

Concept Note

Virtual Regional Expert Consultation on Agroforestry for Environmental Resilience and Sustainable Livelihoods of Farmers in Asia-Pacific (AFERSuLiF - AP)

Jointly organized by APAARI and CIFOR-ICRAF

Date: October 13-14, 2021

Background and Rational

World today is plagued with the food insecurity, drought and floods, irregular river systems, increasing degraded lands, climate change and its frequent variations, forest fires, *etc.*, which are leading to loss of biodiversity, low farm productivity¹, loss in income and employment. These are globally aggravated with the current pandemic, COVID19, resulting in need of urgent actions by the governments and civil society to adopt already proven and sustainable farming systems. Agroforestry, the practice of introducing trees in farming system and Trees outside Forests (TOF), *i.e.* the trees deliberately planted at other land uses outside forest areas are gaining importance and are increasingly being mainstreamed globally. Agroforestry and TOF play significant roles in enhancing land productivity with far reaching environmental and ecological impacts on biodiversity, income, livelihood and climate in varied agro-ecosystems². It is an important approach to address the global issues not only for the environment and economic gains, but also for the social benefits of complex social-ecological systems, especially in the Asia-Pacific region³. Geographic information system (GIS) data show that 43% of all agricultural land, globally, is used for agroforestry, which is more than 1 billion hectares⁴. Agroforestry systems in Asia-Pacific region are abundant under various agro-ecological environments, especially in Indonesia, Malaysia, India, Sri Lanka, and Bangladesh, as the practices have played important roles there since ancient times⁵. The recent analysis shows that the South Asia region has a 55% and greater suitability for agroforestry⁶.

By integrating crop/livestock production and tree planting, this practice diversifies and increases farmers' income and production through the provision of food, fodder, wood, fiber and medicines, while providing environmental and social benefits. Agroforestry and TOF are gaining new ground in the quest for climate-smart agriculture practices, due to its ability to sequester carbon and mitigate climate change and restore degraded lands through TOF plantation efforts. Agroforestry is recognized as the ultimate tool to enhance the resilience to climate change and reduce the carbon foot-print of

¹ Ortiz-Bobea, A., Ault, T.R., Carrillo, C.M. et al. 2021 Nature and Climate Change. 11, 306–312; <https://doi.org/10.1038/s41558-021-01000-1>

² <https://worldagroforestry.org/about/agroforestry>

³ Shin et al. Forests 2020, 11, 368; doi:10.3390/f11040368

⁴ Zomer et al. Working Paper 179; World Agroforestry Center: Bogor, Indonesia, 2014; 1–33.

⁵ Cannell, M.G.R. Agroforestry—A Decade of Development. ICRAF 1987, 24, 393.

⁶ Ahmad F, Uddin MM, Goparaju L, Rizvi J, Biradar C. 2020 KN Journal of Cartography and Geographic Information (70): 71–89. <https://doi.org/10.1007/s42489-020-00045-0> <https://bit.ly/3Eyxj5N>

the developmental activities. To achieve their Intended Nationally Determined Contributions (INDCs), 23 countries recognize agroforestry as a priority for mitigation, and 29 countries for adaptation⁷.

Agroforestry contributes towards the achievement of a wide range of Sustainable Development Goals (SDGs), namely, eradicate hunger, reduce poverty, support gender equity and social inclusion, provide affordable and cleaner energy, protect life on land, reverse land degradation and combat climate change. Despite its potential for driving sustainable development and enhanced income benefits, agroforestry continues to face a range of technical, functional, policy, legal and institutional challenges such as unfavourable policy incentives, legal constraints, and poor coordination among sectors⁸ and lack of dedicated extension and market linkages.

Climate change mitigation, food security, conservation of biodiversity, restoration of ecosystems and localizing the SDGs are the fundamental global challenges of present times⁹. In addition, the COVID19 pandemic has also enhanced the drudgery of the migrants, especially women. Trees in agriculture and outside forest landscapes are known to reduce deforestation and biodiversity loss in the region. Due to low per capita land available for agriculture, production of food with a marginal ecological footprint becomes essential¹⁰, which can be addressed through scaled-up agroforestry and entrepreneurship linked value chains.

