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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**Addressing the challenges of deforestation and forest degradation to tackle climate  
change and biodiversity loss**

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**Addressing the challenges of deforestation and forest degradation to tackle climate  
change and biodiversity loss**

**(Text with EEA relevance)**

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## 1. SUMMARY

Forests cover roughly 30% of the world's land area and deliver a multitude of economic and social benefits. They offer major environmental benefits related to biological diversity and climate change. Tropical forests are amongst the most important habitats for biodiversity and provide crucial eco-system services such as water purification and erosion prevention. The livelihoods of 1.6 billion people depend on forest resources to some extent and 60 million indigenous people depend directly on forests for their survival. Forests also store significant amounts of CO<sub>2</sub>, thus preventing further increases in concentrations of greenhouse gases in the atmosphere.

Forests are under threat from deforestation and degradation. According to FAO estimates some 13 million hectares of forests are lost every year. Deforestation accounts for some 20% of global carbon dioxide (CO<sub>2</sub>) emissions (IPCC, 2007) – more than total EU greenhouse gas emissions. Reducing emissions from deforestation will therefore be essential in order to achieve our objective of limiting global warming to 2 degrees Centigrade. It is also a cost-effective way to combat climate change. Protecting forests will have additional benefits for biodiversity and for the livelihoods of the poor.

The time is right for decisive action. At the core of the proposed EU response is the objective to halt global forest cover loss by 2030 at the latest and to reduce gross tropical deforestation by at least 50 % by 2020 compared to current levels.

Deforestation has taken centre stage in the UN climate negotiations (Bali Action Plan<sup>1</sup>). The road to a climate agreement in Copenhagen provides a unique opportunity to tackle the deforestation challenge. The EU should heed the call for action. The proposals presented in this Communication should form the basis of the EU position at the upcoming climate conference in Poznan.

In early 2009 the Commission will be presenting a Communication covering the EU's mandate for the Copenhagen negotiations. In line with the EU Summit conclusions of June 2008 this will include a comprehensive strategy for scaling up finance to combat climate change, including deforestation. To succeed in Copenhagen, the EU will need to pool efforts and resources, and present a united front to rally the support of partner countries.

To combat deforestation a number of EU policies need to be reinforced. Moreover, in the context of current climate negotiations two concrete and ambitious proposals are suggested:

(i) establishing a new instrument to generate significant funding to tackle deforestation and forest degradation, the Global Forest Carbon Mechanism; (ii) testing the inclusion of deforestation in carbon markets.

This Communication is not intended to give definitive answers to the many issues related to deforestation. Its objective is rather to set out the main lines of an EU response, to invite significant contributions from all stakeholders, and to set in motion a series of initial actions that will provide the foundations for a viable global response to deforestation.

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<sup>1</sup> [http://unfccc.int/files/meetings/cop\\_13/application/pdf/cp\\_bali\\_action.pdf](http://unfccc.int/files/meetings/cop_13/application/pdf/cp_bali_action.pdf)

