



European Forests, Energy and Climate Bulletin

A Summary Report of the International Conference “The European Forest-Based Sector: Bio-Responses to Address New Climate and Energy Challenges?”

Published by the International Institute for Sustainable Development (IISD)

ONLINE AT [HTTP://WWW.IISD.CA/YMB/CLIMATE/SEFFF/](http://www.iisd.ca/YMB/CLIMATE/SEFFF/)
VOLUME 157, No. 1, MONDAY, 10 NOVEMBER 2008



INTERNATIONAL CONFERENCE “THE EUROPEAN FOREST-BASED SECTOR: BIO-RESPONSES TO ADDRESS NEW CLIMATE AND ENERGY CHALLENGES?”: 6-8 NOVEMBER 2008

The International Conference “The European Forest-Based Sector: Bio-Responses to Address New Climate and Energy Challenges?” took place from 6-8 November 2008, in Nancy, France. It was held under the auspices of the French Ministry of Agriculture and Fisheries and with the support of the European Commission (EC), and organized by Ecofor, France.

The Conference brought together around 230 representatives of the forest-based sector, European member States and the EC, non-governmental organizations and academia. Participants addressed the role of the forest-based sector in light of two of the most pressing issues of our time: climate change and the energy crisis. These two crises are closely linked, and the forest-based sector has a potential to play a mitigating role in this regard.

The Conference aimed to provide policy makers with objective information regarding the role of the forest-based sector in relation to the physical processes of the carbon cycle, the competition between wood and other materials, and the energy market. Three themes were addressed: forests as carbon sinks; wood-based products: carbon storage and energy conservation; and the forest-based sector: source of renewable energy.

Participants met in plenary and in parallel sessions on Thursday and Friday, discussing the latest scientific developments in the forest-based sector and options for policy development. On Saturday, field trips were held to various research and forestry facilities in the surroundings. This report provides a chronological summary of the plenary and parallel sessions.

A BRIEF HISTORY OF EUROPEAN FOREST POLICY AND INSTITUTIONS IN RELATION TO CLIMATE CHANGE AND RENEWABLE ENERGY

The interlinkages between forest, climate and energy issues have enjoyed increasing international attention over the past two decades, particularly following the 1992 UN Conference on Environment and Development, held in Rio de Janeiro, Brazil. The main conventions, bodies and processes addressing forests, climate and energy issues include: the UN Framework

Convention on Climate Change (UNFCCC); the Kyoto Protocol; the Intergovernmental Panel on Climate Change; the Convention on Biological Diversity; the Commission on Sustainable Development; and the UN Forum on Forests. At the European level, forests, climate and energy are addressed mostly through the UN Economic Commission for Europe Timber Committee (UNECE-TC), the European Forestry Commission of the UN Food and Agriculture Organization (FAO-EFC), the Ministerial Conference on the Protection of Forests in Europe (MCPFE), and the EC.

UNECE-TC AND FAO-EFC: The work of the UNECE-TC revolves around market analysis, information exchange, sector outlook studies and forest resource assessments, including sustainable forest management more broadly. The work of the

IN THIS ISSUE

A Brief History of European Forest Policy and Institutions in Relation to Climate Change and Renewable Energy	1
Report of the Conference	2
Opening Plenary	2
Keynote Addresses	3
Forests as Carbon Sinks	3
Forest and Carbon Management	4
Soil-Forest-Atmosphere Interactions, and Economic and Political Instruments.	4
Wood-Based Products: Carbon Pools and Energy Conservation.	4
The Forest-Based Sector: Source of Renewable Energy	5
Wood-Based Products: Carbon Pools and Energy Conservation.	5
Processes and Technologies for Bioenergy	5
Evaluation of Bioenergy Development	6
Forest Resources Available for Bioenergy.	6
Synthesis and Outcomes.	6
Closing Session	7
Upcoming Meetings	7
Glossary.	8

The *European Forests, Energy and Climate Bulletin* is a publication of the International Institute for Sustainable Development (IISD) <info@iisd.ca>, publishers of the *Earth Negotiations Bulletin* © <enb@iisd.org>. This issue was written and edited by Nienke Beintema and Alice Bisiaux. The Editor is Pia M. Kohler, Ph.D. <pia@iisd.org>. The Director of IISD Reporting Services is Langston James “Kimo” Goree VI <kimo@iisd.org>. Funding for coverage of this meeting has been provided by GIP ECOFOR. IISD can be contacted at 161 Portage Avenue East, 6th Floor, Winnipeg, Manitoba R3B 0Y4, Canada; tel: +1-204-958-7700; fax: +1-204-958-7710. The opinions expressed in the *Bulletin* are those of the authors and do not necessarily reflect the views of IISD. Excerpts from the *Bulletin* may be used in other publications with appropriate academic citation. Electronic versions of the *Bulletin* are sent to e-mail distribution lists (in HTML and PDF formats) and can be found on the Linkages WWW-server at <<http://www.iisd.ca/>>. For information on the *Bulletin*, including requests to provide reporting services, contact the Director of IISD Reporting Services at <kimo@iisd.org>, +1-646-536-7556 or 300 East 56th St., 11A, New York, New York 10022, USA.

