

## Agroforestry, food security and climate change

The online learning event *Agroforestry, food security and climate change* gathered expert speakers and over 600 participants to webinars and online forums to discuss the potential of agroforestry in addressing major nutritional and environmental issues, as well as ways to better promote its practice. The Food and Agriculture Organization of the United Nations (FAO) organized the event with key partners: World Agroforestry Centre (ICRAF), Tropical Agricultural Research and Higher Education Centre (CATIE) and French Agricultural Research Centre for International Development (CIRAD).

The event facilitated the exchange of knowledge on the role and potential of agroforestry for climate change mitigation, adaptation and food security. Additionally, recommendations were collected for policy mechanisms, practices and strategic decision making. Specific considerations were given to the implementation of FAO's recently published Agroforestry Guidelines, *Advancing Agroforestry on the Policy Agenda: A guide for decision-makers*. Furthermore, the learning event contributed to ICRAF's background paper for the International Conference on Forests for Food Security and Nutrition.

Four main themes were highlighted by speakers, facilitators of the webinars and participants throughout the learning event:

- agroforestry's potential for climate change mitigation, adaptation and food security;
- main barriers to agroforestry development;
- opportunities for agroforestry development in a climate change context; and
- tracks for action to improve wider development of agroforestry.



### ❖ Benefits of agroforestry

Agroforestry is an example of a triple-win practice as it can support food security, mitigate climate change and contribute to adaptation to these changes. In addition to reducing greenhouse gases by capturing carbon, agroforestry systems also improve resilience to climate variability and extreme conditions, such as heavy rains or droughts. As such, agroforestry is considered a climate-smart practice. Moreover, it can significantly improve food security as it provides farmers with diversified food sources, additional income and improves resilience of the production system, thus improving the food availability, food accessibility, utilization and food production system stability.

### ❖ Key bottlenecks to agroforestry development

Nevertheless, the adoption of agroforestry still faces major constraints. The actual predominant focus on industrial agriculture is a challenge for the implementation of agroforestry as it usually favors monoculture and short term benefits. During the learning event, participants underlined the need to overcome the lack of awareness of agroforestry systems among the stakeholders – farmers, extension officers, researchers and decision-makers. Stakeholders are often unaware of benefits of agroforestry, effective tree–crop associations and the factors that determine the adoption of agroforestry practices. A key bottleneck hindering the development of agroforestry is poor access, particularly for women, to the resources (capital, labour, farming inputs, land, extension services, or markets) needed to establish agroforestry systems. Inadequate legislation, regulations and policies can further hamper the agroforestry development. For instance, in many countries or regions, agroforestry has no clear status and falls between agricultural and forestry sectors, leaving agroforestry regulation in a grey area. Nearly all expert speakers of the event underlined problems of poor coordination or lack of it between: 1) key sectors and stakeholders; 2) agricultural and forestry sectors; and 3) decision-makers, researchers and farmers.

### ❖ Opportunities for agroforestry development in a changing climate context

The role of agroforestry in both climate change mitigation and adaptation is progressively being acknowledged in policy dialogue arenas where climate change is being discussed on local and international levels. For example, both the United Nations Framework Convention on Climate Change (UNFCCC) and the Intergovernmental Panel on Climate Change (IPCC) recognize agroforestry as a key land use practice for reducing greenhouse gases. Agroforestry is also seen as an economical way to mitigate climate change. Participants frequently suggested to further include agroforestry in development and climate change policy dialogue, particularly with regards to payments for environmental services (PES). Countries such as Costa Rica have already implemented agroforestry effectively in their PES system in order to promote the implementation of trees on farm.

### ❖ Tracks of action for agroforestry development

Participants exchanged possible actions to improve wider development of agroforestry. Suggestions often focused on continuing lobbying efforts towards decision makers. Potential ways that could improve knowledge on agroforestry are: wider use of demonstration plots, better access to training for farmers, improvements in training for extension officers and funding for extension services, as well as increasing research on adequate tree–crop combinations. The need for concrete measures to ensure that farmers benefit from resources for establishing agroforestry was especially highlighted. Other important tracks of action mentioned were clarifying policies and regulations, particularly regarding land and tree tenure, and supporting agroforestry adoption strategies through clear frameworks for coordination and funding. Participants and speakers agreed on the need of improving coordination and dialogue between key sectors and stakeholders. The presentation on Malawi's agroforestry policy review underlined that agroforestry adoption cannot be increased and improved if the policies are not reformulated to take into account the experiences from the field. There needs to be continuous efforts in both fronts: field and policy levels.

### ❖ Participants and platforms of the learning event

The event consisted of a series of online webinars and discussions on two online platforms (DGroup forum and LinkedIn) of the Community of practice for climate change mitigation in agriculture. Expert speakers from partner organizations and the European Agroforestry Federation, Consultative Group on International Agricultural Research, World Bank and the Federal University of Western Pará in Brazil gave presentations on their work throughout the webinars. Over 600 participants from over 50 countries shared their experiences and took part in discussions. Most of the participants of the webinars were at the time involved in activities related to agroforestry or climate change mitigation in agriculture. Their positions ranged from students to senior level positions in civil society organizations, national ministries, private corporations and universities. The online learning event Agroforestry, food security and climate change took place from 5 February to 4 March 2013. The community continues organizing learning events on topics related to climate change mitigation in agriculture.

### ❖ Key links

- Links to all recorded webinars, presentations and other material: <http://bit.ly/WaWL9h>
- Join the Community of practice for Climate Change Mitigation in Agriculture: <http://bit.ly/YblE3T>
- LinkedIn group: <http://linkd.in/V45Riq>
- Advancing Agroforestry on the Policy Agenda: A guide for decision-makers: <http://bit.ly/Z29bzF>
- Agroforestry at FAO: [www.fao.org/forestry/9469](http://www.fao.org/forestry/9469)
- International Conference on Forests for FSN: [www.fao.org/forestry/food-security](http://www.fao.org/forestry/food-security)
- Mitigation of Climate Change in Agriculture Programme: [www.fao.org/climatechange/micca/75369](http://www.fao.org/climatechange/micca/75369)
- Tropical Agricultural Research and Higher Education Center (CATIE): [www.catie.ac.cr](http://www.catie.ac.cr)
- French Agricultural Research Centre for International Development (CIRAD): [www.cirad.fr/en](http://www.cirad.fr/en)
- World Agroforestry Center (ICRAF): [www.worldagroforestrycentre.org](http://www.worldagroforestrycentre.org)

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