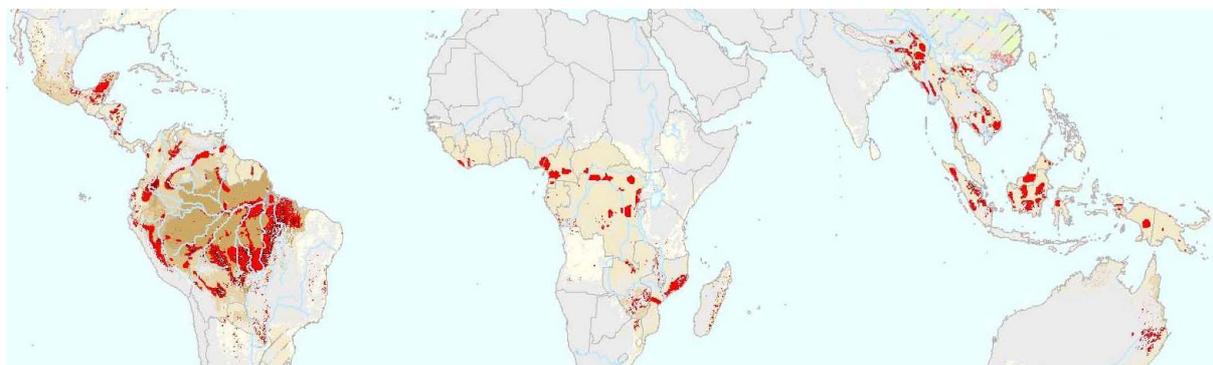
## 2. THE CHALLENGE OF DEFORESTATION AND FOREST DEGRADATION

### 2.1. The pace and magnitude of deforestation and forest degradation

The world lost over 3% of its forest cover between 1990 and 2005. The annual loss amounts to 13 million hectares (FAO, 2005), an area approximately the size of Greece. Some 96% of recent deforestation has occurred in tropical regions (Fig. 1) and the largest net forest cover loss between 2000 and 2005 was recorded in ten countries<sup>2</sup> (FAO, 2007). Over the same period, forest cover has increased in other regions, including the EU, Japan and China while it has been relatively stable in India. Because of their global impact on climate and for the biodiversity values contained<sup>3</sup>, tropical forests must be the prime focus of action.

The degradation of tropical forests is a related issue that also has major impacts on climate and biodiversity. Degradation takes different forms, is difficult to define<sup>4</sup> and is not always accurately measurable. Although it cannot be treated in the same way as deforestation, it must be addressed if any strategic approach on forests is to be coherent and comprehensive.

Figure 1: World areas where deforestation is occurring. Areas in red show the main active deforestation fronts (Source: MEA, 2005)



### 2.2. The causes of deforestation

Drivers of deforestation are diverse, complex and act in various combinations in different geographic locations<sup>5</sup>. The most important direct cause of forest destruction is typically changes in land use. Profitable alternative uses of land with a high market value, such as obtaining commodities, provide incentives for deforestation. In many cases infrastructure development can also contribute to deforestation. The most important underlying cause is ineffective governance, linked to poorly enforced land-use policies and uncertain land-tenure regimes. To be effective any global approach to deforestation will have to address these drivers directly.

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<sup>2</sup> Brazil, Indonesia, Sudan, Myanmar, Zambia, United Republic of Tanzania, Nigeria, Democratic Republic of the Congo, Zimbabwe, Venezuela.

<sup>3</sup> About half of the world plant and animal species are found in tropical forests, many of which threatened with extinction

<sup>4</sup> The FAO defines it as "the long term reduction of the overall supply of benefits from the forest, which includes carbon, wood, biodiversity and other goods and services".

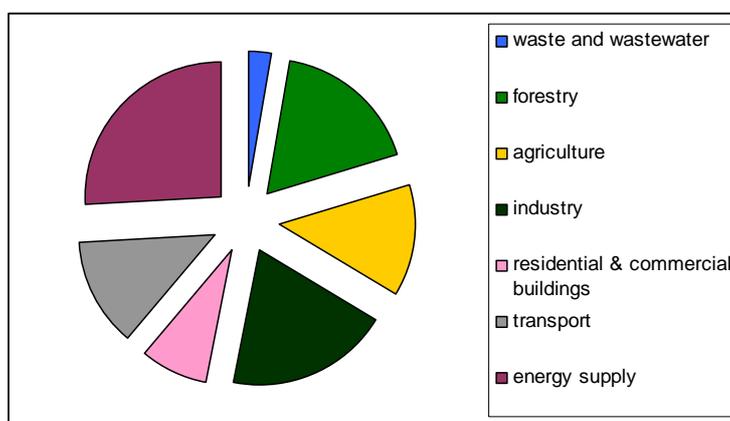
<sup>5</sup> More information is available in the Impact Assessment.

### 2.3. The impacts of deforestation

Deforestation has various negative, environmental, economic and social impacts, particularly on climate, biodiversity and poverty<sup>6</sup>.

