

WFW Panel on Forestry Research

Wednesday 26 September 2012

1. Chair – Avrim Lazar (Former ACPWP Chair)

The Chair opened the session by welcoming participants, stating the session is a brief one but very important. He later drew attention to the claims by some countries with regard to problems of land degradation and other country-specific forest issues. He said these problems can only be solved by knowledge through research and that research is a critical political element to help enact political will.

2. Eduardo Rojas-Briales, FAO Forestry Assistant Director-General

Eduardo Rojas-Briales noted FAO's important role in advising governments on forest policies and decision taking. He further stressed the possibility of research communities working together to identify future research priorities in consultation with major stakeholders.

PRESENTATIONS

3. Professor Niels Elers Koch - IUFRO President

Prof. Koch presentation was based on IUFRO research priorities and observations on trends in forest research. He stated that IUFRO monitors and supports the basic applied research related to forests and trees and unites about 650 member organizations with over 15,000 researchers in more than 120 countries. He noted its mission includes the promotion of global co-operation in forest-related research.

Prof. Koch highlighted some of the major problems forests are facing such as deforestation, climate change and loss of biodiversity. He further stressed that the main forest problems are cross-sectoral and require responses across institutions at various levels of governance. He noted there is a crucial need to link processes and orient scientists toward contemporary issues and that priority setting in scientific collaboration should be guided by these needs.

He later listed the IUFRO six research goals which include:

- Forests for People
- Forests and Climate Change
- Forest Bioenergy
- Forest Biodiversity Conservation
- Forest and Water Interactions, and
- Resources for the Future

While looking at future approaches, Prof Koch identified interdisciplinary collaboration as a realistic trend in forest research, and in order to address broad issues effectively, it would depend on collaboration that involves both natural and social sciences.

In his conclusion, Prof. Koch said that IUFRO is committed to work with its partners on all aspects that promote knowledge sharing, policy and project implementation.

IUFRO future major events

- Latin American Regional Congress, San José, Costa Rica. 2013
- XXIV IUFRO World Congress, Salt Lake City, USA. 2014

4. Xiao Wenfa – Chinese Academy of Forests, ‘Forest Research in China’

Wenfa started with broad overview of forestry in China. He explained the goal of Forest Research in China, which is to support the development of modern forestry by facilitating the conversion of forestry to one that suits the Chinese development context and to reveal its basic features, nature and technology. Its mission is for extension, standardization, and quality supervision of Chinese forests.

He later highlighted the priorities of the Chinese research program from now until 2015 and to 2020 which include:

- Forest tree breeding: Creating and formulating new plant varieties, biotechnology, conventional breeding
- Sustainable Forest Management
- Ecosystem and Environment (landscape) Restoration and protection
- Forestry Bio-industry
- Forestry and Climate Change
- Information Technology Development, including Monitoring Assessment and Reporting on ecosystems
- Forestry Policy, Economy and collaborative Governance

Wenfa highlighted the number of people in Forestry Research including agencies and institutions: the Chinese Academy of Forests, with 18 institutes and 4 regional experimental centers, 5 regional forestry universities, 30 provincial research institutes and extension centers, more than 300 local R&D institutes, 5 institutes closely concerned forestry in the Chinese Academy of Sciences and other universities.

He also stated that the programs for supporting forestry research in China are enormous. Wenfa also presented the investment in forestry research from the State Forestry Administration and described many main research challenges they face overlap. He later outlined the experiences and measures for the future of the institution.

5. Glenn Mason - Director General – Policy, Economics and Industry Branch Canadian Forest Service (CFS)

Glenn covered research trends in forestry through the lens of Canada's approach. He stressed that the Canadian Forest Service (CFS) is heavily science-based and the Government of Canada's lead on forest issues.

CFS work in collaboration with a wide range of traditional and non-traditional partners which include researchers and academia, the provincial/territorial governments, forest products and value-added industries and other stakeholders. He highlighted CFS Strategic Priorities are:

- Support forest sector's competitiveness by driving sector transformation through innovation and market expansion,
- Optimize forests in the context of the socio-economic benefits from forests to industry and communities,
- Advance Environmental Leadership to create competitive advantage through strong environmental performance

Glenn later presented the CFS evolving research approach, which includes both the challenges and approaches of the organization. The major challenges have been the cumulative impacts on forests due to biophysical and anthropogenic change and also resource scarcity. While CFS responds to the challenges through the application of the systems approach and by increasing collaboration among partners institutions

6. A. B. Temu - Deputy Director General Partnerships and Impact, ICRAF.

Mr. Temu provided an introduction on ICRAF's work with research institutions, universities and governments, and said ICRAF does not have its own research station.

He later described ICRAF's research approaches which involve incorporating trees across a landscape matrix, agro-ecosystems, forest production systems and monoculture activities. He further described their level of habitat suitability in a matrix and the range of the proportional area and suitability for forest biodiversity conservation.

Temu also presented the strategic importance of agro-forestry; he highlighted science-based solutions to problems faced by smallholder farmers that include solving farmers' production systems issues, which will consequently improve on-farm productivity while building assets, generating incomes and enhancing the livelihood options. He said science-based solutions address the environmental and biodiversity issues that will help reduce pressure on natural habitats, improve landscape connectivity, restore habitats and build ecosystem resilience.

