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**AFRICAN FORESTRY AND WILDLIFE COMMISSION
SIXTEENTH SESSION**

**NEAR EAST FORESTRY COMMISSION
EIGHTEENTH SESSION**

18 – 21 February 2008

KHARTOUM, REPUBLIC OF THE SUDAN

FORESTS AND CLIMATE CHANGE

INTRODUCTION

1. While the first commitment period of the Kyoto Protocol (2008-2012) has just begun, the negotiations in the United Nations Framework Convention on Climate Change (UNFCCC) on the post-2012 arrangements are now in progress and require active participation by the forest sector representatives.

INCREASED AWARENESS OF CLIMATE CHANGE AND ITS IMPACTS ON FORESTS

2. The Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC) concludes that global greenhouse gas (GHG) emissions are likely to continue to grow over the next few decades (www.ipcc.ch/ipccreports/assessments-reports.htm). Tropical rainforests, mountains, Mediterranean-type ecosystems, and mangroves and other coastal environments are among the ecosystems expected to be most affected by climate change. Africa is highly vulnerable to climate change and climate variability due to the low adaptive capacity in many countries (see Box 1).

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Box 1: Findings of IPCC's Fourth Assessment Report on climate change in Africa and the Near East

Africa is expected to suffer increased water stress and a reduction in the yields of rain-fed agriculture; sea-level rise by the end of the 21st century, and increase of 5-8 % of arid and semi-arid land. Forests are likely to undergo species range shifts and changes in tree productivity. A large proportion of species may be threatened or endangered in the future.

Climate trends in the Near East¹ include warming and changes in precipitation that are variable over space and time. Possible impacts in the region are water stress, altered river flows in major river systems, including the Tigris and Euphrates, coastal erosion from sea-level rise and intensifying extreme weather events, including cyclones.

3. The IPCC findings, as well as the awareness-raising campaign of 2007 Nobel Prize winner, Al Gore, and the influential Stern Review (2006, www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/sternreview_index.cfm) have captured the attention of policymakers at the highest level around the world.

FORESTS AND CLIMATE CHANGE MITIGATION

4. IPCC AR4 identifies the following main mitigation options in the forest sector:
- maintaining or increasing forest area through reduced deforestation and degradation and afforestation/reforestation
 - maintaining or increasing stand-level carbon density through reduced forest degradation and forest management measures
 - maintaining or increasing landscape-level carbon density through forest conservation and forest management measures
 - increasing off-site carbon stocks in wood products and enhancing product and fuel substitution to reduce use of fossil fuels

Afforestation and reforestation projects

5. The Clean Development Mechanism (CDM) provides public and private entities in developed countries the opportunity to fulfil their emissions reductions obligations under the Kyoto Protocol through investing in "clean development" projects in developing countries. Within the forest sector, afforestation and reforestation (AR) activities qualify for the CDM. (<http://cdm.unfccc.int/methodologies/index.html>)

6. AR CDM projects have been slow to materialize; as of December 2007, although many projects, including two in Africa (in Uganda and Tanzania), were undergoing validation, only one AR CDM project (in China) had been approved. One reason for slow progress is that the negotiation of AR CDM modalities took two years longer than for other sectors (e.g. energy). Other impediments include relatively high transaction costs.

¹ The Near East region is considered as part of the Asia region in the AR4.

7. UNFCCC has recently simplified the modalities and procedures for small-scale project activities to promote projects involving low-income communities (<http://cdm.unfccc.int/methodologies/SSCAR/index.html>).

8. Carbon markets for AR projects are developing, including through funds administered by the World Bank. For example, the Bank's BioCarbon Fund purchases carbon credits from CDM projects and finances demonstration projects for carbon sequestration and conservation in forest and agro-ecosystems outside the Kyoto market. To date, the BioCarbon Fund has purchased several million forestry carbon credits. Emissions Reduction Purchase Agreements for more than a dozen projects are already signed and more are in the pipeline. The World Bank has also initiated the Community Development Carbon Fund, which buys carbon credits from forestry projects with a special focus on poverty alleviation and the involvement of local communities. In addition, about 27 percent of the carbon credits sold on the voluntary carbon market are invested in forestry projects.

Use of sawmill residues for emissions reductions and fuel substitution

9. In 2007, the CDM Executive Board approved a CDM methodology revision, which was developed by FAO, for the pelletization of sawmill residues for thermal energy generation. Emission reduction credits may be generated in two ways: (i) reduction of methane, which would have been generated by anaerobic decomposition of the sawmill waste and (ii) fossil fuel substitution in thermal energy generation. Countries may wish to explore this opportunity. (For more information, see www.fao.org/forestry/site/30108/en).

Reducing emissions from deforestation in developing countries

10. According to IPCC, "forestry" accounts for 17.4% of global greenhouse gas emissions, most of which derive from deforestation. Emission reductions from reducing deforestation (or "avoided deforestation") were not included in the CDM, mainly for technical and methodological reasons. This mitigation option is again under discussion in UNFCCC. At COP11 in December 2005, UNFCCC established a two-year process² to review relevant scientific and methodological issues and to consider possible policy approaches and positive incentives for reducing emissions from deforestation in developing countries. COP13 addressed this issue, and its decision encouraged Parties to strengthen and support efforts to reduce emissions from deforestation and forest degradation and to undertake related demonstration and capacity strengthening activities. It also called for further methodological work, and invited Parties to submit by 21 March 2008 their views on how to address outstanding methodological issues.