Deforestation accounts for some 20% of total CO<sub>2</sub> emissions (approximately 5.8 Gt – see fig. 2)<sup>7</sup>. In addition to the release of CO<sub>2</sub> from trees through decomposition of biomass and burning, it also generates emissions from soil, for example, the burning of deep peat soils in deforested areas. Other impacts on climate include changes to the amount of energy reflected by the earth's surface, and the complex interaction that forests have with the chemistry and hydrology of the atmosphere

Figure 2: GHG emissions by sector in 2004. Data for forestry include CO<sub>2</sub> emissions from deforestation; decomposition of above-ground biomass that remains after logging and deforestation; peat fires and decay of drained peat soils (IPCC 2007)



It is also a major *driver of biodiversity loss*. Tropical forests in particular host about half of all terrestrial species and play a central role in the functioning of the biosphere. Continued deforestation will result in significant biodiversity loss, including extinction of species and the associated loss of goods and services (Sukhdev et al. 2008). Under business as usual the value of the forest-related goods and services lost by 2050 has been projected at 5% of global GDP (COPI, 2008).

Finally, deforestation removes the protection which natural forests provide against storms, floods and extreme fluctuations in local weather patterns. It can also have negative social impacts on *poverty*, not just because many of the world's poor depend on forests for their livelihoods, but also because of the ecosystem services which forests provide. The negative impact of deforestation on human health through increases in air pollutants and the spread of insect-borne diseases like malaria is also significant.

<sup>6</sup> Cfr. , footnote 4.

<sup>7</sup> IPCC estimates for the 1990s.

### 3. ADDRESSING THE CHALLENGES OF DEFORESTATION

#### 3.1. A proposed EU global objective

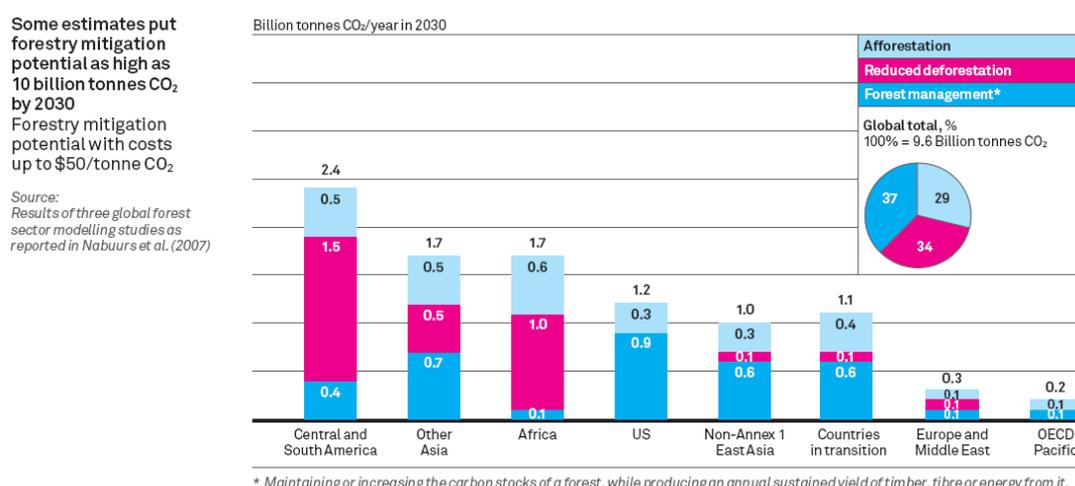
Meeting the EU's objective of limiting climate change to 2°C above pre-industrial levels will require a cut of global emissions by at least 50% below 1990 levels by 2050. This reduction is impossible without substantial action to combat deforestation.

It is proposed that in the UNFCCC negotiations on the future climate regime the EU aims to halt global forest cover loss by 2030 at the latest and to reduce gross tropical deforestation by at least 50 % by 2020 compared to current levels. This objective will be pursued within the UNFCCC negotiations and is expected to deliver major climate change and biodiversity benefits by 2020.

