for sustainable forest management under criterion 4 (point 4.2b) include the following: "For reforestation and afforestation, origins of native species and local provenances that are well adapted to site conditions should be preferred, where appropriate."

47. Promote species composition and structural diversity in line with the natural diversity of the specific habitats in afforestation and reforestation and promote the development of natural dynamics of forest ecosystems, as long as it does not cause considerable damage to forest ecosystems (i.e. forest fires).
48. Promote afforestation and reforestation activities that contribute to the improvement and restoration of ecological connectivity and ecological corridors, as appropriate²⁴.
49. Limit the use of fertilizers and pesticides/herbicides to those areas and conditions in which it is necessary to ensure the establishment and maintenance of forests.
50. Ensure the maintenance and protection of all ground and surface water resources in terms of quantity and quality in all afforestation and reforestation activities.
51. Raise public awareness on environmental issues related to afforestation and reforestation in particular in the context of climate change mitigation.

Socio-economic Guidelines

52. Ensure appropriate legislation, so that afforestation and reforestation for carbon sequestration do not overwhelm existing safeguards for SFM and respect priorities for income generation, rural livelihood and poverty alleviation.
53. Secure land tenure rights and clarify access rights as well as responsibility for management of resources in assessing afforestation and reforestation projects.
54. Develop and enhance incentives for afforestation and reforestation for the private sector and ensure that they are in line with SFM.
55. Encourage incentives for afforestation and reforestation to be in line with other policies, *inter alia* rural development, energy, environmental, climate change policies.
56. Promote the establishment of criteria for environmentally sound, economically viable and socially equitable afforestation and reforestation projects to be used by project developers and implementers in their project design and by investment funds to evaluate these projects.
57. Ensure decisions regarding land use and implementation of afforestation and reforestation projects are taken in consultation with local communities, including the use of prior, informed consent.
58. Take into account all landscape values, including maintenance of cultural landscape, cultural heritage sites and sacred cultural sites, in the elaboration of policies and planning procedures for afforestation and reforestation activities.
59. Assess and take into account present and future risk factors, including storms, pests, diseases, fires and animal browsing, affecting the economic viability and permanence of carbon stocks of afforestation and reforestation projects.
60. Contribute to wood and biomass/energy markets through afforestation and reforestation activities with a view to increasing social and economic benefits to rural communities.
61. Increase public awareness of the potential social and economic benefits of afforestation and reforestation activities.
62. Promote inter-disciplinary research on social and economic aspects in order to enhance future decision-making on afforestation and reforestation activities.
63. Build capacity and expertise at all levels in order to support and promote afforestation and reforestation activities.

²³ Genetically modified trees were not referenced because they are not in use in the Pan-European region and the guidance from CBD is forthcoming. So far, the CBD recommends Parties to take a precautionary approach to genetically modified trees in decision VIII/19.

²⁴ IUCN defines connectivity as a term describing the existence of functional continuity although there is no structural continuity. 'Stepping stones' exemplifying the term. One of the definitions for ecological corridor is "a linear feature of vegetation that differs from the surrounding areas and connects at least two patches that were connected in historical time (Hobbs 1992).