Reducing emissions from deforestation: perspectives from FRA 2005
Presented by the Food and Agriculture Organization

Dieter Schoene, Food and Agriculture Organization, presented an overview of the 2005 Global Forest Resources Assessment (FRA 2005), noting that it gathers data from 229 countries and territories on about 40 variables over the time periods of 1995, 2000 and 2005.

Among the FRA 2005’s key findings, Schoene noted that forests cover 30% of the world’s total land area, that the five most forest-rich countries account for 50% of total forest area and that the ten most forest-rich countries account for two-thirds of total forest area. He added that while primary forests account for 36% of the total forest area, six million hectares are modified or lost each year.

Schoene highlighted limitations to the data collection in the FRAs including, *inter alia*: the dependence of half of the developing countries on expert estimates to calculate forest area for FRA 2000; the inability of developing countries to provide forest increment data for FRA 2000; and the use by a large number of countries of the same carbon stock data for the 1995, 2000 and 2005 periods in the FRA 2005. He emphasized that area is a poor proxy for determining carbon emissions because forest carbon density varies, and noted the lack of forest carbon density data in developing countries.

Addressing the significance of deforestation and the FRA 2005 to negotiations on LULUCF and carbon capture and storage, Schoene identified the need to: consider the broad range of forest change dynamics that influence carbon emissions, including reforestation, natural regeneration and stock changes; determine whether negotiations should address deforestation or net forest area change; and achieve a consensus on whether to include emissions due to forest degradation.

Schoene stressed the need for a holistic approach to data collection, stating that both on-the-ground and remote sensing data are needed. He cited engagement of administrations and national correspondents as critical to collecting reliable data.

Participants discussed: the need to consider GHG emissions other than carbon from forests and the importance of increased research on soil carbon. One participant emphasized that although data gaps exist, this should not be used to hamper negotiations, noting that tools exist to fill these gaps.
Research needs relating to the Convention
Presented by the UNFCCC

John Church, World Climate Research Programme (WCRP), noted that WCRP research contributes to the work of IPCC Working Groups I and II and the IPCC’s Fourth Assessment Report. He emphasized rising concerns relating to the change in ice sheet stability and world monsoons, as well as sea level rise and extreme events.

Kevin Noone, International Geosphere-Biosphere Programme (IGBP), presented IGBP’s key research activities on climate change including their contributions to improving observation of the climate system and understanding the impacts of GHG concentration.

Andreas Rechkemmer, International Human Dimensions Programme on Global Environmental Change (IHDP), outlined IHDP’s core projects that consider climate change, including one on global and regional scenarios of land-use change and another on the institutional dimensions of global environmental change.

Michael Raupach, Earth System Science Partnership, introduced the Global Carbon Project and highlighted its three themes: patterns and variability of sources and sinks; climate processes, interactions and vulnerabilities; and urban and regional carbon management.

Andrew Matthews, Asia-Pacific Network for Global Change Research, highlighted that an oversell in the capability of global satellite information has resulted in a lack of investment in sustained observation at the local and regional levels.

Gerhard Breulmann, Inter-American Institute for Global Change Research (IAI), noted opportunities for cooperation between IAI and SBSTA.

Eric Odada, Pan African System for Analysis Research and Training Secretariat, highlighted the challenges and experiences in vulnerabilities and adaptation research in developing countries.

Hiroki Kondo, Japanese Ministry of Education, Culture, Sports, Science and Technology presented the third phase of Japan’s Science and Technology Basic Plan and described its strategies on climate change.

Lu Xuedu, Chinese Ministry of Science and Technology, outlined the Chinese approach to climate change research, which includes the National Science Foundation Programme and the International Scientific Cooperation Programme.

Linda Moodie, US National Oceanic and Atmospheric Administration, presented the US’ climate change approach and highlighted the work of the US Climate Change Science Programme.

José Domingos Miguez, Ministry of Science and Technology, Brazil, highlighted research relating to renewable energy development and on the impacts and adaptation to climate change in coastal zones.

David Warrilow, UK Department for Environment, Food and Rural Affairs, presented key trends in EU climate research and stressed the importance of focusing on uncertainties and non-climatic impacts of carbon dioxide.

Participants discussed the need for better global and local climate observations; viability of land and ocean sinks; and the brain drain of developing country scientists.