FAO-EFC centers on monitoring policy developments affecting the sector and analyzing possible response strategies. The joint integrated programme of work of the UNECE-TC and FAO-EFC, which has been in operation since 1948 and provides for a joint Secretariat, joint meetings and joint publications, has further enhanced cross-sectoral initiatives and policy and institutional monitoring. Since their establishment, these organizations have held joint meetings every four years.

EUROPEAN COMMISSION: The EC's work on forests is undertaken through its Directorates-General on Environment, Energy, Transport, Agriculture and Rural Development and Enterprise and Industry, as well as the European Statistical Office (Eurostat), the Joint Research Centre and the European Environment Agency. In 2006, the European Forest Action Plan was adopted with a view to supporting and enhancing sustainable forest management and the multifunctional role of forests. The Plan provides the framework for forest-related actions at the Community and member State levels, and for coordinating the Community's actions with the forest policies of its member States.

FIFTH MCPFE: The MCPFE is a high-level political initiative that works towards the protection and sustainable management of forests throughout the region. Forty-six European countries and the European Union (EU), cooperating with a range of international organizations, are involved in this initiative. MCPFE-5 was held from 5-7 November 2007, in Warsaw, Poland. The conference, which centered on the theme "Forests for Quality of Life," adopted the Warsaw Declaration and resolutions on "Forests, Wood and Energy" and "Forests and Water." These documents focus, among other things, on the role of forests in energy production and in mitigating climate change.

BALI CLIMATE CONFERENCE: This UN Climate Change Conference was held from 3-15 December 2007, in Bali, Indonesia. The conference involved a series of events, including the thirteenth Conference of the Parties (COP-13) to the UNFCCC and the third Conference of the Parties serving as the Meeting of Parties to the Kyoto Protocol (COP/MOP-3). These events drew over 10,800 participants. The main focus was on long-term cooperation and the post-2012 period, when the Kyoto Protocol's first commitment period expires. The conference agreed on a two-year process – or "Bali roadmap" – to finalize a post-2012 regime by December 2009. COP-13 took decisions on, *inter alia*, reducing emissions from deforestation. The numerous side events of the Bali Climate Conference included the Forest Day, which was convened as a platform for multi-stakeholder discussion to help shape the global forest agenda.

WORKSHOP ON HARVESTED WOOD PRODUCTS: This workshop, which was organized by several partners including UNECE-TC and FAO-EFC, took place on 9-10 September 2008, in Geneva, Switzerland. The objectives of the workshop were to: provide information for policy makers on the climate-relevant carbon storage and substitution effects of harvested wood products, and the core principles and issues of accounting of harvested wood products; discuss measures and policies to increase the role of forest products in climate change mitigation; and review options and consequences of different choices for policy makers in the context of international

negotiations. The workshop produced an outcome document containing conclusions and recommendations regarding measures and policies to increase the role of forest products in climate change mitigation.

INTERNATIONAL CONFERENCE ON THE ROLE OF FORESTS IN CLIMATE MANAGEMENT: This conference was held from 4-7 October 2008 in St. Petersburg, Russia. It was organized by the Russian Federal Forestry Agency, the World Bank, FAO, the International Union of Forest Research Organizations, and the World Meteorological Organization. The conference outcomes included: a declaration on innovative financial mechanisms and investment partnerships to enhance climate regulating benefits from forests and the forest sector; and practical recommendations on priority aspects of research and development, and technological and institutional development of the forest sector in view of climate change.

EUROPEAN FOREST WEEK: The first European Forest Week was held from 20-24 October 2008. It consisted of over 100 forest-related events held concurrently in 30 countries across Europe. The main event, the joint meeting of the 66th session of UNECE-TC and the 34th session of FAO-EFC, took place at FAO headquarters in Rome, Italy, from 21-24 October 2008. At this meeting, a variety of stakeholders shared perspectives and solutions to global challenges relating to forests and climate change, energy and water. Participants addressed, among other things, the role of wood products in climate change mitigation, and adaptation of forests to climate change.

REPORT OF THE CONFERENCE

OPENING PLENARY

André Rossinot, Mayor of Nancy, welcomed participants to the meeting on the morning of Thursday, 6 November.

Highlighting that Nancy hosts a number of educational centers related to forestry, including a center of excellence for fibers, he mentioned the upcoming establishment of a European center for forests in the city.

Noting that climate change is the defining challenge of the 21st century, Jean-Yves Le Déaut, Vice-President of the Regional Council of the Lorraine Region, stressed the need for further scientific research on the role of forestry in climate change mitigation, and for France to lead by example.

