# ENVIRONMENT AND ENERGY

**United Nations Development Programme** 





# **KENYA CASE STUDY**

January 2013

# **KENYA – ADAPTATION TO CLIMATE CHANGE IN ARID LANDS (KACCAL)**

Country	Kenya [http://www.adaptationlearning.net/country-profiles/ke]
Region	Eastern Africa
Key Result Area	Adaptation
Thematic Sector	Water Resources Natural Resource Management Agriculture/Food Security Keywords: irrigation, indigenous crops, rural livelihoods, drought risk management, arid and semi-arid lands
Project Activity Dates	Start: 2008 End: 2014
Key Stakeholders	Communities in the selected districts of the Arid and Semi-Arid Lands (ASALs).

#### ABSTRACT

Kenya's geographic location makes it inherently prone to cyclical droughts and floods. Moreover, according to the Initial National Communication (INC), such types of cyclical climate-driven events will increase in intensity and frequency due to global climate change. Livelihoods and economic activities in Kenya's are highly vulnerable to climatic fluctuations, with the districts of the Arid and Semi-Arid Lands (ASALs) being among the most vulnerable to recurrent droughts, and to long-term climate change. The rural poor are the most vulnerable to the impacts of Kenya's current climate variability. In response this project is supporting poor and vulnerable communities in the Mwingi District of the Arid and Semi-Arid Lands (ASALs) to enhance their adaptive capacity to drought (and flood). Working in the pilot areas, this is being achieved through enhanced access to and management of water for irrigation, promotion of indigenous crops that more resilient to anticipated climate (and improved access to markets for these crops), and promoting livestock varieties that are more suited to the climate, development and promotion of alternative livelihood opportunities (such as beekeeping activities). The project is also strengthening climate risk management planning and capacity of District level planners to mainstream climate change into District-level sectoral development plans. Extension workers will be supported to improve their adaptation extension advice to farmers based on best available climate forecast information.

## **BRIEF DESCRIPTION OF ISSUES**

## Background

Kenyahas great geographical diversity ranging from glaciated mountains with permanent snow cover, through plateau areas to the coastal plain. Weather and climate-related hazards present a serious threat to the socio-economic development of the country. Agriculture is the main sector of the Kenyan economy and its performance strongly influences overall economic performance. Climate risks have thus a direct impact on poverty reduction efforts. Food insecurity is a major problem, with malnutrition rates highest in the ASALs where there are acute malnutrition rates of over 15 percent in children under five, and up to 2-5 million people can quickly become dependent on aid relief during major droughts.

Droughts are the most common disasters affecting Kenya. The majority of the major shortfalls in food supply recorded have been associated with rainfall deficits experienced. The recurrence and intensity of droughts has increased in Kenya, particularly affecting ASAL areas, which now experience droughts almost on an annual basis. The country often has food deficits as a result of periodic droughts and low access to production resources. In the ASALs, about 2 million people are permanently on famine relief, with the number rising up to 5 million during severe droughts.

Kenya has a population estimated at 32.4 million (2004). 80% of Kenya is classed as Arid and Semi-arid Lands, and these areas are home to approximately 30% (~10 million) of Kenya's people, 50% of its livestock, and 75% of wildlife. More than 80% of the total Kenyan population live in rural areas and significantly depend on the exploitation of land and its natural resources for their sustenance. Agriculture is the main economic sector contributing 16.6% of the Gross Domestic Product (GDP). Of the 53% economically active population, the majority is employed in agriculture, and most of these are smallholders. Agriculture in Kenya is predominantly rain-fed making it highly vulnerable to climate change. Kenya's geographic location makes it inherently prone to cyclical droughts and floods, which have been increasing in intensity and frequency over time, a trend which is projected to continue.

Mwingi District is located in the Eastern Province of Kenya. As one of the thirteen districts in the Eastern Province, the Mwingi District has a population of 303,828 (1999 population census), projected to rise to 377,081 people in 2008 with a growth rate of 2.4 per cent (ALRMP, 2005). Poverty levels in Mwingi are high at over 60% of the population living below the poverty line of less than US\$1 a day. The district has experienced poor rainfall from early 2004, and a total crop failure for the main crop of maize, sorghum, millet, beans and peas in the 2005/2006 short rains season. Most rivers are dry through most of the year, water levels in the shallow wells dug near streams either gets significantly low or dry up during the dry periods, and there is limited intensive land use. The population also has to walk long distances in search for water for both domestic use and livestock watering.



