



## MALI

### Enhancing Adaptive Capacity and Resilience to Climate Change in the Agriculture Sector in Mali

LEAST DEVELOPED COUNTRIES FUND	
LDCF grant	\$2,600,000
Cofinancing	\$6,865,000
NAPA completion	December 2007
Inclusion in LDCF Work Program	February 2008
Expected CEO endorsement	December 2009
Expected implementation start and completion	March 2010–November 2014
GEF Agency	United Nations Development Programme (UNDP)
Other executing partner	Ministry of Agriculture, Livestock and Fisheries

The agriculture sector contributes over 50 percent of the Mali national GDP and provides the primary means of livelihood for more than 70 percent of the population. It is characterized by a wide diversity of production systems due to the country's various agroclimatic gradients with herders exclusively in the Sahelian zones, and a combination of farmers, herders, and agroherders in the Sudano-Guinean and Guinean zones.

Current changes in climatic conditions are causing degraded conditions for agricultural production and clearly represent a priority threat to the sector development and food security in Mali. As highlighted in both the Initial National Communication (INC) and the National Adaptation Programme of Action (NAPA), climate forecasts for Mali indicate rising temperatures and decreased rainfall, with increased inter- and intra-annual variability. The Sudano-Sahelian zone would be

the area most affected by precipitation changes. According to current observations, many rural areas of Mali already experience severe droughts, irregular rainfalls, and reduction in agricultural yields.

Mali's farming systems and livestock breeding are extremely vulnerable to climate change and variability due to significant reliance on rain-fed agriculture and ongoing practices regarding crop selection, water resource and rangeland management, drought preparedness, and household income generation that are not compatible with increasing aridation and climatic variability. Additional vulnerability drivers relate to increasing demographic patterns, including climate-induced refugee movements into regions least affected by drought, which cause intense pressure on productive arable lands; shortage of basic investment in market mechanisms in rural areas; and lack of land tenure regulation that hinders development of the sector.



Through this project, addressing the current baseline issues like stimulating rural economies, improving agricultural productivity, and promoting sustainable land management involves the application of resilience-building corrective strategies aimed at integrating climate change concerns into national agriculture frameworks, and managing adaptation knowledge and disseminating good practices to stimulate a sector-wide transition.

### **Project Activities and Expected Impacts**

The proposed NAPA follow-up addresses inter-related NAPA priority measures in a coherent and programmatic way through one integrated project. It assists Mali make the transition toward climate-resilient food security through: (a) enhanced ability of small farmers and pastoralists to cope with increasing climate variability; (b) systematic integration of the risks associated with climate change, including variability into key agriculture development policies, plans, and legislation; and (c) strengthened institutional capacity to prepare and respond to looming climate change threats on food production. With its simultaneous focus on enhancing food security, promoting resilient rural household livelihoods, lowering climate risks, and facilitating access to adaptation technologies, the project brings together the crucial elements needed for demonstrating climate-proofing and fostering a paradigm shift in agricultural development in Mali.

*Improved national capacities to prevent and manage the impacts of climate change on agricultural production and food security:* The project raises the profile of climate risks management at the level of policy makers, technical staff, and local communities and contributes to building the necessary policy, institutional, and legal frameworks to systematically address looming threats from climate change on food production and security. This is achieved through economic assessment of the impacts of climate change on the agricultural sector and establishment of a national funding strategy for adaptation; revised national agriculture sector budgets for addressing adaptation; full training and equipment of key stakeholders with climate risks management tools, options, and practices; a Green Paper and an awareness-raising campaign aimed at policy makers.

*Climate resilience of agricultural production systems and most vulnerable agropastoral communities strengthened:* Larger or more sophisticated investments in upgraded agrometeorological assistance systems in partnerships with United Nations Development Programme/Bureau for Crisis Prevention and Recovery (UNDP/BCPR) to better monitor, forecast, and manage food crisis situations. Appropriate agropastoral farming systems are established in the most vulnerable agricultural areas, e.g., use of drought-tolerant crop and pastoral species, application of climate-resilient soil and water conservation techniques, improved crop and livestock management schemes. Adequate financial climate risks transfer instruments like weather insurances, community-based insurance schemes, revolving and compensation funds, employment programs and climate-resilient alternative livelihoods strategies are developed for communities at highest risk.

Linkages are made to UNDP-GEF's Adaptation Learning Mechanism (ALM) to ensure that lessons from this project reach a broadest possible audience. Knowledge materials, technical guidelines, and lessons papers are produced and disseminated to key stakeholders, as well as a national media plan and communication campaign and project Web site.

### **Synergies and Coordination**

The project is coordinated with the following initiatives: The support project for diversification and competitiveness in the agricultural sector in the Upper Niger Valley Authority (OHVN) zone in Mali funded by the government of Mali, the African Development Bank (AfDB) and Japan; the *Irrigation Scheme Intensification Project* in the Baguinéda zone funded by the government of Mali and the Arab Fund for Economic and Social Development (AFESD); the project to support and multiply the Asawak Zebu breed in Mali, funded by the government of Mali and the Kingdom of Belgium.

Additionally, the project intends to capitalize on other initiatives, such as the Mali component of the GESFORCOM community-based forest management project, and the already completed French Global Environment Fund (FFEM) *Sorghum Agro-Biodiversity project*. During the project preparation phase, further consultations are held to ensure duplication is avoided and synergies maximized.

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### **For More Information**

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