Harald Aalde, Senior Adviser at the Norwegian Ministry of Agriculture and Food, elaborated on the Ministerial Conference on the Protection of Forests in Europe (MCPFE), a high-level political initiative towards the protection and sustainable management of forests throughout the region. He said the Warsaw Declaration, adopted at the fifth MCPFE in 2007, notes the role of forests in tackling climate change. He urged the forest sector to make knowledge available to policy makers to contribute to the shaping of the post-2012 climate regime.



André Rossinot, Mayor of Nancy

KEYNOTE ADDRESSES

This plenary session, held on Thursday morning, was moderated by François Houllier, Chairman of the Board of Ecofor.

Risto Seppälä, former president of the International Union of Forest Research Organizations (IUFRO) and Chairman of the IUFRO-led Expert Panel on Adaptation of Forests to Climate Change, discussed the science-policy interface. He highlighted the work of the Collaborative Partnership on Forests, a collaboration mechanism among 14 forest-related organizations, and of the Expert Panel on Adaptation of Forests to Climate Change, which was established in 2007 to help bridge the gap between science and policy. Seppälä pointed out that the Expert Panel will produce peer-reviewed scientific reports, as well as a report for policy makers in early 2009. He said similar expert panels may be established, for instance on forests and bioenergy, and forests and water.

Johan Elvnert, member of the Management Committee of the European Forest-Based Sector Technology Platform, outlined the Platform's approach. He said the renewable energy targets defined by the EU in its Strategic Energy Technology Plan require substituting present petroleum-based refineries with bio-refineries, and developing more efficient conversion of biomass to higher-value products. Identifying obstacles, he underlined that current research is fragmented and mostly carried out at the national level, and that the forest industry is hesitant to invest in new processes. Elvnert explained that the Platform's role is to secure and coordinate research funding, create greater coherence in policy and encourage industrial exploitation of its findings.

Gert-Jan Nabuurs, lead author of the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report Chapter 9 on Forestry, said strong sequestration fluctuations occur in time and space. He stressed that the carbon balance depends on a variety of issues and trends, such as the cost of fossil fuels, customer demands, non-forest land use and developments in agriculture. He noted that mitigation options are most promising in the Caribbean and in Central and South America, but limited in Europe. On applying the IPCC results to European cases, he recommended adapting to local circumstances and taking into account current drivers and trends.

Bryan Smith, co-Chair of the contact group on Land Use, Land Use Change and Forestry (LULUCF) for the negotiations under the UN Framework Convention on Climate Change

(UNFCCC), provided an overview of the history of the LULUCF negotiations, highlighting that the rules on LULUCF were agreed upon in 2001, at the seventh Conference of the Parties (COP-7) to the UNFCCC in Marrakech, Morocco, after the Kyoto commitments were set. He outlined the rules on LULUCF, noting that harvested wood products (HWP) are not currently covered, and listed the issues that are to be agreed upon for the post-2012 regime.

Participants discussed bioenergy production, the role of HWP in climate change mitigation, and the reform of the Clean Development Mechanism (CDM).

FORESTS AS CARBON SINKS

This plenary session took place on Thursday morning and was moderated by Konstantin von Teuffel, Chairman of the Board, European Forest Institute (EFI).

Peter Aarup Iversen, Ministry for Climate and Energy, Denmark, provided an overview of the LULUCF accounting rules, underlining that they were not part of the original calculation of the assigned amount of emissions for each party to the Kyoto Protocol. He outlined some mitigation options and noted the need to agree on new LULUCF rules before parties agree on their post-2012 commitments.

Philippe Ciais, Laboratory of Climate and Environment Sciences, France, described the carbon cycle, explaining that the main query is whether the natural sinks will continue to cope with increasing anthropogenic emissions. He underscored the need to improve current models by better accounting for extreme weather events and other factors, and taking into account the impact of forest management.

Sebastiaan Luysaert, University of Antwerp, Belgium, identified advantages and disadvantages of different management strategies. He concluded that European forests currently act as a carbon sink due to net forest regrowth, but noted that future increases in wood and pulp demand are expected to result in more intense management and shorter rotation cycles, releasing much of the carbon sequestered in previous decades. He argued that forest management should be driven by the full spectrum of forest services, not just carbon sequestration.

Giacomo Grassi, Joint Research Center of the European Commission (EC), noted that European Union (EU) LULUCF reporting under the UNFCCC is still incomplete and uncertain, but improving. Outlining the challenge of reconciling accounting requirements with the need for pragmatic reporting, he recommended combining two approaches: conservativeness, or staying "on the safe side" in terms of the land use changes that are taken into account; and key categories analysis, which limits reporting to land use categories that significantly affect the country's total emissions in terms of absolute levels or trend.

In the ensuing discussion, participants addressed: interactions between management and disturbances; climate change impacts on the risk of disturbances such as fires, storms and pests; whether extensive forestry is conducive to sequestration; and the effects of peatland disturbance. They also discussed: balancing land use to benefit sequestration as well as wood production and biodiversity; climate change impacts on soil carbon stocks; and options for carbon capture and storage.