#### 3.2. Areas for action

Figure 3 shows the significant mitigation potential of these measures by 2030 in different regions of the world, up to a market price of carbon of €40 per tonne of CO<sub>2</sub>:

Figure 3: Forest-related greenhouse gas mitigation potential across world regions



The EU needs to take a leading role to shape the global policy response to deforestation. The Community and Member States must work together to pool resources and ensure that actions are complementary. The battle against deforestation must be fought on several fronts:

**Firstly**, strengthening forest governance and institutions at local and national level is a pre-condition for any effective policy response.

**Secondly**, it should be explicitly recognised that one of the main drivers for deforestation is economic. Forests are destroyed because it is more profitable in the short run to use land for other purposes than to keep them standing. An effective policy has to reward the value of the services provided by forests.

**Thirdly**, a comprehensive policy on deforestation cannot disregard the *demand side* and the responsibility of consumers. Certain internal and external EU policies can be used to help achieve the overall objective.

**Fourthly**, because deforestation is *a global issue requiring a global solution*, the aim being to stabilise CO<sub>2</sub> emissions at an acceptable level and to halt biodiversity loss, the international climate negotiations provide a unique opportunity to get to grips with deforestation. The UN Convention on Biological Diversity should feed biodiversity considerations into the negotiations<sup>8</sup>.

**Fifthly**, if policy is to be designed and implemented properly, it must be based on *high-quality information*. Existing forest monitoring and assessment programmes are neither complete nor integrated. A more comprehensive science-based approach is required to guide policy decisions and monitor implementation.

## 4. THE CONTRIBUTION OF EU POLICIES

### 4.1. Strengthening existing policies

Forestry-relevant policies are not confined to the forest sector. Many internal and external EU policies have indirect impacts on deforestation sometimes encouraging over exploitation or shifts in land use that directly contribute to deforestation. Different sectors and policies - such as *trade, energy, agriculture, food security and development cooperation*—can play a significant role in helping to conserve world's forests.

#### 4.1.1. EU policies to promote sustainably produced timber and timber products

The EU is a major consumer of timber and timber products from around the world. In 2005, 83 million m<sup>3</sup> of timber and timber products were imported into the EU market<sup>9</sup>. Imports of illegally harvested timber and timber products<sup>10</sup> are estimated at 16 million m<sup>3</sup>, accounting for more than 19% of imports from all countries<sup>11</sup>.

The EU can help promote sustainable forest management in various ways:

- a) Through the *Forest Law Enforcement Governance and Trade* Action Plan, which has as its centre-piece the development of Voluntary Partnership Agreement (VPA) with timber producing countries. This will ensure that exports from these countries are covered by a license attesting that the timber has been harvested legally. The VPAs also establish a framework for addressing governance and law enforcement challenges, which are often at the root of problems of deforestation and forest degradation. As such there is a strong synergy between FLEGT and efforts to tackle deforestation.
- b) Another measure (under the FLEGT Action Plan) is a Regulation that lays down the obligation of EU operators to minimise the risk of illegally harvested timber and timber products entering their supply chain. The Commission has proposed a Regulation to achieve this objective.

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<sup>8</sup> UNCBD COP 9 created an Ad Hoc Technical Expert Group (AHTEG) on Biodiversity and Climate Change to provide biodiversity relevant information to the UNFCCC processes.

<sup>9</sup> excluding pulp and paper.

<sup>10</sup> All wood products excluding pulp and paper.

<sup>11</sup> Including imports from non-tropical countries. COMTRADE, 2007; Turner et al., 2007.

- c) Reducing emissions from deforestation is also one of the priority areas of the Global Climate Change Alliance (GCCA), which the EU launched and which focuses on poor developing countries. It provides a platform for policy dialogue and exchange of good practices on how to tackle the combined challenge of the fight against poverty and climate change. It works in support of the international negotiations on a post-2012 Climate Change Agreement.
- d) By continuing to provide input to *existing international fora*, such as the International Tropical Timber Organisation, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the UN Forum on Forests (UNFF), and giving further consideration to the 2015 review of the UNFF Non-Legally Binding Instrument on Forests.
- e) Through *green public procurement (GPP) policies*, under which public authorities in the EU can generate demand for sustainably and legally harvested timber.
- f) By promoting instruments like *eco-labelling* and by encouraging *forest certification* schemes as well as private sector procurement favouring sustainable timber; and
- g) By developing sustainability criteria for wood and other biomass used for the generation of renewable energy.
- h) European initiatives such as the Global Monitoring for Environment and Security (GMES)<sup>12</sup> and the Tropical Ecosystem Environment observation by Satellite (TREES) project can play an important role in monitoring land-use changes and deforestation trends.

