



World Forestry Congress Bulletin

A Summary Report of the XIV World Forestry Congress (XIV WFC) - Forests and People: Investing in a Sustainable Future

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SUMMARY OF THE XIV WORLD FORESTRY CONGRESS: 7-11 SEPTEMBER 2015

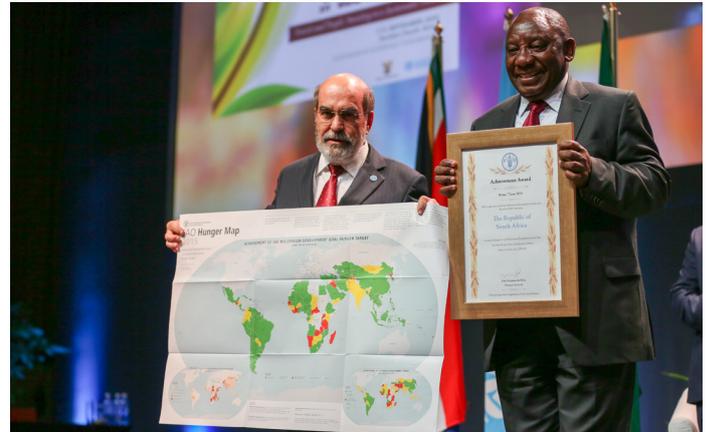
The fourteenth World Forestry Congress (XIV WFC), convened in Durban, South Africa from 7-11 September 2015, with nearly 4,000 participants attending the meeting, representing governments and public agencies, international organizations, the private sector, academic and research institutions, non-governmental organizations (NGOs), and community and indigenous organizations. The World Forestry Congress has been held under the auspices of the Food and Agriculture Organization of the UN (FAO) since the establishment of the Organization in 1945. The first World Forestry Congress was held in Rome in 1926 and subsequent meetings have generally taken place every six years since then. The theme of XIV WFC was “Forests and People: Investing in a Sustainable Future” and aimed to show that investing in forestry results in investment in people, and consequently investing in sustainable development.

During the five days of plenary and thematic dialogue sessions, participants considered, *inter alia*: the role of forests in socio-economic development and food security; building resilience with forests; integrating forests and other land uses; encouraging product innovation and sustainable trade; monitoring forests for better decision making; and improving governance by building capacity. Other events included: the launch of the Global Forest Resources Assessment (FRA) 2015; providing wood energy for the future; climate financing for the future; announcing the winner of the Wangari Maathai Forest Champions Award 2015; exploring the way forward for forest information, youth, community-based forestry and forest and farm organizations, and forest and land restoration.

The main outcome of the Congress, the Durban Declaration, states, *inter alia*, that: forests are fundamental for food security and improved livelihoods and will increase the resilience of communities by providing food, as well as wood energy; sustainable forest management requires integrated approaches to land use in addressing the drivers of deforestation and conflicts over land use; forests are an essential solution to climate change adaptation and mitigation; and that greater attention to gender equality and the enthusiasm of the youth as a source of inspiration and stimulus for innovation are required for realizing the vision of forests.

A BRIEF HISTORY OF THE WORLD FORESTRY CONGRESS

The first two World Forestry Congresses initiated the development of international co-operation in forestry and introduced an ever-growing common effort to find solutions to



José Graziano da Silva, Director-General, FAO, presents Deputy President Cyril Ramaphosa, South Africa, an achievement award for reducing hunger within the country

the many problems affecting forestry and forest products. The third Congress was planned for 1940 with the Government of Finland as host. The war, however, intervened and the Congress was postponed. Following World War II, the Government of

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Finland was again prepared to host a gathering of the world's foresters. During FAO's 1947 annual Conference, a resolution was passed calling for the third meeting in 1949 in Helsinki, Finland.

THIRD TO TENTH WORLD FORESTRY

CONGRESSES: During the decades following World War II, World Forestry Congresses were organized by the FAO and held in Finland (1949), India (1954), the US (1960), Spain (1966), Argentina (1972), Indonesia (1978), Mexico (1985), and France (1991). The meetings progressively embraced the concept that the science and techniques of forestry should not be limited to the solution of silvicultural problems as ends in themselves, but should include consideration of a whole set of environmental, economic, industrial, and social factors that are closely bound with forests, and that the combination of all factors form a new and broader concept of the term "forestry."

ELEVENTH WORLD FORESTRY CONGRESS: The XI World Forestry Congress convened in 1997 in Antalya, Turkey, under the theme "Forestry for sustainable development: towards the twenty-first century", thus confirming recognition of the importance of viewing forestry not as an isolated technical discipline, but rather as an important component of overall socio-economic development. Participants considered some 38 themes for discussion, each supported by a special paper and about 1,200 voluntary papers. Major technical discussion areas included forests and tree resources; forests, biological diversity and the maintenance of the natural heritage; protective and environmental functions of forests; the economic contribution of forestry to sustainable development; and social dimensions of forestry's contribution to sustainable development.

TWELFTH WORLD FORESTRY CONGRESS:

The XII World Forestry Congress, held in 2003 in Québec, Canada, attracted over 4,000 participants from more than 140 countries. A wide spectrum of issues was considered under the theme, "Forests, source of life", and under three programme areas: Forests for People; Forests for the Planet; and People and Forests in Harmony. The Final Statement highlighted areas of priority concern, and included a vision for the future, accounting for the need for social justice, economic benefits, healthy forests, responsible use, good governance, research, education and capacity building. It recognized that the prerequisites to achieving these visions include sustained financial commitments and international cooperation, policies based on best science and incorporation of local and indigenous knowledge.

THIRTEENTH WORLD FORESTRY CONGRESS:

The XIII World Forestry Congress themed "Forests in Development: A Vital Balance," took place from 18 to 23 October 2009 in Buenos Aires, Argentina, with more than 7,000 participants representing 160 nations. The daily thematic sessions focused on: forests and biodiversity; producing for development; forests in the service of people; caring for our forests; development opportunities; organizing forest development; and people and forests in harmony. The main outcome of the Congress included a message to the Fifteenth Conference of the Parties of the UN Framework Convention on Climate Change (UNFCCC COP 15), calling for urgent action on, *inter alia*, the promotion of sustainable forest management and recognition that forests are more than just carbon, the need to address climate change mitigation and adaptation concurrently, the improvement of monitoring and assessment techniques, as well as inter-sectoral cooperation.

SELECTED INTERGOVERNMENTAL FOREST-RELATED PROCESSES: In the absence of a coordinated forest governance regime, global forest policy has been developed in a variety of fora. The following paragraphs cover the forest-related processes of UN Forum on Forests (UNFF), the International Tropical Timber Organization (ITTO), and the Committee on Forestry (COFO).

UNFF: The UN Forum on Forests was established in 2000, following a five-year period of forest policy dialogue within the Intergovernmental Panel on Forests and the Intergovernmental Forum on Forests. In October 2000, the UN Economic and Social Council (ECOSOC), in resolution 2000/35, established the International Agreement on Forests (IAF), with the main objective to promote the management, conservation and sustainable development of all types of forests and to strengthen long-term political commitment to this end. In order to achieve the objectives of the IAF, the UNFF was established as a subsidiary body of ECOSOC. The resolution also established the Collaborative Partnership on Forests to support the work of the UNFF and enhance cooperation and coordination. UNFF met ten times between 2000 and 2015. The eleventh session of the UNFF (UNFF11) took place from 4-15 May 2015 in New York to address a range of issues including: forests: progress, challenges and the way forward for the IAF; means of implementation for sustainable forest management (SFM) and forest law enforcement and governance; and a multi-stakeholder dialogue. A Ministerial Declaration and the UNFF11 resolution were adopted at the meeting. The UNFF11 resolution outlines actions on, *inter alia*: IAF beyond 2015; UNFF beyond 2015; catalyzing financing for implementation; monitoring, assessment and reporting; the Secretariat of the Forum; the Collaborative Partnership on Forests; regional/subregional involvement; Major Groups and other stakeholder involvement; and the IAF and the post-2015 development agenda.

ITTO: The International Tropical Timber Agreement (ITTA), negotiated under the auspices of the UN Conference on Trade and Development was adopted in 1983. In 1986, the ITTA established the ITTO, headquartered in Yokohama, Japan, to provide a framework for tropical timber producer and consumer countries to discuss and develop policies on issues relating to international trade in, and utilization of, tropical timber and the sustainable management of its resource base. ITTA, 1983, was superseded by two successor agreements (ITTA, 1994 and ITTA, 2006). ITTO operates under ITTA, 2006, focusing on the world's tropical timber economy and the sustainable management of the resource base, simultaneously encouraging timber trade and improving forest management. ITTA, 2006, also allows for consideration of non-tropical timber issues as they relate to tropical timber. The governing body of the ITTO is the International Tropical Timber Council (ITTC), with 71 members, which has met 50 times. The fiftieth session of the ITTC and the Associated Sessions of its four Committees were held in Yokohama, Japan from 3-8 November 2014.

COFO: COFO is the FAO's most significant Forestry Statutory Body, bringing together heads of forestry services and other senior government officials to identify emerging policy and technical issues, seek solutions, and advise the FAO and others on appropriate action. This is achieved through: periodic reviews of international forestry problems and their appraisal; review of the FAO forestry work programmes and

their implementation; advice to the FAO Director-General on the future work programmes of the FAO in the field of forestry and their implementation; reviews of and recommendations on specific matters relating to forestry referred to it by the FAO Council, Director-General or member states; and reports to the FAO Council. The most recent session (COFO 22) convened on 23–27 June 2014 in Rome, Italy, and released the 2014 edition of its landmark publication on ‘The State of the World’s Forests.’ The publication highlighted the important role of forests and forest products in supporting livelihoods. The meeting also addressed specific issues, including: forest policy measures that promote sustainable production and consumption; access to resources, markets and financing; equitable benefit sharing; and the valuation of forest products and services.

XIV WORLD FORESTRY CONGRESS REPORT

The following report includes summaries on: the opening and closing ceremonies; a high-level dialogue on the importance of forests for implementing the post-2015 development agenda; the launch of the Global Forest Resources Assessment (FRA) 2015; plenary sessions, sub-thematic dialogues, special events; and the outcomes, including the Durban Declaration, a message to the UN General Assembly Summit for the adoption of the 2030 Agenda for Sustainable Development, and a message on climate change.

OPENING CEREMONY

On Monday, Bheki Cele, Deputy Minister of Agriculture Forestry and Fisheries, South Africa, welcomed participants to the XIV World Forestry Congress (WFC) following a cultural performance by South African groups.

Willies Mchunu, Member of the Executive Council (MEC), Department of Transport, Community Safety, and Liaison, South Africa, on behalf of Edward Mchunu, KwaZulu-Natal Province Premier, noted that this is the first World Forestry Congress organized in Africa and expressed hope for fruitful deliberations and ideas for investments for a sustainable future.

HRH Prince Laurent of Belgium, FAO Special Ambassador for Forests and the Environment, recalling the threats to forests and the environment posed by population pressure and growth in consumption, underlined the need to raise awareness about forests among young people, to invest in research and

forest education with particular attention to the role of women, and to earmark a percentage of loan grants or debt cancellation to a fund to restore the environment.

Nkosazana Dlamini-Zuma, Chairperson, African Union Commission, highlighted the role of the African Agenda 2063 of the African Union in prioritizing healthy ecosystems for livelihoods and environmental protection. She stressed the importance of sustainable forest management (SFM) for climate change mitigation, the protection of coastal areas, peace and security, and urged greater empowerment of women in strengthening forest institutions.

José Graziano da Silva, Director-General, FAO, outlined key findings of the Global FRA 2015, noting that despite a loss of 129 million hectares of global forests since 1990, an increasing percentage of forest area falls under SFM, with Africa reporting its highest increase in protected areas in 5 years.

In a video address, Ban Ki-moon, UN Secretary-General, emphasized the role of SFM as vital for several sustainable development goals (SDGs), while calling on forest managers to raise the potential for SFM to complement the post-2015 development agenda.

Senzeni Zokwana, Minister for Agriculture, Forestry and Fisheries, South Africa, said the contribution of forests to people’s livelihoods and to local and global environment cannot be overemphasized. He welcomed the Congress’s theme “Forests and People: Investing in a sustainable future, and said the Congress will shape the future forest policy agenda. He underscored the essential role of local communities, the importance of tree planting in South Africa, building resilience to forest threats and climate change, and youth involvement.

HIGH-LEVEL DIALOGUE: FORESTS ARE VITAL FOR IMPLEMENTING THE POST-2015 DEVELOPMENT AGENDA

Co-Chairs Hosny El-Lakany, University of British Columbia, Canada, and Bheki Cele, Deputy Minister of Agriculture, Forestry and Fisheries, South Africa, opened the dialogue, emphasizing the importance of the discussion in shaping key messages about forests leading up to the adoption of the 2030 Agenda for Sustainable Development and the United Nations Framework Convention on Climate Change (UNFCCC) 21st Conference of the Parties (COP 21).

Zhang Jianlong, Minister, State Forestry Administration, China, summarized China’s progress in increasing forest cover, and stressed the need to: promote exchange of experiences



View of the dais during the opening plenary

in forest governance; increase investment in SFM through different channels; and improve global forest governance architecture.

Philip Ngolle Ngwese, Minister of Forestry and Wildlife, Cameroon, described the significant role forests play in Cameroon and the focus by the government on promoting SFM, stressing the need to pay more attention to forests in future multilateral environmental negotiations.

Kim Kyong Jun, Minister, Land and Environment Protection, Democratic People's Republic of Korea (DPRK) described the reforestation work undertaken by the DPRK in mountainous and degraded areas, stating the national commitment to reforestation and interest in international collaboration.

Noël Nelson Messone, Minister for Forestry, Environment and Protection of Natural Resources, Gabon, stressed the need to mobilize action for SFM, recommending: adopting the SDGs; getting financing on forests in agreement with innovative schemes; implementing the UNFF11 resolution; and supporting regional and south-south cooperation.



Noël Nelson Messone, Minister for Forestry, Environment and Protection of Natural Resources, Gabon

Henri Djombo, Minister for Forest Economy and Sustainable Development, Republic of Congo, urging delegates to take Congress outcomes and translate them into meaningful actions, noted that most state-level funding mechanisms are not adequate to fund forest and biodiversity conservation.



Henri Djombo, Minister for Forest Economy and Sustainable Development, Republic of Congo

Jo Goodhew, Associate Minister, Ministry for Primary Industries, New Zealand, said that in Maori culture, forests are considered cultural treasures to be preserved for future generations. She called for innovative solutions to meeting environmental challenges, and to recognize cross-cutting methods to meet sustainable development challenges. Goodhew underlined the role of global overseeing bodies that are able to recognize the differences in challenges between regions.

Glenn Mason, Assistant Deputy Minister, Canadian Forest Service, Canada, highlighted Canada's close relationship with forests, and underlined the emphasis the country places on forest research and science and technology in its national forest management. He highlighted Canada's forest carbon dynamics model which has been shared with 25 countries as well as cross-sectoral cooperation and international cooperation in forest management.

Patrik Mlynář, Deputy Minister, Ministry of Agriculture, Forestry Sector, Czech Republic, noted the transformation of the Czech forestry sector from a centrally-managed to a

market-based sector. He said ongoing work was needed to continue growing the forestry sector in the Czech Republic, as well as to combat the effects of climate change on forests.

Barbara Serwaa Asamoah, Deputy Minister, Lands and Natural Resources, Ghana, stressed the need to move from discussion to action, highlighting the importance of mobilizing financial resources, building capacity, improving forest governance and facilitating implementation.

Yong Ha Kim, Deputy Minister of the Korea Forest Service, Republic of Korea, noted the importance of: bringing forests to the fore; recommending a more influential structure to address forestry in an integrated manner; and building capacity in local communities to facilitate SFM successfully.

Elizabeth Backteman, State Secretary, Ministry of Enterprise and Innovation, Sweden, stressed the need for a long-term vision for forests that includes more investments in gender equality, in secure tenure and good governance, and in forest education.

Tom Tidwell, Chief, US Forest Service, noted that to promote investments in forests, the importance of forests must be effectively communicated outside the forest sector, including through more research on the economic value of environmental services provided by forests. He highlighted forest restoration as one example of high returns on investments.

LAUNCH OF THE GLOBAL FOREST RESOURCES ASSESSMENT (FRA) 2015

In the style of a Ted Talk, styled as "Tree Talks", Kenneth MacDicken, FAO, launched the FRA 2015, illustrating how forests have changed between 1990 and 2015. MacDicken stressed that an area the size of South Africa, or approximately 129 million hectares of forest, have been lost in the past 25 years. MacDicken underlined three critical messages emerging from the FRA 2015: the rate of forest area loss has halved since 1990 and is now less than one tenth of the rate of human population growth; while forest-land area contraction has reduced in boreal regions of the world, forest loss continues in tropical areas especially as it links to agricultural expansion; and the capacity to manage forests for long-term sustainability has never been stronger since forest monitoring through inventory and certification have been carried out for nearly 77% of the world's forests. In addition to the full FRA 2015 document, a special issue of the peer-reviewed journal *Forest Ecology and Management*, country reports, and a forest land-use data explorer online portal can be found at: www.fao.org/forestry/fra.

OPENING PLENARY: FORESTS AND PEOPLE - INVESTING IN A SUSTAINABLE FUTURE

On Monday afternoon, Matt Frei, Channel 4 News, challenged participants to "take the forest out of the woods" and address the challenge of "how to feed the planet's growing population without killing its lungs."

Christiana Figueres, Executive Secretary, UNFCCC, via video link, described forests' roles in addressing climate change and stressed the need for catalyzing coordinated and coherent investments in SFM.

Peter Holmgren, Director-General, Center for International Forestry Research (CIFOR), made a call for courage to: frame forests as essential to all SDGs; seek new partnerships outside of the forestry sector; and see international environmental agreements as frameworks, not solutions, with solutions materialized through implementation on the ground.

Elizabeth de Carvalhães, Chair, International Council of Forest and Paper Associations, called for investment in forests to focus on developing a low-carbon market while also promoting new consumption patterns.



Elizabeth de Carvalhães, Chair, International Council of Forest and Paper Associations Programme, UK

Paula Caballero, Senior Director, Environment and Natural Resources Global Practice, World Bank, posed questions including how to: move investments; reposition forests as a central part of development; unlock finance; and position forests as a convincing investment option.

Kumi Naidoo, Executive Director, Greenpeace International, urged action to meet commitments, and provided examples where current efforts to address deforestation can be strengthened.

Miguel Lovera, Regional Resource Person and Advisor on Agriculture Processes, Global Forest Coalition, expressed reservations about who benefits from investment in a sustainable future, while highlighting the important role of local communities.

Göran Persson, Former Prime Minister of Sweden and President of ThinkForest, European Forest Institute (EFI), described the potential for forests to contribute towards reducing the world's carbon footprint and balancing the demand for wood products and sustainable management.

Frederick Kwame Kumah, World Wide Fund for Nature (WWF), called for greater focus to address the threats to forests and forest communities, and for cooperative land-use planning across national boundaries. He highlighted the need to address financial flows that are driving consumption and production and affecting forest integrity.

Magdy Martinez-Soliman, Assistant Administrator and Director, Bureau for Policy and Programme Support, UN Development Programme New York, called for forests to once again become a global public cause behind which the public can rally, stating that people can't save the planet without saving the forests.

