

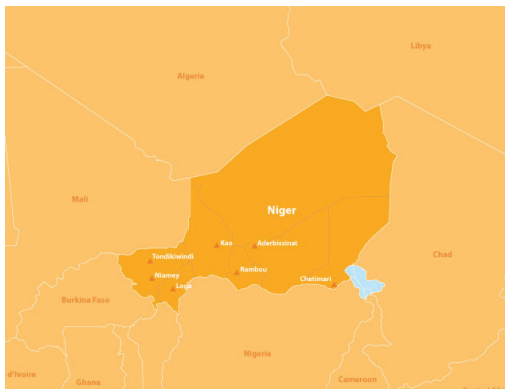


CANADA-UNDP  
Climate Change Adaptation Facility



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# STRENGTHENING CLIMATE CHANGE RESILIENCE AND ADAPTATION CAPACITY OF THE AGRICULTURAL SECTOR IN NIGER



## CONTEXT

According to the United Nations 2014 Human Development Report, Niger is one of the poorest countries in the world. Eighty-five percent of its population depend on agriculture for their livelihoods. Agriculture is primarily rainfed and therefore vulnerable to climate change. Niger has a Sahelian climate characterized by high annual variation in precipitation; a reduction in precipitation and rising temperatures were recorded during the last four decades. The country has difficulty feeding its population when there is not enough rainfall, and must rely on the purchase of cereals and food aid to meet its food needs. The latest trends in climate change have already contributed to the food crisis and water deficit. The projected effects of climate change, namely an increase of 1.9°C in the average temperature, will aggravate the situation. One of the major impacts of climate change is an increased frequency of drought, leading to a decline in agricultural production, a concomitant increase in livestock pressure on pastoral ecosystems and consequently large-scale soil degradation. Women and children are particularly vulnerable, since the men flee drought-affected areas, abandoning the women, thus forcing them to pursue income-generating activities such as market gardening, and selling of livestock products and by-products, which are also negatively affected by climate change.

**85% of the population of Niger depend on agriculture for their means of subsistence. Agriculture is basically rainfed, and therefore vulnerable to climate change.**



Woman watering plants at a market garden site in Tondikiwindi (photo Douma).

In order to strengthen the capacity to adapt to climate change in the agriculture and water sectors, the Government of Niger, with financial support from the Least Developed Countries Fund (LDCF) of the Global Environment Facility, has partnered with UNDP to address some adaptation priorities. These priorities, notably agriculture, livestock farming, forestry, water resources, wildlife, health and wetlands, were identified in the National Adaptation Programme of Action (NAPA). In 2013, the Government of Canada agreed to provide additional funds to strengthen and expand the LDCF project results under the new Canada-UNDP Climate Change Adaptation Facility (CCAF). The CCAF project in Niger aims to build up the adaptability of communities to cope with the additional risks related to climate change, particularly in the areas of agriculture and water.

## Proposed Interventions

During this phase of the Canada-funded project, the following concrete and innovative adaptation measures will be implemented:

- 1. Strengthening sustainable agricultural techniques-** This will be achieved through erosion control measures, organic fertilizer testing and pest management as well as the implementation of sustainable agricultural practices. Moreover, the project will ensure water supply for domestic needs, livestock and crops by setting up irrigation wells, river protection techniques, and drinking water supply systems and technologies;
- 2. Improving institutional capacities in the agriculture and water sectors-** Practical information on climate, risk training and management tools will be provided to farmers and to regional technical services to guide the integration and the adaptation of climate change-related risks in the relevant agricultural and water management plans; and
- 3. Gathering experiences drawn from project activities and disseminating them to other communities and municipalities-** The local communities will benefit from sharing knowledge and lessons learned to strengthen ownership, which will enable replication in other locations, including exchanges among farmers. Educational leaflets will also be developed to integrate climate change issues into school programmes.

*"When I was using traditional seeds, the yield of my harvest was insufficient to feed my family due to, among other things, the scarcity of rain. So I was forced to carry out other activities at the same time. But today, thanks to the improved seeds that the project has provided us, I have enough to provide for my family, because I manage to harvest two to three times more than what I did with traditional seeds," explains Djibo Souanna, seed multiplier, Bodoko the village, Loga commune.*



## Key Achievements to Date

- **7 information campaigns** were organized on climate change-resilient seeds;
- **70 seed multipliers (21 women) were trained** and supervised in seed production techniques; 13,755 kg of seeds of 8 varieties of millet, sorghum and cowpea adapted to climate conditions were produced by the 70 trained multipliers to be subsequently distributed to 3,000 rural farmers (around 600 women);
- **400 mobile phones were distributed to rural observers**, prefecture radio operators and other actors concerned with the dissemination of meteorological and agro-meteorological information;
- **36 rural rainfall observers were trained** on coding meteorological information, beginning with mobile phones;
- **8 community radio stations** were provided with equipment for broadcasting of meteorological information;
- **The installation of 2 mini drinking water supply units** is underway in the Roubou and Tanout communes;
- **1,263 beneficiaries of garden activities were trained** in market gardening techniques, the use of pesticides, and in the use of other regulated plant protection products;
- **206 primary school student teachers** from 8 regions of Niger were trained on school manuals related to climate change;
- **Provision of multiple small gardening sites** for beneficiaries through donations or loans (minimum 5 years) provided by the mayors of the target communes;
- **31.75 ha of small gardening sites** were operated by 1,705 beneficiaries (1,263 women and 442 men) with an increased revenue, on average, of approximately 150,000 FCFA per person, per year;
- **1,336 people (1,094 women)** were introduced to income-generating activities, particularly small processing units of agricultural products; and
- **The Info-CNEDD (National Environmental Council for Sustainable Development) journal** was prepared, edited and distributed to ensure the visibility of project activities.

## EMERGING LESSONS

**The private sector can meet certain needs for climate change adaptation at the local level.** The results of CCAF projects in Niger suggest that the use of mobile phones for disseminating agro-meteorological information could increase the adaptation capacity of vulnerable farmers.

**The socio-cultural norms may accentuate vulnerability to climate change.** In Niger, land is generally owned by men. Women have only limited access for practising subsistence agriculture, and access to land by loan or by purchase usually requires prior approval by a man. This norm is a challenge for climate change adaptation measures. The CCAF project is working with the local authorities to provide women with land rights in order to strengthen the adaptation options.



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