The XXIII International Union of Forest Research Organizations (IUFRO) World Congress opened on Monday 23 August 2010 with a drum performance and film presentation on the Republic of Korea’s work promoting green growth.

Don Koo Lee, IUFRO President, highlighted IUFRO’s history of advancing global cooperation on forest science through activities of its member organizations and stressed the importance of the IUFRO World Congress given the magnitude of ecological and social challenges facing the world. He said that only through cooperation and sustainable development can we tackle challenges such as climate change, desertification and poverty, and the need for new strategies for green growth. He then declared the Congress officially open.

Eduardo Rojas-Briales, FAO, stressed difficulties faced by simultaneous increases in financial constraints on the forest sector and demand for forest environmental services (FES). He emphasized that the world cannot mitigate or adapt to climate change without paying central attention to forests, and called for: not reducing forests to just carbon; Reducing Emissions from Deforestation and Forest Degradation in developing countries (REDD) mechanisms that cooperate with national forest programmes; a comprehensive global forest carbon model; and more forest-related education.

Jan McAlpine, UN Forum on Forests (UNFF), for Ban Ki-moon, UN Secretary General, said IUFRO plays an essential role in promoting sustainable forest management (SFM) through collaborations on forest research activities and in generating knowledge and assistance for improving forest governance.
Don Koo Lee and Su-Se Lee, IUFRO, presented the host scientific award to Sung Gak Hong, the National Academy of Sciences, Republic of Korea, recognizing his work in elevating the profile of forest science and research, and scientific achievement awards to eleven other recipients in recognition of their work advancing forest research.

Lee Myung-Bak, President of the Republic of Korea, discussed his country’s efforts to restore its once barren lands, noting that forests are the foundation of our lives and the source of our basic needs. Calling climate change humanity’s biggest challenge, he urged UN climate delegates to think to the future in their continuing negotiations. He said the Republic of Korea now ranks fourth in the OECD for its ratio of forests to total land area and said this can be an example of how to advance green growth, noting tree planting programmes and green space initiatives in Seoul.


OPENING PLENARY

The opening plenary was chaired by Jung-Hwan Park, Republic of Korea. Nobel Prize winning poet, Ko Un called for the development of a Human Charter for the Forest to prevent future atrocities committed against forests, referring to the “cumulative crime of forest destruction perpetrated over previous centuries by human avarice.” He stressed that voluntary institutions are urgently needed to ensure that such a declaration does not become a mere slogan. He said that the future of the human race can only be guaranteed by making the forest spirit the very spirit of humanity. He made suggestions on: educating schoolchildren on the importance of forests; allocating some work hours as “forest time” in workplaces; planting a tree on occasions of birthdays and celebrations; and raising the rank of the Korean Forest Service and other relevant government administrations to that of top government agencies. He concluded by stating that the nations of tomorrow will succeed as nations only if they are nations of the forest.

SUB-PLENARY SESSIONS

In the afternoon, three concurrent sub-plenaries took place on forest health in a changing environment, keeping Asia green, and perspectives of the Collaborative Partnership on Forests (CPF) on biodiversity, climate change and forestry.

FOREST HEALTH IN A CHANGING ENVIRONMENT: Elena Paoletti, National Research Council Plant Protection Institute, Italy, presented the compounding effects of air pollution on forest ecosystems given climate change. She discussed how climate change exacerbates impacts of ozone and nitrogen on forest health, and reduces forest-carbon sequestration.

Nicola La Porta, Fondazione Edmund Mach Istituto Agrario di S. Michele All’Adige, said factors related to climate change, including temperature changes and altered precipitation patterns, may increase the effects of fungal diseases on forests. He said trees may be more susceptible due to higher stress levels or new threats may appear because of changing species composition and the arrival of new pathogens.

Andrew Liebhold, U.S. Forest Service, emphasized globalization as a key cause of invasive species and noted the US has about 400 non-native forest species, only some of which have negative economic consequences. He described varied impacts of invasions on natural, plantation, and urban forests, and said work to prevent arrivals can reduce control and eradication costs.

Martin Lorenz, Institute for World Forestry, presented on the International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests, describing its work monitoring forest ecosystem conditions and spatial and temporal variation of forest health. He said they are enhancing the system to capture interactions, coordinate with national forest inventory plots to measure forest growth, and increase measurement intensity to assess ecosystem functions.

William Otrosina, U.S. Forest Service, described how land-use changes, including for fire suppression and agriculture, create sub-optimal conditions for certain species due to interactive effects with root pathogens which, need to be considered in restoration before silvicultural interventions are prescribed.

