Mozambique

UNITED NATIONS DEVELOPMENT PROGRAMME

And

MINISTRY FOR COORDINATION OF ENVIRONMENTAL AFFAIRS - MICOA

Coping with drought and Climate Change
Annual report 2010

Contents

Acronyms

DNGA – Direcção Nacional de Gestão Ambiental
FDC – Fundação para o desenvolvimento da comunidade
GEF – Global Environmental Funds
INAM – Instituto Nacional de Meteorologia
INGC – Instituto Nacional de Gestão de Calamidades Naturais
IIAM – Instituto de Investigação Agrária de Moçambique
IPEME – Instituto para promoção de pequenas e Medias empresas
MICOA – Ministério de Coordenação para Acção Ambiental
NEX – National Execution
NGO – Non Governmental organisation
NAPA - Plano de Acção Nacional de adaptação à Mudanças Climáticas
PEDD – Plano Estratégico de Desenvolvimento distrital
PDPMCN – plano director para mitigação de desastres naturais em Moçambique
RANET – Rádio e Internet
SDAE – Serviços Distritais para as actividades económicas
UEM – Universidade Eduardo Mondlane
UGP – Unidade de Gestão do Projecto
UNDP – United Nations Development Programme

Executive Summary

The present report covers the project implementation and progress for the year 2010. Since the project started its implementation only in June 2010, this marks the first annual report.

The project 'Coping with Drought and Climate Change' seeks to develop and pilot a range of coping mechanisms for reducing the vulnerability of small-holder farmers and pastoralists in rural Mozambique to future climate shocks. Drought prone Guijá District was selected as a pilot site. The project is structured around four outcomes:

(i) Livelihood strategies and resilience of vulnerable farmers in the selected pilot sites improved and sustained to cope with drought and climate change,
(ii) Enhanced use of Early Warning information in agricultural systems at the selected pilot sites,
(iii) Drought mitigation and preparedness activities integrated across sectors and programmes at various levels of society, in the pilot sites, and
(iv) Farmers/Pastoralists outside the pilot sites replicate successful approaches to cope with drought.

The results achieved in 2010 are as follows:

- Four (4) community group associations established in the project pilot sites;
- Six (6) partner organization identified and articulated to prepare and implement the specific plan according to the Terms of Reference sent by MICOA to each government institution (INAM, IIAM, UEM, IPEME, SDAE-Guija and Chokwe Agrarian Station);
- Two National consultants enterprises had been contracted to deliver respectively the Geo-Hydrological Survey and Training in New Social Technologies to cope with drought by establishing 4 water management committees to build water harvesting systems;
- One community group (20 women) has been trained in fruit tree derivates preparations like Jam, cakes and in small business strategies;
- Four groups have been organized and trained in terms of strategies to take care of domestic animals like, cattle, chickens, pigs and other;
    - Training in preparation of the forage and improved grazing management;
    - Training in identification of sicknesses for cattle or chickens;
- Mobilization of district stakeholders has been ensured by INAM, for the establishment of meteorological post and RANET systems in Guijá district;
- Mobilization and identification of the farmers leaders for the establishment of demonstration plots for drought and tolerant plants like beans, Sorghum, sweet potatoes, Manihot succulent, and fruit plantation;
- Two steering committee have been established at province and district levels;
- Identification of the space for the establishment of district fruit tree nurseries for natives and exotics plants;
- Community groups have been mobilized by MICOA/DNGA, for the establishment of bush fire groups or committee in the project pilots sites;
- Monthly monitoring visits have been carried out by the Project Management Unit; and
- First mobilization of the DNGA and Province services of MICOA, and other district services to contract new district technicians;

During 2010, the constraints faced were as follow:

- The financial and administrative assistant left the project without notice, leaving a financial managerial burden to the project manager;
- The multidisciplinary approach of the project is challenging, involving various complex technical aspects as well as many institutions; and
- The lack of technical staff at district level has affected the coordination of the field activities in the project pilot sites.

Project Background

Climate Change impacts represent additional constraints to Mozambique's development. The increase in the frequency and severity of droughts and floods, the change in the rain calendar and the increase in drought periods over the last 50 years have been identified as some of the major obstacles to poverty reduction. The impact is particularly relevant in agriculture and livestock farming, and it is said that climate change effects will compromise the achievement of the Millennium Development Goals.