More information:
http://www.ihdp.org
http://www.climatescience.gov/
http://www.globalcarbonproject.org
http://www.csiro.au
http://pass.uonbi.ac.ke
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When will carbon dioxide capture and storage be acceptable?

Presented by the Energy Research Centre of the Netherlands

Ole Andreas Flagstad, Diet Norske Veritas, presented the ACCSEPT Project, which aims at gathering knowledge on the social, legal, and regulatory acceptance of carbon capture and storage (CCS).

Jason Anderson, Institute for European Environmental Policy, addressed the issue of acceptance of CCS in the context of other mitigation options. He explained that CCS could be one of many mitigation options that exist to address the two-degree challenge in the European context. He said CCS could achieve cost savings but that it may reduce pressure for targets by giving the impression of a fallback solution. He indicated that a comparative public survey has demonstrated strong support for renewable energy although CCS is seen as more desirable than nuclear energy.

Heleen de Coninck, Energy Research Centre of the Netherlands, described the policy and regulatory context of CCS, noting that the establishment of a clear legal framework is needed to ensure safety of storage sites. She listed the international treaties that could regulate CCS activities and stressed that there is no overall clarity of their legality. She highlighted concern regarding the interest of marine environment protection treaties to make CCS illegal, since increased carbon dioxide emissions lead to oceans acidification. She informed that various studies have shown very low general knowledge of CCS and that the initial public reaction is one of skepticism.

Stephan Singer, WWF, stated that CCS is no “silver bullet” but, if undertaken safely, it could be part of the portfolio of mitigation options. He highlighted that CCS could be an alternative to the renewed interest in nuclear energy but that it should only be envisaged in the context of a robust climate change framework with aggressive targets.

Antoine-Tristan Mocilnikar, Energy Counselor to the Interministerial Delegate for Sustainable Development, France, highlighted the growing demand for energy and that coal will remain an important part of future power generation. He underlined that energy efficiency and CCS are the only two solutions that adequately address the coal challenge. He called for improving CCS technology, establishing a legal and economic framework for CCS, and developing it in a sustainable manner.

Participants discussed the duty of governments and stakeholders to inform the public on CCS, the need to assess the risks associated with CCS and its economic viability.

Development and transfer of technologies

Presented by the UNFCCC Secretariat and the Expert Group on Technology Transfer

Bernard Mazijn, Expert Group on Technology Transfer, explained that the event brings together experts on the transfer of publicly-owned technologies and representatives from UNFCCC Parties.

Speaking on intellectual property rights (IPRs), Jayant Sathaye, Lawrence Berkeley National Laboratory, explained that in most countries, institutions typically own the IPRs to the technologies that result from government-sponsored research. He identified joint research between institutions of higher learning as a useful means for transferring technology and building capacity in partnering countries.

Xu Ning, World Intellectual Property Organization, discussed the importance of intellectual property information systems, stating that public interest is better served when access to patent information is improved. She suggested that Parties consult PatentScope and national and regional services to acquire patent information.
Elmer Holt, US Department of Energy, highlighted that IPR protection is important to governments because it: stimulates creativity; promotes competition; provides opportunities to establish national comparative advantages; contributes to prosperity and international trade; and improves access to new technologies.

Rajesh Kumar Sethi, India’s Ministry of Environment and Forests, suggested that in India, barriers to technology transfer are experienced mainly by small and medium-sized enterprises that lack the resources needed to access technologies.

Jürgen Lefevere, European Commission, speaking in his personal capacity, suggested that IPR ownership is secondary to technology development and deployment of appropriate technologies to the right place and at the right cost. He introduced the EU-China Partnership on Climate Change, which seeks to develop and demonstrate near-zero emissions coal technology using carbon capture and storage in China and the EU.

Participants discussed: technology transfer and renewable energy technologies; correlations between implementation of patent principles and changes in innovation and creativity; and the implications of the trade-related aspects of intellectual property rights to technology transfer.

Tracy Johns, Union of Concerned Scientists, analyzed instruments and mechanisms at the international level for reducing emissions from deforestation. She described three possible mechanisms based on a flexible multi-stage approach: policies and measures; project-based emission reductions; and national or sub-national quantified emission reduction commitments.

Participants addressed the relevance of a market mechanism for reducing deforestation, barriers to a market mechanism and the need for alternatives.