#### 4.1.2. EU policies related to non-timber products

There are linkages between demand for agricultural commodities and pressures on land use. There is also a tension between the need to increase food production and the need to halt deforestation. Agricultural production should be increased without further deforestation. This requires substantial investment to increase yields on existing farmland. Stepping up agricultural research to enhance agricultural productivity growth in developing countries in a sustainable manner should be pursued.

The development of biofuels should be sustainable, so vigilance is needed to ensure that further development of domestic production and imports does not jeopardise efforts to protect forests or broader biodiversity priorities. Appropriate criteria to achieve this are being developed at EU level<sup>13</sup>.

The Convention on Biological Diversity is preparing guidance on the biodiversity-related aspects of sustainability of biofuels following the latest Conference of the Parties in Bonn (COP 9), and this should help in achieving international consensus. The Commission will play an active role in the follow-up process to make this a success.

More generally on policy coherence, the Commission is committed to:

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<sup>12</sup> Now named Kopernikus, [http://ec.europa.eu/kopernikus/index\\_en.htm](http://ec.europa.eu/kopernikus/index_en.htm)

<sup>13</sup> COM(2008) 19.

- assessing the impact of future EU and international policy initiatives on deforestation, including those not directly linked to forests and timber/timber products;
- continuing to include in future reviews and impact assessments of trade and agricultural policy agreements a specific analysis of their likely impacts on deforestation;
- conducting environmental impact assessment associated with country strategy papers developed to guide development assistance policy;
- studying the impact of EU consumption of imported food and non-food commodities (e.g. meat, soy beans, palm oil, metal ores) that are likely to contribute to deforestation. This could lead to considering policy options to reduce this impact;
- improving agricultural productivity, especially by stepping up research to improve the productivity and sustainability of agriculture in developing countries; the Commission has decided to double its support for international agricultural research from 2008 to an average of €63 million for each of the next three years;
- continuing the review process that started with the adoption of the first report on Policy Coherence for Development<sup>14</sup>, which is important in helping the EU to support developing countries in their efforts to attain the Millennium Development Goals.

#### **4.2. Scale, sources of funding and mechanisms to meet the deforestation challenge**

In order to successfully tackle deforestation, significant additional funding will be needed to provide the necessary assistance for capacity-building to developing countries and to provide incentives to counteract the drivers of deforestation.

The cost analysis of forest protection contained in the impact assessment accompanying this Communication concludes that an estimated amount of between € 15 and 25 billion per annum would be needed to halve deforestation by 2020<sup>15</sup>.

Further work is needed to quantify the financing needs, but it is clear that developed countries need to allocate considerable resources to help to tackle deforestation in developing countries under the future international climate regime. This funding will complement financial and other efforts by developing countries and will need to come from both public and private sources. Funding mechanisms will only be effective if:

- developing countries are first provided with the financial and technical assistance necessary to build capacities and strengthen institutions;
- work is carried out to resolve remaining technical issues (e.g. monitoring and verification);
- performance can be assessed and rewarded against agreed baselines; and

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<sup>14</sup> Commission Staff Working Paper SEC(2008) 434

<sup>15</sup> Paragraph 5.2.2 of the Impact Assessment.

- build on existing and proven aid delivery practices and respect the principles of sound financial management.

At the EU level, an appropriate level of funding from 2013 to 2020 would be required for the fight against deforestation, mainly in the form of support to developing countries for slowing down, stabilising and reversing deforestation and forest degradation.