On whether the relative success shown by findings of the FRA 2015 could cause complacency, Persson said people should not be afraid of success, and opined that poor communication in the past has not conveyed the message of protecting forests while productively managing them. Holmgren called for looking objectively at issues facing forests, and Naidoo underscored that complacency was not an option, and ambitious goals are needed at UNFCCC COP 21. De Carvalhães underlined the need to improve forest investment, efforts from the public and private sectors,

security in land use and clear policies from governments, and to ensure efforts are well organized in order to avoid circular negotiations.

On striking the right balance between forest conservation and promoting benefits of forests, Caballero underscored the need for governments to create enabling environments that include local communities, as well as ensuring investment policies that are sustainable and inclusive, while meeting multiple objectives. Lovera highlighted that consumption patterns in developed economies is leading to unsustainable forestry in developing economies, and noted proper definitions on forests and financing are needed.

In response to a question on how progress can be made without a common terminology or definition, Martinez-Soliman noted that there are different roles for different actors, and that progress is being made but not fast enough. He stressed there now exist better agricultural and forestry practices than before, but political will and financing are needed, as well as social mobilization.

On whether people are learning fast enough, Martinez-Soliman responded that progress is uneven in different parts of the world. Kumah said that existing solutions are not appropriate for future problems and technology can assist in producing food, increasing agricultural productivity and moving to greener energy sources.

Holmgren questioned who decides what the right direction is, and said forest benefits accrue locally and solutions should be found locally.

Naidoo noted that voluntary compliance and codes are not enough because of the closing window of opportunity, and said that a deeper, honest discussion is needed on what exactly changing consumption patterns would entail.

Persson disagreed on the suitability of "international punishment" as it would take too long. De Carvalhães called for innovation, technology and development of new products for human consumption. Caballero preferred talking about incentives rather than punishment if all stakeholders are to be brought on board.

Holmgren noted that it is important to connect with the private sector. Persson said the only required political decision is putting a price on carbon.

Elliott Mbongwa, South African Post Office, spoke briefly about the introduction of stamps in the spirit of Nelson Mandela as a man of peace, but also to spread awareness on the role of forests and forestry in the world.

Deputy President Cyril Ramaphosa, South Africa, highlighted the impacts that extreme climatic events such as drought are having on South Africa's forests. Ramaphosa noted, *inter alia*: the importance of international collaboration for capacity building, using South Africa's "Working on Fire," an environmental management programme that provides unemployed people with training and jobs, as an example of best practice; the challenge of exploring the multiple uses of land while ensuring the sustainable growth of the forestry sector, and the need to balance demands for forest plantations with water-scarce environments and indigenous biodiversity especially in the face of climate change. He recognized the role of non-timber forest products in Africa for millions of livelihoods and for employment in smallholder forest harvesting, especially for woman as new entrants into the forestry sector.



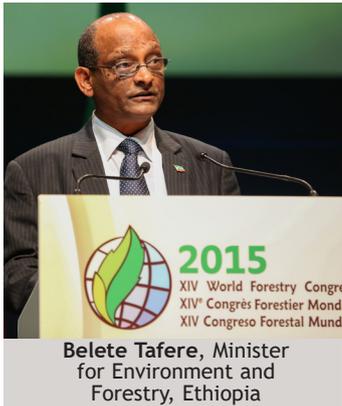
Kumi Naidoo, Executive Director, Greenpeace International

Graziano da Silva presented Ramaphosa with an award on behalf of the FAO to the Government of South Africa for its outstanding performance in keeping the number of malnourished people in the country below 5% since 1990 in accordance with the Millennium Development Goals.

PLENARY SESSION: INVESTMENTS THAT WILL HELP BUILD A RESILIENT FUTURE

On Tuesday morning the Congress reconvened for a panel discussion on investments that will help build a resilient future, moderated by CBS journalist Debora Patta.

In opening remarks, Belete Tafere, Minister of Environment and Forests, Ethiopia, emphasized the efforts that his



government is making towards achieving carbon neutral middle-income status by 2025, and to adapt to and mitigate climate change while promoting growth and development, including through reforestation, integrated watershed management, enhancing renewable energy investments, and building capacity through inter-sectoral collaboration.

Braulio Dias, Executive Secretary, Convention on Biological Diversity (CBD), compared Haiti with the Republic of Korea in terms of their different forest management practices, noting the impact sound forest management has on the resiliency of countries to cope with extreme weather events associated with climate change. Colin Dyer, Director, Institute for Commercial Forestry Research, South Africa, responded by emphasizing the transdisciplinary nature of research and development required to understand complex systems.

Godwin Kowero, Executive Secretary, African Forest Forum, stated not enough has been done to address adaptation in the forestry sector and investments are needed to build resilience.

Laurence Argimon-Pistre, Head of the EU Delegation, described the EU's approach to address resilience in forestry including a collective strategy for coordinated action.

Tony Simons, Director-General, World Agroforestry Centre (ICRAF), stated that for sustainability and resilience to be operational and not just aspirational, there is a need for: focusing on individual action; assessing both sustainable production and consumption; and drawing on the SDGs as a platform to promote more optimal functioning.

Mette Løyche Wilkie, Director, Environmental Policy Implementation Division, UN Environmental Programme (UNEP), described resilience as operating in a flexible space, making "investable" sense from economic, environmental and social pillars of resilience and sustainability.

Thomas Gass, Assistant Secretary-General for Policy Coordination and Inter-Agency Affairs, UN



Mette Løyche Wilkie, Director, Division of Environmental Policy Implementation, UNEP

Department of Economic and Social Affairs (UN DESA), pledged commitment to "leave no one behind," and to pay more attention to resilience while stimulating the debates between people and their leaders.

During the ensuing discussion, Kowero called for creating a dialogue between the private sector and local communities facilitated by civil society. Dias noted that enhancing integrated values of ecosystem services in national accounts can help address the challenge of current sectoral approaches. Argimon-Pistre highlighted the collective duty of citizens and pledged the EU's increased support to governments to better address resilience.

On the research needed for resilience, Dyer noted that the current approach to resilience is narrow, and called for investing in transdisciplinary and trans-sectoral research. On funding needed to improve forests' resilience, Løyche Wilkie underlined that current fossil-fuel subsidies far exceed the investments needed for countries' efforts to reduce emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks (REDD+), and that healthy fiscal incentives need to replace those driving unsustainable practices, such as growing palm oil. On governments and accountability, Gass noted that increased engagement is needed between local communities and leaders, and that where governments are reluctant to be accountable to one another, there is growing willingness to be accountable to their constituencies. On ensuring that meaningful action follows government talks, Simons noted a dearth of bankable projects, and that investors need strong, viable pilot cases to commit resources to, also highlighting that consumers themselves are responsible for large emissions. On youth and forest resilience, Kowero, Dyer and Tafere underscored that an important driver for youth involvement is employment and economic opportunities, and that technical training and cooperation is needed.

Final comments from the panel on most critical messages included: prioritizing long-term planning and investment vis-à-vis short-term investment, particularly in relation to natural disasters; investment in carbon management; ecosystem-based disaster risk reduction, and validating multi-stakeholder opinions.

To conclude, in the format of "Tree Talks," Trevor Abrahams, XIV WFC Secretary-General, discussed the importance of restoring hope, dignity and social capital for sustainable forest management, particularly amongst the youth.

PLENARY SESSION: INSPIRING SOLUTIONS FOR A SUSTAINABLE FUTURE

The third day commenced with a plenary panel moderated by Matt Frei, identifying critical aspects missing in making forestry more sustainable. Luther Bois Anukur, Regional Director for Eastern and Southern Africa, International Union for the Conservation of Nature (IUCN), stressed the need for participatory governance models for forest-dependent communities to both secure their livelihoods and protect the forest.

Sergio Zelaya-Bonilla, Special Advisor to the Executive Secretary, UN Convention to Combat Desertification, underscored the need to integrate SFM into agricultural intensification to meet food security objectives for a growing population.



Sergio Zelaya, Special Advisor to the Executive Secretary, UN Convention to Combat Desertification (UNCCD), and **Roberto Waack**, Chairman, Brazilian Coalition on Climate, Forests and Agriculture

Edith Vries, Director-General, Department of Agriculture, Forestry and Fisheries (DAFF), South Africa, emphasized the role of governments in recognizing the economic potential of forests while sustaining existing arable land on the African continent.

Roberto Waack, Chairman, Amata S.A., urged all stakeholders to build a common vision and concrete proposals to restore degraded lands with forests rather than waiting for government alone to bring solutions.

Emmanuel Ze Meka, Executive Director, International Tropical Timber Organization, identified three obstacles to the full implementation of SFM: insecure land tenure for communities, poor market access for the private sector and inadequate governance institutions.

Vries underscored the role of national targets such as the SDGs in setting the global compass and the potential of land restoration to create employment. Zelaya stated the role of governments in making coherent policies and connecting partners including with the private sector and local communities. Zelaya highlighted the need for integrated approaches, citing the increased awareness of interlinkages between forest, water and land communities. Waack outlined the role of communities, civil society and the private sector to ensure implementation and enforcement of regulations where governments fall short and described the issue of food security as an opportunity for promoting integration. Ze Meka cited the challenge of slow progress and called for stronger incentives for SFM. Bois Anukur highlighted the importance of international commitments and their adoption by all actors stating aspirations hold people accountable.

On industries being forced to become “greener,” Waack highlighted this as an opportunity for SFM and increasing productivity of forests, Zelaya called for more rational use of resources, and Anukur emphasized the centrality of people in taking a broader view of forestry.

The Forests and People Photography Prize was presented by Stuart Franklin, Magnum Photos, who noted the aim was to demonstrate peoples’ intimate relationships with forests. The winning entrant, Sofia Alvarez Capuñay, from Peru, called on people to change their hearts first and realize that we need the forests and must take care of them.

In a “Tree Talk,” Yemi Adeyeye, XIV WFC Youth Liaison, in a Tree Talk called for communicating forestry differently. Adeyeye underscored that access to international meetings and research was limited, and that engaging young people meaningfully is not negotiable, highlighting popular and social media channels to effectively reach both young and old.

THURSDAY AFTERNOON PLENARY AND GALA DINNER

In a panel session, moderated by Bheki Cele, Deputy Minister of Agriculture, Forestry and Fisheries, South Africa, representatives then reported back to the Plenary the summarized messages, themes and outcomes from sessions and special events that were held over the course of the week, noting that these represented a broad range of views and perspectives from a diverse spectrum of stakeholders. Following this, the floor was opened for participant input.

During the XIV WFC closing dinner gala on Thursday evening, Bukar Tijani, Assistant Director-General and Regional Representative for Africa, FAO, presented the Wangari Maathai Forest Champions Award 2015 to Gertrude Kenyangi, Uganda, as a champion for SFM in southwest Uganda. The award recognizes extraordinary efforts by an individual to improve and sustain forests and the people who depend on them. Kenyangi described how the Women and Environment Development Organization she founded, supports women to lead the way in grassroots agro-forestry initiatives in both Uganda and across Africa. The presentation concluded with a short video by Wangari Maathai’s daughter, Wanjira Mathai, who urged the next generation of young women to aspire to become leaders of a sustainable forestry revolution.



Bukar Tijani, Assistant Director-General and Regional Representative for Africa, FAO

CLOSING PLENARY

The closing plenary on Friday afternoon, moderated by Bheki Cele, began with an opening statement from Tiina Vähänen, XIV WFC Deputy Secretary-General, who lauded the record level of participation of nearly 4,000 participants from more than 140 countries, including the largest participation of Africans of any previous WFC. Vähänen emphasized key messages of the Congress including, integrating forests for food security and livelihoods; integrated approaches to land-use and cross-sectoral collaboration, and leveraging forests as critical for mitigation and adaptation to climate change and subsequently greater social and ecological resiliency.

Shibu Rampedi, DAFF, identified messages from the XIV WFC to be transmitted to the UN General Assembly Summit for the adoption of the 2030 Agenda for Sustainable Development, including the essential role that forests play for achieving the SDGs; the multi-functionality of forests in ending poverty, improving food security, promoting sustainable agriculture, ensuring access to sustainable energy and combating climate change; and the need for cross-cutting forestry policies including gender equality, adequate tenure arrangements and a favourable investment climate.

On behalf of Edna Molewa, Minister of Environmental Affairs, South Africa, Guy Preston, Deputy Director-General, stressed the issue of biosecurity in the context of a changing climate, in which invasive species can devastate both indigenous forests and commercial plantations. Preston proceeded to read a statement of key messages of the XIV WFC for the UNFCCC COP 21 in Paris, including, paying closer attention to the needs of forest-dependent communities

and indigenous people especially through partnerships and south-south knowledge networks and the development of quality information to help practitioners to adapt to and mitigate climate change.

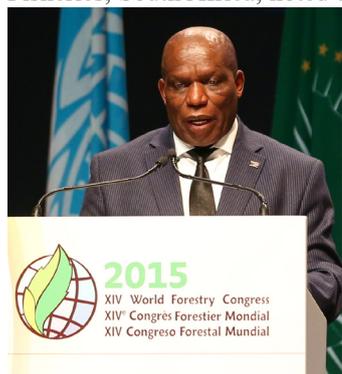
In closing, Trevor Abrahams read the Durban Declaration. The document offers a vision for forests and forestry to contribute to achieving the 2030 Agenda for Sustainable Development, and a sustainable future to 2050 and beyond. The Declaration states that: forests are fundamental for food security and improved livelihoods and an essential solution to climate change adaptation and mitigation; and that new partnerships, investment in forest education, communication, capacity building, research, jobs, especially for young people, and gender equality are required for realizing the vision.

The Republic of Korea and the Russian Federation presented proposals to host the next WFC in 2021.

CLOSING CEREMONY

Bukar Tijani, Assistant Director-General and Regional Representative for Africa, FAO, congratulated participants on their excellent representation and contributions, and for making the event one of the most successful Congresses since 1926. Tijani underscored that the results of XIV WFC will feed into the UN General Assembly Summit for the adoption of the SDGs, UNFCCC COP 21, and the African Forest Forum (AFF).

Senzeni Zokwana, Minister of Agriculture, Forestry and Fisheries, South Africa, noted that the Durban Declaration



Senzeni Zokwana, Minister of Agriculture, Forestry and Fisheries, South Africa

includes climate change, food security and land use dimensions, and aligns well with Africa's issues. Zokwana applauded the youth's involvement in staking claim to their future legacy.

Trevor Abrahams introduced two closing performances. Durban band, Afrosoul's musical act was followed by a play on "ecosystem services and wellbeing – sustaining our needs not greed" performed

by a primary school of the Eastern Cape as part of the "One Tree, One Child" programme. Following the performances, Jabulisile Mbongwa, Councilor, eThekweni Municipality, bid the Congress participants farewell on behalf of Mayor James Nxumalo's office. Abrahams then presented two tokens of appreciations to Zokwana and Cele, and the presentation of commemorative stamps issued by the South African Post Office for the event. Zokwana made closing remarks attributing the success of the Congress to the team spirit and presented Lindiwe Rakharebe, CEO, Durban International Convention Centre, and Abrahams, with tokens of appreciation. Abrahams closed XIV WFC at 4:34 p.m.

SPECIAL EVENTS AND SESSIONS

AFRICA DAY

On Tuesday, Edith Vries, DAFF, moderated the first half of the Special Event for Africa Day, which aimed to focus on the continent's SFM challenges, achievements and opportunities. Martin Bwalya, New Partnership for Africa's Development (NEPAD), urged a multi-sectoral approach that puts livelihoods at the core of climate change mitigation and adaptation.

Belete Tafere, Ethiopia, highlighted the substantial efforts Ethiopia has made in rehabilitating degraded land and investing in SFM through, *inter alia*, self-governance of community-based forests and voluntary labor for watershed rehabilitation. Mette Løyche Wilkie, UNEP, identified the economic benefits that greater investments to reverse soil land degradation and enhanced carbon sequestration will have for Africa.

Bukar Tijani, Assistant Director-General and Regional Representative for Africa, FAO, stressed the need to examine how the linkage between forests and people can be made more relevant, in understanding the impacts that illegal logging and encroachment have on livelihoods and security as well as for generating youth employment.

Senzeni Zokwana, South Africa, stressed the need to translate the objectives of the African Agenda 2063 into the forestry sector by developing concrete action-oriented strategies which better articulate the role of forests for addressing development in Africa in light of the SDGs.

Moderated by Ngole Philip Ngwese, Cameroon, in the second half of the Special Event for Africa Day, Raymond Mbitikom, Executive Secretary, Central African Forests Commission, highlighted how SFM is increasingly being harmonized in Central Africa through trans-frontier forest policies and improvements in forest certification, yet recognized challenges

associated with competing demands for land-use. Erick Ogallo, Kijani, identified challenges associated with a weak civil society presence and the need for greater involvement and empowerment of youth in spreading awareness. Frank Rutabingwa, UN Economic Commission for Africa, urged greater investment in cleaner energy in order to leapfrog to a low-carbon development path in safeguarding Africa's forests. Clotilde Mollo Ngomba, African Development Bank, stressed the role of governments to place forests high on the list of development goals in order to upscale continued financial investment for SFM in Africa. Frederick Kwame Kumah, WWF, urged critical analysis on the environmental impacts that rapid economic growth in Africa would entail. Kowero highlighted the need for greater technological innovation and greater sub-regional coordination to address transboundary forest conflicts.

MORE THAN HEAT! WOOD ENERGY FOR THE FUTURE

On Tuesday, Eva Müller, FAO, chaired the session and urged that increased attention was needed on wood as an energy source as it continues to be used, and remains essential to people's livelihoods.

Keynote speaker Paula Caballero, World Bank, highlighted the potential of wood energy in the post-2015 development agenda, particularly for SDGs on improving health, addressing gender imbalances, increasing access to clean energy, stimulating economic and employment growth, combating climate change and managing forests. Caballero underscored



Erick Ogallo, Youth Representative, Kijani

modernizing value chains, strong government frameworks, and stronger, proactive leadership and engagement, and “de-risking” the sector.

Moderator James Astill, *The Economist*, introduced the first panel on household energy use. Ralava Bevoarimisa, Minister for Environment, Ecology, Forests and the Sea, Madagascar, outlined the challenges of addressing both poverty and conservation in Madagascar, describing the importance of changing public perceptions of wood-use and promoting



James Astill, *The Economist*

community ownership in multi-sectoral approaches. Wanjira Mathai, Director, Wangari Maathai Institute, underscored the opportunities of promoting woodfuel as a fuel for the future and engaging women in rural areas in entrepreneurial woodfuel-based activities and the need for increased investment in research and development for woodfuel innovation. Tony Simons, Director-General, ICRAF,

described the need to facilitate not just regulate supply chains, see wood as a modern energy and strengthen land tenure. Eduardo Rojas Briales, Polytechnic University of Valencia, called for transformation and change to improve efficiency and legality in the woodfuel sector backed by strong political will and adequate resources highlighting sustainability as an importance part of energy security.

Dolf Gielen, Director, Innovation and Technology Centre, International Renewable Energy Agency, underlined opportunities for biomass energy, noting that wood energy is the largest source of renewable energy at present, and that feedstock availability is the key to success for energy generation from biomass. Gielen highlighted biomass energy as strongly applicable for heating and drying industrial applications, while emphasizing that residues should not be overlooked as important sources of biomass energy.

David Gibson, International Finance Corporation (IFC), presented on the future of industrial fuelwood use in developing countries. Gibson underscored that biomass resources are being depleted and the cost of charcoal and fuelwood in developing countries is increasing rapidly. Gibson differentiated between traditional, modern and industrial uses of fuelwood, and noted that emphasizing the commercial applications of modern biomass energy use could gain more support from policy makers.

