



Incorporating trees with agriculture outstanding success in re-greening Sahel

Achievements of farmer-managed natural regeneration leads to plan for massive scaling up of trees on farms to achieve an evergreen Sahel

Farmer-managed natural regeneration in West Africa as well as conservation agriculture with trees in other part of Sub-Saharan Africa is prompting the revitalization of African agriculture through a movement for an Evergreen Agriculture.

Wide-scale desertification and unprecedented drought in the Sahel in the 1970s and 1980s crippled agriculture and prompted an innovative approach where the farmers themselves manage the regeneration of important tree species within their cropping systems. The trees are chosen to provide food, fodder, soil fertility, fuel, timber, and other wood products such as gums and resins while building land health and productivity.

Incorporating trees with a more intensive, ecological farming of annual crops that maintains a green cover on the land throughout the year has become known as Evergreen Agriculture. Its benefits include increasing the resilience of the ecosystem and assisting farmers to adapt to and mitigate the impacts of climate change.

A key tree species in Evergreen Agriculture is *Faidherbia albida*, an acacia native to Africa that fixes nitrogen with its roots and drops nitrogen-rich leaves on to the soil during the rainy season. A community leader in the northern region of Zinder commented, "These trees have become so important to have a good harvest; trees represent the granary – we get four times the yield; and we now have a wood market".

Another farmer from the village of Droum said, "When we see seedlings we protect them and maintain them. The seedlings are like the children here."

Reporting data at a regional workshop held in Niamey, Niger in January 2011, Dr. Larwanou Mahamane, of the Africa Forest Forum, showed that yields of millet, an important staple in Niger, continue to increase even with tree densities above 200 trees per hectare.

“This success story is a perfect illustration of the fact the land degradation is not irreversible,” said Brigadier General Abdou Kaza, Minister of Water, Environment and the Fight Against Desertification. “This calls for the concerted efforts of decision and policymakers, scientists, development actors ... to better respond to the needs of the population in the sustainable management of natural resources”.

Today more than 5 million hectares of land are managed in this way in Niger. Research reported to the workshop by national and international scientists revealed similar numbers for Burkina Faso, Mali, and Senegal as well as other countries throughout the region and as far east as Ethiopia.

The *Workshop on agroforestry as a basis for food security and environmental resilience in Niger and the Sahel* was convened by the Niger Ministry of Water, Environment and the Fight against Desertification, the World Agroforestry Centre, the Africa Forest Forum and the African Network for Agriculture, Agroforestry and Natural Resources Education.

Along with representatives from international organizations, donor agencies and Niger, participants from Benin, Burkina Faso, Cameroun, Chad, Ethiopia, The Gambia, Ghana, Kenya, Mali, Nigeria, Senegal, and Tanzania, identified both national and regional actions necessary to scale up agroforestry techniques to benefit millions of farmers and pastoralists.

They decided that Evergreen Agriculture would be a technology instrumental in the design and implementation of the Great Green Wall – envisaging a corridor of tree-based improved land management that support livelihoods across Africa - stretching from Senegal to Djibouti.

Researchers, policymakers and farmers’ organizations will now go on to develop a dynamic regional platform to work together to review the successes and failures of current efforts, and to advance best practices throughout the region to achieve an Evergreen Sahel.

Dr. Dennis Garrity, Director General of the World Agroforestry Centre, said, “The experience of Niger gives us confidence that it is possible to conceive, and achieve, a positive transformation in farming livelihoods and environmental rehabilitation across the Sahel, notwithstanding the serious constraints that rural populations are facing in this challenging environment”.

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The World Agroforestry Centre, based in Nairobi, Kenya is the world’s leading research institution on the diverse role trees play in agricultural landscapes and rural livelihoods. As part of its work to bring tree-based solutions to bear on poverty and environmental problems, centre researchers—working in close collaboration with national partners—have developed new technologies, tools and policy recommendations for increased food security and ecosystem health. www.agroforestry.org