While presenting the six global research priorities of ICRAF, Mr. Temu described how these focus areas would address trees, farm and landscapes at the global level. The six programmes of research priorities include:

- Multifunctional landscapes (i.e. policies and incentives for multi-functional landscapes with trees that provide environmental services)
- Land restoration (i.e. reducing risks to land health and targeting African interventions for enhanced productivity)
- On-farm productivity (i.e. Improving on-farm productivity of trees and agro-forestry systems)
- Germplasm (i.e. domestication, utilization and conservation of superior agro-forestry germplasm)
- Markets value chains (i.e. Improving tree product marketing for smallholders)
- Climate Change (i.e. Improving the ability of farmers, ecosystems and governments to cope with climate change)

Mr. Temu later gave an example of the Malawi National Agroforestry Food Security Programme and a research project on cocoa plantations and how the approach of rehabilitation of the old cocoa plantations will help farmers reduce poverty in rural areas.

At the end of his presentation Temu presented the organisation's impressions on forestry research which involves both the:

Challenges:

- Reduced work on botany, silviculture, ecology, forest management.
- Inadequate development of Non-wood timber products (NWTP)
- General decline in funding for forestry research, especially in Africa
- Inadequate support for education leading to few theses/dissertations on forestry
- Results: few new things are entering curricula and/or learning resources. Where are the academic books?

And Positive changes

- Improved wood utilization, thanks to the private sector
- Rapid growth in social science, especially policy research and results
- Improved conservation science
- Lots of new work on climate change and REDD

7. Mike May - VP Public Affairs, FuturaGene.

Mike's presentation was on responsible development and deployment of advances in research – using FuturaGene GM trees as an example. He explained the future of bioeconomy and how planted forests would contribute to long-term economic growth with the use of bio-products. He then stressed the application gap in science and society and described the future potential of plant biotechnology.

Mike later referenced Chapter 16 of Agenda 21 and that increasing the availability of food, feed and renewables, using combined resources of modern biotechnology and conventional breeding will:

- Increase the yield of crops and livestock,
- Improve the nutritional value of crops and livestock,
- Reduce post-harvest losses,
- Increase integrated crop management,
- Ensure sustainable productivity increases on marginal lands,
- Improve afforestation and reforestation techniques,
- Increase efficiency of nitrogen fixation and mineral absorption.

He also echoed recommendations on forests during Rio+20, which prioritize restoration of 150 million hectares of deforested and degraded lands by 2020 (IUCN), and the promotion of science, technology, innovation and traditional knowledge in order to face forests' main

challenges i.e. how to make them productive without destroying them, Zero Net Deforestation by 2020, and respecting the rights and knowledge of peoples living in and around forests and responding to their sustainable development needs.

He stressed that GM technology could help in addressing major concerns, but emphasised the need to have a streamlined research approach. He later presented the five policy priorities of the organization:

- Enable knowledge infrastructure and promote science education;
- Invest in global R&D systems and encourage financial systems that promote investment in SMEs;
- Re-evaluate, standardise, rationalise and harmonise regulatory regimes in the light of scientific evidence and field experience;
- Promote technology transfer and international collaboration for sharing, scale-up and replication of resources and best practice;
- Promote the potential of technology to assist small farmers through capacity building, training and extension services linked through to appropriate public policy.

He also said that green growth implementation will be driven by novel partnerships that combine the convening power and outreach of inter- and non-governmental organisations with the innovative power of science and technology and the deployment skills of private sector business.

Lastly Mike presented Futuragene GM projects since 1988 and concluded by presenting three pillars of sustainable forestry that include collaboration, governance and innovation.

8. Johan Elvnert - Manager of the Forest-based Sector ETP

Johan presented on how the research community can support private sector activities. He introduced the Forest-based Technology Platform (FTP) and its mission to realise the vision of the sector through a Strategic Research Agenda (SRA) by;

- Being an interface between industry, researchers and policy-makers in setting research funding priorities
- Mobilising a Critical Mass of research and technological development (RTD) and Innovation Capacity
- Supporting exploitation and dissemination of results
- Set more ambitious targets for research & innovation

- Reduce research fragmentation through European cooperation

He then presented the FTP vision, which includes the production of wood-based carbon-fibre batteries on car surfaces and national support groups across Europe. He later highlighted the existing documents prepared for a strategic research and innovation agenda, which involve a long-term vision to 2030.

He outlined the strategies in terms of hierarchy. The strategic research agenda comprises 4 main themes. These are: forest-based sector in a bio-based society; responsible management of forest resources; creating industrial leadership; and fulfilling consumer needs. He also highlighted the joint action of five European technology platforms on bio-refineries, which was completed in 2011. He noted the next phase would be completed by 2030. He also listed all the companies working together to enhance research work on the use of bio-based for growth, which is known as a 'bio-based industries initiative'.

Discussion

The points and recommendations that were raised during the interactive session include the need for:

- Finding opportunities to bring policy makers and politicians together to discuss research issues at a conference.
- Working on joint research projects that are relevant to some people/organizations/agencies in order to get their support.
- Working on research that is more politically attractive to obtain funding from politicians/governments to fund such projects.
- Finding ways to attract policy makers to the 3rd World Agro-forestry Congress in India during February 2014
- Building bridges among the major research institutions that exist, including by working through IUFRO.