Paulo César Pavan, Fibria, presented a Brazilian perspective of wood and pulp energy describing innovations that more efficiently use biomass resources in the production process and generate additional products and new markets. Bevoarimisa closed the session summarizing the key messages.

YOUTH

On Wednesday, Matt Frei, Channel 4, moderated the special event. Trevor Abrahams, XIV WFC Secretary-General, noted that new, dynamic ways are needed to market forestry to youth to ensure its relevance and appeal, with Tiina Vähänen, highlighting the inspiring preparations for the Congress by the youth. Paolo Gbadebo, XIV WFC Youth Ambassador, called for energy, passion and personal involvement in improving forest management.

Gerald Steindlegger, Steindlegger Integrated Sustainability Solutions, reflected on his experience working with and mentoring youth, underscoring their commitment to a peaceful, harmonious existence on earth. He called on participants to be open to listening more to the youth, engaging with them in meaningful ways, and committing to supporting their development needs.

In the form of “Tree Talks,” Charles Batte, Tree Adoption Uganda, urged delegates to consider the role that youth play in championing awareness-raising through innovative solutions that can ensure a sustainable future for forests. Sekar Ayu Woro Yunita, Youth in Forest Actions, Indonesia, warned delegates that the youth must be meaningfully engaged in forest governance issues since they will be responsible for addressing the mistakes of past generations. Jossio Guillén, Central America’s Reforesting Initiative, spoke of a regional initiative of reforestation in which the youth take a stewardship role in their communities to mitigate and adapt to climate change.



Sekar Ayu Woro Yunita, Founder, Youth in Forest Actions

This was followed by a panel discussion. Batte stated it is important to make tree planting fun and instill values in young people from an early age. August Temu, Executive Director, Capacity Development Resources, called for increased vocational training, youth employment in the forestry sector and recruiting more young people to study forestry. Peggy Sithole, South African Forestry Company Ltd., urged engaging kids with the environment at the elementary level and raising forestry profiles in schools. Elisabeth Backetman supported the engagement of students from an early age and scaling this up to postgraduates through innovative teaching methods. Krengkrai Shechong, Indigenous Peoples representative, Thailand, stressed the importance of listening to the voices of the youth through dialogues, and keeping cultural practices alive to foster traditional stewardship of forests.

Frei questioned the panel on using ‘hope’ or ‘fear’ to drive results, to which Temu responded, saying livelihood issues needed to be foremost. Batte emphasized providing communication and information instead, and Backetman called for more imagination in considering future scenarios.

WILDLIFE FORUM

During the first forum on the role of wildlife protection held during a World Forestry Congress, participants considered: the issues of community rights, governance and tenure in wildlife management; human-wildlife conflicts in forested areas; ways of strengthening inter-agency collaboration, adequate legislation and the deployment of novel and innovative approaches to counter wildlife and forest crime; the role of “bushmeat” as staple diet of forest-dwelling communities; and the roles of women in sustainable wildlife resource management.

Eduardo Mansur facilitated the opening plenary. Braulio Dias, Executive Secretary, CBD, reminded of the importance of local communities in wildlife management and highlighted efforts to empower local communities and to recognize their rights and responsibilities. John Scanlon, Secretary-



A local theatre group opened the Wildlife Forum with a play about hunting and poaching

General, CITES, noted the importance of sustainable use of species through regulating benefits for local populations, and announced development of dialogues at different levels and organizations worldwide to address illegal wildlife trade.

In a morning session, facilitated by Bonné de Bod, South African Broadcasting Corporation, five panelists deliberated on ways of strengthening the role of communities in wildlife management through improved rights, governance and tenure. The panelists emphasized the need to look beyond law enforcement, taking into consideration the drivers of illegal wildlife trade, and to highlight the importance of increasing the value of wildlife. As a way forward, panelists identified: participatory involvement by local communities in conservation decision making; reducing the trust deficit; establishing the policies and monitoring tools that will ensure sustainability; prioritizing local community needs; and developing cross-sectoral approaches instead of operating in silos.

During the session on human-wildlife conflict, facilitated by John Scanlon, Bartolomeu Soto, Mozambican National Agency for Conservation Areas, in a keynote address, highlighted the need to co-exist with wildlife, and for governments to be pro-active. Sithembile Moyo, FAO, shared experiences with wildlife conflicts in communities in Zimbabwe, emphasizing the constant impacts on livelihoods from elephants, birds and baboons raiding crops, which forces children to neglect school work in order to guard the fields. After small-group discussions, participants provided practical solutions including using mobile devices, pepper spray, and planting chilies around fields.

During an afternoon session, facilitated by Bonné de Bod, six panelists discussed: the importance of recognizing that illegal wildlife trade is driven by transnational crime syndicates; deploying best investigation techniques and forensic technologies while developing relevant policies and legislation; devising strategies to address consumer behavior; providing support to countries to revise their national conservation plans; issues of wildlife harvesting, transporting, and importing and exporting; and challenges such as information overload and lack of trust from local stakeholders.

During the afternoon session on bushmeat, facilitated by John Fa, CIFOR, panelists considered the question of why wildlife management does not sufficiently engage local communities. Cecile Bibiane Ndjebet, African Women's

Network for Community Management of Forests, lamented the lack of self-organization among women, and lack of capacity and support for women as caretakers for their families. Fundisile Mketeni, South African National Parks, highlighted the importance of ensuring tenure security, private-sector involvement in investing in wildlife protection, community involvement in wildlife management, and the need for science-based solutions and scaling up efforts. Braulio Dias concluded the Forum's activities, applauding the initiative which created opportunities for following Congresses to further develop ideas and solutions to the challenges.

INNOVATION AND INVESTMENT FORUM

On Thursday morning, Jukka Tissari, FAO, chaired the Innovation and Investment Forum, aimed at promoting a greater role of innovations in forest products to address sustainable development challenges. Naledi Pandor, Minister of Science and Technology, South Africa, emphasized the role of an appropriate institutional architecture for promoting innovation that includes: education and skill development; long-term research financing; partnerships between universities and industry; and support to small and medium enterprises.

Unati Speirs, Chief Director, Department of Trade and Industry, South Africa, underscored the importance of partnerships for the forest industry to address the shortage of raw material and of enhancing the development of non-timber forest products industries.

Alexander Panfilov, Deputy Head, Federal Forestry Agency, Russian Federation, described measures by his country to improve the management of national forests, including: modernized legislation; stakeholder dialogues for national planning; innovations in remote sensing and firefighting; and government and private sector cooperation.

Roberta Annan, CEO, Roberta Annan Consulting LLC, moderated the interactive session. Mads Aspren, CEO, Green Resources Ltd, highlighted that the private sector has outpaced government in increasing plantation forests in Africa.



Moderator Roberta Annan, CEO, Roberta Annan Consulting LLC



Panelists for the Innovation and Investment Forum

Till Neeff, FAO, called for a new dialogue between government, private sector and donors for boosting funding available to increase plantation forestry.

During the ensuing discussion, panelists: stressed the importance of experienced forest industry operators capable of accessing finance, and the role of information technology; presented a technology that uses fly larvae to produce chicken and fish feed; presented the case of natural tree and seed gums as industrial food additives; and described a start-up to export indigenous African fruit products.

The session moved onto “New: Thinking, Processes and Products,” with Marco Mensink, Director-General, Confederation of European Industries, stressing breakthrough innovations, highlighting nature and other industries as sources of inspiration.

Päivi Salpakivi-Salmaa, Vice-President, Environment and Responsibility, UPM-Kymmene Corporation, presented on using trees and fibre to replace fossil-based materials, such as tree-based diesel and a wood-fibre-based car. Other panelists highlighted prospects for bio-polymers and forest-residue aviation fuels.

On taking “Labs to the Marketplace”, Charlie Clarke, South African Pulp and Paper Industries, South Africa, underscored the investments and long development horizons for new technologies, and noted that government support, especially for demonstration plants, will benefit turning research into commercial production. Panelists presented on utilizing pulp-processing side streams, development funding in South Africa assisting youth access to finance, financing bio-refining technology, and highlighted cross-sector innovation and technology transfer.

On “Consumer Engagement with New Products” Johan Lindman, Head of Global Forestry, Stora Enso, underlined the consumer role in choosing renewable, sustainable materials and companies marketing this aspect. Panelists discussed the future of pulp and fuel, and nano-cellulose and foam technologies to drive consumer innovation.

FORESTS AND CLIMATE CHANGE

On Thursday, the special event on the role of forests in international climate change policy, moderated by James Astill, *The Economist*, took place on Thursday. Laurence Argimon-Pistre, EU, stressed the continued commitment of the EU in financing the efforts of developing countries to improve forest governance for climate adaptation and mitigation.

Guy Preston, South Africa, stressed South Africa’s efforts to become a climate-resilient low carbon-economy by highlighting the country’s “National Carbon Sink Assessment.”

Charles Barber, World Resources Institute (WRI), underscored the importance of high-level political commitment for reducing emissions and the need to distinguish between viewing carbon as a commodity versus a service.

Ana Karla Perea Blázquez, Mexico’s National Forestry Commission, described Mexico’s approach in designing and implementing national policy on climate change and forests, calling for: improved coordination between public policies; application of an integrated landscape approach; investment for transformation and innovation; and flexible finance packages to support country-driven initiatives.

Ricardo Rojas-Quiroga, General Directorate for Forest Management and Development, Bolivia, underscored the importance of bringing all stakeholders to the table when addressing deforestation. He presented Bolivia’s holistic approach involving: a joint mechanism to promote initiatives addressing both mitigation and adaptation; rights of mother earth and indigenous people; holistic and integrated development; and a society without material, social and spiritual poverty.

Joseph Itongwa Mukumo, Africa Indigenous Peoples Observer, Indigenous Peoples and Local Network for the Management of Forest Ecosystems of Central Africa, stressed the fundamental role that indigenous forest communities play in promoting strong climate policy, calling for: legal acknowledgement of territorial rights; clarification on the terms of benefits sharing, and opportunities to integrate traditional knowledge within global forest policies including REDD+.

Kumi Naidoo, Greenpeace International, stressed three critical roles of forests for climate change: carbon capture and storage; risk of forest fires and carbon release arising from soil and land degradation; and the role of forests as a first-line defense against extreme weather events. Naidoo warned that advancing market fundamentalism through global forest policies and programmes is itself highly ideological and that climate refugees and resource scarcity will put even further pressure on the world’s forests.

In the ensuing discussion, delegates and panelists raised the importance of finance, policies, and the expected UNFCCC COP 21 outcomes, while urging greater imagination in creating transformations. Panelists stressed that plantation forests must not serve as a replacement for the lost biodiversity that natural forests provide.



Ana Karla Perea Blázquez,
Director, Negotiation and
Commercial Promotion, National
Forest Commission, Mexico



Launch of the FAO-We Effect Partnership

THE WAY FORWARD

On Friday, four parallel roundtable sessions considered the way forward on: forest information; youth; forest and landscape restoration; and building momentum for community-based forestry, forest and farm organizations including the launch of FAO-We Effect Partnership.

Forest information: James Astill, *The Economist*, moderated the session on future prospects for forest information and data. Anssi Pekkarinen, FAO, reflected on how forest biophysical data collection and volumes have evolved significantly due to advances in mobile technology and processor speeds, highlighting cloud storage, 3D remote sensing and cheaper satellites.

Ewald Rametsteiner, FAO, spoke on decision makers requiring the “people-data” over the bio-physical forest data, and underlined how getting such social data is more challenging than the tree data. Rametsteiner called for a need to increase application of data collected, citing lack of analytical, interpretation and communication capacity, to make the raw data relevant to policy makers.

During the ensuing discussion, Juma Mgoo, Chief Executive, Tanzania Forest Service, noted forest data collection in Tanzania had been sporadic and fragmented, and only collected for specific areas and purposes. Mgoo noted gaps and limitations in socio-economic data collection, data servers and staff capacity.

Ken MacDicken, FAO, underlined that although forestry is about people, the increase in data collection and availability is skewed towards biophysical data. MacDicken called for skills training and retention, and for strategic data collection that leads to intelligent conversations and takes into account the needs of the future, including: population growth, urban sprawl, and water.

Fabiola Muñoz Dodero, Executive Director, National Forest and Wildlife Service, Peru, emphasized the gaps between policy makers and those collecting and preparing data, underscoring the lack of institutional capacity, and knowledge-transfer platforms. Dodero highlighted the need to show policy makers the value of forest inventories by taking them into the forests.

Charles Scott, US Forest Service, underscored the need for synergy between the data supplier and data consumer, underlining: communication; transparency; defining objectives early and clearly; consultative processes to determine needs; and working on a shared objective to improve effectiveness and avoid unnecessary data collection.

Youth: Moderators of the session, Marcel Starfinger, FAO Youth, and Eva von Schoenebeck, International Forestry Students Association (IFSA), emphasized that the youth represent the future of forests and must continue to put pressure on political leaders in going forward. After an icebreaker activity to energize participants, youth delegates broke into groups to discuss: their best moments of the Congress; recommendations or improvements they would recommend to the WFC Secretariat; and the desired youth agenda for the next WFC. Delegates identified: the opportunity for the youth to have their voices heard; the link between youth, climate change, forestry and gender issues; and opportunities for networking as critical successes of the Congress. As recommendations, the participants suggested: greater youth-initiated panels; training and collaborative sessions; improved accessibility for disadvantaged youth; and enhanced focus on motivating the youth to take on initiatives. On the preferred agendas for the next WFC, youth stressed more representation from the informal sector and especially indigenous and farmer groups, a youth quota for panels, and accountability of promises made at the XIV WFC.

Delegates discussed in breakout groups previous participation in mentoring programmes, and the content and commitments that any future mentoring programmes for empowering the youth to engage in forestry and related issues should take. Youth delegates described their experiences in mentoring programmes ranging from youth entrepreneurship programmes to teaching first year students at universities. On mentoring content and commitments delegates identified the importance of: clearly defined roles and deliverables of the mentor and mentee; interactive engagement; transfer of theoretical or technical knowledge to practical application and quality assurance; and learning from mistakes.

Gerald Steindlegger, Steindlegger Integrating Sustainability Solutions, highlighted key features of the proposed Global Monitoring Platform which focuses on: two-way learning to incentivize both mentors and mentees; the local, national and global scale at which the platform could take place; the importance of defining the platform according to cross-cutting issues of natural resource management, and integrating the platform with other similar initiatives proposed by other groups such as the Global Landscapes Forum. Steindlegger urged the youth to reach out to delegates in confirming long-term support for youth empowerment for forestry issues.

In the ensuing discussion, it was identified that a global mentoring programme: must be strongly associated with cross-sectoral integration to differentiate it from other

youth mentoring programmes; avoid turning mentor-mentee relationships into a silo approach lacking communication across interest areas, and identify how the degree of structure of the programme reflects the cultural associations of where the mentorship takes place. In closure, Von Schoenebeck thanked all the youth delegates for their contributions and a final group photo was taken.

Forest and Landscape Restoration: Moderator Eduardo Mansur, FAO, introduced Miguel Calmon, IUCN, who provided a summary of key messages from previous sessions and events focusing on Forest and Landscape Restoration (FLR). Calmon outlined both the opportunities and challenges for FLR highlighting: the current high energy level and political support; the existing tools, methods and frameworks that exist; the need for further political support; the importance of tenure, legality and poverty alleviation approaches; and the need to improve coordination and collaboration drawing on linkages and synergies between different actors and sectors.

On moving forward with FLR, Peter Besseau, Executive Director, Model Forests Network, stressed the need for targeted, strategic finance and demonstrating value in the shortest term possible to gain political will. Besseau further underscored the opportunity to map potential areas for FLR to better match donor and investor involvement in landscapes.

Horst Freiberg, German Federal Ministry for the Environment, described the Bonn Challenge as creating new momentum for change, stating the need to attract new money, see concrete action at regional and subregional levels, and identify creative solutions and approaches at different levels for different actors.

Adrie Mukashema, Deputy Director-General, Ministry of Natural Resources, Rwanda, provided an overview of Rwanda's approach and strong commitments to FLR stating the biggest limiting factor of realizing the national commitments was lack of finance for implementation at the national scale.

Kim Yong Kwan, Korea Forest Service, stated the two things needed to move forward in a practical way are "finance and how," describing the importance of convincing governments to invest in FLR and building capacity for strategic implementation.



Kim Yong Kwan, Director, Forest Environment Conservation Division, Korea Forest Service

Michael Kleine, Deputy Executive Director, IUFRO, underscored advances in understanding around FLR and stated the role of research is generating knowledge and providing independent assessments to support decision making.

Gerhard Dieterle, World Bank, described the importance of: understanding the root problems in landscapes using an integrated cross-sectoral landscape approach; focusing on the quality of restoration, not only quantity; establishing institutional policy frameworks for the private sector; and identifying smart incentives that address both restoration and poverty alleviation.

Camille Rebelo, Co-Founder, EcoPlanet Bamboo, described EcoPlant Bamboo's work and outlined the potential to leverage private sector finance through public sector support in making restoration projects investor-ready.

The ensuing discussion covered: the role of certification; the important role of local communities in sustainable restoration initiatives; the interlinkages and divergences between degradation and restoration processes; the long-term nature of FLR; and the role of monitoring. Besseau closed the session, providing take away messages that underscored: triple-win opportunities for FLR, recognizing these are not always consistently and equally achieved; the need to be realistic about the feasibility and benefits of FLR without overselling it; the role of the Bonn Challenge in pushing FLR forward; the need for both public and private resources, stating not all ecosystem services can be monetized; and that implementation is already occurring and should continue to be pushed forward.

Building momentum for community-based forestry, forest and farm organizations including launch of FAO-We Effect Partnership: The roundtable discussion was moderated by Chun Lai, the Philippines.

Eva Müller, FAO, in opening the official launching of the FAO and We Effect Partnership Agreement, noted the Partnership will strengthen small-scale forest and farm producers' organizations in developing countries to improve livelihoods and reduce poverty, and will be implemented by the FAO Forest and Farm Facility (FFF) and the FAO CoOpEquity Programme. Representatives from We Effect, Swedish International Development Cooperation Agency, Swedish Ministry of Enterprise and Innovation, and farmers' organizations from Sweden and Kenya expressed their support to the Partnership.



Eva Müller, Director, Forest Economics, Policy and Products, FAO

Participants shared information on their participation in upcoming global events such as UNFCCC COP 21, highlighting: a pavilion on investing in sustainable landscape for people; events to advocate on land tenure, safeguards, non-timber forest products (NTFPs) and other non-carbon benefits; the presentation of results of a joint action by major indigenous group organizations from Indonesia, the Congo and Amazon basins; and participation of the UNFF Major Groups meeting in January-March 2016 including at The Center for People and Forests (RECOFTC) Asia Pacific Forestry Week and FAO Regional Forestry Commissions. Participants also shared information on several upcoming national and local events relevant to community based, forest and farm organizations and discussed opportunities for keeping in touch after the Congress through social networks and the FFF among others.

Participants reflected that the pre-Congress event "Building momentum for community-based forestry, forest and farm producer organizations" on 5-6 September gave the opportunity to elaborate ideas for the Congress and produced messages that were shared at several sessions of the WFC. Participants noted that the voices of local communities have been stronger at this Congress than at previous ones, but that the issues of how to facilitate communities' access to finance, create an enabling environment for participation in the forestry



Official launch of Forests and Water: a five-year action plan

sector and build trust between governments, communities, and the private sector, need more work. One participant noted that a greater involvement of private companies such as Stora Enso and IKEA would add value and could help scaling up efforts.