Some countries have enacted agroforestry policies at national level. However, in most countries in the Asia-Pacific Region, public policies have lacked incentives and support to drive scaling-up of agroforestry, including protocols for assessing the benefits of ecosystem services derived from agroforestry as sustainable production methods worth promoting the conservation of agrobiodiversity. In this context, stabilizing agroforestry in the Asia-Pacific region should be warranted, owing to the global challenges related to food security, biodiversity conservation, climate change, and the great number of stakeholders (including smallholder farmers) that rely on agroforestry for their subsistence¹¹.

In recent times, globally new technologies, tools and innovative platforms, such as advancement in GIS mapping, agroforestry incubators, large scale value chains, decision-based dashboards, to name a few, have been developed and promoted which may help the regional countries to address the above issues and mainstream agroforestry in their national development agenda.

To realize the full potential of agroforestry, sustainable innovations and public-private partnerships are needed to help the smallholder farmers and small- and medium-sized enterprises (SMEs) for adopting it at a higher scale. Development finance organizations and private partners have a critical role to play in scaling-up investments to make a transformational impact of agroforestry on livelihoods of smallholder farmers, especially women farmers in Asia and the Pacific. There is an

⁷ <https://ccafs.cgiar.org/agricultures-prominence-indcs-data-and-maps#.Wfa1uohx200>

⁸ <http://www.fao.org/3/CA4662en/CA4662en.pdf>

⁹ Feliciano, et al. *Agric. Ecosyst. Environ.* 2018, 254, 117–129

¹⁰ Sharma, L.N.; Vetaas, O.R. Does Agroforestry Conserve Trees? A Comparison of Tree Species Diversity between Farmland and Forest in Mid-Hills of Central Himalaya. *Biodivers. Conserv.* 2015, 24, 2047–2061.

¹¹ Shin et al. *Forests* 2020, 11, 368; doi:10.3390/f11040368 and references therein

urgent need to review the innovative strategies and lesson learnt for scaling-up the investment and monitoring platforms in agroforestry sector in the region.

In the climate changing scenario and realization of evidence-based potential of agroforestry research and innovation to contribute to the SDGs, a Regional Expert Consultation on Agroforestry for Environmental Resilience and Sustainable Livelihoods of Farmers in Asia-Pacific, will be organized with following objectives.

Objectives

1. Enlighten the stakeholders on sustainable development through agroforestry in the region;
2. Mainstreaming agroforestry through enabling policies and scaling-up investment in agroforestry;
3. Share the lessons from the success and failure in agroforestry entrepreneurship; and
4. Prioritize regional needs identified, especially to achieve SDGs during the Regional Expert Consultation.

Expected Outcomes

The Regional Expert Consultation will provide a platform to:

- Broaden the scope and understanding on agroforestry, including identifying technical, functional and policy bottlenecks affecting efficient and effective scaling-up;
- Learn from regional experiences in agroforestry impact on livelihood, entrepreneurship and innovative investment approaches;
- Share advance technologies, tools and platforms to mainstream agroforestry in the national development agenda; and
- Explore regional collaboration/cooperation on agroforestry priority areas for sustainable development in Asia-Pacific region.

Participation

Participants includes policy makers and influencers/advisors, researchers, experts of various NARS organizations (public sector) from various countries of Asia-Pacific region, advanced agroforestry and forestry research institutes and universities, private sector, CG Centers, UN and international organizations, financial institutions, NGOs, Farmers Organizations, if possible progressive farmers/entrepreneurs as well as representatives from regional and global fora promoting agricultural research. Recognized global and regional experts will be invited to make key thematic presentations and participate in panel discussion.

Organizers

Asia-Pacific Association of Agricultural Research Institutions (APAARI), under its programme Asia-Pacific Consortium on Agricultural Biotechnology and Bioresources (APCoAB), will organize this Regional Expert Consultation in collaboration with CIFOR-ICRAF¹² and Council of Agricultural (COA), Taiwan.

¹² <https://www.cifor-icraf.org/>