



GLF - FTA Session - Concept Note

Contribution of Forests, Trees and Agroforestry to sustainable Food Security and Nutrition in a time of crisis

Wednesday June 3rd 14h00-15h30 | 15 min break | 15h45-17h15

Organized by the Forests, trees and agroforestry research program (FTA) of the CGIAR with its partners.

Forests, trees and agroforestry provide critical contributions to Food Security and Nutrition (FSN). All of these contributions are even more important in times of crisis.

Forests, trees and agroforestry provide nutrition dense foods such as fruits and nuts. They contribute to livelihoods and to the diversification of production and sources of income thus also increasing the resilience of households. They provide ecosystem services -water regulation, soil fertility and conservation, pollination, temperature regulation- that support farming systems and contribute to their adaptation to climate change. They are an essential component of sustainable and resilient food systems, contributing to the four dimensions of food security and nutrition both for the forest-dependent communities and globally.

The session will present some of the multiple ways that forests, trees and agroforestry contribute to FSN (1) and examine their roles in increasing the resilience of food systems and stability of FSN (2). It will feature a mix of short presentations, videos, interviews of actors on the ground, panel discussions and questions and answers with the audience.

It aims to:

- Show the breadth and diversity of the contributions of forests, trees and agroforestry to food security and nutrition illustrated by concrete examples, to a broad and diverse set of stakeholders and actors in order to influence policy making from local to global scales
- Highlight the role of forests, trees and agroforestry to increase the resilience of food systems to shocks and crisis - Covid 19, climate change, global changebuilding upon concrete experiences of diverse stakeholders and of the audience.Draw lessons to be brought to the attention of decision makers.





Audience:

The session is meant for a large and diverse audience of actors in landscapes and food systems. Prior to the session participants will be invited to register, in order to facilitate engagement pre and post session. A call will be circulated ahead of the event inviting testimonies and experiences.

Part 1 – Contributions of forests, trees and agroforestry to FSN

Although forests, trees and agroforestry make enormous contributions to FSN, these contributions are not widely appreciated. This part of the session describes some of these essential contributions and their implications. We will review some of the latest evidence from FTA and partners on such things as: how agroforestry can be used to diversify seasonal food production and improve diets in rural developing communities, how working with communities to enhance agrobiodiversity is resulting in better diets, how forests are used by many communities in different parts of the world to provide nutrient rich foods, how forests provide ecosystem services - water regulation, soil fertility and conservation, pollination, temperature regulation- that support food production, and how many of these important functions are put at risk due to deforestation. We will also hear voices from people in landscapes around the world about what some of these contributions really mean in peoples' everyday lives. Finally, we will discuss with participants what fully acknowledging these many contributions could mean for practices and policies across a range of stakeholders.

Part 2 – Forests, trees and agroforestry key to the resilience of food systems and stability of FSN

The World Food Programme is predicting famines of biblical proportions, because of Covid 19 and the impacts of the measures to address it, disruptions of value chains, economic crisis... At the same time the COVID-19 crisis has unveiled key vulnerabilities within our current food systems, locally and globally, north and south.

What does the Covid 19 crisis shows us about the fragility of our food systems to global crisis? What are the factors that influence resilience of farming systems, value chains and livelihoods? And what can be the role of forests, trees and agroforestry to increase the resilience of landscapes, livelihoods and food systems to shocks and crisis?

The purpose of this part of the session is, starting from the current crisis, to nourish a broader reflection, mobilizing experts as well as testimonies and concrete





experiences during previous crisis of various nature, natural disasters, economic crisis, political conflicts, in order to draw lessons that can be of use to make our food systems more resilient to current and future crisis, including climate change.

It will feature an initial discussion on the type of risks and shocks that can impact food systems and households and how forests, trees and agroforestry, essential longer-time components of those systems, can increase resilience. This discussion will be introduced by Vincent Gitz, FTA director and fed by the testimonies gathered during the pre-engagement phase as well as live (including during the first part of the session). Testimonies will be selected in order to represent a broad range of risks: natural, economic, politic, including early consequences of impacts of the covid crisis and of climate change; in a wide variety of contexts.

This initial discussion will be followed by focused discussions around particular ways by which forests, trees and agroforestry do build resilience of food systems and people. This will lead to examine what are the prerequisites and conditions to allow forests, trees and agroforestry to effectively contribute to resilience. Conservation and sustainable use of genetic resources is an essential component, including appropriate seed and seedling systems to make available the right tree for the right use in the right place. National Adaptation Plans can be a powerful instrument to increase resilience of food systems. A panel will draw from these experiences and the feed back from the audience to draw conclusions that can orient research, policy making and action on the ground.