In their closing remarks, Dominique Reeb, FAO, and Jeff Campbell, FAO, emphasized that the role of community-based, forest and farmers' organizations in SFM is recognized in the XIV WFC outcome documents.

INTERNATIONAL FORESTS AND WATER DIALOGUE

The International Forests and Water Dialogue was held in parallel with the XIV WFC sessions on 8-9 September. On Tuesday, Thomas Hofer, FAO, introduced the objectives of the Dialogue, emphasizing the move from discourse towards action and the launch of the Forests and Water – a five-year Action Plan.

Nomvula Mokonyane, Minister of Water and Sanitation, South Africa, noted the role of SFM for water security in South Africa, and that reforestation and rehabilitation of natural forests is promoted through specific policies. She emphasized the need for policies to be people centered, acknowledging local knowledge and solutions, and that political leadership is essential for the integration of forests and water issues.

Mike Wingfield, IUFRO, described the many forest functions related to water, including, clean water supply, reducing landslides, increased water retention and recharge capacity, and regulating rainfall patterns over land, while recognizing that knowledge gaps on many aspects of these interactions exist.

Three keynote interventions presented different scientific dimensions of forest and water relationships. David Ellison, Swedish University of Agricultural Sciences (SLU), introduced the concept of the hydrological space and emphasized the transboundary nature of hydrologic basins. Irena Creed, Western University, Canada, presented a risk management framework for aquatic ecosystem services. Richard Harper, Murdoch University, Australia, discussed the uncertainties related to forests, water and soil interactions, and presented the newly established IUFRO Task Force on Forest, Water, and Soils.

Twelve speakers presented, in "lightning talks," the latest findings in water and forest research on, *inter alia*: impacts of forest restoration on water balance; the contribution of forests and trees to food production in the tropics; salvage logging to

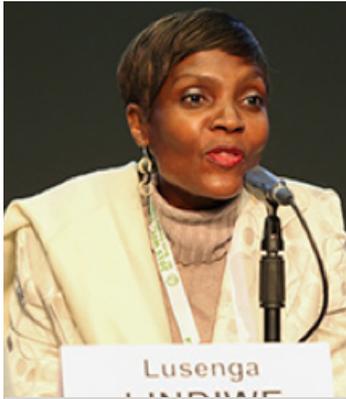
protect watersheds; and forests and water relationships in the Mediterranean. Interventions from participants emphasized that science messages for the public should focus more on research objectives and results rather than on methodologies.

In the afternoon, four keynote speakers presented examples of the forest-water interactions in practice. Philip Dobie, ICRAF, in a presentation on science and politics noted that often, coherent science messages for politicians and policymakers do not exist. Yigremachew Seyoum, Ministry of Environment and Forests, Ethiopia, presented the environmental, social and economic benefits of SLM, highlighting the importance of land use planning and enhanced community participation. Thuy Nguyen, SNV Netherlands Development Organisation, presented an initiative for mangrove restoration and community resilience in coastal forests in Viet Nam, which has developed a sustainable integrated mangrove-shrimp model with multi-stakeholder platforms and partnerships. Roland Schulze, University of KwaZulu-Natal, South Africa, presented a study on the streamflow reduction effects by commercial afforestation under projected climate change impacts in South Africa, stressing the complexity of the issue and the role of local conditions and forest management practices on these effects. Sara Namirembe, ICRAF, discussed innovative payments for tree watershed services in East Africa, highlighting the need for policy and institutional revision to enable payment for ecosystem services (PES) and to build trust between buyers and sellers.

In the remainder of the day, a World Café showcased examples of forest-water interactions from different countries and engaged participants in an exchange of information on best practices and lessons on mangroves, ecosystem services, participatory governance, watershed management and integrated landscapes.

On Wednesday, the Dialogue focused on policy issues. Thomas Hofer, FAO, noted that most countries have separate ministries for forests and water and underscored the need for enhanced institutional dialogue. He highlighted understanding science and harmonization of trade-offs and policy frameworks as important challenges for forests and water integration. Maharaj Muthoo, President, Roman Forum, emphasized the need to analyze these issues in a broad context and to remove misconceptions about forests and water interactions.

In a breakout group session, participants discussed the expectations for an international forests and water network, and how it could support members in advocating to policymakers. Participants agreed that: the network should: provide a multi-stakeholder, bottom-up



Lindiwe Lusenga, Deputy Director-General, Department of Water and Sanitation, South Africa

platform for information sharing and capacity building; avoid duplication of work; and be effectively supported by resources.

In the afternoon, the launch of the Forests and Water: a five-year Action Plan was moderated by Lindiwe Lusenga, Deputy Director-General, Department of Water and Sanitation, South Africa.

Keynote speakers Maharaj Muthoo, President, Roman

Forum, and Tony Simons, Director-General, ICRAF, noted the urgency of the issues and timeliness of launching the Action Plan a few weeks before the UN Sustainable Development Summit 2015. The representatives of several organizations endorsed the Action Plan, which currently has 25 partner institutions, and a project portfolio of approximately US\$10 million for research to understand forest-water relationships and for improving water resources through SFM.

A closing panel, moderated by Debora Patta, CBS, reviewed the outcomes of the Dialogue. Hofer highlighted that the sessions affirmed the importance of forest-water relationships, that an international network is welcome and that implementation must happen at the landscape level.

Creed, said that the network has the potential to close the gap between science and policy and scientists must develop coherent messages for policy makers.

Harper reaffirmed the commitment of IUFRO's Task Force on Forests, Soils and Water, to the network, and the Action Plan.

Simons emphasized the need for synthesizing disjointed studies and knowledge to help understand the complex interactions, and said the role of forests and trees should not be downplayed.

Anders Malmer, SLU, supported developing risk analysis frameworks that also look at solutions at the local level and recognize the diversity of situations.

Hans Friedrich, Director-General, International Network for Bamboo and Rattan, emphasized integrated water resource management from a landscape perspective and the of role bamboo resources.

Lotta Samuelson, Stockholm International Water Institute, highlighted: stakeholder involvement and collaboration between science and policy as success factors for integrated water and forest resource management; and that a key message from the dialogue was the importance of sharing experience.

Eduardo Rojas Briales underlined the opportunity presented by the post-2015 development agenda to reinforce the forests and water relationship and the need to broaden the debate away from intensive forest use versus biodiversity conservation, and to consider the many other aspects of SFM.

Tatenda Mapeto, IFSA, said the forests and water network should be relevant, and represent a two-way platform to connect youth and science and policy.

SUB-THEMATIC DIALOGUES

On Monday, Tuesday, and Wednesday, six sub-thematic dialogues convened with several break-out sessions within the different dialogues. IISD Reporting Services covered a selection of sessions, which are summarized below.

THEME 1: FORESTS FOR SOCIO-ECONOMIC DEVELOPMENT AND FOOD SECURITY

Session 1. Building enabling policy environments for communities and forest-farm producers: Chun Lai, independent consultant, the Philippines, moderated this session.

Tint Lwin Thaug, Executive Director, RECOFTC, spoke on conflicting needs on getting local communities to preserve forests, for example when they don't have fuelwood to cook with. Thaug underscored the need for policy makers to understand the needs of the local people and create alternative solutions for the long-term needs of the forest-dependent communities.

Bishwa Nath Oli, Ministry of Forests and Soil Conservation, Nepal, detailed the activities of the FFF being implemented in Nepal and experiences in community-based management. Oli noted the lessons learned from initially expensive government investments that yielded limited results, and the change that occurred after policy was created with greater recognition of local communities and forest farmer rights.

On how Guatemala's policies have influenced socio-economic change, Alvaro Samayoa, Director of Forest Products, Trade and Industry, Forest Service, Guatemala, explained the framework of public policies designed to create enabling environments for foresters. Samayoa described the rural development policy, increased protected areas, organized networks for forest communities, and cross-sectoral efforts to increase marketability of efforts.

Rodney Schmidt, Deputy-Director, Global Programs, Rights and Resources Initiative (RRI), described the documentation of tenure rights, noting this is the second exercise to survey the legal recognition of tenure rights of land area, and has been extended to 64 countries. Schmidt noted progress has been made in legal processes granting tenure rights, and community movements increased approximately 10% between 2013 and 2015. Schmidt stated that customary ownership practices were also to be strongly considered, as these account for a majority of land ownership in sub-Saharan Africa.

Esther Mwangi, CIFOR, described a case study to demonstrate how forest tenure reforms can make a difference in people's lives. Mwangi underlined how gender inequality continued to persist in spite of clear legal frameworks promoting tenure rights for youth and women, and noted that adaptive collaborative management has been used effectively to empower communities and promote development through improved livelihoods.

On the effectiveness of legal frameworks for supporting local communities, Dominic Walubengo, International Family Forestry Alliance, stated that in many places legal frameworks are making things difficult for local communities. Walubengo drew attention to conflicts of interest that arise when governments recognize inhabited forests as a revenue generating resource, and the competition that is created between governments and local communities for the same forests.

Panelists noted that in some cases governments were reluctant to relinquish the power associated with owning the land. Panelists also underscored inclusive participation in community-based forestry programmes to prevent backlash such as domestic violence, and demonstrating the role forests can play in countries' socio-economic development objectives.



Panelists for Forests for Socio-economic Development and Food Security; Forests for Food Security and Nutrition

Session 2. Forests for food security and nutrition:

Esther Penunia, Secretary-General, Asian Farmers' Association, chaired the session.

Lee Sang Mu, CEO, Korea Rural Community Corporation, in a keynote address, described the South Korean national reforestation programme to reforest the country in the latter half of the 20th century. Lee noted how the national reforestation took into account the economic challenges of communities, used incentives and competition to encourage efficient use of resources, and allocated and obtained major funding to carry out the programme.

Chun Lai, independent consultant, the Philippines, moderated the session, giving each panelist a topic to address.

On the role of forests for food security and nutrition, Terry Sunderland, CIFOR, noted how forests were often on the periphery of the debate when tackling food security, and wanted to bring this into the food security discussion, through stronger research, such as research demonstrating correlation between forest cover and nutrition for rural communities.

On the role of forests for increased income for accessing food security, Mike May, Vice President, FuturaGene-Suzano, emphasized the importance of both access to innovation and technology and access to markets. On the opportunities of rural communities to participate in the bio-economy, May cited examples of the Brazilian experience, where the private forestry sector has been transformed into one where corporations and small-scale producers cooperate.

On the use of fuelwood for increased nutrition, Caroline Ochieng, Stockholm Environment Institute, underlined that forests for fuel is an important part of the food security discussion, as availability, type and costs of fuel for cooking affects families' dietary options. Ochieng lamented that research on the links between fuelwood and food security was limited, and that policy makers needed facts on which to base decisions, rather than only hypotheses.

On the role of SFM to increase food security and nutrition, Chris Buss, IUCN, noted that SFM should be discussed and understood within landscapes and land management contexts.

On markets being closed to NTFPs from small-scale producers and entrepreneurs, panelists emphasized that although there are opportunities for entrepreneurs, significant barriers still exist on access to markets and called for opening up trade and markets, and understanding supply chains.

Ram Prasad Lamsal, Ministry of Science, Technology and Environment, Nepal, underscored that for food security, solutions need to be tailored for specific national and local conditions.

Ousseynou Ndoye, FAO, emphasized the benefits of economic access to forests for meeting development goals and sensitizing leaders to including forests in food security discussions.

Session 3. Ensuring enabling economic environment to enhance multiple social benefits: Harrison Karnwea, Managing Director, Forestry Development Authority, Liberia, chaired the session, noting the aim of ensuring that investments reach the communities and smallholders that need them.

José Joaquin Campos, Director-General, Tropical Agricultural Research and Higher Education Center (CATIE), gave the keynote address for the main session, spoke on integrated landscape management, highlighting climate-smart territories as a form of social organization and underscored the benefits of harnessing collaborative intelligence.

The session split into three parallel breakout sessions.

Session 3b. Sharing benefits equitably – learning from experience: The session was moderated by Dominic Watabengo, Forest Action Network, Kenya. Andrea Kutter, World Bank, presented on monetary benefit-sharing aspects of forestry, using examples of both monetary and non-monetary benefit sharing, including upfront payments, post-payments such as the carbon funds, hybrids which are based on performance, and other non-monetary mechanisms.

Meredith Bates, The New Forests Company, presented on experiences in Tanzania and Uganda, emphasizing the need for participatory approaches to ensure sustainable implementation of best practices.

Ajit Shrivastava, Forest Service, India, shared experiences from India where illegal logging practices and fire incidences dramatically reduced across 150 community-based projects due to 100% increase in benefits from forests.

Sacha Akira Backes, IFC, said the concept of benefit sharing is critical for establishing long-term business prospects, and considered by the World Bank considers a vital requirement when selecting investments. On the criteria for selecting, Backes identified: fiscal impacts including taxes, royalties and status of regulating implementation; economic benefits such as employment and infrastructure provision; and environmental and social impacts to communities involved.



Delegates during sessions

Participants posed questions on: experiences elsewhere in Africa; risk of elite capture and how to manage this; and regulation compliance.

Session 3c. Investments for forests and people: Chun Lai, independent consultant, the Philippines, moderated the session.

Leslie Durschinger, Managing Director, Terra Global Capital, on scaling investments for sustainable landscapes, noted Terra's experience in attracting finance, and differentiated between sources of capital available to smallholders, underlining the minimum basic business requirements needed to obtain finance, such as business plans and budgets.

Noemi Perez, CEO, Finance Alliance for Sustainable Trade (FAST), presented on sustainable trade and how can it be a catalyzer of investments for local producers. Perez demonstrated that financial institutions are becoming more socially and environmentally conscious and highlighted the services that FAST offers to, *inter alia*: prepare SMEs and investors through training and advisory services; facilitate investor "matchmaking" between parties; create online platforms; and adapting the model for new markets.

Patricia del Valle, Deputy Head, Forestry Investment Division, UNIQUE, Germany, presented on using umbrella organizations and companies to organize and augment the productive capacity of communities. Del Valle highlighted a business model in Paraguay where company employees' administrative and management abilities complemented the communities' productive capabilities.

Michael Brady, IFC, noted that for community forests, the IFC finances projects through intermediaries, rather than directly, and noted the indirect support it offers to create enabling environments through assisting financial regulators, and supporting supply and value chains.

Oscar Simanto, Kenya Forest Service, Kenya, presented on channeling investments to smallholders and organizing them into regional and national producer associations, and the type of training available in farmer field schools to assist in developing bankable projects and business plans.

Lai opened the panel for discussion. On trust and fear of indebtedness, Simanto referred to expanding currently limited definitions of collateral, and starting with smaller loans; Del Valle underscored the benefits of communication and collaboration with all stakeholders; and Perez highlighted the value of proper risk assessments. Brady echoed that institutions had also learned from indebtedness and that IFC preferred using lead firms with vested interests as intermediaries.

Session 4. Building effective forest and farm producer organizations: primary actors for a sustainable future:

Sally Upfold, Institute for Commercial Forestry Research, chaired the session, on improving livelihoods of communities by organizing small-scale producers.

Evelyn Nguleka, President, World Farmers' Organisation, called for a reorientation of agriculture and forestry taking into account changing socio-economic drivers, and attaching economic value to forests to better view their societal benefit. Nguleka urged greater government support of farmer associations and challenged policies that offer little real incentives for sustainable production.

Victor López, Director, Mesoamerican Alliance of People and Forests, called for: rights to self-determination in territories to be recognized; full participation in decision making to be made a reality; and encouraging of governments to improve access to financial mechanisms and prioritize imbalances in women and youth participation.

Esther Penunia, Asian Farmers' Association (AFA), described: AFA's farmer members' inter-relationships with forests for food, medicine and security; livelihood threats; and cooperative initiatives to address threats. Penunia called for stronger policies for resource management, market access and research and innovation to improve forest community organizing.

Philipp zu Guttenberg, President, AGDW, highlighted Germany's celebration of 300 years of SFM. Guttenberg described the structure of the AGDW's system that places emphasis on private land rights, and forest owners being held responsible for their forests, noting successes in cooperation and synergizing producer organizations. Guttenberg stated taking holistic rather than extreme view of needs is an essential component of their system.

Chun Lai, independent consultant, hosted a talk show style session on supporting cooperatives. Alfredo Cu, Federation of Cooperatives of the Verapaces, Guatemala, emphasized the importance of clear government policy and available budget for farmer producer associations. Bharati Pathak, Federation of Community Forestry Users, Nepal, noted forest cooperatives took time to develop and evolve.

Clement Kariuki, African Forest and Farm Producer Organisation, called for increased assistance in enhancing productive capacity, and highlighted the value of medicinal plants from forests. Sarah Price, Programme for the Endorsement of Forest Certification (PEFC) International, noted that the value of certification should be considered more broadly, as there are many potential smallholder benefits, and involving smallholders in creating certification schemes is essential to ensure relevance. Norman Dlamini, Forestry South Africa, emphasized job creation, economic development and industry involvement and support in the case of the South African forestry smallholders.



Delegates ask questions to panel speakers

THEME 2. BUILDING RESILIENCE WITH FORESTS

Session 1. What is resilience and why does it matter?:

This session was moderated by Mette Løyche Wilkie, UNEP.

Mike Wingfield, IUFRO, explaining the different definitions of resilience, stressed the complexity of dealing with the resilience of society within the context of the environment. Using examples of recent diseases related to climate change impacts, Wingfield warned of far-reaching consequences in most regions, and stressed the need to reconsider prevailing paradigms and strengthen the science-policy interface through international research bodies such as IUFRO to improve management interventions.

Mathewos Hunde Tulu, Head, UN Office for Disaster Risk Reduction, Sub-Regional Office, Ethiopia, focused on the Sendai Framework and its role in building resilience through substantially reducing the disaster risks and losses in lives. Tulu outlined the seven global targets, including to: reduce mortality, the number of affected people, economic loss, and damage to infrastructure and disruption of basic services; increasing national and local disaster risk reduction strategies; enhancing international cooperation; and increase access to multi-hazard early warning systems and disaster risk information and assessments.

Sara Omi Casamá, Executive Director, Youth Organization Embera Wounaan, provided an indigenous perspective of resilience, saying resilience-building practices have always been a part of indigenous communities' existence, but modern development practices are providing new challenges especially regarding natural resources. Omi Casamá stressed secure land tenure, specific funds for indigenous communities, and respecting the free will and decision making of indigenous peoples as key to building resilience.

Alice Akinyi Kaudia, Environment Secretary, Ministry of Environment and Mineral Resources, Kenya, highlighted inter-sectoral decision making processes as essential to building resilience. On the challenges to capturing the multi-dimensional characteristics of forests in Africa, Kaudia identified attitude and behavioral change as crucial to switching habitual destructive practices and emphasized examining the context within which policies and legislative frameworks are designed.

Octavio Carrasquilla, CEO, Development Bank of Latin America, provided an economic perspective through "banking on resilience." Carrasquilla outlined the five components of the Bank's resilience-building objective, including REDD+, green business with NTFPs, restoration and recovery of degraded lands and forests, recovery and restoration of urban forests and green spaces, and improving forest industries to be more "eco-efficient."

Participants posed questions on: the role of the green economy in building resilience; ways of financing forest products that will build resilience; the role of resilience frameworks; and coordination of the global response to develop an international resilience framework.

Session 2. Building and maintaining resilience – best practices: On Tuesday, participants divided into a series of six World Café parallel sessions.

