



BENIN

Integrated Adaptation Programme to Combat the Effects of Climate Change on Agricultural Production and Food Security

LEAST DEVELOPED COUNTRIES FUND	
LDCF grant	\$3,498,000
Cofinancing	\$7,600,000
NAPA completion	January 2008
Inclusion in LDCF Work Program	October 2008
Expected CEO endorsement	November 2009
Expected Implementation start and completion	March 2010–March 2014
GEF Agency	United Nations Development Programme (UNDP)
Other executing partner	Ministry of Agriculture

Benin's economy is heavily dependent on agriculture. Seventy percent of the active population is employed in the agriculture sector, and agriculture contributes up to 36 percent of the national GDP and 88 percent of export earnings. Agriculture, and ultimately the natural resource base available for agriculture, thus play a significant role in Benin's overall welfare. Benin's agricultural sector is generally considered to have a very low adaptive capacity for reasons linked to structural factors (high level of poverty among rural populations, weak mechanization, and intensification of production modes), but also because of natural constraints, namely the poor management of water and soils, leading to soil degradation.

Various climate scenarios have revealed climatic changes that could have a severely negative impact on the agricultural sector and consequently on the country's food security. These include, among other

things, reduced precipitation on the order of 20–30 percent at the national level, which translates into a 40–60 percent reduction in the availability of water resources; and an increase in events of violent and intense rains, frequently of 100 mm/h, potentially leading to increased flooding and erosion of poorly protected soils, with important losses of productive potential. It is highly probable that these changes will cause degraded conditions for agricultural production, as well as decreased and greater fluctuating agricultural yields. The national food situation runs a high risk of further deterioration, posing long-term threats to the progress accomplished so far in the agricultural area and to the achievement of the Millennium Development Goals (MDGs) in Benin.

Project Activities and Expected Impacts

The project addresses existing barriers to climate risk prevention through a two-pronged strategy that



includes: (a) general systemic, institutional, and technical capacity building for forecasting, assessing, and managing the impacts of climate change and variability on the agricultural sector; and (b) implementation of practical on-the-ground pilot activities to facilitate practical experience of how agricultural development can be made more resilient to the impacts of climate change.

The first prong of this strategy addresses gaps in building the necessary systemic, institutional, and individual capacity to implement climate risk management at all levels. First, the project supports the integration of adaptation considerations and practices into relevant sectoral policy-making and planning processes. Similarly, Communal Development Plans and local land management plans are screened for climate risks and will be updated in light of the additional risks brought about by climate change in Benin's agricultural areas. This exercise enables an overall assessment of the costs of climate change and adaptation in the agriculture sector and provides the economic and technical justification for allocating national budgets to provide for managing climate change risks in agriculture. Second, LDCF support is utilized to improve the quality and timeliness of the climate information in support of climate adaptation decisions.

The project, therefore, provides technical assistance to ensure that baseline activities for upgrading the national meteorological services take sufficient account of the new patterns of risks associated with increased climate variability. Project funds are also used to improve information flows among climate monitoring, forecasting, and early warning services to policy makers and farmer communities in high-risk areas. Finally, with a view to the longer term, the project takes various actions to build the capacities of the technical staff, including technical departments and extension services, and local farmers in preventing and controlling climate change impacts on agriculture. To this end, training programs are developed and conducted. Moreover, climate change adaptation and risk management modules are integrated into the education programs and curricula of national and local, professional and academic agricultural training institutes.

The second prong of the strategy involves setting up pilot activities to assist in the transition of Benin's agriculture sector toward climate resilience. These pilot activities include (a) setting up a network for production and diffusion of short-cycle rice and maize crop varieties; (b) developing climate change vulnerability maps and agricultural risk maps in the project zones; and (c) testing and disseminating climate-resilient agricultural practices including improved soil and water management, adjusted crop rotation and crop calendars, drought-tolerant fodder systems, and increased food and seed storage capacities.

Synergies and Coordination

The LDCF intervention is coordinated with other projects addressing climate change implemented by the German Agency for Technical Cooperation: institutional support within the implementation framework of the United Nations Framework Convention on Climate Change (UNFCCC) and Denmark. Also, the project is coordinated with the following agricultural programs and projects to assure maximum impact: (a) the Program to Support Rural Economic Growth (PACER), funded by Japan and the African Development Bank (AfDB); (b) a project managed by the nongovernmental organization Initiatives for Integrated and Sustainable Development, which aims to make agroclimatic information available to a number of farmers as an experiment accompanying agricultural activities; (c) a project to develop drylands, backed by the United Nations Development Programme Drylands Development Center set up in Benin's dry areas; (d) the New Rice for Africa (NERICA) rice promotion activities, which seek to reduce climate impacts on rice through strengthening capacities in the West African Rice Development Association (WARDA) Center; (e) a National Food Security Office (ONASA) support program for accumulating buffer stocks of food products, specifically maize and sorghum, in production zones that have freed up marketed surplus; and (f) a government emergency food security support program that involves the activation of 1,800 agriculture professionals in view of averting the specter of the food crisis that was triggered by the price surge for basic food products.

For More Information

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