The dais during the conference

FOREST AND CARBON MANAGEMENT

This parallel session, which took place on Thursday afternoon, was moderated by Marcus Lindner, EFI, Finland.

Laurent Saint-André, Agricultural Research for Developing Countries (CIRAD), France, and French National Institute for Agricultural Research (INRA), elaborated on research aimed at comparing forest ecosystems in Europe and other parts of the world. He said the carbon balance varies strongly, depending on climate, weather events and management practices. He provided case studies from Africa and Latin-America, citing high-tech solutions for measuring carbon sequestration.

Esther Thürig, Swiss Federal Institute for Forest, Snow and Landscape Research (WSL), presented an analysis of different forest management scenarios and their influence on long-term harvesting amount and carbon sinks. She highlighted four scenarios: steady-growing stock, minimum forests management, reduced harvesting, and increased harvesting. She concluded that both reduced harvesting and steady-growing stock combine high long-term increment and carbon stock, stressing regional differences.

Tuula Nuutinen, Finnish Forest Research Institute (Metla), discussed a research approach that enables: tracking any wood, biomass or carbon component of a tree as a function of climate and management operations; taking into account a variety of types of stands and sites; and simultaneously addressing impacts of climate change and the role of trees in mitigation. She said the results indicate that the future potential of wood energy and the amount of carbon in growing stock are impacted by climate change as well as forest management.

Gabriel Pita, Technological University of Lisbon, Portugal, discussed the impact of tree felling and drought on carbon fixation at a Portuguese eucalyptus site. He concluded that: eucalyptus is a stronger carbon sink than native trees; carbon uptake shows a seasonal pattern; drought results in a decrease in carbon uptake; and remnant stumps have a capacity to recover some of the carbon sink function after felling. Pita emphasized the link between carbon and water cycles.

In the ensuing discussion, participants addressed: technical aspects of simulations of different harvest scenarios; the influence of seasonality in factors such as groundwater level and cloud cover; and compatibility of sequestration and biodiversity targets.

SOIL-FOREST-ATMOSPHERE INTERACTIONS, AND ECONOMIC AND POLITICAL INSTRUMENTS

This parallel session took place on Thursday afternoon and was moderated by Annemarie Bastrup-Brik, University of Copenhagen, Denmark, and Franck Lecocq, Laboratory of Forestry Economics, France.

Robert Jandl, Federal Research and Training Centre for Forests, Natural Hazards and Landscape, Austria, presented the results of an experiment in a mountainous forest site in Austria, which showed that slow warming of the soil leads to greenhouse gas (GHG) emissions and that elevated emissions are not ephemeral.

Valentin Bellassen, French Laboratory of Climate and Environment Sciences, presented a module that explicitly simulates forest management, stand structure and tree mortality

within ORCHIDEE, the Pierre Simon Laplace Institute Earth System Model. He indicated that it will be attempted to extend the model to continental scale.

Lorenzo Ciccacese, University of Padua, Italy, provided an overview of the policies and measures of carbon sequestration in the voluntary market, underlining the mitigation potential of land use change as it represents almost 20% of global GHG emissions. He listed some concerns, including: the additionality criteria; non-permanence and leakage; high transaction costs; and technical complexities related to monitoring and reporting.

Maria Nijnik, Macaulay Institute, UK, discussed the opportunities presented by the Kyoto Protocol flexibility mechanisms and carbon markets for the forestry sector. She underscored that although carbon uptake in trees is temporary, it mitigates climate change, thus buying time for innovation and adaptation. She stressed that using wood for fuel and in products constitutes a sustainable means of carbon management in the long run.

In the discussion, participants addressed the economics of carbon sequestration, the relationships between voluntary carbon credits and other commodities; and the models' limitations.

WOOD-BASED PRODUCTS: CARBON POOLS AND ENERGY CONSERVATION

This plenary session took place on Thursday afternoon and was moderated by Pat Snowdon, UK Forestry Commission.

Christophe Van Orshoven, Belgium Ministry of Environment, presented on the accounting of HWP, on behalf of Eugene Hendrick, National Council for Forest Research and Development (COFORD), Ireland. He said HWP have significant climate change mitigation potential, as they: substitute fossil fuel use; extend the biological carbon store; and replace more energy-intensive materials. On the inclusion of HWP accounting in a future climate regime, he stressed the need to recognize that HWP are a store rather than a sink, and to adopt clear accounting rules and concepts that include all parties.

Johannes Welling, University of Hamburg, Germany, spoke on life cycle analysis (LCA) as a tool to compare wood and its alternatives with respect to carbon. Noting that LCA has multiple outputs that are difficult to understand, he stressed that by combining comparative LCA results with market data, the eco-potential of a market segment can be calculated.

Noting that most HWP are glued and/or treated for preservation, Antonio Pizzi, Enstib France, presented on the potential of environmentally friendly adhesives and treatments. He provided examples of these types of adhesives and their uses in the construction and flooring industries, stating that "for wood adhesives and treatments, the future has already started."