Session 2a. Fire Management: Moderator Trevor Abrahams, XIV WFC Secretary-General, highlighted the importance of Integrated Fire Management (IFM) for forestry given increased fire risks in dry climates associated with climate change.

Nico Oosthuizen, Integrated Fire Management Services (IFMS), South Africa, emphasized the contribution of IFM tailored to specific markets in countries around the world as well as research and development in fire detection, prevention and suppression.

Chandra Fick, FireWise South Africa, highlighted the role of education as a critical fire management defense mechanism and detailed the process of community-based fire management planning and risk assessment and engagement with school children as ambassadors of IFM.

Bob Connolly, IFMS, discussed the technology of raindance capsules, which are deployed to ignite controlled fires.

Philip Frost, Council for Scientific and Industrial Research (CSIR), South Africa, discussed how Automated Fire Information Systems can aid in fire prediction, detection and assessment as well as its benefits for IFM in South Africa.

Jake Oosthuizen, IFMS, described the Fire Hawk Camera Detection as an onsite drone confirmation technology to produce intelligent imagery to monitor and detect fires.

Johan Heine, Working on Fire, South Africa, explained the role of Kishugu Aviation in effectively monitoring fires across South Africa.

Fred Favard, Working on Fire, South Africa, emphasized the role of simulation exercises and instructor development for fire suppression training.

Llewellyn Pillay, Managing Director, Working on Fire, South Africa, highlighted how the programme contributes to forest protection while developing skills and restoring dignity for young people.

Quinton Coetzee, Rainbow Reservoirs, stressed the power of innovation and knowledge to address forest fire management.

In the ensuing discussion, participants urged for more cooperation among African countries for sharing information on fire management, establishing training courses for fire management, and directing more funds for greater fire prevention coverage.



Panelists for Forest management for resilience in Africa

Session 2f. Forest management for resilience in Africa:

The roundtable discussion was moderated by Jaden Tongun Emilio, Ministry of Agriculture, Forestry Cooperatives and Rural Development, South Sudan, who said forests are crucial to regulate climate change, provide wild places for animal species, and protect soils and stressed the need for sustainable management to ensure resilience against future shocks.

Larwanou Mahamane, AFF, explained the African “On Farm Trees” initiative, showing the relation between tree removal practices and tree density, as opposed to the improvement when communities engage in tree planting initiatives. Mahamane blamed the drought during the previous century for driving deforestation and recommended empowering local communities. Mahamane urged further investigation into the links between ecosystem management and resilience, and how local populations can benefit from the carbon market in tree regeneration efforts on private lands.

James Kairo, Marine and Fisheries Research Institute, Kenya, emphasized the role of mangrove forests in building ecosystem and community resilience, lamenting mangrove degradation and abuse by humans. Kairo urged law enforcement and legislation to protect mangroves, by establishing marine protected areas that include mangroves, developing national and regional mangrove action plans, and strengthening mangrove restoration efforts.

Ronald Heath, Forestry South Africa, focused on the role of plantations in managing forestry for resilience, cautioning that small growers and community growers are more exposed to shocks. As three management aspects that need attention, Heath highlighted optimizing yields, limiting losses and pre-empting future developments. On lessons learned, Heath outlined: strong research, development and innovation of the system to engender informed decision making; private-public partnerships through strong collaboration; and collective and collaborative approaches with industry.

Enos Shumba, WWF, Zimbabwe, described the miombo woodland landscape’s unique small-farm enterprises and highlighted that 35% of daily needs are derived from the forests. Shumba emphasized the role of specific incentives and institutions, and highlighted: open land tenure systems; low economic value of miombo lands; and low carbon storage capacity of the miombo woodlands as main challenges. As opportunities Shumba identified: establishing

and nurturing coalitions; enabling policies and effective law enforcement; building the capacity of individuals and institutions; and transboundary collaboration and learning.

Session 3. Critical insights into resilience: This session, was chaired by Constance Neely, ICRAF.

In a keynote address on linking science and application to build resilience in forests, Jack Hurd, The Nature Conservancy Asia-Pacific, described various initiatives to illustrate elements of resilience, including: building social resilience in Papua New Guinea communities as an important aspect of decision making; economic resilience in Indonesia and Latin America where incentives to keep forests in their natural states have diminished; ecological resilience and the need for robust scientific analyses; and climate resilience where current land-use practices should be part of the solution, not the source of the problem.

Mohammed Al-Amin, University of Chittagong, presented results from a study identifying features for building climate-resilient forests by applying assessment of vulnerability on the eastern coast of Bangladesh, stating the significant vulnerability across sites adjacent to each other.

Elena Paoletti, Italian Council for National Research, presented IUFRO’s Task Force on Climate Change and Forest Health, saying the aim is to improve understanding of the processes regulating the interactions between forests and climate, and to address how forest ecosystems can be made more resilient against climate change with a focus on improving global awareness on climate change and forest health.

On the biodiversity patterns in relation to fire frequency in the Limpopo National Park, Natasha Ribeiro, Eduardo Mondlane University, noted that fire has an important and beneficial role in sustaining African ecosystems, and warned that there has been a change in fire regimes due to climate change impacts.

On the impacts and vulnerabilities of climate change and socio-economic challenges on oaks deterioration in western Iran, Hamidreza Solaymani Osbooei, Forest, Range and Water Management of Iran, outlined chronological changes in forest cover, agriculture, urban populations, and rural populations in the northern portion of the forest area. Osbooei reported a



Delegates during a parallel session

transition from forest cover to agricultural land uses, including a 70% decrease of forested area, with a 250% increase of agricultural land.

Fernando Carrera, CATIE, Costa Rica, presented on model forests in Latin America and their role in adapting to climate change. Carrera outlined the principles upon which these forests operate, including: participatory landscape approaches to managing the forest; commitment to sustainability, good governance; and knowledge sharing and capacity building activities.

Mwangi Githiru, Wildlife Works, Kenya, shared experiences on benefit-sharing activities in the Kasigau Corridor REDD+ project. As key issues and challenges, Githiru highlighted: establishing technical baselines; Measurement, Reporting and Verification (MRV); policy issues at national and international levels such as land tenure; and financial issues including transaction costs and voluntary markets. Githiru cautioned that equity does not always mean justice.

Marc Hanewinkel, University of Freiburg, spoke about the impacts of climate change on Europe's 200 million hectares of forest. As consequences, Hanewinkel highlighted that Europe is suffering from increasingly severe winter storms in the north, and fire in the drier south, while some species grow faster under a changing climate. Hanewinkel stressed the difficulties of convincing EU members to proceed with required actions.

Christo Marais, Department of Environmental Affairs, South Africa, presented insights into natural resource management programmes on ways of addressing land degradation, and the extent of degradation in South Africa. As major challenges contributing to the loss of natural resilience in South Africa, Marais identified natural resource degradation and soil deterioration, bush encroachment, invasive alien species, and the state of wetlands.

In a presentation on redefining priorities for promoting agroforestry as a tool for dry forest conservation and rural livelihoods security in Africa, Kelechi Eleanya, University of Ibadan, urged setting priorities at local and regional levels to address: population distribution and growth; deforestation and land use in wet tropical forest zones; reclamation of degraded forest lands; investigation of the role of trees in rural outcomes and subsistence security; and international policies such as incentives for sustainable land use.

Rolf Lidskog, Örebro University, reported on responses to extreme events and forest governance through the post-disaster dynamics of forest fires and forest storms in Sweden. Lidskog emphasized the importance of understanding the biophysical characteristics of extreme events such as fire; and framing the extreme event as central in order to lead to different management strategies.

Pierre Bernier, Forest Service, Canada, reported on forest changes in Canada and the Canadian Forest Service's programme on adaptation to climate change, highlighting forest ownership, unprecedented climate change impacts including diseases such as mountain pine beetle and significant increases in forest fires. Bernier identified the added level of jurisdiction in federal governance in Canada to be a gap in management.

Diego Delgado, CATIE, discussed Latin American mountain forests' vulnerability to climate change. As main challenges, Delgado noted: the complexity of the concept of REDD+ at the global level, expectations from stakeholders, unclear land tenure and benefit-sharing mechanisms; the importance of building on existing experiences of SFM; and the need for repeated capacity development programmes for effective deliverance of REDD+.

Chandra Silori, RECOFTC, presented on grassroots facilitators as agents of change for promoting SFM in REDD+ capacity development initiatives in Asia, reporting that 500 training events were held during which 700 facilitators were trained and 40,000 grassroots stakeholders were reached through awareness-raising activities.

Motuma Tolera, Hawassa University, reported on *in-situ* conservation of wild forest coffee through participatory forest management in southwest Ethiopia, and noted that forest degradation and fire incidences were greatly reduced where communities were earning higher incomes from additional coffee incomes.

Gary Kerr, Forest Research, UK, spoke of resilience-building initiatives in Great Britain's planted forests, and urged that forest managers need to consider genetic, species, and structural diversity, as well as diversity in spatial landscapes. Kerr said the lack of diversity in species represented a major challenge, and noted the effects of climate change will negatively affect planted forests, as a drastic increase in newly introduced pests and diseases have been reported.



Panelists for An enabling environment for resilience

Session 4. An enabling environment for resilience:

Fred Kruger, DAFF, South Africa, moderated the session. In a keynote address on the importance of cross-sectoral coordination for resilience, Dennis Garrity, ICRAF, highlighted the opportunities for forest landscape restoration (FLR) in 2 billion hectares worldwide and noted the targets of reaching 150 million hectares by 2020 and 350 million hectares under restoration by 2030, saying this requires restoring a balance of economic, ecological and social returns within the landscape. Garrity blamed lack of inspiration and missing enabling conditions for insufficient activity, and said sub-Saharan Africa provides the most opportunities for forest restoration.

John Patrick Kabayo, Intergovernmental Authority on Development (IGAD) Drought Resilience Platform, reported on strong governance mechanisms for resilience, warning that disasters are threatening to derail development initiatives. Kabayo observed that disaster risk is disproportionately concentrated in poorer countries and described the development of drought resilience initiatives in the Horn of Africa, which are based on seven pillars and a common framework in all IGAD countries.

Fred Marani, Vi Agroforestry, Kenya, presented on the benefits of strengthened capacity, saying deforestation for agricultural land uses in Kenya has negatively impacted community and forest resilience, including low productivity of soils and an increase in floods. Marani recommended strengthening advisory and extension services including on financial services, agroforestry and sustainable land management, energy saving options, and farm enterprise development to improve market access.

On ways to bring evidence into resilience planning, monitoring and decision making, Constance Neely, ICRAF, reported on tools and initiatives in monitoring resilience, saying a process has to provide the backdrop. Neely described the phases of the Stakeholder Approach to Risk-informed and Evidence-based Decision-making and the resilience diagnostic and decision support tool through which the Turkana County redesigned its planning and decision-making processes.

David Gibson, IFC, presented on ways of creating an enabling environment for resilience through financing private sector initiatives, using Mozambique's disaster risk profile as

an example. Gibson said cross-sectoral coordination starts with understanding historic extremes, noting financing resiliency in forestry is usually limited to breeding and genetics and is focused on secondary risks such as fires and insects.

On the need for adequate resources to address resilience, Mmaphaka Tau, DAFF, South Africa, reported on South African plantation case studies founded on the understanding that building resilience is a two-way street through building resilience by and for forests. Tau urged approaching SFM and resilience building through the lens of the triple bottom line of environmental, economic and social aspects of societies.

During the ensuing discussion, participants commented on: the dynamics and processes involved in "creating systems that are resilient"; the difficulty of measuring a "way of life"; soil conservation and its influence on restoration aspects of building resilience; measuring resilience through including community participatory practices; lack of trained people in doing risk assessments; and incorporating social components.

THEME 3: INTEGRATING FORESTS AND OTHER LAND USES

Session 1: Feeding the world: land-use options and the role of forests and trees: Session moderator Jorge Joaquin Campos Arce, Director-General, CATIE, emphasized innovation, collective action and collaborative intelligence for developing solutions and achieving impacts. Esther Penunia said the main constraints facing small-scale farmers and forest producers are: lack of ownership of forests and farms; deforestation and forest degradation; poor services and infrastructures; and low market access capacity. She called for mechanisms to enhance farmers' participation in decision making.

Rodney Taylor, Director, Forests, WWF International, welcomed the recent increase in commitments to deforestation-free production from large companies but noted the need to ensure the participation of local communities and governments.

Braulio Dias underscored the contribution of forests to the food security of populations and noted that food production increasingly faces challenges related to climate change, including loss of soil fertility, pollinators, and biological control organisms.

Campos asked panelists to identify constraints facing stakeholders to manage lands and minimize trade-offs between land uses and to suggest actions to facilitate complementary land uses, and meet needs for food, fiber and fuel. On constraints, panelists noted: the focus on sectoral policies and lack of a broader vision; the question of how to develop adequate governance systems; and wrong incentives. Taylor highlighted the landscape approach as an example of intersectoral cooperation but noted the need for more experience at a large scale. On actions, panelists emphasized: coalitions of stakeholders; secure land titles; the need to increase small producers' capacity to access value-added markets for forest products; institutionalizing mechanisms for participation of farmers' associations; and the importance of incorporating environmental values into national accounts.

One intervention from the floor highlighted the African model forests as an effective approach to intersectoral cooperation on the ground, while another noted that the landscape approach remains an intellectual exercise. A participant underlined that farmers in traditional agriculture benefit and protect forests.

Session 2: Investing in sustainable landscapes for the triple win: Moderator Peter Besseau, Executive Director, Model Forests Network, opened the session highlighting growing interest in forest and landscape restoration (FLR) and the need to communicate the potential of investing in FLR for a triple win. Keynote speaker Tom Tidwell, US Forest Service, outlined challenges and opportunities for investing in forests in the US, calling for: communicating messages outside of the forestry community; supporting research to better develop valuation of ecosystem services; developing innovative and diverse partnerships; revitalizing the wood products market; and committing to restoring health of forest ecosystems.

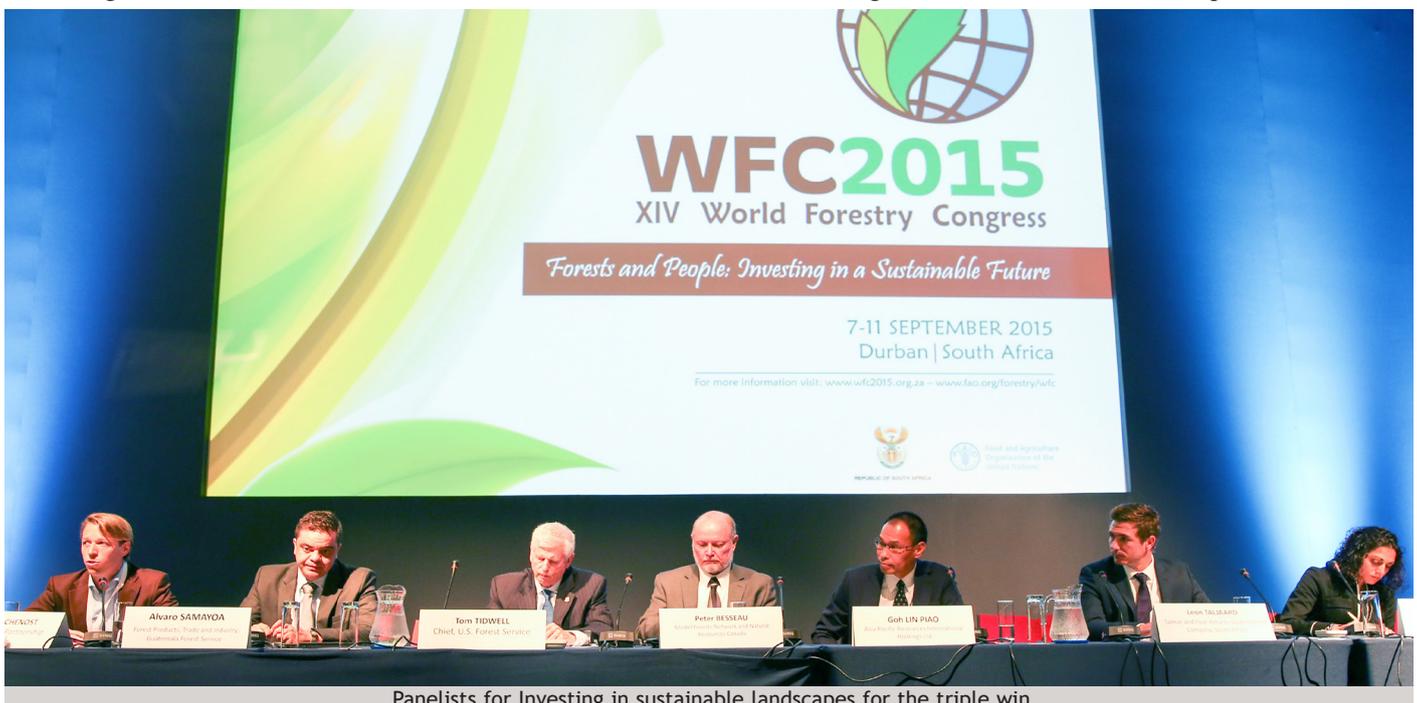
Panelists presented examples of their work with FLR in Africa, Latin America and Asia. Alvaro Samayoa, Director of Forest Products, Trade and Industry, INAB, discussed restoration work in Guatemala over the past 20 years outlining successes and challenges. Clément Chenost, Moringa Partnership, described the Partnership's impact investment approach to agroforestry systems, supporting projects addressing all three social, economic and environmental

dimensions, stating one current challenge is finding enough investible projects. Camille Rebelo, Co-Founder, EcoPlanet Bamboo, presented the work of EcoPlanet Bamboo, describing it as a fiber company built to overcome barriers of traditional investment in forestry and facilitate triple win outcomes. Leon Taljaard, Executive Director, Talmar, South Africa, outlined investment in inspiration, social, natural and economic capitals, in FLR projects stressing the importance and challenge of working with people on the ground. Goh Lin Piao, Managing Director for Sustainability, Asia Pacific Resources International Holding Ltd, presented the challenges of protecting and restoring peatland forest areas in Indonesia describing the current community focused investment landscape approach.

Discussions covered: trade-offs in the timing of wins realized between environment, social and economic dimensions; the importance of investing for the long term; the challenge and importance of multi-stakeholder dialogue and collaboration; the potential for the public sector to develop capacity and increase the investment potential of FLR projects; the role of technology and innovation; the importance of sharing value and benefits with communities and increasing local capacity; the potential for collaboration between public and private sectors; and the importance of applying the triple win perspective in projects from the outset.

Session 3. Perspectives on planted forests: This session was moderated by Eduardo Mansur, Forestry Division Director, FAO, during which panelists explored: the global extent and roles of planted forests for wood production; planted forests' productivity, land tenure and land use; and the social and environmental impacts of planted forests.

In a keynote address, Peter Kanowski, Fenner School of Environment and Society, Australian National University, outlined a range of planted forests' purposes and scale, including bioenergy, restoration of degraded areas, and community empowerment and livelihoods. As reasons for increase in planted forests, Kanowski identified growing natural forest depletion, and expansion of planted forests worldwide, thus increasing the balance of wood supply to 46% coming from planted forests. He presented on negative perspectives from civil society, including impacts on water tables, land rights where communities are displaced, and



Panelists for Investing in sustainable landscapes for the triple win



Participants during Perspectives on planted forests

genetically modified trees. He urged integrating tree growing with smallholder agriculture, and highlighted FAO's New Generation Plantations' Platform's principles, including: good governance, corporate responsibility, equitable benefit and cost sharing, landscape approaches, and achieving sustainability across scales.