11. The World Bank launched the Forest Carbon Partnership Facility (FCPF) at COP13 in December 2007. The objectives of FCPF are: to strengthen (20+) countries' capacities so that they are ready to access a future system of financial incentives for reducing emissions from deforestation and forest degradation (i.e. "REDD-ready"); and to pilot carbon finance transactions for (about 5) "ready" countries before the post-2012 regime is in place. Envisioned "REDD-readiness" activities include training in the use of the IPCC's Good Practice Guidance and other assistance for assessing and monitoring forest carbon, setting a REDD "reference level" (or baseline), and for developing strategies for reducing forest emissions. Of the countries that had expressed an interest to participate in FCPF by November 2007, seven are African (Cameroon, Central African Republic, Republic of Congo, Democratic Republic of Congo, Gabon, Kenya, Liberia). None are from the Near East.

12. Other programmes, including Australia's Global Initiative on Forests and Climate, which was launched in March 2007, and the Government of Norway's announcement at COP13 of its

² Including two UNFCCC organized workshops (Rome, Italy in September 2006 and Cairns, Australia in March 2007) and discussions in the 24th-27th sessions of the Subsidiary Body of Scientific and Technical Advice of UNFCCC.

contribution of about US\$ 800 million annually over 5 years, are providing support to country initiatives to reduce emissions from deforestation and forest degradation as well as other forest and climate change activities.

13. Initiatives to reduce emissions from deforestation and degradation may bring financial support for sustainable forest management (SFM). The wealth of experience, tools, approaches and partnerships that already exists in SFM should be applied to the climate change challenges. In the words of the IPCC “comprehensive intersectoral programs that combine measures to control deforestation and forest degradation with measures to increase agricultural productivity and sustainability will likely contribute more to reducing vulnerability of forests to climate change, land use change and other stress factors than independent sectoral initiatives.”

CLIMATE CHANGE ADAPTATION AND FORESTS

Nairobi Work Programme (NWP)

14. Considerable progress has been made in UNFCCC with regard to support for climate change adaptation. COP12 (November 2006) adopted the Nairobi Work Programme on Impacts, Vulnerability and Adaptation to Climate Change, for a duration of 5 years. Forestry, which is considered as part of the agriculture sector, has received limited attention in the NWP.

15. Adaptation measures in forestry fall into two broad categories: adapting forest management practices to reduce the vulnerability of forests to climate change; and engaging forestry measures (including trees outside forests) to help reduce the impacts of climate change on vulnerable people. Although some field activities are under way in support of adaptation measures in the forestry sector, they appear to be limited and relatively ad-hoc. A more systematic approach to the needs and opportunities for adaptation in the forest sector, as part of the overall forest policy and planning processes (i.e. national forest programmes) and in concert with mitigation efforts, is needed.

Financial support for adaptation measures

16. Various UNFCCC designated funds are available to support countries' adaptation measures, including three administered by the Global Environmental Facility (GEF): the Least Developed Country Fund (LDCF), the Special Climate Change Fund; and the Adaptation Fund. The LDCF is earmarked for support to Least Developed Countries (LDCs) for the preparation and implementation of National Adaptation Programmes of Action (NAPAs). Of the 50 least developed countries, 34 are in Africa and one in the Near East. Of these, 17 African countries have prepared NAPAs. Countries need to complete a NAPA before accessing additional resources in GEF for adaptation.

17. In 2007 two additional funds were established: the GEF's “Sustainable Forest Management” programme (a cross-cutting programme to support countries' forestry efforts related to biodiversity, climate change and sustainable land management) and the Millennium Development Goals (MDGs) Achievement Fund of the Government of Spain and UNDP.

CONCLUSIONS

- 1) Climate change brings new challenges and opportunities to the forest sector: it is essential that forestry institutions are prepared and fully engaged in national and international discussions regarding forests and climate change mitigation and adaptation.
- 2) Experience in SFM gained over the past few decades, including the existing voluntary guidelines, represents a sound foundation ready to be deployed for rapid action in climate change adaptation and mitigation, including reducing emissions from deforestation and forest degradation.
- 3) Forest-related efforts in climate change mitigation can produce significant co-benefits, but may have negative environmental and social side effects if poorly designed.
- 4) Experience in climate change adaptation in the forest sector is limited and more research and systematic approaches are needed.
- 5) Forest-related adaptation and mitigation measures, including the reduction of emissions from deforestation, will need to address the forestry-agriculture interface and be integrated in national forest programmes.

DISCUSSION ITEMS FOR THE COMMISSIONS

18. AFWC and NEFC members may wish to:
 - (i) consider taking action on the following points
 - integrate climate change mitigation and adaptation strategies in their national forest programmes and other relevant forest policy processes;
 - strengthen capacity for forest carbon monitoring, assessment and reporting;
 - seek to develop projects in A/R and in use of sawmill residues, and for forest-related adaptation projects; and
 - actively seek information and engage in capacity strengthening activities supported by the World Bank FCPF, FAO and other programmes that enhance reduction of emissions from deforestation and forest degradation.
 - (ii) provide guidance for FAO support, for example, to:
 - assist countries in integrating climate change mitigation and adaptation measures in their national forest programmes;

- assist countries in assessing forest carbon and developing reference levels for reducing emissions from deforestation and forest degradation, including through links with FAO programmes on national and global forest resources assessments;
- assist countries in developing adaptation projects in the forest sector and implement demonstration activities for reducing emissions from deforestation and forest degradation;
- compile and disseminate information and organize training for national forestry officers and other stakeholders related to forests and climate change, specifically to increase awareness of and access to funding opportunities;
- assist the Subsidiary Body for Scientific and Technological Advice of UNFCCC on methodological issues related to reducing emissions from deforestation and forest degradation; and
- enhance coordinated activities to support country efforts in forests and climate change, together with the UNFCCC Secretariat, other members of the Collaborative Partnership on Forests and other partner organizations.