Sebastian Rüter, von Thünen Institute, Germany, discussed HWP accounting approaches for the post-2012 period. Highlighting the pros and cons of different approaches, he said HWP accounting should, *inter alia*: prioritize overall climate effects, discourage unsustainable forest management, and create incentives for improved management of HWP carbon pools.

Kit Prins, UN Economic Commission for Europe (UNECE), presented measures and policies to increase the role of HWP in climate change mitigation. He concluded that: the substitution effect of HWP is their key impact in climate change mitigation;

carbon stock in HWP has been increasing significantly; accounting for HWP can create an incentive to use wood as a material, before using it for energy generation; and consumers are often unaware of the role of HWP in the carbon balance.

Discussion focused on the need to: quantify the substitution effect of HWP; develop simple indicators of carbon sequestration; and reach out to governments as well as consumers.

THE FOREST-BASED SECTOR: SOURCE OF RENEWABLE ENERGY

This plenary session took place on the morning of Friday, 7 November and was moderated by Alaric Sample, Pinchot Institute for Conservation, US.

Rosemarie Benndorf, Federal Environmental Agency, Germany, discussed the promotion of bioenergy production from wood under the Kyoto Protocol. She outlined recommendations for the post-2012 regime, including taking into account Reducing Emissions from Deforestation and Forest Degradation (REDD) in a future agreement and the creation of incentives for the forest sector.

Kai Sipilä, VTT Technical Research Centre of Finland, discussed the role of new technologies in the European forest industry platform, noting that wood residues constitute the most competitive source of bioenergy. He stated that the European forestry sector offers attractive economic options for future bioenergy investments and that green electricity will have the lowest production cost when integrated into European forest industrial processes.

Johannes Schmidt, University of Natural Resources and Applied Life Sciences (BOKU), Austria, presented a study on the potential for bioenergy production within the forest market. He indicated that preliminary results show that Austrian renewable energy targets can be achieved and that rising carbon prices would increase the share of biofuel production, and decrease that of combined heat and power technologies.

Markku Karlsson, UPM-Kymmene Oyj, Finland, said the competitive advantage of bioenergy is constantly challenged in changing business environments and stressed that the forest-based sector is the key enabler in this regard. He outlined innovative strategies and technologies developed in Finland to derive bioenergy from various forest industry sectors.

Discussion focused on the challenges of: accounting for biomass-related emissions; balancing the interests of different sectors; developing markets for forest biomass; estimating the potential effect of green certificates; using roundwood as a fuel in coal-fired power stations; setting realistic national targets for renewable energy use; and ensuring that targets are balanced and conducive to sustainability.

WOOD-BASED PRODUCTS: CARBON POOLS AND ENERGY CONSERVATION

This parallel session took place on Friday morning and was moderated by Kit Prins, UNECE.

Gérard Deroubaix, Technical Industrial Center for Forest, Wood and Furniture (FCBA) France, described a study commissioned by the French Ministry for Agriculture and Fisheries to calculate the HWP contribution to France's GHG

inventory provided to the UNFCCC for 2005. He gave an overview of the methodology used, noting that it is consistent with IPCC guidelines on HWP.

Nicolas Robert, Laboratory for the Study of Wood Resources (LERFoB), presented on the types of forest practice that could help optimize carbon storage by the forest industry and reduce GHG emissions. He said the substitution of construction materials and fossil fuels by wood usually results in a reduction of GHG emissions and that this effect is greater when the products themselves are recycled, i.e. used in a cascade.

Guillaume Pajot, Macaulay Institute, UK, presented a study aimed at assessing the potential of a strategy to mitigate climate change through a larger use of HWP that was carried out in the Landes de Gascogne forest, France. He outlined key issues, including defining the baseline for the additionality criteria and sharing the benefits of carbon crediting among the multiple actors involved.

Sebastian Rüter, von Thünen Institute, Germany, presented a model developed upon the request of the German Federal Ministry of Food, Agriculture and Consumer Protection, to estimate the carbon storage potential as well as the annual carbon dioxide emissions from HWP. He explained that the model combined official data for HWP from the Federal Statistical Office, data from utilization of HWP and service life data for HWP.

The ensuing discussion focused on the importance of substitution. Participants addressed the need to quantify the substitution effect, and for a shift in markets to materialize the potential of substitution and optimize the models presented.

PROCESSES AND TECHNOLOGIES FOR BIOENERGY

This parallel session, which was moderated by Xavier Déglise, International Academy of Wood Science, took place on Friday morning.

Anthony Dufour, National Scientific Research Center (CNRS), France, discussed applications and current processes relating to thermochemical conversions of biomass. He demonstrated the main avenues, namely combustion, pyrolysis, gasification and liquefaction, as well as the applications envisaged and their yields. Outlining prospects for development, he said challenges include: optimization of energy efficiency and environmental performance; and fundamental research, for instance into synergetic effects during co-processing of biomass and fossil fuels.