Luís Neves Silva, WWF, said the challenge lay in moving from plantations as being part of the problem, to being part of the solution. He described the Platform's learning process to help achieve conservation objectives, and called for better technical knowledge distribution through improved communication on high-quality plantation management with communities and family farmers.

Elizabeth de Carvalhães, Chair, International Council of Forest and Paper Associations, emphasized the importance of sound governance and healthy policies on land tenure to avoid conflict and to protect lands of all peoples. She underscored communication and planning as future priorities, and integrating agriculture, livestock and people to mitigate climate change impacts.

Wally Menne, Timberwatch Coalition, noted the role of plantations in reducing pressures on indigenous forests, but reminded that the majority of plantations had been established inappropriately and will damage the world's natural systems irrevocably. He noted the role of FAO and forest certification schemes in encouraging mismanaged and incorrectly planted forests.

Michael Peter Executive Director, Forestry South Africa, reminded that plantations have recently reduced its role as driver of deforestation, and lauded the role of certification as a powerful regulatory-augmenting tool. He emphasized the need to address communities' land rights, and supported new entrants into the industry.

Kim Carstensen, Director-General, Forest Stewardship Council, outlined the difficulties facing planted forests, including poor management practices, environmental and social problems, and developing tools to scale up best practices. He warned against introducing genetically-modified trees when it is unacceptable to the majority of people, and urged proper discussion of the topic, and focusing on the role of planted forests in mitigating climate change impacts.

Sally Upfold, Institute for Commercial Forestry Research, emphasized the role of research through generating knowledge and its transfer and uptake in reducing conflictual opinions. She said investing in research translates into investments in forests, and highlighted as main challenges in planted forestry: operating from a static land base; changes in forest ownership; responding to rural livelihoods; rapid developments in hybrid forestry; and meeting new and multiple end uses of wood.

Session 4. Integrated land use: from policy to practice: On Thursday afternoon, four parallel sessions explored best practices on the ground related to integrated land management. Authors of selected papers submitted to the Congress summarized their papers and the key lessons learned were discussed.

4a. Urbanization: Forests and Trees in the Urban and Peri-Urban Environment: The session focused on the current status of development of urban forestry through case studies from different regions of the world.

Phillip Rodbell, US Forest Service, moderated the session. The keynote address, delivered by Fabio Salbitano, University of Florence, Italy, stressed the importance of green infrastructure for sustainable cities. Luiz Pedreira, Environmental Office, Rio de Janeiro, spoke about the integration of forests and other greenspace in Rio de Janeiro to provide environmental and social services. Jacek Siry, University of Georgia, US, discussed the role of US mayors in addressing urban forests and climate change.

Erdoğan Atmış, Bartın University, Turkey, discussed urban forests in Turkey and the role of the Turkish Forest Service in their management. Nezha Acil, Lund University, Sweden, spoke about her research on changes in woody species richness along an urban-rural gradient in the semi-natural forest of Benslimane, Morocco. Cheng Wang, Chinese Academy of Forestry, discussed the effects of a plain afforestation project on urban forest ecosystem in Beijing. Susan Braatz, FAO, highlighted the role of trees and soils in urban landscape in the context of climate change.

Participants discussed key messages during the session, including, *inter alia*: green infrastructure's contribution to sustainable cities; trees, urban forests and greenspace as crucial components of cities along with gray infrastructure; the need

for holistic urban planning and management that incorporates green infrastructure and involves all relevant stakeholders; sharing experiences; development and dissemination of best practices and tools to support the integration of green infrastructure into urban development; raising awareness at global level of the importance of green infrastructure to an urbanized world; and cooperation at regional level to stimulate and sustain development of and management of green infrastructure in urban areas in countries.

4b. Multipurpose landscapes for meeting multiple objectives: John Parrotta, US Forest Service and IUFRO, moderated the session. Valentino Govigli, University of Ioannina, Greece, discussed boundary formation in sacred landscapes, presenting a case study from sacred groves in Northern Epirus, Greece. Ellyn Damayanti, Southeast Asian Regional Centre for Tropical Biology, discussed driver, pressure, state, impact, and response in the forest transition of Indonesian Borneo.

Tek Maraseni, University of Southern Queensland, Australia presented financial implications of converting farmland to state-supported environmental plantings in the Darling Downs region in Queensland. Chanoch Zoref, Jewish National Fund, Israel, discussed the new forest management policy in Israel which focuses on multipurpose forestry, highlighting application of the policy in Kedoshim forest as a model.

Coert J. Geldenhuys, University of Pretoria, South Africa, discussed innovative practices for silvicultural management in southern African Miombo woodlands for rural society benefits and recovery of woodland diversity and productivity. David Everard, Sappi Southern Africa Limited, discussed the reappraisal of the contribution made by timber plantations in South Africa to biodiversity in the landscape.

Participants discussed the key messages of the session, including, *inter alia*: the need to manage landscapes holistically and with recognition that they are dynamic systems; traditional landscape management approaches such as shifting cultivation can provide for diverse livelihood needs; each component of a landscape should be managed to provide a range of ecosystem services; economic return is a major motivator for landowners and incentives may be needed to encourage particular land uses; widespread adoption of best management practices is needed to enhance provision of ecosystem services at a landscape level; multipurpose forest landscape management entails identification of the stakeholders and an understanding of their perspectives and needs; and barriers to multifunctional management of landscapes to be overcome include governance weaknesses and unclear tenure.

4c. Integrated approaches to landscape restoration and sustainable land management: Michael Kleine, IUFRO, moderated the session. James Reed, CIFOR, gave a global picture of integrated landscape approaches and how effectively have they been implemented in the tropics. Lucas Gutierrez Rodriguez, CIFOR, discussed the preliminary results of a review of socioeconomic and environmental effects of China's Conversion of Cropland to Forest Program.

Paxie Chirwa, University of Pretoria, South Africa discussed management and restoration practices in degraded landscapes of the Sahel and dry forests and woodlands of eastern and southern Africa. Lucía Madrid Ramírez, Mexican Civil Council for Sustainable Silviculture, presented a case study in integrated landscape management from central Mexico.



Participants during the session on Integrated approaches to landscape restoration and sustainable land management

Renée Lapointe, Canadian Forest Service, presented lessons from two Canadian success stories in science-based responsible resource development. Hugh Doulton, Dahari, discussed using landscape approaches to manage competing land uses for sustainable outcomes in the Comoro Islands. Michele Bozzano, Bioversity International, examined the need for a forest restoration certification scheme.

Participants discussed key messages including, *inter alia*: people and livelihoods need to be at the center of integrated approaches to landscape restoration and efforts to address the root causes of landscape degradation; research and communication have key roles to play in scaling up integrated sustainable land management, especially for enhancing adaptive capacity; long term financing and adding value to land resources are important; having a shared long term vision, rather than only short term restoration goals, is needed; restoration and enhancement of adaptive capacity, including through choice of species and genetic resources, should be part of sustainable management; and that landscape restoration is always context specific, but definition of restoration principles can help to orient local action.

4d. Role of agroforestry and trees outside forests in integrated land use: Philip Dobie, World Agroforestry Centre, moderated the session. Terry Sunderland, CIFOR, presented the results of a systematic review of the contribution of forests and trees to food production in the tropics. Geneviève Laroche, Laval University, Canada, presented a comparative analysis of integrating agroforestry intercropping systems in agricultural landscapes.

Verina Ingram, Wageningen University, discussed gender in forest, agroforestry and tree value chains. Achille Assogbadjo, University of Abomey-Calavi, Benin, discussed biodiversity and socioeconomic factors supporting farmers' choice of edible forest trees in the parkland systems in Benin. Alain Olivier, Laval University, Canada presented work on silvopastoral systems for increased food security in Mali. Eduardo Lopez Rosse, UMSS-Tropico, discussed the hidden potential of agroforestry in coca production systems of Chapare, Bolivia. Mina Esteghamat, Center for Conservation and Development of Sustainable Ecosystems of Iran, discussed the adoption of traditional agroforestry systems to restore degraded lands and achieve sustainable livelihoods in arid and semi-arid areas of Iran. David Wilson, World Agroforestry Centre, presented an approach to determining the impacts of swidden transitions in the uplands of Southeast Asia.

Participants discussed factors that influence the uptake of agroforestry systems and related needs, such as: secure land and tree tenure; availability of funds for the initial tree planting to bridge the gap until trees start to provide revenue;

having an enabling policy environment in place, including by breaking down the institutional barriers between agriculture and forestry; investment in marketing and value addition of agroforestry products; mainstreaming gender considerations into agroforestry development; building on and improving traditional agroforestry systems, including through applied research; integrating agroforestry into sustainable land use systems; technical assistance and entrepreneur support to small-scale farmers; and improved forest fallow management.

THEME 4: ENCOURAGING PRODUCT INNOVATION AND SUSTAINABLE TRADE

Session 1: Growing better trees for the needs of humankind: Opening the session, former Swedish Prime Minister, Göran Persson, President, ThinkForest, EFI, highlighted forests' role in reducing the global carbon footprint. The keynote speaker on the first panel, Mike May, FuturaGene-Suzano, outlined the need to both constrain demand and innovate, and said for a more sustainable trajectory, plantations should be promoted, land tenure issues resolved and genetic modification for yield enhancement applied. Benjamin Gunneberg, CEO and Secretary General, PEFC, urged examining the impacts of applying biotechnology and using innovation to promote both social and environmental values. Kim Carstensen, Director General, Forest Stewardship Council (FSC), stated that technology is only part of the solution with greater challenges around for example, secure land tenure and women's involvement, and stressed the need to ask questions on technology about who it is for, who does it benefit, and how does it benefit. Judy Loo, Bioversity International, described efforts to better disseminate knowledge around forest genetic resources and link research with application. Suneel Kumar Pandey, Vice President, ITC Limited, Paperboard, Packaging and Printing, described achievements in forest biotechnology in India. Jāo Soares, Consultoria e Assessoria, Lda, stressed that a large challenge facing society is changing consumption patterns and not just greening production, and stated the need to adapt and change for the future. Adnan Arshad, Potohar Organization for Development Advocacy, outlined the numerous, multi-dimensional benefits of moringa, the "miracle plant."

Setting the stage for the second panel, keynote speaker Dmitry Shchepashchenko, International Institute for Applied Systems Analysis (IIASA), provided an example of using citizen science to improve global forest maps. Leo Bottrill, Founder and Director, Moabi, presented Moabi's work in the Congo Basin to develop forest monitoring data, drawing on citizen data to improve maps of logging roads and features of other natural resource sectors. Lars Laestadius, WRI, highlighted the need to embrace citizen science with care since it is unavoidable and has the potential to provide benefits. Sally Upfold, Institute for Commercial Forestry Research, described the increase in small-scale forestry growers in South Africa and both the potential of and challenges faced in such initiatives. In closing Tidwell summarized the key themes emerging throughout the session, highlighting the need to think about forests in new ways and to engage the public.

Session 2: Bringing wood from sustainable forests to our homes and lives: The session was chaired by Jukka Tissari, FAO. Keynote speaker Michael Green, Michael Green Architecture, suggested that using wood as a building material can provide a major opportunity for systemic change in the building industry, thus mitigating climate change through carbon storage.

Richard Stretton, Koop Design, described initiatives in South Africa that remove and use alien timber species to produce quality hardwood furniture over the past decade. Stretton cited one challenge being the lack of engineers with the knowledge to use this medium in construction, and lamented bank regulations that prohibit finance for timber structures.

Shuji Oki, Deputy Director General, Ministry of Agriculture, Forestry and Fisheries, Japan, speaking about the use of wood in building structures in Japan, said wood plays an important role in revitalizing rural communities dependent on forestry, pledging Japan's support in helping to achieve SFM worldwide.

Mikhail Tarasov, IKEA Global Forestry Manager, China, stressed the importance of supporting a timber value chain built on well-managed forests in which all suppliers comply with standards upheld by regular inspections and emphasized China's intention to promote sustainability of forest production while creating a better life for people.



Panelists for Bringing wood from sustainable forests to our homes and lives

Christo Marais, Department of Environmental Affairs, South Africa, highlighted the challenges of large rural settlements with people living in corrugated iron shacks and noted the South African Natural Resource Management Programme is investigating the viability of using fire-treated timber made from wood removed during alien species removal and bush encroachment operations.

Achyut Acharya, Agriculture and Forestry University, Nepal, lamented the devastating effects of the recent earthquake, saying this has stripped the country of large areas of land and noted that wooden structures survived the quake better than others, calling for constructing more houses with bamboo and wood.

During a second panel discussion, Antti Marjokorpi, Stora Enso, describing the company's activities as a global paper, biomaterials, wood products and packaging company, highlighted the potential for using timber in the building industry, and suggested that having more wooden houses built in Europe would have translated into a reduction in carbon dioxide since manufacturing energy would have been reduced.

William Street, PEFC, stressed the importance of being informed on social dimension developments in order to produce timber products in the building sector, and urged educating industries about the sustainability of wood and creating opportunities for effective communication among industry actors.

Anne Toppinen, University of Helsinki, called on suppliers to develop more sustainable products and services in the timber value chain, and said products should be the result of design reflecting values related to responsible behavior, and offer opportunities to reflect these values.

Nicholas Olson, Yale University, presented on value chain innovation in the Amazon, saying there are less barriers for organic certification there, as people are already practicing organic living, and emphasized the importance of facilitating the process of organic certification.

Sara Paunonen, VTT Technical Research Centre, Finland, explained the process of bio-based packaging in the form of corrugated boxes created from a new form of bio-plastic from plant material.

Session 3: Sustainable trade: new developments from Buenos Aires to Durban and beyond: Two panels on forest certification, trade and regulation, and technological innovation were moderated by Sheam Satkuru Granzella, Director, Malaysian Timber Council, and Rupert Oliver, Forest Industries Intelligence Ltd, respectively.

Delivering the keynote presentation in the first panel, Oliver provided an overview of emerging trends in wood products trade, indicators of sustainable trade and implications of policy measures to promote sustainable trade.

Jiang Yeheng, Chinese Academy of Forestry, talked about trends in trade liberalization and productivity in China, stating production dispersion reduced during trade liberalization with more efficient firms staying and less efficient firms exiting.

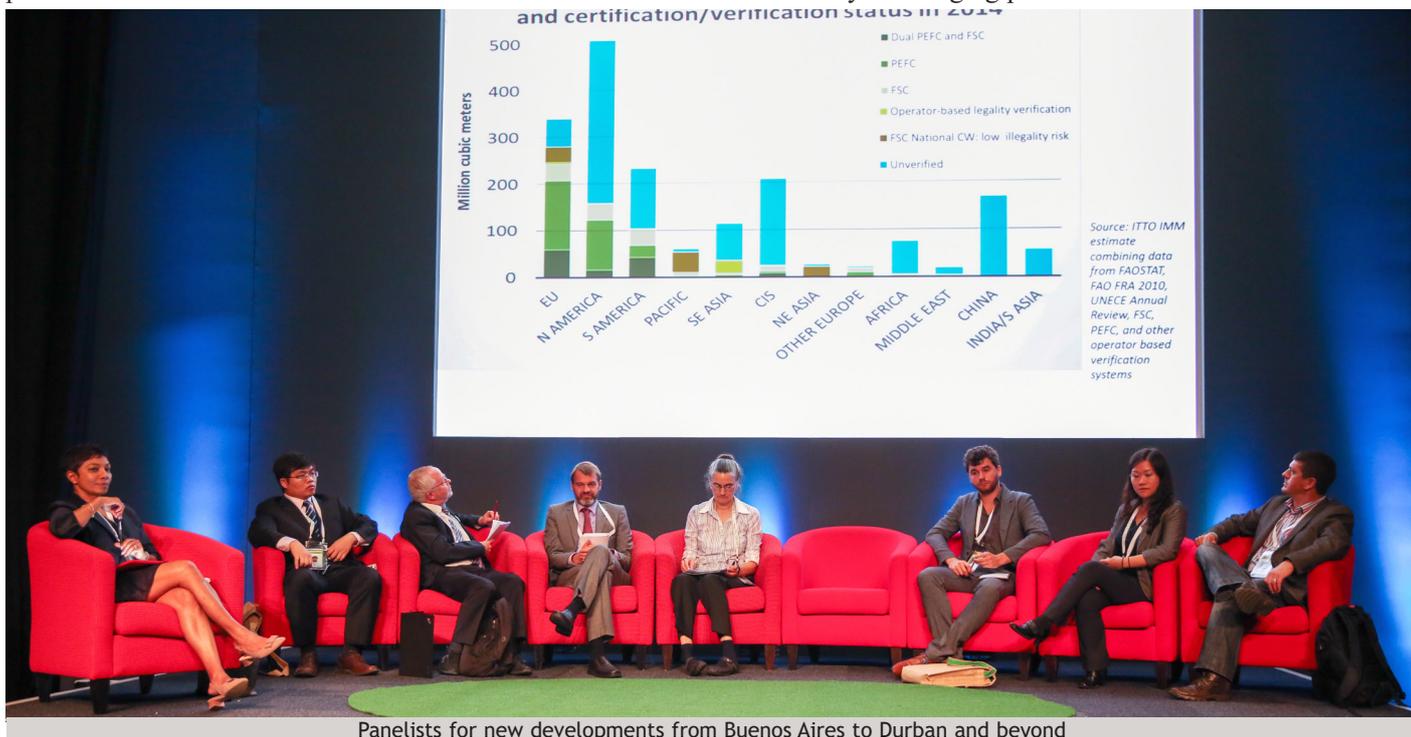
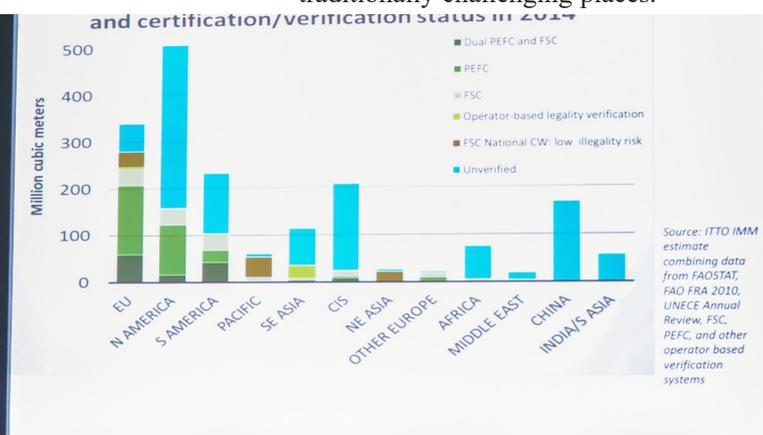
John Hontelez, FSC, described trends of FSC certification globally, highlighting the importance of certification as a tool to prove legality and recognizing the general challenge for smallholders to become certified.

Thorsten Arndt, PEFC, reflected on achievements realized since the last WFC including advances made in: legislation; public procurement policy; private commitments; private procurement policies; the finance sector; and consumer appreciation for forest certification.

Sheila Ward, CEO, Mahogany for the Future Inc., presented estimates of carbon storage in tropical trees both in standing and harvested sources worldwide.

Jan Brusselsaers, Ghent University, discussed potential impacts of green public procurement of certified wood, showing projections of trends in production and consumption in five production and consumer regions, for scenarios including and excluding public procurement of green wood products.

