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PROJECT PROFILE.

Preparing for Climate Change in Eastern and Southern Africa

Photo by Frédéric Gagnon-Lebrun

The African continent is highly vulnerable to the impacts of climate change.

Already home to the highest proportion of people living in extreme poverty, the continent is struggling to cope with the burdens that come with disease, conflict and poor management of natural resources. These factors, combined with limited human, economic and infrastructural capacity, leave the continent vulnerable to climate variability and change.

The project: "Integrating Vulnerability and Adaptation to Climate Change into Sustainable Development Policy Planning and Implementation in Eastern and Southern Africa," is helping several African countries meet this challenge. Through pilot projects in Kenya, Rwanda and Mozambique, the project is working with communities to introduce appropriate measures that reduce their vulnerability to today's climate variability and longer-term climate change. It is also facilitating the development of strategic approaches for integrating adaptation to climate change into national policy- and decision-making—allowing for amplification of benefits across a wider area and over a longer period of time. Through these interventions, the vulnerability of key economic sectors and sources of livelihoods—agriculture, forestry and energy production—in Kenya, Mozambique and Rwanda will be reduced.

Led by the United Nations Environment Programme (UNEP), this four-year project is being executed by the African Centre for Technology Studies (ACTS) and the International Institute for Sustainable Development (IISD). Funding has been provided by the Global Environment Facility's Strategic Priority on Adaptation and by the Government of the Netherlands. In-kind contributions are also being provided by the German government through Gesellschaft fuer Technische Zusammenarbeit (GTZ) and the Governments of Kenya and Rwanda.

Project Overview:

GOAL | To reduce the vulnerability of communities to the impacts of climate change, thereby improving their well-being and protecting their livelihoods.

OBJECTIVE | To promote the mainstreaming or integration of vulnerability and adaptation to climate change into sustainable development plans and planning processes through three pilot projects undertaken in Kenya, Mozambique and Rwanda.

INTENDED RESULTS | Generation of capacity in each pilot project country to implement adaptation measures in the field that will reduce their vulnerability to climate change;

Increased capacity in each country to generate and use information about climate change to effect change in relevant development policies; and

Increased knowledge of the linkages between development planning and climate change, including the policy process and methodologies.

Photo by Jo-Ellen Parry

PILOT PROJECT: Kenya

Reducing Vulnerability to Drought

Photo by Jo-Ellen Parry

Drought events associated with climate change and climate variability have become more pronounced in Kenya in recent years, adversely affecting agricultural production. In response, the Centre for Science and Technology Innovations has partnered with the Arid Lands Resource Management Project (ALRMP) to undertake a pilot project in a mixed farming area of Kisau Division, Makueni District, in Eastern Kenya. The pilot project aims to increase household food security, reduce poverty through improved livelihoods and facilitate integration of adaptation to climate change into policies related to disaster management and sustainable development of arid and semi-arid lands.

In the fall of 2006, prior to the short rainy season, the pilot project initiated a process for downscaling climate forecasts and presenting them to farmers in a format and language suited to their needs. At the same time, demonstration plots were established in 40 sites to show farmers the benefits of drought-resistant crop varieties and agro-forestry techniques. Training was also provided in improved crop husbandry practices and post-harvest storage. The harvest of early 2007 has demonstrated the benefits of the climate forecasting and improved agricultural techniques. These initial lessons have already been integrated into the ALRMP's regional activities.

Future plans include the introduction of a micro-finance scheme to increase access to credit by self-help groups; the construction of sand dams; and the introduction of drip irrigation and biogas systems. The pilot project team is also working at the national level to integrate climate change considerations into Kenya's emerging National Disaster Management Policy. Further opportunities for integrating lessons from the project into relevant agriculture, livestock, environmental management and disaster management policies will be identified.

PILOT PROJECT: Mozambique

Introducing Community-based Fire Management

More than 40 million hectares of land burns each year in Mozambique, a situation that is expected to be exacerbated by climate change. Recognizing the ramifications of these fires for human health and safety, economic development and the maintenance of ecological diversity, concern has been growing at the district and national level in recent years. In response, the Mozambique pilot project is implementing a multi-pronged strategy to reduce current vulnerability to uncontrolled bush fires and promote the inclusion of vulnerability to climate change into relevant district level and national policies.

Led by AMBERO-IP under the direction of GTZ, the pilot project is working with six communities in the central provinces of Sofala and Inhamabane to build their fire fighting, prevention and management skills. Forty community rangers were trained in forest fire management in 2006. Further training of Local District Resource Management Committees in community-based fire management is planned.

Photo courtesy of AMBERO-IP

At the provincial level, a multi-stakeholder roundtable for wildfire coordination has been established to gather and share information. This roundtable is working to formally establish a satellite early warning system in coordination with the Southern Africa Fire Network.

At the national level, the project will develop a better understanding of how climate change will affect the distribution and patterns of forest fires in Mozambique. AMBERO-IP and GTZ are also working with Mozambique's National Adaptation Programme of Action committee and increasing their engagement with the National Disaster Management Institute (INGC). This research and linkages will assist the pilot project in achieving its objective of integrating climate change considerations into Mozambique's national disaster strategy, National Programme of Prevention and Fire Control and/or National Strategy for Controlling Forest Fires.

Photo by Anne Hammill

Photo by Jo-Ellen Parry

PILOT PROJECT: Rwanda

Increasing Energy Sector Resilience

In recent years, Rwanda has experienced declining river flows and consequent decreases in the productivity of its hydropower facilities—the country's main source of electricity. The reasons for this decline are multi-dimensional and symptomatic of the vulnerability of Rwanda's energy sector to the impacts of climate change. In response, the Centre for Innovations and Technology Transfer is working with partners at the district and national level to increase the resilience of two hydropower stations (Ntaruka and Mukungwa) located in Northern Province.

Planned field-level activities focus on improving management of natural resources in three villages located along the wetland and lakes that supply the hydropower station. Agro-forestry, erosion control and livestock development activities are planned, as well as the introduction of energy efficiency strategies and the adoption of alternatives to fuelwood, such as biogas.

The pilot project will also aim to improve the management and operation of the hydropower stations themselves through training, data collection and exchange visits. Complementing these efforts, research will be undertaken to increase understanding of the vulnerability of Rwanda's hydro sector to climate change and facilitate integration of this knowledge into energy planning processes. Changes to Rwanda's national energy strategy will also be promoted in order to safeguard the long-term sustainability of hydropower use in the country in light of climate change.

Promoting Regional Linkages

To support the cross-pollination of ideas, capacity building and knowledge sharing, regional activities are planned involving the three pilot project implementation teams, observer countries (Tanzania and Madagascar), national governments, regional adaptation practitioners and international donors. The first regional meeting of pilot project team members was held in Nairobi in February 2007. The meeting facilitated the sharing of experiences to date in undertaking field-level projects designed to reduce vulnerability to climate change.

A second regional meeting is planned for June 2008. This event will bring pilot project team members together with policy-makers to present the outcomes of the field projects and promote strategies for up-scaling lessons learned at the regional level.

For further information about this project, please contact:

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