Romain Rémond, Laboratory of Studies and Research on Wood Material (Lermab), France, presented integrated research for bioenergy in Brazil and France. Noting that Brazil is world leader in the charcoal industry, he described the process of producing charcoal at eucalyptus plantations. He highlighted different techniques, including heat treatment, to improve energy efficiency and charcoal quality while reducing environmental impact.

Timo Karjalainen, Metla, addressed forest energy resources, certification of supply and markets for energy technology. He noted that the global wood energy potential is limited, but hotspots exist, particularly in North and South America, and

Northwest Russia. He described the Finnish production of and market for bioenergy, and emphasized the importance of sustainability criteria, research and technological development.

Bernard de Galember, Confederation of European Paper Industries, argued that the pulp and paper industry can be part of the solution to the bioenergy challenge, and stressed the need to: accelerate policies to increase energy efficiency in consumption and generation; develop other renewable energy sources; ensure implementation of planned land use for biomass; and support the development of second-generation biofuels.

Participants discussed the cost, energy efficiency and environmental aspects of the charcoal industry, and technical details of various harvesting methods and thermochemical conversion processes. They also addressed the gap between supply and demand of biofuels, noting that access to forest resources is limited by various factors, such as: limited interest among forest owners, decreasing labor force in forests, and increasing ecological concerns.

EVALUATION OF BIOENERGY DEVELOPMENT

This parallel session took place on Friday afternoon and was moderated by Timo Karjalainen, Metla, Finland.

Peter Lohmander, Swedish University of Agricultural Sciences, presented on a model that optimizes the dynamic utilization of forest resources under changing energy demand functions and valuation of carbon dioxide storage. He indicated that to reduce carbon dioxide releases to the atmosphere, carbon capture and storage should be used in combination with increased harvesting and high intensity silviculture.

Marcus Linder, EFI, Finland, described the results of sustainability impact assessments of land use that were developed within the EU-funded project SENSOR. He noted economic and social benefits of increasing forest biomass removal for bioenergy production, but stressed that there may be trade-offs between bioenergy production and biodiversity protection in Europe.

Arthur Riedacker, INRA, described the use of integrated environmental assessments to compare the contribution of various scenarios related with forest management and wood use in order to maximize GHG emission reductions. Noting that food production will have to double over the next 50 years in order to feed the growing world population, he stressed the importance of land use efficiency.

In the ensuing discussion, participants addressed ways of promoting local-level involvement in responding to global challenges. Some panelists mentioned successful strategies to tackle the problem of scale, including financial and tax incentives. Participants also debated the availability and costs of carbon capture and storage techniques.

FOREST RESOURCES AVAILABLE FOR BIOENERGY

This parallel session took place on Friday afternoon and was moderated by Jean-François Dhôte, French Forest Agency (ONF).

Patrick Vallet, Agricultural and Environmental Engineering Research Institute (Cemagref), France, presented on the availability of wood and timber in French forests, explaining the difference among theoretically, economically and practically available wood. He elaborated on the methodologies of estimating the amount of wood available, stressing the need to take into account accessibility of wood and levels of current use.

Alaric Sample, Pinchot Institute for Conservation, US, discussed ensuring forest sustainability in the development of wood energy, focusing on current technology and policy in the US. He said new markets for wood biomass could represent a positive driving force for sustainable forest management, but rapid increases in wood harvesting could negatively impact biodiversity, water quality, and other important forest conservation values. Sample identified a lack of cooperation between the forest and energy sectors, and highlighted controversies over forest management in the past decades.

Piotr Paschalis-Jakubowicz, Warsaw University of Life Sciences, Poland, gave an overview of sustainability concerns in relation to wood energy generation. He said forest policy should respect the complementary character of forests' various functions, advocated a holistic and humanistic approach, and stressed that strategies and measures to increase wood mobilization must be within the limits of sustainable forest management.

In the ensuing discussion, participants addressed the status of technology development for advanced biofuels. Sample said the necessary technology exists, but the challenge lies in costs and scaling-up. Discussion also focused on: patterns of land ownership in the US and Europe; ways to avoid competition between different forestry sectors through increased selectivity in the use of wood resources; and environmental impacts of waste resulting from wood energy production, and possible technological solutions.

SYNTHESIS AND OUTCOMES

This plenary session took place on Friday afternoon and was moderated by Bernard Roman-Amat, AgroParis Tech, France.

Anna Zornaczuk-Luba, on behalf of Janusz Zaleski, Undersecretary of State, Ministry of Environment, Poland, provided an overview of forest policy in her country, highlighting a continuous increase of forest cover. She described Poland's proposed changes to the EU climate and energy package, which is to be approved by the EU in December 2008. She invited participants to attend the upcoming UNFCCC meetings, including Forest Day 2, in Poznań, Poland in December 2008.

