



Community-Based Adaptation FAST FACTS

NIGER

Intensified agroforestry practices for climate change adaptation in five villages of Tamalolo in the district of Tanout

Grantee: OSE IL ED Yanahi

Type of organization: NGO

Number of participants: 745 people (365 men; 380 women) in 146 households

Location: Five villages in the Tamalolo District, Department of Tanout, Region of Zinder-Niger: Tamalolo Inoussa (Krabtou), Tamalolo Kassa Ido (Elh Oumma), Tamalolo Chantier, Tamalolo Ta Kanta (Alhazey), and Gourande Djibrillou

CBA contribution: \$41,331

Co-financing: ONG Yanahi, \$1,645; in-kind; Local Communities (\$8,412; in-kind)

Project dates: June 2010 – June 2012

BACKGROUND

The Community-Based Adaptation Programme (CBA) is a five-year United Nations Development Programme (UNDP) global initiative funded by the Global Environmental Facility (GEF) within the Small Grants Programme (SGP) delivery mechanism. The UN Volunteers partners with UNDP and GEF/SGP to enhance community mobilization, recognize volunteer contributions, and ensure inclusive participation in the project, as well as to facilitate capacity building of partner NGOs and CBOs. In addition, funding is provided by the Government of Japan, the Government of Switzerland, and AusAID. The CBA's goal is to strengthen the resiliency of communities to address climate change impacts.

The CBA pilot project in the Department of Tanout focuses on

developing sustainable agroforestry practices to improve food production, as well as providing alternative solutions to reduce pressure on ecosystems in the face of the adverse climate change effects. The project sites are located in five villages in Niger's Tamalolo countryside. With its extreme arid climate and lack of rainfall, The Nigerian National Action Plan to Adapt to Climate Change (NAPA) highlights this area as being the particularly vulnerable to the impacts of climate change. The ecosystem zone is Sahelian and characterized by dunes, rainy season cultivation lands, gentle slopes (glacis) in the fields, and large pastures and animals. Droughts, extreme temperatures and violent winds—all driven by climate change—have led to grasshopper infestations and brush fires in the past (1974, 1984 and 2005) and continue to have harmful consequences on agriculture, livestock breeding, and ecosystems. Due to these consequences, the 745 residents, divided into four ethnic groups (1) Haoussa, (2) Peulh, (3) Touareg, and (4) Kanouri, are repeatedly faced with food shortages and rely on the surrounding plantation for food, including very stunted forest species (mainly spinous shrubs such as *Acacia raddiana*, *Balanites egyptiaca* and *Boscia senegalensis* [Anza]). As soil degradation continues to worsen, topsoils on arable land are being swept away by the wind, creating glacis zones and sand dunes in the fields. Consequently, rain water does not infiltrate into the ground and cultivation lands are deteriorating (loss of fertility), which leads to very poor agricultural production and constant productivity loss. This situation has caused many households to become vulnerable, and production does not allow the population to meet their nutritional daily needs. For example, there was no food production in the department of Tanout in 2008 and 2009. With the help of the CBA Project, community members are using sustainable agroforestry practices and ecosystem protection techniques to improve their farm production, confront food insecurity and adjust to food shortages.



A community planning meeting for activities to be implemented under the CBA Project, in the villages of Tamalolo Karabtou-Tanout/Niaer

CLIMATE CHANGE RISKS

Climate change predictions for Niger forecast increasing average temperatures, growing precipitation variability, rising evatranspiration and aridity. Droughts, floods, violent winds and sand and/or dust storms are expected to become more frequent and stronger. Combined with the increase of extreme temperatures and water scarcity, these climatic challenges will accelerate the pressure on ecosystems, agriculture, breeding and other means of livelihood. The expected impact on ecosystems, the increased soil erosion and the reduced availability of water will augment production risks and compromise the survival of communities dependent on these natural resources.

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PROJECT DESCRIPTION AND ADAPTATION MEASURES

The project aims to develop sustainable agroforestry practices to improve food production and to reduce pressure on the ecosystems suffering the effects of climate change. It is implemented by a NGO, *OSE IL ED Yanahi*, whose main objective is to improve the living conditions of the most vulnerable populations. The project was developed through a participatory process that involved local communities in every step, and organized them into village management structures to allow for participation project activities:



The use of the 'Albarka,' a fuel efficient cook stove, further reduces pressure on the ecosystem that is weakened by the effects of climate change. It also protects community members against fires, especially given the high winds blowing in Tamalolo.

- Conduct information and awareness raising training sessions for communities on climate change impacts and adjustment strategies; encourage farmers to further disseminate adaptive techniques by training their peers.
- Implement environmental patrols in order to reduce pressure on ecosystems.
- Promote sustainable farming techniques, such as cutting, pruning and maintaining young shoots in order to reconstitute vegetation cover and protect cultures against violent winds.
- Implement agroforestry practices adapted to the project zone's climate conditions, such as tree plantation, village nurseries, and establish mulching on the bare soils and of timothy grass clumps on bare sandy spaces.
- Train local communities (with a strong focus on women) on construction techniques and the use of 'Albarka' (adobe) fireplaces to save on energy and wood, and reduce pressure on the ecosystems.
- Provide fertilizing species for use in fields, stimulate soil fertilization, help reconstitute vegetal cover, and increase food security by improving the resistance of the agro-ecosystems to drought and to threats provoked by climate change.

The project increases the adaptive capacity of community members by training them to better understand climate change and its associated risks and impacts. It also improves their capacity to self-organize and to pursue their own adaptive measures. Together, these measures make the Tamalolo ecosystem more climate-resilient, improving food security and livelihood conditions.

FOCUS ON...

Global environmental benefit

The project trains 1000 young shoots of fertilizing species (A. albida, A. seyal, A. Senegal, etc.) in the fields, which can stimulate soil fertilization significantly and increase food security. The increase of vegetable cover as a result of this intervention can increase the resistance of the agro-ecosystems to drought and threats provoked by climate change. The use of faster growing seeds and sustainable farming techniques will increase soil fertility, reduce wind erosion and restore degraded land.

Community ownership and sustainability

A framework for participative leadership at the local level (village chiefs) was created to meet the project's goals. Different technical departments as well as communal and customary authorities are involved in project implementation; they support communities in choosing the people committed to leading various project activities, and in training the chosen leaders. Training sessions are organized for 50 peasants, with 10 peasants per village, on the sustainable techniques of cutting, pruning, and maintaining young shoots for the purpose of reconstituting the vegetation cover and protecting cultures against violent winds. In addition, 50 women are trained (10 women per village) on construction techniques. They are also trained to use 'Albarka' (adobe) fireplaces in order to save on energy and reduce pressure on the already threatened ecosystems.

Policy influence

Lessons learned from the implementation of the project will be integrated into local-level resource management planning and will be shared nationally and internationally to inform policies.

For more information about CBA or CBA projects visit: www.undp-adaptation.org/project/cba

Further information, lessons learned, and experiences gathered from climate change adaptation activities globally can be found at the Adaptation Learning Mechanism: www.adaptationlearning.net