Andrea Battisti, Padova University, Italy, presented on the importance of climate change for the frequency and distribution of insect outbreaks, noting that direct and indirect effects of climate change will have a positive but varied effect on herbivorous insect activity. He said these positive effects, combined with expanded insect ranges will likely increase insect outbreaks.

KEEP ASIA GREEN: REHABILITATING AND RESTORING FOREST ECOSYSTEMS IN ASIA: The session was chaired by Michael Kleine, IUFRO. Don Koo Lee, IUFRO President, highlighted that the session would summarize the results of IUFRO’s “Keep Asia Green” initiative.

Zhiqiang Zhang, Beijing Forestry University, presented on afforestation and ecological restoration in the East Asia region. He noted that despite dramatic forest land use changes resulting in deforestation and forest land degradation, extensive forest related land rehabilitation activities undertaken in the region have resulted in significant restoration of forest cover in some countries.

Ko Un, a famous Korean poet
Víctor Teplyakov, Seoul National University, discussed the Russian Federation’s Far East forest use and rehabilitation, noting efforts on reforestation which have been made.

Lucrecio Rebugio, University of the Philippines, presented successful cases and lessons learned on rehabilitating degraded forest lands in Southeast Asia, noting that in spite of efforts, forest cover decline continues in most of the regions’ countries.

Promode Kant, Institute of Green Economy, India, reported on rehabilitating forests and extending tree cover in South Asia, highlighting the importance of: forest law and policy; community-based forest management; and establishment of rehabilitation projects.

Khosro Sagheb-Talebi, Research Institute of Forests and Rangelands, presented on the forest landscape restoration and rehabilitation activities in West Asia, highlighting: survey and site-specific planning; application of participatory approaches; watershed rehabilitation in mountainous regions; combating desertification; flood-water spreading; and rain-water harvesting.

**Biodiversity, Climate Change and Forestry – Perspectives of the Collaborative Partnership on Forests:**

The sub-plenary was facilitated by Peter Mayer, IUFRO, and highlighted key global forest activities, needs and ideas.

Eduardo Rojas-Briales, FAO, spoke on the goals and achievements of the CPF. He highlighted several CPF successes, including the Forest Days at the UNFCCC COPs, which formally put REDD on the climate agenda, and the CPF Strategic Framework on Climate Change. He also noted that 2011 will be the UN’s International Year of Forests (IYF), to be organized by UNFF.

Bill Jackson, IUCN, discussed the landscape approach for linking climate change, forest biodiversity and the needs of people. He recommended “nature-based solutions,” such as REDD, with an emphasis on all forest values. REDD, plus conservation (REDD+), he said, is the only cost-effective, proven way to scale up emissions reductions while alleviating poverty and vulnerability, and for which large-scale opportunities exist. Emphasizing the importance of connecting communities to forest management, he described IUCN’s Livelihoods and Landscapes Strategy, which uses the landscape approach to forest management and in which the landscape is determined by the local social, economic, and geographic context.

On climate change and the 2010 International Year of Biodiversity, Ahmed Djoghlaf, Convention on Biological Diversity (CBD), described the importance of the upcoming CBD COP 10 to adopt a new global strategy for biodiversity, especially related to access and benefit sharing and conservation of genetic resources. He underlined his hope that an agreement would include a legally-binding monetary evaluation mechanism. Djoghlaf closed by highlighting the CBD’s global tree-planting initiative, Green Wave, which has expanded from 50 to 6000 schools in two years.

Emmanuel Ze Meka, International Tropical Timber Organization (ITTO), described reducing deforestation and forest degradation and enhancing environmental services in tropical forests (REDDES). He identified several REDDES research priorities and encouraged greater investment in financial incentives for SFM and functional markets.

Tony Simons, World Agroforestry Centre, referencing that neither the word “tree” nor “forest” was used in the 1972 Stockholm Declaration and that forestry was only marginally referenced in the 2001 Millennium Development Goals’ indicators, stated that in 2010 “forestry has never had it so good.” He emphasized the importance of good communication with the example that although the word “forestry” is now contained in 40 million internet URLs, while some much less inspiring searches bring up many times this number.

Jan McAlpine, UNFF, stressed the need to integrate multiple values of forests and to recognize that large populations depend on forests. She presented two John D. Liu films emphasizing connections between damaged environments and human poverty, and how restoration of wild vegetation can revitalized agricultural systems and local economies. On the issue of cross-sectoral connections, McAlpine described the UNFF 360 degree perspective as an initiative valuing and creating institutional partnerships beyond the forestry sector, including with several UN conventions and the ITTO.