Frank Werner, Werner Environment & Development, outlined the results of a study carried out in Switzerland on GHG dynamics of different forest management and wood use



Anna Zornaczuk-Luba, on behalf of Janusz Zaleski, Undersecretary of State, Ministry of Environment, Poland, provided an overview of forest policy in her country, highlighting a continuous increase of forest cover.

scenarios. He explained that national GHG inventory is optimized if the maximum increment of wood is used continuously and completely, and that wood is best used in a cascade.

Robert Matthews, UK Forestry Commission, presented on integrating and modeling scientific

understanding to inform decisions about forest-sector carbon management in the UK. He outlined a UK Forestry Commission research approach, which involves stakeholders in determining how to present summarized and simplified GHG balances within the framework of a decision-support system.

Kaj Rosen, Skogforsk, Sweden, elaborated on a Tool for Sustainability Impact Assessment (ToSIA) developed within the EU-funded, pan-European project EFORWOOD. Noting that ToSIA deals with the complete sector, from production to end-use and recycling, he clarified that it serves as a decision-support tool for EU- and national-level policy makers, industry and non-governmental organizations.

Yves Birot, Chairman of the Scientific Committee of the Nancy Conference, underlined the need to increase scientific knowledge that will feed into decision making and provided an overview of the main points raised during the Conference. He called for assessing the potential of wood-based bioenergy and taking a holistic approach towards the various risks to carbon stocks.

In the ensuing discussion, participants addressed potential ways of raising public awareness on forest issues, and the risk of over-exploiting forests.

Valérie Merckx, EC, highlighted that in the context of the negotiations on the post-2012 climate regime, the Commission proposes the objective of halting deforestation by 2030 at the latest and reducing gross tropical deforestation by at least 50% by 2020 as compared to current levels. On the post-2012 LULUCF rules, she recommended developing incentives to realize mitigation potentials and taking into account the specificities of the LULUCF sector.

Jim Penman, UK Department for Energy and Climate Change, evaluated different responses to address climate and energy challenges. He summarized the achievements of climate negotiations to date, noting that incentives are sub-optimal because of competing economic interests and partial coverage. He made recommendations on incentives for LULUCF inventory and HWP accounting, and concluded that future optimization is a task for both international negotiators and national and EU policy makers.

CLOSING SESSION

In a closing address, Michel Barnier, French Minister of Agriculture and Fisheries, underscored the importance of: new patterns of consumption and production; integrated approaches that involve all relevant sectors; science-based policies; and



Frank Werner, Werner Environment & Development

incentives for forest conservation. Barnier cautioned against delaying action because of scientific uncertainties. Calling for optimism, determination and ambitious targets for the forest sector, he recalled the four principles outlined in the Bali roadmap: completeness, comparability, responsibility and pragmatism.

Jean-Luc Peyron, Director of Ecofor, closed the Conference at 6:20 pm.



Michel Barnier, French Minister of Agriculture and Fisheries

UPCOMING MEETINGS

MEETING ON REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION (REDD): IMPACTS ON INDIGENOUS AND LOCAL COMMUNITIES:

This meeting, organized by the Convention on Biological Diversity (CBD) Secretariat, in collaboration with UN University – TK Initiative and Tebtebba, will be held from 12-14 November 2008, in Baguio, the Philippines. It will seek to compile information on potential impacts of REDD actions on indigenous and local communities and to enhance indigenous and local community participation in REDD-related decisions. For more information, contact: CBD Secretariat; tel: +1-514-288-2220; fax: +1-514-288-6588; e-mail: secretariat@cbd.int; internet: <http://www.cbd.int/meetings/>

FIRST MEETING OF THE CBD AD HOC TECHNICAL EXPERT GROUP ON BIODIVERSITY AND CLIMATE CHANGE:

This meeting is organized by the CBD Secretariat and will take place from 17-21 November 2008, in London, UK. It will address scientific and technical matters concerning the links between biodiversity and climate change with regards to identifying risks and vulnerabilities, and impacts and opportunities from climate change mitigation. For more information, contact: CBD Secretariat; tel: +1-514-288-2220; fax: +1-514-288-6588; e-mail: secretariat@cbd.int; internet: <http://www.cbd.int/meetings/>

FIRST MEETING OF THE MCPFE WORKING GROUP ON A POSSIBLE LEGALLY BINDING PAN-EUROPEAN INSTRUMENT ON FORESTS:

This meeting will take place from 27-29 November 2008, in Athens, Greece, and will explore the potential added value of, and possible options for, a legally binding agreement on forests in the pan-European region. For more information, contact: MCPFE Liaison Unit; tel: +47-64-948930; fax: +47-64-948939; e-mail: liaison.unit.oslo@mcpfe.org; internet: <http://www.iisd.ca/yimb/efw/html/www.mcpfe.org>

UNFCCC COP-14: This meeting will be held from 1-12 December 2008, in Poznań, Poland. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; internet: <http://unfccc.int/>