The total amount of funding will depend on the level of mitigation actions undertaken by developing countries.

- Recognition of forestry credits in the EU emissions trading system (ETS) would not be realistic at the present time. Emissions from deforestation are roughly three times higher than the amount of emissions regulated under the EU ETS. As the EU ETS is currently the only major operational trading system in the world, allowing companies to buy avoided deforestation credits<sup>16</sup> would result in serious imbalances between supply and demand in the scheme. There are also unresolved monitoring, reporting, verification and liability questions. Forestry credits are temporary and will then have to be replaced after a certain period. This means that, if a company goes out of business, somebody would have to take on this liability to guarantee environmental integrity.

For these reasons, the EU should consider recognition of forestry credits for EU ETS compliance only as a complementary tool and in the longer term – i.e. post-2020 - provided that certain conditions are fulfilled (especially supply/demand balance and liability). Furthermore, once other emission trading systems are established and interconnected, generating increased demand for emission reductions, it may become feasible to use forestry credits to finance forest protection.

- However, a major portion of EU funding could come from proceeds from the auctioning of allowances within the EU ETS. Indeed, under the proposed amendment of the ETS Directive of January 2008<sup>17</sup>, at least 20% of auction proceeds should be used to support climate objectives, including fighting deforestation. Recently, the European Parliament and the Council endorsed the use of proceeds from the auctioning of allowances in the aviation sector for reducing emissions, including by avoiding deforestation.

It is estimated that auctioning allowances could generate annual revenue of €30–50 billion for EU Member States by 2020. If 5% of the auctioning revenue was earmarked to contribute to global efforts to combat deforestation, €1.5–2.5 billion could be raised in 2020.

– A response to deforestation needs support beyond incentive schemes. Funding is required to improve governance and to resolve technical issues (such as monitoring using satellite and other technologies). European Community and EU Member States development assistance can play a role in addressing these problems. This assistance can be channelled through existing arrangements at national level as well as through international and multilateral arrangements established for this purpose.

- These sources of public funding should be complemented by private funding.

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<sup>16</sup> "Avoided deforestation" credits will be referred to as "deforestation credits" further on.

<sup>17</sup> COM(2008) 16.

## 5. DEFORESTATION IN THE UNFCCC CONTEXT

The EU should pursue the objective of establishing an internationally supported incentive scheme to reduce deforestation and forest degradation in developing countries as part of the future UNFCCC global agreement for the period 2013-2020.

The scheme would be open to all developing countries ratifying the future agreement, and able to contribute to the globally agreed emission reduction objective of the future international climate framework through the commitment to take national mitigation action in order to reduce emissions from deforestation and forest degradation.

A two-track approach is proposed:

- (1) establishing a Global Forest Carbon Mechanism;
- (2) testing the inclusion of deforestation in carbon markets.

### 5.1. The short-term response: establishing a Global Forest Carbon Mechanism

The EU's aim would be to enable developing countries to contribute to the globally agreed emissions reduction objective by taking action to reduce emissions from deforestation and forest degradation.

A Global Forest Carbon Mechanism (GFCM) should be established. While institutional and operational details would have to be worked out, and in this regard existing arrangements would be considered for the GFCM to be effective the following points are essential:

- Participation should be open to developing countries that ratify the future agreement and commit to action with a view to reducing deforestation under that regime.
- It should focus on reducing emissions from deforestation and forest degradation. Complementary ways need to be found to assist developing countries to preserve their forests and to reduce the risk of international leakage.
- It should support capacity-building activities in developing countries.
- Nationwide implementation involving the entire forestry sector would be required to benefit from its funds so as to minimise the risk of in-country leakage (in large countries there could be regional implementation with regional disparities).
- It should take account of the need to secure co-benefits, such as protecting biodiversity and eradicating poverty, to the greatest extent possible. Where co-benefits can be assessed, financial incentives could potentially be directed towards the actions with the highest co-benefits. Input from the Convention on Biological Diversity's work on climate change and biodiversity should be fed straight into the UNFCCC negotiations.
- The results of the emission reduction efforts must be assessed, monitored and accounted for at national level, with independent verification of these reductions.
- Financial support for action by a country against deforestation and forest degradation would be **performance-based** and provided on the basis of verified results.

