

The ICPF 2018 World Café

A collaborative experience on reporting how the conference achieved its expectations



During the last day of the 4th International Congress on Planted Forests, held in Beijing from the 23-27 October 2018, a “world café” session was organized by representatives of WWF’s New Generation Plantations (NGP) platform and the IUFRO Task Force on Planted Forests for a Greener Future. The main objective of the session was to harvest opinions from participants about the findings that emerged during the ICPF 2018, and the challenges that need further research.

Around 50 people attended the world café session, which was held in a large room where tables were specially prepared to conduct the exercise.

Five tables were set up, each one focusing on a different question. One volunteer (selected at the beginning of the session) acted as the permanent “host” of each table. During five rounds of discussion, each lasting 20 minutes, the remaining “guests” moved between the tables in random groupings of around eight people. This allowed the participants to address every questions, and the host of each table to harvest answers from five different sitting groups.

The five questions, previously defined by the organizers of the world café session, were as follows:

What findings have emerged from ICPF 2018, and what challenges need further research, on:

1. Genetic resources and tree breeding?
2. Multipurpose management of planted forests?
3. Wood, fibre and non-wood forest products?
4. Forest policy, land-use regulation and socio-economics in relation to planted forests?
5. What gaps did the conference not cover and need further research?

Answers were collected, written on flip-chart pages and exhibited on the walls of the conference room. After five rounds, when each participant had visited each table, all attendees were invited to vote on the six answers they considered the most relevant by placing stickers on the flip-charts.

The last contribution of each host, immediately after the end of the world café session, was to email the coordinators a short text highlighting the most popular answers at their table. A synthesis of these highlights is summarized in the following sections.

Q.1

What are the key findings and challenges that need further research on genetic resources and tree breeding?

The major targets of tree breeding, biotech and genetic improvement programmes have been pest, disease and herbicide tolerance; drought, salt and heat resistance; and the use of more productive clones. There are great possibilities and a need to continue genetic improvement and biotech research programmes to close the gap between current levels of productivity and sustainable, resilient levels of potential productivity in areas currently managed as planted forests.

To simultaneously increase productivity in a sustainable manner, and to face the speed at which climate change is affecting the environment, the key findings that need further research on genetic resources and tree breeding are (in no particular order of priority):

- Enhanced breeding technologies that shorten the breeding and selection cycle
- Stronger regional cooperation on breeding
- Exchange of genetic material and technologies
- Genetic technologies for forest restoration and biodiversity
- Application of genetic technologies to improve food trees and non-timber forest products, and broadening goals to reflect community values or needs, e.g. erosion control capacity, multi-functional services etc.
- Development of genetic technologies to address invasive species risks or to improve their utility to local people
- Transferring of technologies to low income countries and smallholders
- Conservation and development of indigenous species, especially in the tropics and ecological hotspots, to broaden the range of potential plantation species



- Strengthening biosafety regulations and capacity in developing countries.

Communication with society on genetic technologies, though, has failed. There is a need to more clearly report economic and social gains, as well as the trade-offs from a landscape perspective and all possible interactions with vital ecosystem elements, e.g. soil biology or pollinators.

Dealing with the perception of risks, engaging with the public to explain the benefits of tree breeding and genetic technologies, and developing precautionary production strategies are challenges that researchers, industry, NGOs and consumers have to face collectively.

Q.2

What are the key congress findings and challenges that need further research on multipurpose management of planted forests?



Natural and planted forests are the source of a myriad of products for human and animal consumption. Clusters of trees can also function as providers of essential ecological services like protecting water springs and streams, serving as refuge for animals, contributing to the cycling of nutrients and cooling local temperatures. Society, though, does not perceive that planted forests can be multipurpose, and markets do not capture many of the positive externalities of managing forest plantations.

The multipurpose use of forests can reduce the gap between current productivity levels and the maximum multipurpose productivity potential of the current planted forests land base.

Some of the key findings on the multipurpose use of planted forests that need further research to increase productivity at a sustainable pace in the face of a fast-changing climate are (in no particular order of priority):

- Consider all positive and negative externalities at landscape level when managing planted forests for the production of wood and non-timber forest products.
- Embrace landscape-scale multi-objective planning and provide policy-makers with approaches that mitigate and deal with conflicts derived from the multipurpose management of forest plantations.

- Develop analytical methods that provide stakeholders with a broader view of how the multiple uses of planted forests affect and interact with the landscape at the local and regional scales.
- Promote research initiatives to investigate flaws and limitations of current markets that cripple the shift to a more sustainable bio-economy.
- Evaluate the impact of land tenure and land-use policies on how planted forests can express their maximum potential for multipurpose outcomes.
- Engage local communities on mapping and identifying, locally and regionally, the maximum potential for the multipurpose use of forest plantations.
- Explore obstacles and challenges faced by local communities when evaluating tree planting strategies as a source of payment for environmental services.
- Stimulate local communities to participate in policy and decision-making processes that promote the multipurpose management of forest plantations.

The involvement of all stakeholders to perceive the multipurpose potential of planted forests, and how planted forests integrate with the landscape, seem to be the most fundamental findings. The main challenge is in orchestrating so many different fields in the areas of silviculture, economics and other social, political and ecological sciences.

Q.3

What are the key findings and challenges that need further research on wood, fibre and non-wood forest products?