Karen Mo, WWF, presented the results of a study examining the business case for responsible forestry finding there is an intrinsic case, but it is dependent on market and public policy support, and implementation is possible in traditionally challenging places.



Panelists for new developments from Buenos Aires to Durban and beyond



Panelists for Innovation in energy, financial markets and investments in forest and land

Louis du Plessis, Director, New Century Sawmill Solutions, provided a South African example of the sawmill and timber industry outlining challenges faced including inefficient production processes driving down prices and the need for political will and stability.

The second keynote speaker, Tina Schneider, WRI, delivered a Tree Talk on technological innovations for wood identification and perimeter defense. Duncan Jardine, University of Adelaide, described work being done using DNA as a timber-tracking tool.

Session 4: Innovation in energy, financial markets and investments in forest and land: Chair, Jukka Tissari, FAO, opened the session with Till Neeff, FAO, moderating. Keynote speaker Stephan Piotrowski, Nova Institute, presented different scenarios of global biomass supply and demand in 2050 stressing that potential demand can be met with adequate supply if there is investment to promote increased forest productivity.

Jegatheswaran Ratnasingam, Putra University, Malaysia, outlined the potential to develop biomass energy within the palm oil sector in Malaysia out of the waste biomass, calling for increased investment and innovation. Florian Kraxner, Deputy Program Director, IIASA, discussed the potential of bioenergy and carbon capture storage systems using Indonesia as a case study. Johan Lindman, Stora Enso, presented work in Laos using a community-centered approach to produce wood products. Jason Drew, Executive, Agriprotein Technologies, highlighted the importance of reducing land trade-offs between biomass and food production presenting an example of turning waste into feed through rearing fly larvae. Mads Asprem, CEO, Green Resources Ltd, underscored Africa's potential to grow trees calling for better financing and tree breeding schemes.

Keynote, Nico Groenewald, Head of Agriculture, Standard Bank, opened the second panel describing opportunities and challenges for investing in biomass energy within South Africa's agricultural sector.

Paola Ovando, London School of Economics and Political Science, presented a study evaluating synergies and trade-offs between ecosystem service environmental assets in Andalusia, Spain.

Cintia Uller Gómez, Fundação Estadual do Meio Ambiente, Brazil, described a community-centered approach to farmer certification in southern Brazil making fallow agricultural practices more sustainable. Elaborating on the work described by Gómez, Fernando Vieira de Luca, Epagri - Santa Catarina Research and Rural Extension, Brazil, outlined an ethnographic community engagement approach. Amparo Cerrato, Australian National University, described facilitating rural communities to gain legal land tenure rights in Honduras. Timo Lehesvirta, Director, Forest Global, UPM-Kymmene Corporation, outlined a case study in Finland using an ecosystem-based landscape approach to forest management planning. Meredith Bates, The New Forests Company, described a business model to leverage positive social and environmental impacts while producing wood in rural communities in East Africa. Closing the session, Neeff summarized the key message that "there is a lot more to the forest than wood and development needs a lot more than cash."

THEME 5: MONITORING FORESTS FOR BETTER DECISION MAKING

Session 1: Who benefits and what are the returns on investment?: This session was moderated by Ken MacDicken, FAO. Keynote speaker Greg Reams, US Forest Service, presented on the returns on forest monitoring investment, saying that greater inclusivity into forest resources have also increased complexity of management and monitoring. On who would benefit from monitoring, he noted that this depends on quality and content and identified potential beneficiaries as state and federal forestry agencies, conservation organizations, and universities.

Anssi Pekkariinen, FAO, presented on the "who" and the "why" of forest monitoring, emphasizing that monitoring informs decision making through problem analysis and implementation of decisions. Pekkariinen stressed the need to find a balance between the source and amount of resources, and to prioritize its application. On lessons learned, Pekkariinen identified: the indirect impact on livelihoods and environmental sustainability; the necessity for impact monitoring and repeated continuous inventories for successful policy implementation; and that sustaining the process requires a critical mass of experts and forestry education.

Joberto de Freitas, Forest Service, Brazil, used examples from the Brazilian national forestry inventory to illustrate the importance of forests to local communities.

Pierre Bernier, Forest Service, Canada, outlined the concept of a primary forest and how it can be improved, and highlighted complicating issues including forest size, an acceptable threshold of human activities, and the possibility of reverting to a primary forest state. Bernier suggested that these issues create ambiguities where a lack of operational definition can lead to inconsistencies in reporting.

Jackson Kimani, African Regional Director, Clinton Foundation, explained the system for land based emissions estimation in Kenya, and highlighted key messages, including the importance of MRV systems in developing countries. Kimani stressed that these need to deliver more concrete results than just emissions estimates, but should help governments deal with the issues that matter.

Session 2: Lessons learned from forest monitoring:

Les Underhill, University of Cape Town, reported on the 21 million wildlife records produced by citizen science through public observations. Underhill said the data on bird species distribution has greatly improved, and reports of bird species in planted forests are equivalent or better than in surrounding natural forests.

On a smartphone application to support participatory agroforestry planning in Central America, Kauê De Sousa, ICRAF, said using the application reduced cost by 36% compared with paper-based agroforestry inventory.

Werner Kurtz, Forest Service, Canada, presented on forest monitoring information for climate change emphasizing the importance of collecting data. Kurtz stated that an analytical framework is needed to convert monitoring information into policy relevant information.

José María Michel Fuentes, Mexico, spoke of the many challenges in coordination, transfer of knowledge and sustainability of the data collection processes in Latin America.

Deuteronomy Kasaro, Zambia, outlined lessons learned from forest monitoring in Zambia since 1932, and shared their experiences in measuring many biophysical variables related to forestry and REDD+.

Carlos de Wassiage, Observatoire des Forêts d'Afrique Centrale/Commission of Central African Forests, presented on the experiences in central Africa with the collaborative initiatives in forest monitoring, lamenting the lack of decision-making processes at regional and local levels. He urged greater harmonization of initiatives and said it was difficult to find agreement on ways of monitoring.



Panelists for Lessons learned from forest monitoring

Participants in conclusion agreed that: forest inventory has continuously evolved in many countries with major changes in methods and purposes; modern methods can reduce the cost of monitoring and speed the delivery time for results; and engaging interested citizens can improve monitoring information at reasonable cost.

Session 3: Experience from around the world: case studies: During this session, which was moderated by Christoph Kleinn, Georg-August University, Göttingen, participants broke into three discussion groups. Joanna Makinta, DAFF, South Africa, presented on forest monitoring using open source software and imagery in pilot sites in South Africa.

Robert Nasi, CIFOR, presented on the impact of forest management plans on trees and carbon, demonstrating the value of harvesting data in Cameroon. He said forest management plans will help improve residual carbon stocks when properly implemented.

Claire Howell, Australian Bureau of Agriculture and Resource Economics and Sciences, cited achievements from using a criteria and indicators approach for forest reporting, and noted that this approach can be valuable in allowing reports to be easily understood by those using similar reports.

Anthony Lister, US Forest Service, presented on the challenges and solutions of forest inventory design principles, describing a ten-step inventory design process. He said that many different demands are often placed on national forest inventories, and advocated for placing plots in all lands since forests are dynamic and quality of data using data recorders is much higher than when paper forms are used.

Nurudin Chamuya, Tanzanian Forest Service, reported on the Tanzania's national forest resources monitoring and assessment initiative, noting: it is the first ground based forest inventory covering the entire country; remote sensing underestimates forest and woodland area by 42%; a ground-based inventory is more accurate than remote sensing estimates; and direct access to food plays a minor role in food security.

Session 4: What is the future of forest monitoring? New technologies and approaches for monitoring forest and tree cover: In a keynote address, Renaud Mathieu, CSIR, South Africa, presented on earth observation initiatives for enhanced management and monitoring of savannahs in southern Africa. Mathieu identified as main threats: overgrazing, noting that 25% of land in southern Africa is severely degraded; land conversion at an average of 3% per year; bush encroachment with 26 million hectares in Namibia alone, resulting in a 60% decline in livestock grazing area; and the impacts of climate change. Mathieu highlighted elements that should be developed to support monitoring systems over the next 20 years, including information technology resources, long-term validation/calibration infrastructure and a long-term monitoring programme with a research component.

Moses Cho, CSIR, South Africa, presented on very high resolution remote sensing imagery as a means to monitor and raise public awareness on the status of sub-tropical humid forests, and said the objective is to improve precision for small patches of indigenous forest. On lessons learned, Cho identified: remaining patches of indigenous forest need precision management if they are to survive; very high resolution imagery would be crucial to precision indigenous forest management; and products of high resolution imagery could be used to enhance participation of all stakeholders in participatory forest management through problem diagnosis, prognosis and solving.



Youth perform a flash mob on the venue grounds

Yadav Prasad Kandel, WWF, Nepal, presented on remote-sensing technology, estimating above-ground tree biomass using the LiDAR technology for REDD+ and MRV and emphasized the importance of MRV for REDD+.

On ways of building resilience in tropical managed forests, Plinio Sist, Agricultural Research for Development, stressed the importance of tropical managed forests and noted that logging intensity plays a major role in the recovery of forests.

On monitoring initiatives for REDD+ Svein Solberg, Forest and Landscape Institute, Norway, reported that the remote-sensing tool, InSAR, monitors height changes, implying that an increase in height indicates increased carbon stock while reduction in height indicates reduced carbon. As advantages, Solberg underscored that the tool is suitable in all areas, is ideal for REDD+, and provides an accurate estimation of height increase, without being affected by cloud cover.

Christine Schmullius, Friedrich-Schiller-University of Jena, reported on a series of projects funded by the European Space Agency, which have as objectives: improving above-ground biomass maps, stocks and changes, geometric resolution, and accuracy, while providing a platform for data sharing and validation. Schmullius noted that this would improve maps at a regional and global scale.

THEME 6: IMPROVING GOVERNANCE BY BUILDING CAPACITY

Session 1: Building capacity to address forest-related governance issues across sectors: This session was moderated by Constance Neely, ICRAF.

Eva Müller, FAO, provided opening remarks highlighting the role that FAO has played in integrating its technical departments for fisheries, forestry and agriculture in alignment with the objective of promoting the SDGs.

Thomas Gass, UN DESA, emphasized that good governance characterized by strong law enforcement and clearer land tenure is a key aspect to leverage forest financing.

Tanya Abrahamse, CEO, South African National Biodiversity Institute, provided examples from Benin, Liberia, Uganda and Ghana of traditional forest management and baseline data collection. Abrahamse called for critical analysis of pressures nation-states face when providing

forest concessions to powerful multinational companies for stimulating economic growth, developing agricultural exports and creating employment.

Innocent Musabyimana, Permanent Secretary, Ministry of Agriculture and Animal Resources, Rwanda, highlighted the importance of shared goals and political will at high levels of government for cross-sectoral integration of forest governance. Musabyimana spoke of the “joint-action development forum” initiated by Rwanda’s government in which a shared programme for natural resource management is discussed by key stakeholders at the district level for integrated decision-making.

Jorge Viana, Senator, Brazil, called for a paradigm shift in natural resource governance and described how the advancement of material consumption and wealth is threatening civilization.

Peter Kanowski, Australian National University, provided two contrasting examples of forest governance in Australia, the Land Care Programme and the Bushfire Programme, underlining the central role government provided in management. Kanowski noted the former was characterized by government finding it difficult to manage the balance between investment provision and control of the program in communities, while the latter was more successful due to the urgency of decision-making associated with forest fires, permitting governments to work with a diversity of actors.

Albertina Ndeinoma, University of Namibia, described research examining preferential access to markets for NFTP, in which producers are empowered to negotiate for benefit sharing of their products through specialized agreements with traders. Sony Baral, IUCN, Nepal stressed the dangers of sectoral supremacy and fragmented and outdated legislation. Christine Farcy, University of Louvain, urged the need to communicate in less technical ways how forest values are articulated to better address the needs of citizens.

The session was concluded by reiterating requirements for inter-sectoral governance, including the need for informed political leadership, investment in social relationships and understanding power differentials between actors.

Session 2: Connecting forests and people – building capacity to communicate: Moderated by Matt Frei, the session began with Eduardo Rojas Briaes, Polytechnic University of Valencia stressing the need for professional,



Moderator by Matt Frei during the session on Connecting forests and people - building capacity to communicate

strategic and targeted communication to avoid replication of efforts for forest communication. Robert Grace, Head of Strategy, M&C Saatchi Abel, offered three strategies for communication using examples of successful advertising campaigns: clarity of purpose, overcoming challenges, and awareness of what is being measured.

Ingwald Gschwandtl, Director of Forest Policy and Information, Federal Ministry of Agriculture, Forestry, Environment and Water Management, Austria, with Kai Lintunen, Finnish Forest Association, underlined key points for effective forest communication, including sufficient resources, political will, solid scientific evidence, and creative partnerships.

An innovative online application to interactively communicate on forest issues was tested amongst the delegates, in which a majority agreed that political will for forestry communication was required and that greater resources were needed for forestry communication.

Jim Karels, Director, Florida Forest Service, US, and Tracey Hancock, US Forest Service, highlighted some successful factors in the US Smokey Bear wildfire prevention campaign, which has depended upon a simple, pertinent, and consistent message for more than 70 years.

Maria de Cristofaro, FAO, presented the efforts of the European Forest Communicators Network in coordinating and disseminating forestry information through developing regional networks of forest communicators and developing an effective platform for the global communication of forestry issues.

Continuing the discussion, Gaster Kiyangi Kawuubye, Tree Talk Plus, and Nceba Ngcobo, Africa Forest Communicators Network, spoke on their experience with communication on forestry issues from a pan-African perspective. Ngcobo stressed the success of the network through: clear identification of salient forestry issues across the continent; realization of shared problems and differential strategies; and the use of multiple communication tools.

In a concluding panel discussion, key messages for improving the communication of forestry issues included: engaging with people living near or within forests; providing children with greater experience and capacity to advocate for forests; and disseminating the actions and agendas of those working for SFM rather than selling ideas.

Session 3: Connecting local and global governance – building capacity to implement the post-2015 development agenda: Moderated by Marc Palahi, EFI, the session began

with a series of keynote speakers highlighting the capacities required at the local level to enhance forest governance. Charles Barber, Director, Forest Legality Alliance and Government Relations, Forests Program, WRI, reviewed several institutional archetypes for managing forests such as global treaties and “coalitions of the willing,” while urging greater decentralization to empower communities and creating stronger accountability.

Fabiola Muñoz Doderó, Executive Director, National Forest and Wildlife Service, Peru, showcased forest governance reform in Peru by emphasizing participatory mechanisms as a critical component to expand economic opportunities for rural development, while respecting the cultural diversity of indigenous communities.

Nguyen Quang Tan, RECOFTC, identified critical challenges for translating good policy ideas into concrete actions, while suggesting greater time and resources be given to change conventional mindsets of local people on the value of participatory processes.

In a discussion moderated by James Astill, The Economist, panelists deliberated on methods for enhancing the capacity of local communities for promoting SFM. Laurence Argimon-Pistre, EU, described the EU’s Forest Law Enforcement Governance and Trade (FLEGT) Action Plan for addressing illegal forest logging, by giving communities greater accountability in monitoring illegal actions over forest resources.

Hadi Daryanto, Director-General, Social Forestry and Environment Partnerships, Ministry of Forestry, Indonesia, highlighted the advantages of an online government licensing system to permit forest-dwelling communities to monitor financial allocation for forest management in Indonesia.

Abu Juam, Ministry of Lands and Natural Resources, Ghana underlined how his country is extending the licensing requirements for the Voluntary Partnership Agreements of FLEGT to the domestic market.

Donis Suazo, National Institute for Conservation and Forest Development, Protected Areas and Wildlife, Honduras, stressed the need to target the implementation of national forest policies through participatory processes.

Peter Gondo, UN DESA, called for greater evidence of gaps in forest product imports and exports to better convince local communities of their role in monitoring illegal logging.

In the ensuing discussion, delegates suggested the use of local consultative councils to build capacity on non-technical lines; the need for more financial resources to support bottom-



Panelists of the session on Connecting local and global governance - building capacity to implement the post-2015 development agenda



Panelists of the session on improving forest governance by strengthening public forestry institutions

up forest governance; improved land tenure rights for forest-dwelling communities, and the need for indicators to measure progress in the fight against illegal logging.

Session 4: Improving forest governance by strengthening public forestry institutions: Moderated by Marco Boscolo, FAO, the session opened with remarks from Kamal Uddin Ahmed, Secretary, Ministry of Environment and Forests, Bangladesh, who warned that procurement rules of development partners often do not prioritize long-term sustainable livelihoods once projects terminate, resulting in continued forest exploitation. Doug Konkin, University of British Columbia, explained how the provincial forestry department of British Columbia in Canada had overcome substantial adversity associated with invasive species, reduced budget, and social conflicts over forest ownership rights by cultivating a cross-sectoral approach as well as shifting project management to the local level.

Fabiola Muñoz Dodero emphasized that the challenge for improving forest agencies is not in recruiting sufficient staff, but in transferring soft skills associated with conflict resolution, flexibility and time management.

Doris Capistrano, ASEAN-Swiss Partnership on Social Forestry and Climate Change, identified four lessons that forestry institutions have recognized in their efforts to improve governance: the anticipation of a backlash to change; the importance of political support for institutional change; the role of incentives in changing behavior; and the importance of pilot experimentation and peer-learning.

Raphael Yeboah, Executive Director, Forestry Commission, Ghana, stressed the importance of sufficient resources to build the capacity of stakeholders with diverse underlying interests.

Kathleen McGinley, US Forest Service, suggested that an appropriate enabling environment for strengthening forest institutions requires: employment stability and security to tackle corruption; flexibility and discretion for local-level decision making; and political will which enables innovation in adapting to complex and dynamic circumstances.

Ronnakorn Triraganon, RECOFTC, facilitated an informal dialogue between panelists and delegates on sharing experience of capacity development for forest governance. In the ensuing discussion, participants stressed the need to shift from command-and-control mechanisms to collaborative partnerships and to develop creative ways to overcome cognitive dissonance in shifting behavior. Eva Müller, FAO, concluded the session with three key messages, the need to: transfer technical, behavioral and financial skills and resources; translate capacity development into greater output in implementing SFM; and improve transparency, accountability and participatory mechanisms within public forest institutions.

XIV WORLD FORESTRY CONGRESS OUTCOMES

XIV World Forestry Congress Outcome: The Durban Declaration: (http://www.fao.org/fileadmin/user_upload/wfc2015/Documents/Durban_Declaration_1.pdf) states that:

- Forests are fundamental for food security and improved livelihoods and will increase the resilience of communities by: providing food, wood energy, shelter, fodder and fiber; generating income and employment; harboring biodiversity; and supporting sustainable agriculture by stabilizing soils and climate, and regulating water flows;
- Integrated approaches to land use address the drivers of deforestation and conflicts over land use, capitalize on the full range of benefits from integrating forests and agriculture and maintain multiple forest services;
- Forests are an essential solution to climate change adaptation and mitigation;
- New partnerships among the forest and other sectors, engagement with indigenous peoples and local communities, investment in forest education, communication, capacity building, research, the creation of jobs, especially for young people, and gender equality are required for realizing the vision of forests; and
- The enthusiasm of youth for creating a better world should become a constant source of inspiration and stimulus for innovation, and their call for action should be supported.