- It should require that effective forest governance structures are in place, and that the rights of the forest dependent people are respected.
- The principle of common but differentiated responsibilities should be taken into account when designing the financial support instruments under the Mechanism.

## **5.2. The longer-term perspective: testing the inclusion of deforestation in carbon markets**

Public funding is the most appropriate way to take forward a number of essential activities – in particular capacity building, technical support for forest governance and developing the necessary technical know-how to monitor and enforce commitments. Public funding is also the most realistic tool with which to provide incentives for combating deforestation over the period 2013 to 2020. However, it is not the only mechanism that could be envisaged to provide such incentives and the EU should also be prepared to explore the possible contribution of well designed market approaches.

Between 2008 and 2012 afforestation and reforestation activities are recognised, subject to strict quantitative limits, for government compliance and can generate credits in the Clean Development Mechanism (CDM). This recognition, within current limits, should be continued post-2012. In addition, the Commission will test the recognition of deforestation credits for **government compliance**. Certain pre-conditions would need to be met before any inclusion of forests in carbon markets could be considered as a realistic option.

1. There would need to be an international agreement with ambitious mid-term emission reduction commitments. This would be necessary to generate a sufficiently high demand for emissions reductions, so that developed countries actually reduce their emissions instead of simply offsetting them with carbon credits.
2. As with CDM afforestation and reforestation projects, the additional impact of reduced deforestation on carbon emissions would need to be properly monitored and independently verified.
3. The permanence of forestry credits, and liability, are matters that would need to be resolved. For these reasons, a new sectoral market mechanism is needed to avoid leakage problems and to ensure a benefit in terms of net-deforestation.

Inclusion of forestry credits in the EU ETS should only be considered after a thorough review of the experience of using deforestation credits for **government compliance** and for the period after 2020.

Full reliance on carbon value would focus solely on the services of forests as carbon stocks, while not rewarding other important services that forest ecosystems provide and whose value can be significantly higher. This is an issue that will also have to be resolved.

## **6. PREPARATORY ACTIONS**

For a Global Forest Carbon Mechanism to be operational in 2013 and to test the feasibility of including forests in carbon markets intensive preparatory work will be necessary. A number of donors are already active in this field. If we are to actively lead the fight against deforestation the EU should be prepared to take the initiative in a number of areas. This

includes supporting developing countries in building capacity, strengthen forest governance and complete the knowledge gaps. Initiatives that have recently been launched, such as the UN REDD Programme<sup>18</sup>, could be supported by the EU. The Global Climate Change Alliance also provides an appropriate framework for furthering dialogue with developing countries on deforestation and framing follow-up actions to take forward collective efforts in addressing the challenge of deforestation.

Effective policy depends on high-quality information and monitoring systems. In particular monitoring forest degradation will require both dedicated efforts and agreed definitions and criteria. A conservative approach should be taken to monitoring to make sure that uncertainties do not result in emissions reductions being over-estimated.

Technological developments in data software, satellite and communications technology have made tools for forest monitoring cheaper and more accessible. However, remaining gaps need to be addressed with priority. In-country capacity needs to be developed to establish high-quality national monitoring and verification systems to measure progress and assure compliance. In mastering this challenge one could draw on EU initiatives and methodologies already implemented by the Joint Research Centre or other programmes – such as Kopernikus, the Global Earth Observation System of Systems, and Global Observations of Forest and Land Cover Dynamics. Regional initiatives such as the *Observatoire des Forêts d’Afrique Centrale* should also be promoted and implemented in other tropical regions.

To take the process forward, the Commission intends to organise a conference in the run-up to Copenhagen which will provide a forum for discussion of the Commission's proposals, as well as engaging key stakeholders and developing appropriate follow up measures.

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<sup>18</sup> a joint initiative from FAO, UNEP and UNDP to support developing countries in their preparation for the future REDD mechanism.