For instance, in the year 2000, cyclone Eline affected the Mozambican coast and caused the worst floods in the history of the country. About 700,000 people had to abandon their houses, and 200,000 cattle died. The floods also removed landmines from previously known locations, causing new tragedies. After the floods, 350,000 households were assisted subsequent to the launching of an "Orange Alert" that aimed to offset the catastrophic effects of the 2007 drought. The occurrence of climate events highlights the importance of forms of mitigation, including those that contribute to increased food security and improved water management. If no action is taken, natural disasters will continue to jeopardize our fight against poverty.

In this context, the Government of Mozambique, through the Ministry for Coordination of Environmental Affairs (MICOA), requested assistance to UNDP to access funds from GEF – Global Environmental Fund. MICOA also benefited from UNDP's technical and financial assistance in matters related to climate change, consistent with the implementation of the local NAPA. UNDP provided MICOA with the requested assistance to apply for GEF funding under the Focal Area of Climate Change. This effort is made within the framework of actions developed by other institutions like, FAO, IIAM, INGC, Mozambican Red Cross and FDC, and is aimed at improving agricultural sector productivity, increasing food security at household level, improving livelihood strategies of rural populations, and increasing the capacity to understand nature and manage natural resources in a sustainable way.

The activities of the project will be harmonized with the policies of the Government of Mozambique at local, provincial and central levels. The Strategic Plan for the Development of the District of Guijá (PEDD) and the Government of Mozambique Master Plan for Natural Disasters Preparedness and Mitigation (PDPMCN) are important reference documents. As an implementation guide, guidelines for the development of arid and semi-arid areas of Mozambique will be developed. The guidelines will contain two modules: (I) Activities to be developed to make water reserves available, and (II) Reforestation and food security activities. This guideline should be completed by May 2011.

Project Objectives

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(v) Livelihood strategies and resilience of vulnerable farmers in the selected pilot sites improved and sustained to cope with drought and climate change,

(vi) Enhanced use of Early Warning information in agricultural systems at the selected pilot sites,

(vii) Drought mitigation and preparedness activities integrated across sectors and programmes at various levels of society, in the pilot sites, and

(viii) Farmers/Pastoralists outside the pilot sites replicate successful approaches to cope with drought.

The planned results for 2010 were as follows:

1. Four Farmers association and pastoralist established and fortified in the project pilot sites;
2. Farmers and woman's association established and trained in preparation of fruit tree derivates, Gender and agribusiness mechanisms to cope with drought and climate changes;
3. Established the systems of early warning and bush fire control;
4. Demonstration Plots for drought and tolerant plants and seeds established in the project sites;
5. Sweet potatoes and Manihot succulent plots multiplied in the project sites for demonstration;
6. Demonstrations plots for production and training in forage conservations techniques for cattling in project pilot sites;
7. Communities nurseries established in pilots sites to produce Native and Exotics fruit tree;
8. Strategies to cope with drought and climate changes fortified in the project pilots sites;
9. Committee for risk management established and fortified in project pilot sites;
10. Meteorological and RANET systems established in the district;
11. Geo-hydrological survey conducted in the district;
12. Based on the Geo-hydrological survey some rural infrastructures established in the pilot sites;
13. Water harvesting systems established and water committee members trained in project pilot sites;
14. Interchanges visits established in the project, to visit regional project in Africa and insight Mozambique; and
15. Monitoring and Evaluation systems are operational and functioning in Maputo and Guija districts.

Situational Background

The coping with drought and climate change project, as part of the regional project being implemented in Ethiopian, Kenya, Zimbabwe and Mozambique, was supposed to begin in 2006. However, several factors have caused the delay of the launching process, and the project started in Mozambique only in 2009. The project implementation at the field level started only in June 2010.

A new Project Manager has been selected, and his priority task was to implement field activities as soon as possible.

The following results were achieved during the reporting period in terms of mobilizing partners, communities, and other stakeholders:

- Four farmers association established in the pilots sites (Nhampunguane, Mbalalavala, Nalazi sede and Nhanguenha);
- One woman association trained in Nhampunguane (with a total of 20 members);
- Four water managements committee established and trained in social technologies for water harvesting to cope with drought (Nhanguenha, Ngumbane, Majimiss and Nhampunguane);
- Four communities have been mobilized to establish with UEM/Faculty of Veterinary the capacity building in terms of Animal sanitation, treatments and forage preparations in the project pilots sites;
- INAM assessment to establish the Meteorological Post and RANET systems was finalized in December 2010;
- DNGA/MICOA have mobilized the district government and stakeholder for establishment of early warning & bush fire systems and Natural managements committee in the project pilot sites;
- SDAE-Guija has launched the process to establish district nursery for plant production;
- Geo-hydrological survey has been conducted in Guijá district;
- Regional and National sharing experience visits have been organized, where the project Manager and the focal point attended the mission to Zimbabwe and Chicualacuala project; and
- The Provincial and district steering committee members have been established in Xai-Xai and Guija's city – Gaza's province.