Panelists for the closing plenary

Message on Climate Change from the XIV World Forestry Congress

The message notes that climate change response policies present opportunities for increasing financing and political support for forest governance and stakeholder engagement, and the importance of REDD+ for climate change mitigation. The statement relays the key content of the Durban Declaration on forests, and recommends the following actions to UNFCCC COP 21 (http://www.fao.org/fileadmin/user_upload/wfc2015/Documents/Climate_change_1.pdf):

- Increase understanding of climate change amongst governments and other stakeholders, with particular attention to forest-dependent communities and indigenous peoples;
- Promote partnerships and exchanges to share climate change mitigation and adaptation experience, particularly with forest-dependent communities and indigenous peoples;
- Increase governments' and other stakeholders' understanding of the challenges and opportunities in combating climate change, and encourage addressing these in the context of the SDGs;
- Continue increasing the availability and quality of information to assist in policy making and support practitioners in addressing climate change mitigation and adaptation;
- Encourage the assessment and communication of progress made in climate change mitigation and adaptation; and
- Encourage more coordination and mobilization of diverse financial resources for climate change mitigation and adaptation.

Message from the XIV World Forestry Congress to the United Nations General Assembly Summit for the adoption of the 2030 Agenda for Sustainable Development offers the following key messages on the role of forests in achieving the SDGs (http://www.fao.org/fileadmin/user_upload/wfc2015/Documents/SDGs_1.pdf):

- Forests cover one-third of the earth's land surface and provide a range of products and services that contribute to social and economic development as well as enhancement of the environment;
- The need to sustainably manage forests is clearly stated in SDG15 and SDG6 in relation to protecting and restoring water-related ecosystems; forests also play a crucial role in achieving several other SDGs;
- To successfully implement the SDGs, forests must be mainstreamed into strategies for sustainable development at both the national and international levels;

- Forests practitioners around the world are prepared to step up their efforts to manage forests sustainably; and
The FAO and other relevant international organizations stand ready to support the contribution of forests to the SDGs by making information available, providing technical support and promoting best practices and dialogue.

UPCOMING MEETINGS

UN Sustainable Development Summit 2015 to Adopt the Post-2015 Development Agenda: The Summit is expected to adopt the post-2015 development agenda, including: a declaration; a set of Sustainable Development Goals, targets, and indicators; their means of implementation and a new Global Partnership for Development; and a framework for follow-up and review of implementation. **dates:** 25-27 September 2015 **location:** UN Headquarters, New York **contact:** UN Division for Sustainable Development **fax:** +1-212-963-4260 **email:** dsd@un.org **www:** <http://www.un.org/sustainabledevelopment/summit/>

IWFC2015: Hosted by the Korea Forest Service and the Gangwon Province, the Republic of Korea, the 6th International Wildland Fire Conference will bring together leaders, policy makers, professionals, researchers and practitioners to discuss critical wildland fire issues and strengthen international cooperation and exchange. The conference will consider ways to limit the damage to forests caused by wildfires and strengthening the Global Wild Land Fire Network. The conference will have a particular focus on the links between fires in forests and cultural heritage and practices. **dates:** 12-16 October 2015 **location:** PyeongChang, Republic of Korea **contact:** IWFC2015 Organizing Committee **phone:** +82-42-481-4127 **fax:** +82-42-481-4260 **email:** wildfire@forest.go.kr **www:** www.wildfire2015.kr

UNCCD COP 12: The 12th session of the Conference of the Parties (COP 12) to the UNCCD will take decisions regarding the Convention's implementation. **dates:** 12-23 October 2015 **location:** Ankara, Turkey **contact:** UNCCD Secretariat **phone:** +49-228-815-2800 **fax:** +49-228-815-2898/99 **email:** secretariat@unccd.int **www:** <http://www.unccd.int>

CITES PC22: The 22nd meeting of the Plants Committee of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES PC22) will be held for the last time before the seventeenth meeting of the CITES Conference of the Parties (CITES COP17) **dates:** 19-23

October 2015 **location:** Tbilisi, Georgia **contact:** CITES Secretariat **email:** jvasquez@cites.org **www:** <http://www.cites.org/eng/news/calendar.php>

FOREST EUROPE Extraordinary Ministerial Conference and 7th FOREST EUROPE Ministerial Conference: The Extraordinary Ministerial Conference and the 7th Ministerial Conference on the Protection of Forests in Europe will be held back-to-back to consider the work of the intergovernmental negotiating committee for a Legally Binding Agreement on Forests in Europe. **dates:** 20-21 October 2015 **location:** Madrid, Spain **contact:** FOREST EUROPE Liaison Unit Madrid **phone:** +34-914458410 **fax:** +34-913226170 **email:** liaison.unit.madrid@foresteurope.org **www:** <http://www.foresteurope.org/>

18th RRI Dialogue on Forests, Governance and Climate Change: This dialogue of the Rights and Resources Initiative (RRI) will convene under the theme 'Challenges and Opportunities of Climate and REDD+ Milestones for Forest Communities'. It will explore implications for the rights and livelihoods of indigenous peoples and local communities of developments in international efforts to combat climate change, namely negotiations towards a global climate agreement in Paris in December 2015, and the further development of international climate and REDD+ funding frameworks and proposals. The Dialogue is expected to identify priorities to ensure that the rights of Indigenous Peoples and other local communities are enhanced and safeguarded. **dates:** 26 October 2015 **location:** Washington D.C. **contact:** RRI Secretariat **email:** info@rightsandresources.org **www:** <http://www.rightsandresources.org/event/eighteenth-rri-dialogue-on-forests-governance-and-climate-change/>

Joint Session of the 38th European Forestry Commission and 72nd UNECE Committee on Forests and Forest Industry and Silva2015: The joint session of the 72nd UN Economic Commission for Europe (ECE) Committee on Forests and the Forest Industry (COFFI) and the 38th Food and Agriculture Organization of the UN (FAO) European Forestry Commission as well as the third European Forest Week (Silva2015) will discuss sustainable forest management (SFM) in Europe and the role of sustainable forest industries in the regional economy. The meeting is one of six region-specific meetings held every two years in support of the FAO Regional Forestry Commissions. **dates:** 2-6 November 2015 **location:** Engelberg, Switzerland **contact:** Ekrem Yazici **email:** ekrem.yazici@fao.org **www:** <http://www.unece.org/forests.html>; <http://www.fao.org/forestry/efc/en/>

29th Session of the Latin American and Caribbean Forestry Commission: FAO will convene this meeting in order to bring together forestry experts and decision makers from the region. The meeting is one of six region-specific meetings held every two years in support of the FAO Regional Forestry Commissions. **dates:** 9-13 November 2015 **location:** Lima, Peru **contact:** Hivy Ortizchour, FAO **email:** hivy.ortizchour@fao.org **www:** <http://www.fao.org/forestry/31106/en/>

Clean Cooking Forum 2015: The 2015 Biennial Clean Cooking Forum is a major event that convenes the global clean cooking sector to share knowledge, best practices and scalable solutions. The four-day conference presents practitioners and stakeholders the opportunity to come together to exchange lessons and experiences, and to work towards gaining the capacity and resources necessary to scale adoption of clean cooking solutions. Topics will include:

building consumer confidence; applications for mobile technology; consumer finance; cross-sector integration; refugee and other humanitarian needs; and performance evaluation. **dates:** 10-13 November 2015 **location:** Accra, Ghana **contact:** Global Alliance for Clean Cookstoves **email:** forum@cleancookstoves.org **www:** <http://cleancookstoves.org/events/154.html>

ITTC-51: The 51st session of the International Tropical Timber Council (ITTC) and the Associated Sessions of the four Committees (Finance and Administration; Economics, Statistics and Markets; Forest Industry; and Reforestation and Forest Management) will consider recommendations for tropical forest-related policies and approve financing for field-level projects. The ITTC serves as the governing body for the International Tropical Timber Organization (ITTO). **dates:** 16-21 November 2015 **location:** Kuala Lumpur, Malaysia **contact:** ITTO Secretariat **phone:** +81-45-223-1110 **fax:** +81-45-223-1111 **email:** itto@itto.int **www:** http://www.itto.int/workshop_detail/id=4240

First Annual Forests and Livelihoods: Assessments, Research and Engagement (FLARE) Conference: The International Forestry Resources and Institutions (IFRI) research network, the Program on Forests (PROFOR), and the Musée de l'Homme Research Group on Social and Natural Evolution are convening this workshop to improve the assessment of forest governance approaches as a contribution to improved forest livelihoods, biodiversity conservation and sustainable use, and climate change mitigation and adaptation. The workshop will consider six themes: forest governance and landscapes, agricultural commodities, social and biological aspects of forest dependence, impact evaluations, pathways to prosperity, and climate variability and change. **dates:** 27-30 November 2015 **location:** Paris, France **contact:** International Forestry Resources and Institutions **phone:** +1-734-764-9542 **fax:** +1-734-647-5047 **e-mail:** IFRI@umich.edu **www:** <http://www.ifreresearch.net/2015/03/10/flare/>

UNFCCC COP 21: The 21st session of the COP to the UNFCCC and associated meetings will take place in Paris to deliver a new universal climate change agreement. **dates:** 30 November - 11 December 2015 **location:** Paris, France **contact:** UNFCCC Secretariat **phone:** +49-228-815-1000 **fax:** +49-228-815-1999 **email:** secretariat@unfccc.int **www:** <http://newsroom.unfccc.int/paris/>

Global Landscapes Forum 2015: The third annual Global Landscapes Forum will take place alongside UNFCCC COP 21. The Forum focuses on land use as a key sector for achieving global climate and sustainability goals, and brings together stakeholders from different land-use sectors. Coordinating partners include CIFOR, UNEP, World Bank, WRI, CIAT, CGIAR Research Programme on Water, Land and Ecosystems, and UNDP. **dates:** 5-6 December 2015 **location:** Paris, France **contact:** Ann-Kathrin Neureuther, Global Landscapes Forum **email:** a.neureuther@cgiar.org **www:** <http://www.landscapes.org/glf-2015/>

22nd Session of the Near East Forestry and Range Commission: The Food and Agriculture Organization of the UN (FAO) will convene this meeting to bring together forestry experts and decision-makers from the Near East region. The meeting is one of six region-specific meetings held every two years in support of the FAO Regional Forestry Commissions. **dates:** 13-17 December 2015 **location:** Algeria **contact:** Abdel Hamied Hamid **e-mail:** abdelhamied@hotmail.com **www:** <http://www.fao.org/forestry/46199/en/>

28th Session of the North American Forest Commission:

The Food and Agriculture Organization of the UN (FAO) will convene this meeting to bring together forestry experts and decision-makers from the North American region. The meeting is one of six region-specific meetings held every two years in support of the FAO Regional Forestry Commissions. **dates:** 11-15 January 2016 **location:** Campeche, Mexico **contact:** Peter Coska **e-mail:** peter.csoka@fao.org **www:** <http://www.fao.org/forestry/31117/en/>

CITES SC66: The 66th meeting of the Standing Committee of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES SC66) will meet in Geneva, Switzerland. **dates:** 11-15 January 2016 **location:** Geneva, Switzerland **contact:** CITES Secretariat **e-mail:** jvasquez@cites.org **www:** <https://cites.org/eng/news/calendar.php>

UNFF AHG1 [tentative]: The first meeting of the Open-ended Intergovernmental *Ad Hoc* Expert Group (AHG) of the UN Forum on Forests (UNFF) is expected to start developing proposals on a range of legal and financing options with regards to forests. **dates:** 18-22 January 2016 **location:** UN Headquarters, New York **contact:** UNFF Secretariat **phone:** +1-212-963-3401 **fax:** +1-917-367-3186 **e-mail:** unff@un.org **www:** <http://www.un.org/esa/forests/>

22nd Annual ISTF Conference: Tropical Forests for Sustainable Development: The 22nd Annual Conference of the International Society of Tropical Foresters will focus on the theme, 'Shaping our Post-2015 Future with Knowledge from the Field.' The conference aims to provide an opportunity for field researchers and practitioners to discuss with policymakers the role tropical forests will play in the post-2015 development agenda and in enhancing our ability to achieve the Sustainable Development Goals (SDGs). **dates:** 28-30 January 2016 **venue:** School of Forestry and Environmental Studies **location:** New Haven, US **e-mail:** istf@yale.edu **www:** <http://istf.yale.edu/node/54>

African Forestry and Wildlife Commission – 20th Session: The Food and Agriculture Organization of the UN (FAO) will convene this meeting in order to bring together forestry experts and decision makers from the region. The meeting is one of six region-specific meetings held every two years in support of the FAO Regional Forestry Commissions. **dates:** 1-5 February 2016 **location:** Arusha, Tanzania **contact:** Foda Bojang **email:** foday.bojang@fao.org **www:** <http://www.fao.org/forestry/afwc/en/>

Asia-Pacific Forestry Commission - 26th Session: The Food and Agriculture Organization of the UN (FAO) will convene this meeting to bring together forestry experts and decision makers from the Asia-Pacific region. The meeting is one of six region-specific meetings held every two years in support of the FAO Regional Forestry Commissions. **dates:** 22-26 February 2016 **location:** Clark Freeport Zone, Philippines **contact:** Patrick Durst **e-mail:** Patrick.Durst@fao.org **www:** <http://www.fao.org/forestry/31089/en/>

1st Asia-pacific Urban Forestry Meeting: Convened by the Chinese Academy of Forestry and the FAO, the 1st Asia-Pacific Urban Forestry Meeting will discuss urban and peri-urban forestry in Asia. **dates:** 6-8 April 2016 **location:** Zhuhai, China **contact:** Cheng Wang; Simone Borelli **email:** wch8361@163.com; simone.borelli@fao.org

15th Session of Permanent Forum on Indigenous Issues: The 15th session of the Permanent Forum on Indigenous Issues (PFII) will bring Member States and indigenous peoples' representatives together to discuss: implementation

of the six mandated areas of the PFII with reference to the UN Declaration on the Rights of Indigenous Peoples (UNDRIP); conflict, peace and resolution; and coordination among the three UN mechanisms on indigenous affairs. A dialogue will take place with the Special Rapporteur on the Rights of Indigenous Peoples and the Chair of the Expert Mechanism on the Rights of Indigenous Peoples. The session will also consider the future work of the PFII, and emerging issues. **dates:** 20 April – 1 May 2016 **location:** New York **contact:** PFII Secretariat **phone:** +1 917 367 5100 **fax:** +1 917 367 5102 **e-mail:** indigenous_un@un.org **www:** <http://undesadspd.org/IndigenousPeoples/UNPFIISessions/Fourteenth.aspx>

IUFRO ALL Division Meeting – Division 7 Forest Health: The International Union of Forest Research Organizations (IUFRO) will be holding the first global meeting of its Division on Forest Health. The meeting will be convened under the theme, 'Global Change and Forest Health' and will consider climate change, biological invasions, air pollution, forest pathology, forest entomology, and their interactions. **dates:** 25-29 April 2016 **location:** Istanbul, Turkey **contact:** Eckehard Brockerhoff **e-mail:** eckehard.brockerhoff@scionresearch.com **www:** <http://www.foresthealth2016.com/>

UNFF AHG2 [tentative]: The second meeting of the Open-ended Intergovernmental *Ad Hoc* Expert Group (AHG) of the UN Forum on Forests (UNFF) is expected to develop proposals on a range of legal and financing options with regard to forests. **dates:** 25-27 April 2016 **location:** UN Headquarters, New York **contact:** UNFF Secretariat **phone:** +1-212-963-3401 **fax:** +1-917-367-3186 **e-mail:** unff@un.org **www:** <http://www.un.org/esa/forests/>

IFSS44: The forty-fourth session of the International Forestry Student's Symposium will be the largest annual general meeting in 2016 of the International Forestry Student's Association (IFSA) facilitating a dialogue around a sustainable future for the world's forest. **dates:** 7-23 August 2016 **location:** Austria **contact:** Organizing Committee **email:** ifss2016@gmail.com **www:** <http://ifss2016.at/>

CITES CoP17: The 17th meeting of the Conference of the Parties (CoP) will discuss the world's biggest wildlife challenges and opportunities. **dates:** 24 September - 5 October 2016 **location:** Johannesburg, South Africa **contact:** Liu Yuan **email:** yuan.liu@cites.org **www:** <https://cites.org/eng/news/calendar.php>

FAO and UNECE Workshop: More Heat with Less Wood: This workshop will address the challenges of fostering sustainable firewood use for heating and cooking in households of the UN Economic Commission for Europe (UNECE) region. It will provide a platform for exchanging experiences throughout the region on how to improve wood energy applications, and participants will be invited to develop guidance for providing an enabling policy framework to optimize the use of wood as a clean and healthy source of energy for households. The workshop will result in two outcomes: a collection of best practices and a roadmap for policy makers. **dates:** 6-8 October 2015 **location:** Geneva, Switzerland **contact:** Florian Steierer **email:** florian.steierer@unece.org **www:** <https://cites.org/eng/news/calendar.php>

UNFF12: The twelfth session of the UN Forum on Forests is expected to take place in 2017, at a place and time yet to be determined. **dates:** tbc **location:** tbc **contact:** UNFF Secretariat **phone:** +1-212-963-3401 **fax:** +1-917-367-3186 **email:** unff@un.org **www:** <http://www.un.org/esa/forests/>

GLOSSARY

AFF	African Forest Forum	ITTA	International Tropical Timber Agreement
AHEG	Open-ended Intergovernmental Ad Hoc Expert Group	ITTC	International Tropical Timber Council
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza	ITTO	International Tropical Timber Organization
CBD	Convention on Biological Diversity	IUCN	International Union for the Conservation of Nature
CEO	Chief executive officer	IUFRO	International Union of Forest Research Organizations
CIFOR	Centre for International Forestry Research	MRV	Measurement, Reporting and Verification
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora	NGO	Non-governmental organization
COFO	Committee on Forestry	NTPP	non-timber forest products
COP	Conference of the Parties	PEFC	Programme for the Endorsement of Forest Certification
CSIR	Council for Scientific and Industrial Research	PES	Payment for ecosystem services
DAFF	Department of Agriculture, Forestry and Fisheries	RECOFTC	The Center for People and Forests
DPRK	Democratic People's Republic of Korea	REDD+	countries' efforts to reduce emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks
ECOSOC	UN Economic and Social Council	RRI	Rights and Resources Initiative
FAO	Food and Agriculture Organization of the UN	SDGs	Sustainable Development Goals
FAST	Finance Alliance for Sustainable Trade	SFM	Sustainable Forest Management
FFF	Forest and Farm Facility	SLM	Sustainable land management
FLEGT	Forest Law Enforcement Governance and Trade	SLU	Swedish University of Agricultural Science
FLR	Forest and Landscape Restoration	UN DESA	United Nations Department of Economic and Social Affairs
FRA	Global Forest Resources Assessment	UNECE	UN Economic Commission for Europe
FSC	Forest Stewardship Council	UNEP	UN Environmental Programme
GEF	Global Environment Facility	UNFCCC	UN Framework Convention on Climate Change
HLPF	High-level Political Forum	UNFF	UN Forum on Forests
HRH	His Royal Highness	UNFF	United Nations Forum on Forests
IAF	International Arrangement on Forests	WFC	World Forestry Congress
ICRAF	World Agroforestry Centre	WRI	World Resources Institute
IFC	International Finance Corporation	WWF	World Wide Fund For Nature
IFM	Integrated Fire Management		
IFMS	Integrated Fire Management Services		
IFSA	Integrated Fire Management Services		
IGAD	Intergovernmental Authority on Development		
IIASA	International Institute for Applied Systems Analysis		



Children from One Tree, One Child perform an environmental play during the closing ceremony