Fostering Sustainability and Resilience for Food Security in Niger

Tackling climate change and land degradation, and scaling up sustainable natural resource management for family farming

Family farming development programme (ProDAF) is making progress in tackling the main drivers of environmental degradation together with the most vulnerable family farmers in Niger. The project, so far, recovered 10,491 ha (50% of the total target) of degraded land upstream of the watersheds, and regenerated 75,065 ha (39% of the total target) of land. ProDAF is an integral part of the Resilient Food Systems (RFS), one of the three GEF-6 Integrated Approach Pilots (IAP).

Summary

Family farming is highly vulnerable to environmental degradation in Niger, and climate change has further amplified that vulnerability. Applying integrated natural resources management and land restoration approach to improve food security, enhance resilience, adapt and mitigate climate change and conserve biodiversity, the Family Farming Development Programme (ProDAF) is making progress in.
Global Environmental Benefits

By its mid-term review, the project had achieved the following global environmental benefits as well as direct benefits for local communities:

- 10,491 ha (50% of the total target) of degraded land upstream of the watersheds recovered,
- 75,065 ha (39% of the total target) of land is regenerated through assisted natural regeneration,
- 39% resurgence rate of woody and herbaceous plant species that had disappeared due to climate change,
- Reduction of GHG emission, currently estimated at -6.3 tCO2eq per hectare per year for biomass, and -5.3 tCO2eq per hectare per year for soil,
- Increase in agricultural production up to 3 times higher yields through the adoption of sustainable land management best practices,
- Increase in household income to XOF 70,000 (approximately $117) per year through the sale of products and by-products (mainly straw), and
- Improve market access for smallholder farmers through construction of wholesale markets and crop collecting facilities, and construction / rehabilitation of 850 km of rural roads to support local infrastructures.

Ultimately, the project is expected to recover 20,500 ha of land upstream of the watershed, promote 190,000 ha of land under assisted natural regeneration and improved seed, and strengthen soil carbon storage (350,000 tons of carbon equivalent per year).

Environmental Challenge

The program was designed to address both long-term (climate change impacts on production potential) and short-term (food and nutrition security) impacts. Climate change impacts on production potential are related to the fertility, soil quality, and water availability of family farms in Niger. Wind and water erosion is leading to siltation of watersheds, deforestation, loss of animal and vegetal biodiversity, and declining groundwater level in the regions. These threats are also resulting from land tenure pressures exacerbated by high population densities, widespread unsustainable land and natural resources management practices, and increasing conflicts over natural resources. The program adaptively addresses these issues through knowledge sharing of successful natural resource management approaches and learning across three regions, Maradi, Tahoua and Zinder.
Integrated Approach and Key Project Features

ProDAF is working on integrated solutions to improve food security while addressing drivers of environmental degradation. The project is demonstrating and scaling up innovative approaches to enhance resilience and climate adaptation.

Scaling up successful practices through capacity building

Strong engagement of beneficiaries, the most vulnerable family farmers in the regions, is an important element of the program’s success and sustainability. The adapted approach, assisted natural regeneration and land rehabilitation practices, allowed the poorest to participate in the activities and to take the best advantage of them, improving quality of their land and increasing yields with locally appropriate simple techniques. These direct benefits to the most vulnerable family farmers are vital incentives for them to actively engage in the program.

Capacity building for both family farmers and local and national governments is another important feature of the program. For smallholder farmers, training on sustainable land management practices and climate resilient farming techniques were provided through farmer’s school in the villages. With the capacity building for local and national governments, national policy on sustainable land management started fully implementing on the ground and mainstreaming into the Niger’s Economic and Social Development Plan 2017-2021.

Strengthening institutional framework

The program is executed by the Ministry of Agriculture and Livestock, which works closely with the High Commission for the Nigeriens Feed Nigeriens Initiative (HCi3N). In addition to the agriculture and food related institutions, the program also collaborated with major stakeholders related to water, irrigation, environmental issues and local small businesses including the Regional Directorate of the Environment, Water User Associations, local authorities (communes), Public Building and Works, regional and departmental services for waterworks, specialized service providers, and the Regional Agriculture Chambers. These major stakeholders engagement in the program promoted synergy of action across different stakeholders.

Lessons Learned

Building on a successful series of IFAD and GEF projects, the program scaled up sustainable natural resource management approaches and ensured resilient family
farming in Niger’s the most affected regions by wind and water erosion. Knowledge sharing and exchanging platforms on sustainable land management practices and ascertaining land tenure among both family farmers and local governments was a key to scaling up the project in other regions. As a result of the program, the Platform for Dialogue on Sustainable Land Management was established both at the national and regional levels. Niger’s successful practices are now shared beyond the country, as integrated approach to address land degradation, water, GHG emission and biodiversity loss (for instance, at the UNCCD COP14 in in India, September 2019). In addition, strong partnership with local research institutions was useful to improve scientific monitoring and impact evaluation.

References and Multimedia

- Resilient Food Systems website: http://www.resilientfoodsystems.co/

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Available at:
http://www.thegef.org/topics/knowledge-learning

The Global Environment Facility (GEF) was established on the eve of the 1992 Rio Earth Summit to help tackle our planet’s most pressing environmental problems. Since then, the GEF has provided close to $20 billion in grants and mobilized an additional $107 billion in co-financing for more than 4,700 projects in 170 countries. Through its Small Grants Programme, the GEF has provided support to nearly 24,000 civil society and community initiatives in 128 countries.