# **BRIEF DESCRIPTION OF PROJECT**

## Solution: Adaptation Approach, Components and Description

In response to the challenges detailed above, the "Kenya-Adaptation to Climate Change in Arid Lands" (KACCAL) project is focused on strengthening Mwingi District's capacity to reduce the vulnerability of rural livelihoods in arid areas to climate variability and change. The project will focus on i) improving the ability of farmers to reduce the near-term vulnerability to current climate variability and trends and on ii) strengthening the capacity of District-level planners to address climate change.

# **Project Targets**

RESULT	TARGET
Objective: To increase the capacity of communities in the selected districts of the ASALs to adapt to climate variability and change.	1. 180 households will benefit directly from the pilot projects (6 community groups); an additional 360 households (12 community groups) to benefit from exchange visits to pilot sites; c. 10,000 households in the pilot areas (75% of households) will benefit from dissemination of adaptation advice.
	2. CCA mainstreamed into 3 District sectoral development plans (agriculture, water and Forestry and Wildlife)
Outcome 1: Enhanced capacity of national and regional government stakeholders to plan, manage and implement climate change adaptation measures.	20 national and regional policy makers are aware of CC impacts and CCA needs in ASAL.
Outcome 2: Enhanced capacity of district and local levellevel stakeholders to plan, manage and implement climate change adaptation measures.	<ol> <li>Capacity perception index: raising score from 2 to 4 (on a 5 point scale where 5 is highest: fully developed capacity).</li> <li>CCA mainstreamed into 3 District sectoral development plans (Agriculture, Water, Forestry and Wildlife)</li> </ol>
Outcome 3: Enhanced communities' ability to plan, manage and implement climate-related activities.	1. 180 households will benefit directly from the pilot projects (6 community groups); an additional 360 households (12 community groups) to benefit from exchange visits to pilot sites; c. 10,000 households in the pilot areas (75% of households) will benefit from dissemination of adaptation advice.
	2. No change in income or household assets due to climate variability.

## Mainstreaming

The project is working to embed a longer-term perspective in planning and interventions at the District planning level. The project will develop a desk-based climate risk assessment and adaptation options analysis that will include a review of policies and regulatory and fiscal instruments that affect Mwingi District and District-level investments. Recommendations will be made on how the policy, regulatory and fiscal framework governing Mwingi District could be adjusted to promote adaptation. Gaps in policy and investments that are relevant to reducing the climate risks will be noted. Stakeholders will be convened to validate the desk-based analysis and provide further analysis. The project will develop an action plan for the mainstreaming of adaptation into policies, instruments and investments. The project will determine what capacities are needed to deliver mainstreaming of climate risk management into District-level sectoral development plans, based on the UNDP approach to capacity assessment, and develop a workplan for KACCAL support to this.

# Sustainability

The project has a 'mainstreaming' component to it as well as a practical implementation/ testing component to it. The mainstreaming component is centres mainly around the capacity development of District level planners to be able assess and plan for climate risks. The project will demonstrate an approach that can be continued beyond the project grant. Secondly, the project will develop a workplan for capacity and institutional development that goes beyond the project resources, to facilitate fund-raising for continued capacity development support. Thirdly, the mainstreaming analysis will focus on how the national regulatory and fiscal frameworks and instruments inhibit or could be adjusted to promote adaptation among the private sector: mainly small and medium enterprises, thereby promoting scale-up of successful adaptation measures.

# Replicability

180 households will benefit directly from the pilot projects (6 community groups); an additional 360 households (12 community groups) to benefit from exchange visits to pilot sites; c. 10,000 households in the pilot areas (75% of households) will benefit from dissemination of adaptation advice.

The project will disseminate the lessons and methodology of the project to national policy-makers to raise awareness and understanding of the need for adaptation action, both in terms of the role of government in incentivising the private sector to allocate resources in a climate-resilient way aswell as the allocation of public financing to testing new ways of doing business.

## Funding

GEF Project Grant (SCCF): US\$1,000,000 Co-financing Total US\$1,350,000 Project Cost US\$2,350,000

#### **Time Frame**

2008-2014 Profile Updated: January 2013 Previously Created: December 2010

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UNDP-ALM Project Profile: <u>www.undp-alm.org/projects/sccf-kaccal-kenya</u>