FOREST DAY 2: This event, co-hosted by the Center for International Forestry Research (CIFOR) and the Collaborative Partnership on Forests, will take place on 6 December 2008, in Poznań, Poland, to coincide with UNFCCC COP-14. Forest Day

provides an international, multi-stakeholder forum on forest and climate change policies at global, national and local levels. For more information, contact: CIFOR; tel: +62-251-622-622; fax: +62-251-622-100; e-mail: cifor-forestday@cgiar.org; Internet: http://www.cifor.cgiar.org/Events/CIFOR/forest_day2.htm

NINETEENTH SESSION OF THE FAO COMMITTEE ON FORESTS: This meeting will take place from 16-19 March 2009, at FAO headquarters in Rome, Italy. The session will focus on forests and climate change, and on the adaptation of forest institutions to change. For more information, contact: Douglas Kneeland, FAO/COFO Secretariat, tel: +39-06-57053925; fax: +39-06-57052151; e-mail: douglas.kneeland@fao.org; internet: <http://www.fao.org/forestry/37836/en/>

EIGHTH SESSION OF THE UN FORUM ON FORESTS (UNFF-8): This meeting will take place from 20 April - 1 May 2009 at UN Headquarters in New York, US. Agenda items include working to reach agreement on a decision on voluntary global financial mechanisms, a portfolio approach and a forest financing framework. For more information, contact: UNFF Secretariat; tel: +1-212-963-3160; fax: +1-917-367-3186; e-mail: unff@un.org; internet: <http://www.un.org/esa/forests/session.html>

SIXTY-SEVENTH SESSION OF THE UNECE TIMBER COMMITTEE: The next session of the UNECE Timber Committee is scheduled to take place from 12-16 October 2009, in Geneva, Switzerland. For more information, contact: UNECE/FAO Timber Section; tel: +41-22-917-1286; fax: +41-22-917 0041; e-mail: info.timber@unece.org; internet: <http://www.unece.org/timber/>

XIII WORLD FORESTRY CONGRESS: This meeting will take place from 18-25 October 2009, in Buenos Aires, Argentina. The theme of this congress is "Forest Development – a vital balance". For more information, contact: Adriana Nabolou; tel: +39-6-570-52198; fax: +39-6-570-52151; e-mail: WFC-XIII@fao.org; internet: <http://www.cfm2009.org/>

UNCCD COP-9: This meeting is expected to be held in Bonn, Germany, in late 2009, in the event that no party offers to host that session and meet the additional financial costs. For more information, contact: UNCCD Secretariat; tel: +49-228-815-2800; fax: +49-228-815-2898; e-mail: secretariat@unccd.int; internet: <http://www.unccd.int/>

UNFCCC COP-15: This meeting will be held from 30 November - 11 December 2009, in Copenhagen, Denmark. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; internet: <http://unfccc.int/>

THIRTY-FIFTH SESSION OF THE EUROPEAN FORESTRY COMMISSION: This meeting is scheduled to take place in 2010. Countries interested in hosting the meeting are invited to contact the UNECE Secretariat. For more information, contact: UNECE/FAO Timber Section; tel: +41-22-917-1286; fax: +41-22-917-0041; e-mail: info.timber@unece.org; internet: <http://www.unece.org/timber/>

CBD COP-10: This meeting is scheduled to take place from 18-29 October 2010, in Nagoya, Japan. It is expected to assess achievements of the 2010 target to reduce significantly the rate of biodiversity loss, adopt an international regime on access and benefit-sharing and celebrate the International Year

of Biodiversity 2010. The High-level Segment will be held from 27-29 October 2010. For more information, contact: CBD Secretariat; tel: +1-514-288-2220; fax: +1-514-288-6588; e-mail: secretariat@cbd.int; Internet: <http://www.cbd.int/meetings/>

INTERNATIONAL YEAR OF FORESTS 2011: Events are expected to take place worldwide between 1 January and 31 December 2011. The UN General Assembly declared 2011 the International Year of Forests in December 2006 by resolution 61/193. The UNFF will serve as the focal point for the implementation of the International Year of Forests, in collaboration with governments, the Collaborative Partnership on Forests, and international, regional and sub-regional organizations and processes as well as relevant major groups. For more information, contact: UNFF Secretariat; tel: +1-212-963-3160; fax: +1-917-367-3186; e-mail: unff@un.org; internet: <http://www.un.org/esa/forests/2011/2011.html>

GLOSSARY

CDM	Clean Development Mechanism
EC	European Commission
EFI	European Forest Institute
EU	European Union
FAO-EFC	Food and Agriculture Organization European Forest Commission
GHG	Greenhouse gas
HWP	Harvested wood products
IPCC	Intergovernmental Panel on Climate Change
LCA	Life cycle analysis
LULUCF	Land use, land use change and forestry
MCPFE	Ministerial Conference on the Protection of Forests in Europe
REDD	Reduced Emissions from Deforestation and Forest Degradation
UNECE- TC	UN Economic Commission for Europe Timber Committee
UNFCCC	UN Framework Convention on Climate Change