Progress and modern technologies are reshaping the relationship of humans with forests. New materials, changes in consumer habits and the narrowing of the economic gap that used to separate industrialized countries from non-industrialized countries forecast increasing pressure on forests. Planted forests of the future will not only act as the main source of timber for more sustainable construction and fibre used to meet many human needs today. They will also serve as sources of renewable raw materials for biorefineries and bioenergy plants as markets adapt into a more decarbonized bioeconomy.

Participants in this group emphasized some specific challenges. Fundamental questions and future challenges facing researchers, policy-makers, NGOs and consumers when trying to satisfy future demands for wood, fibre and non-wood forest products were stated as follows:

- How does innovation in the bioeconomy affect silviculture, management and forest operations?
- How adaptable are current plantations' stocks to demand for different raw materials?
- Can we meet additional demand from the bioeconomy from our plantations?
- If not, what can and should we do?
- How will small-scale farming and forest plantations fit into future bioeconomies and decarbonized market scenarios?
- How can new markets and trade be developed in emerging markets (e.g. through standardization,
- Will informal markets co-exist with formal markets?

Evidently, as the participants in this discussion were not wood technology nor chemical scientists or experts, most of the fundamental findings and research challenges summarized here are related to how future demands will affect planted forests. Nevertheless, it seems reasonable to conclude that an important information gap exists in how planted forests of the future will adequately integrate with biorefineries and bioenergy markets.

Q.4

What are the key findings and challenges that need further research on forest policy, land-use regulation and socio-economics?

Forest policy, land-use regulation and socio-economics play an important role in setting the grounds for the development of any human settlement. The importance of planted forests as promoters of economic and social development vary significantly between countries.

In relation to how socio-economics, policy-making and land-use regulation shape sustainable increases in productivity of planted forests in the midst of rapid climate changes, participants identified the following issues:

- Incentives are necessary for change to be made.
- Forest policies need to be linked to communities to ensure benefits are shared.
- Gaps between policy and operational implementation are common.
- Promoting land-use change at governmental level demands land-use planning and regulation.
- Forest policies do not necessarily provide for forest ecosystem services.
- Forest policy-makers and managers should look beyond forests, include the whole value chain and integrate forests into the landscape.
- Social aspects are paramount, but the conference lacked works on the human dimension and participatory forest management strategies.
- Planted forests are faced with the 'sustainable intensification' dilemma.
- Communication of the value of planted forests to communities is incomplete.
- Small-scale properties/smallholders are being left out – for instance certification is inaccessible to smallholders.

Policy-makers, land-use regulators and socio-economic researchers are challenged by many complex tasks. Planted and natural forests will remain an important source of wood, timber and fibre, but local and global forest policies lack harmonization. Policy-makers and regulators have inadvertently created unintended impacts



affecting livelihoods and lifestyles. A major challenge is to make sure that good policies are enforced and improved over time. Competing land uses create many conflicts, demanding participatory decision-making frameworks and policies for the sustainable development and integration of different land uses at landscape level. Land ownership rights vary between countries and constrain the search for a single global solution; global initiatives will have to consider different solutions at local and community levels. Scientific knowledge and public awareness must converge to increase the willingness of a large number of individuals to become engaged in solving conflicts.

The group defined some opportunities they felt important to develop the further role of planted forests. Public-private partnerships should be promoted to inject capital and provide incentives to scale up local initiatives. Alternatives to the use of fuelwood are urgently needed to mitigate the negative impact large and growing populations have over trees in Africa. Projects that pay for ecosystem services can make forest plantations and restoration a more economically viable alternative for small landowners.

Q.5

What gaps did the Congress did not cover and need further research?



The 4th International Conference on Planted Forests invited contributions to the four main themes mentioned in the previous questions. Technical sessions included presentations on many sub-themes suggested by the organizers. Many of the following were comprehensively covered:

Genetic resources and tree breeding: endangered species, preservation, biodiversity erosion, clonal/GMO risks, breeding limitations, risk affecting nurseries/seedlings, biotic and abiotic risks.

Multi-purpose management of planted forests: precision silviculture for multiple use of planted forests, vulnerability and risk management, resilience of planted forests, ecosystem services from planted forests, carbon, water and soil, contribution to biodiversity protection, productive landscape restoration.

Wood, fibre and non-wood forest products: sustainable intensification, affordable and clean energy, industry innovation and biotechnology, non-timber products, contribution to food security, adding value to forest plantations.

Forest policy and socio-economics in relation to planted forests: sustainable cities,

agro-economics, zero poverty and hunger, bioeconomics of forest plantations, green markets, the green belt road, carbon markets.

Although the conference gave rich and comprehensive coverage of these issues, participants in the world café detected some issues that received insufficient attention:

- Public and community perceptions on forest plantations
- Multi-stakeholder strategies on policy-making processes and decision-making systems
- Land tenure, land ownership rights and social sustainability of planted forest projects
- Economic analysis of positive and negative externalities of planted forests
- Financial incentives for private, public and communal forest projects
- Bio-economy: market opportunities for forest plantations
- Private, public and communal governance of forest plantations
- Social safeguards and insurance coverage
- Global versus local comparisons on the success of forest plantations
- Technological, social and environmental advancements from an industrial perspective
- Scientific demands from a policy and government perspectives.

Essentially, the general recommendation for future conferences on planted forests is to add a fifth theme to gather contributions from social scientists. This would allow more space to deal specifically with the many economic, political and social dimensions of how humans interact with forest plantations. A final remark is on students' participation. The conference could greatly benefit from a more intense participation and involvement of young graduate students and scientists.

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