

## **DEMOCRATIC REPUBLIC OF CONGO**

Building the Capacity of the Agriculture Sector to Plan for and Respond to the Additional Threats Posed by Climate Change on Food Production

LEAST DEVELOPED COUNTRIE	S FUND
LDCF grant	\$3,410,000
Cofinancing	\$4,100,000
NAPA completion	September 2006
Inclusion in LDCF Work Program	October 2008
CEO endorsement	November 2009
Implementation start and completion	March 2010–March 2015
GEF Agency	United Nations Development Programme (UNDP)
Other executing partner	N/A

Climate models predict that by 2050, the Democratic Republic of Congo's (the DRC) average annual temperature is likely to increase by 2.5–3.7 degrees Celsius, with seasonal droughts occurring more frequently and lasting longer. It is also anticipated that annual rainfall will increase in the "Cuvette" region (Province of Equateur), while appreciable decreases will occur in the rest of the country and extreme climate events will increase in intensity and frequency. Decreased rainfall will be felt most severely in the southern part of the country, especially in the belt of tropical climate savannahs where over 70 percent of the rural population lives. It is expected, for example, that by 2020, the Katanga province is likely to experience only five months of rainy season compared to seven months today. Farmers in such regions do not have access to varieties of agricultural seeds that are adequately adapted to these climate disturbances.

The current changes affecting the seasonal cycles and climate parameters directly threaten the production of basic food staples for rural communities and, by extension, have implications for food security for the entire Congolese population. In effect, agriculture in the DRC—the foundation for 90 percent of the country's population—continues to be exclusively pluvial or itinerant. As rainfall changes, particularly through shortened rainy seasons, or as the average soil temperature increases, harvests are threatened and populations rendered vulnerable, in both cities and the countryside. The consequences of climatic changes and variability, through yield changes, have already been felt in all of the agro-ecological zones of the DRC. For example, at the end of the 2005–06 farming season, many farmers from the city of Moanda, in the Bas Congo province, harvested barely a basket of maize for the equivalent of 15 kg of old seeds, as rainfall became rarer in the region.



## **Project Activities and Expected Impacts**

Considering these impacts on the Congolese agricultural sector, a number of urgent adaptive measures to secure food crop production have been identified. On the one hand, the project implements interventions at the national and subnational levels in terms of improved meteorological monitoring and forecasting. On the other hand, pilot interventions are implemented at the local level (farmers, communities, and agricultural extension services) to ensure improved reactivity and resilience to climate change–induced pressures in the entire sector, and to facilitate learning, which can later be scaled up to the national level.

At the national and subnational levels, the project responds to current capacity gaps in the management of climate change risks in the agricultural sector. These include, among others, insufficient and dilapidated equipment for agrometeorological stations, ageing and insufficiently trained staff to carry out agrometeorological measurements, and outdated methodologies for archiving and safeguarding observation data. This in turn implies that farmers are confronted with outdated guidance on appropriate dates for sowing various crops. The project, therefore, supports capacity building for farmers and meteorological services at the national, regional, and local levels, with a view to establishing updated vulnerability/risk and impact maps, seasonal forecasting, and agrometeorological bulletins for agricultural services. An agrohydrometeorological assistance system is being set up particularly to enable development of dynamic agricultural calendars and calendars to project dates marking the beginning and end of the rainy season. This is further accompanied by a measure to strengthen capacities among agricultural actors to enable them to design and implement strategies that respond to climate risks, both at the sector level and the level of farms and parcels. To this end, synergies between research

institutes and meteorological and agricultural services are being promoted, and the implementation of a national monitoring system for yields and an early-warning mechanism for food shortages is being established. Finally, improved knowledge and forecasting of climate changes in progress allows for development of technological packets adapted to new meteorological risks, which are being made available to farmers and technical services in the Ministry accompanied by a suitable training program.

At the local level, the project implements pilot adaptation measures in four vulnerable regions, (Bas Congo, Equateur, Kasai Oriental, and Katanga. This includes improving the resilience of food production systems by introducing proven adaptation measures and, where and when agriculture is heavily threatened by emerging climate change hazards, livelihood diversification options. Direct agricultural adaptation measures to be implemented include diffusion of climatetolerant varieties of maize, cassava, and rice; selected farming techniques and climate-resilient soil, water, and crop management techniques; and updating of crop calendars and technological packets available to farmers to help them cope better with climate variability.

## **Synergies and Coordination**

In the agricultural and livestock sector, the government has implemented, with support from various donors, the following programs and projects, with which this project is coordinated to maximize project impacts: (a) the Multi-sectoral Rehabilitation and Reconstruction Program (PMURR) with the World Bank; (b) the Project to Support the Rehabilitation of the Agricultural Sector (PARSAR) with the African Development Bank (AfDB); and (c) the Lake Tanganyika Integrated Rural Development Program (PRODAP).

Tel: 202-473-0508

Fax: 202-522-3240