**Technical Sessions**

In the late afternoon, participants scattered throughout the massive COEX complex to attend 19 concurrent technical sessions spanning all nine conference themes. IISD Reporting Services was there to cover two of them, on income from smallholder forestry and economic valuation of forest ecosystem services.

**Income from Smallholder Forestry – Can it Be a Driver of Poverty Alleviation?**

This session was chaired by Verina Ingram and Patrice Levang, Center for International Forest Research (CIFOR).

Divine Foundjem-Tita, Ghent University, discussed how creating institutional arrangements for informal non-timber forest product (NTFP) markets can improve livelihoods of farmers in Cameroon. Institutionalizing communication pathways and standards for measurement were found to increase: point of sale prices; market certainty; bargaining power; and competition amongst farmers.
Verina Ingram, CIFOR, elaborated on lessons learned from two case studies in Cameroon, finding only small financial benefits and even economic costs from moving to communal forest usage in some cases, but that estimated sustainability of projects increased 40%.

Dede Rohadi, CIFOR, discussed possibilities to improve incomes from teak harvesting, one being to introduce a standing tree valuation system to ensure smallholders receive fair market prices. He also found that although teak is financially feasible, it is often not the best source of income for smallholders.

Kazuhiro Harada, University of Hyogo, Japan, highlighted how small group timber certification can play a role in poverty alleviation in Indonesian smallholder communities by offering: financial support from the group to undertake extraction; income security of certification; halting of illegal logging due to improved income from certified products.

Aziza Rbibate, University of Johann Heinrich von Thünen-Institut, Germany, analyzed the Malagasy forest fringe as a basis for developing adaptive incentives in the context of REDD. She noted that the social and economic functions of deforestation and forest degradation are highly dependent on social and economic structures, and that these should form the basis of any REDD related incentives or alternatives.

Kazi Kamrul Islam, Kyushu University, talked about how participatory agroforestry in Bangladesh is hindered by bureaucracy, monopoly market structures, poor infrastructure, and exploitation by middlemen.

Shoana Humphries, University of Florida, expounded on the economic feasibility of community-based forest enterprises in Brazil. She found that although they can be successful, donors need to reconsider their definition of viability to incorporate options for continued support to alleviate poverty sustainably.

Sushila Kumari Thapa Magar, ForestAction, discussed community forest enterprises in Nepal, noting their success is a function of appropriate regulation, stakeholder participation in decision-making and project ownership.

Ousseynou Ndoye, FAO, discussed the need for regulatory policy reform for development of NTFP enterprises in Central Africa, highlighting that laws dealing with traditional use rights currently criminalize sale of NTFPs by smallholders. He also emphasized the effects of mid-level corruption, as its costs travel down the value chain to smallholders.

**ECONOMIC VALUATION OF FOREST ECOSYSTEM SERVICES:**

Co-Chair Larry Mason, University of Washington, discussed the policy challenges of successfully valuing and compensating FES. Drawing on US examples, he lamented the numerous problems associated with approaches such as certification and carbon markets, and called for place-based approaches to forest management.

Co-chair Richard Yao, Scion and New Zealand Forest Research Institute, discussed research on non-market valuation of recreational use of New Zealand’s Whakarewarewa forest. Describing user surveys and econometric techniques, he reviewed differences between how mountain bikers and walkers value forest attributes and their levels of satisfaction with the forest.

Peter Herbst, IUFRO, described a forest eco-compensation package seeking to offset forest habitat destruction in Georgia related to an international pipeline right-of-way. Rather than monetize forest services, he explained a scoring method used to assess habitat attributes and their change over time.

Robert Deal, US Forest Service, discussed work to value ecosystem services in the US, such as wetland banking under the Clean Water Act. On work to bundle ecosystem services, he described the challenge of coordinating across regulatory agencies, avoiding double counting and demonstrating additionality.

Shuirong Wu, Chinese Academy of Forestry, presented a meta-analysis of the valuation of FES in China. She highlighted that China’s valuation standard differs from Costanza or the Millennium Ecosystem Assessment, and in the review of 50 studies concluded that there is great variation in FES values, and that uncertainty exists for predicting values based on previous studies.

Eduardo H. Ditt, Ecological Research Institute, Brazil, discussed valuation and policy in the context of the Atlantic Forest of Brazil, which supplies water for nine million people. He said the total value of its ecosystem services, differentiated by land use type and valuation method, provides a valuation range of $49-60 million per year. He said this analysis offers a variety of practical policy options and prices.

In discussion, participants also considered the issue of high transaction costs for FES, the prospect of an ecosystem having infinite value, and the importance of economic analyses in giving weight to policy decisions.