Knowledge products

Session 1

Priority Food Tree and Crop Food Composition Database:

http://www.worldagroforestry.org/products/nutrition/index.php/home

Publications

- Dawson, I.K., McMullin, S., Kindt, R., Muchugi, A., Hendre, P., B Lillesø, JP., Jamnadass, R. (2019). Integrating perennial new and orphan crops into climate-smart African agricultural systems to support nutrition. The CSA Papers. https://doi.org/10.1007/978-3-319-92798-5_10
- Fungo, R., Muyonga, J., Kabahenda, M., Kaaya, A., Okia, C. A., Donn, P., et al. (2016). Contribution of forest foods to dietary intake and their association with household food insecurity: a cross-sectional study in women from rural Cameroon. *Public Health Nutr.* 19, 3185–3196. doi: 10.1017/S1368980016001324
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- Jamnadass, R., McMullin, S., Iiyama, M., Dawson, I.K. et al. (2015). Understanding the Roles of Forests and Tree-based Systems in Food Provision. In Vira, B., Wildburger, C., Mansourian, S. (eds.). (2015). Forests, Trees and Landscapes for Food Security and Nutrition. A Global Assessment Report. IUFRO World Series Volume 33. Vienna. 172 p. ISBN 978-3-902762-40-5, ISSN 1016-3263 http://www.cifor.org/publications/pdf_files/Books/BIUFRO1502.pdf
- Lo, M., Narulita, S., Ickowitz, A. 2019. The relationship between forests and freshwater fish consumption in rural Nigeria. *PLoS ONE*, 14 (6): 0218038. https://doi.org/10.1371/journal.pone.0218038.
- McMullin, S., Njogu, K., Wekesa, B. *et al.* (2019). Developing fruit tree portfolios that link agriculture more effectively with nutrition and health: a new approach for providing year-round micronutrients to smallholder farmers. *Food Security.* 11, 1355–1372 (2019). https://doi.org/10.1007/s12571-019-00970-7
- Powell, B., Ickowitz, A., McMullin, S., Jamnadass, R., Padoch, C., Pinedo-Vasquez, M., Sunderland, T. (2013). The role of forests, trees and wild biodiversity for improved nutrition-sensitivity of food and agriculture systems. Expert Background Paper for ICN+ FAO, Rome, Conference paper for Joint FAO/WHO International Conference on Nutrition 21 Years later (ICN+21).
- Powell, B., S. Thilsted, A. Ickowitz, C.Termote, T.Sunderland, and A. Herforth 2015. "Improving diets with wild and cultivated biodiversity from across the landscape" *Food Security* 7(3): 535-554.
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Session 2

Publications

- Amy Quandt, Henry Neufeldt & J. Terrence McCabe (2019) Building livelihood resilience: what role does agroforestry play?, Climate and Development, 11:6, 485-500, DOI: 10.1080/17565529.2018.1447903
- Dawson, I.K.; Powell, W.; Hendre, P.; Bančič, J.; Hickey, J.M.; Kindt, R.; Hoad, S.; Hale, I.; Jamnadass, R. (2019) The role of genetics in mainstreaming the production of new and orphan crops to diversify food systems and support human nutrition New Phytologist 224: 37-54 DOI: https://doi.org/10.1111/nph.15895
- De Leeuw, J.; Njenga, M.; Wagner, B.; Iiyama, M. (2014) Treesilience: an assessment of the resilience provided by trees in the drylands of Eastern Africa. ICRAF
- Duguma L, Watson C, Nzyoka J, Okia C, Fungo B. 2019. The Migration-Environment Nexus: The Situation in Northwest Uganda. World Agroforestry: Nairobi.
- Duguma, L.; Duba, D.; Muthee, K.; Minang ,P.; Bah, A.; Nzyoka, J.; Malanding, J. (2020) Ecosystem-Based Adaptation Through the Lens of Community Preferences ICRAF.
- FAO and CIFOR. 2019. FAO Framework Methodology for Climate Change Vulnerability Assessments of Forests and Forest Dependent People. Rome. http://www.fao.org/3/ca7064en/CA7064EN.pdf
- FAO. 2016. Climate change and food security: Risks and responses. FAO, Rome. http://www.fao.org/3/a-i5188e.pdf
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- Fauzan, A.U.; Purnomo, H. (2012) Uncovering the complexity: An essay on the benefits of the value chain approach to global crisis studies-a case study from Jepara, Indonesia in Suter, C.and Herkenrath, M.. World Society in the Global Economic Crisis: Volume 2011: 149-169)
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- Kiros Meles Hadgu, Badege Bishaw, Miyuki Iiyama, Emiru Birhane, Aklilu Negussie, Caryn M. Davis, and Bryan Bernart, Editors. Climate-Smart Agriculture: Enhancing Resilient Agricultural Systems,





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Further reading

https://forestsnews.cifor.org/59674/agricultural-intensification-has-fed-the-world-but-are-we-healthier?fnl=en

https://forestsnews.cifor.org/60872/superfood-from-cameroon-forest-scores-best-for-womens-health?fnl=en

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https://forestsnews.cifor.org/58192/expansion-of-oil-palm-plantations-into-forests-appears-to-be-changing-local-diets-in-indonesia?fnl=en

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http://www.worldagroforestry.org/news/using-agroforestry-address-seasonal-food-and-nutrient-gaps-communities-case-study-kenya

http://blog.worldagroforestry.org/index.php/2015/08/04/first-fruit-tree-portfolios-established-in-kenya-in-a-novel-approach-to-improve-year-round-nutrition/

 $\underline{\text{https://www.economist.com/science-and-technology/2017/11/23/improving-the-plants-that-africans-eat-and-breeders-neglect}$

https://blog.worldagroforestry.org/index.php/2019/05/17/eradicating-hunger-through-the-african-orphan-crops-consortium/