The good articulation of the project activities between the project manager, the steering committee and the local communities was essential to realize the above stated results.

Evaluation of Progress during the Reporting Period

The evaluation of the project follows the approach of analyzing the five project outputs according to the project log frame.

Progress:

(i) Livelihood strategies and resilience of vulnerable farmers in the selected pilot sites improved and sustained to cope with drought and climate change.

A total of 8 communities have been mobilized and trained in different techniques, namely water management strategies and social technologies to build water harvesting systems (4 communities trained), and pastoral strategies to manage cattle and other domestics animals (4 communities trained). Women's groups have been trained to prepare derivates from native and exotic fruits, and drought tolerant crops and cultivation techniques have been introduced. Farmers' associations have been established in order to receive future training or drought tolerant crops. These improved varieties will be introduced in 2011 during the rainy season.

The consultative process with the district stakeholders and the local communities was organized at least on a monthly basis.

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CWD, December 2010, Guija distrit Phot 1-2: Consultative, Feedback and Monitoring & Evaluation process with communities leaders and district government

The Permanent Secretary of the Steering Committee has recommended the training of local district staff in order to ensure the sustainability of the project.

(ii) Enhanced use of Early Warning information in agricultural systems at the selected pilot sites

INAM and ICS have conducted their preliminary assessment in order to establish a meteorological station and RANET systems. The DNGA from MICOA has also mobilized the stakeholders to establish bush fire systems and training in terms of Natural Resources Managements.

There is however a need for a local Radio for information transmission or to work with meteorological system. Guijá district is indeed not equipped with a radio system, and the nearest ones (Chokwe, Chibut, Mabalane) cannot reach Guijá communities. The need for this equipment was not foreseen during the project elaboration, but an arrangement will have to be made to address this issue during 2011.

(iii) Drought mitigation and preparedness activities integrated across sectors and programmes at various levels of society in the pilot sites

The baseline study shows that access to drinkable water, and water for productive use (agriculture or cattle) in pilot sites is only seasonal. In other words, water pumped during dry season is salted and not suitable for use.

The project log frame is designed to monitor at least 7 communities and assess if they have access to quality drinkable and productive water in project pilot sites. The hydrological survey will be the tool to identify ideal places to establish boreholes, dams, subterranean barrages and irrigation systems. Other small infrastructures will be delivered in 2011 in order to achieve project objectives.

So far, 4 groups have been trained in water management and building strategies for water harvesting in semi-arid region of Guijá.

Photo 3, Community group trained in water management strategies and water harvesting building techniques

CwD, December 2010 in Gunbana – Nalazi, Guja district

Foto- 4e 5 One of the first water harvesting systems established in Nhanguenha

CwD, November 2010 in Nhanguenha – Nalazi, Guija's district

These water harvesting systems have 52,000 and 20,000 liters capacity. In Nhamguenha school, only a system of 20,000 liters could be built due to the limited capacity to collect more rain water. However, the water harvesting system built in Gunbane will collect about 52,000 liters from the rain.

These systems are less expensive than boreholes, and communities can replicate it according to their needs and means. In 2010, four water harvesting systems in different communities (Nhanguenha, Gumbana, Majimiss, Nhampunguane) have been established.

(iv) Farmers/Pastoralists outside the pilot sites replicate successful approaches to cope with drought.

The project plan is that by the end of 2012, at least 4 communities out of pilot sites introduce coping with drought and climate change strategies tested within the project. So far, 2 families in two different communities have adopted the systems.

In the future, the following points will be monitored closely:

- Community adoption in terms of animal care for feeding, nutrition and sanitation;
- Development of the local capacity in terms of promotion of animal care and animal sanitation for the communities; and
- Development of the local capacity to produce and conserve forage for animal feeding.

Presently, 55 farmers are involved in the training process.

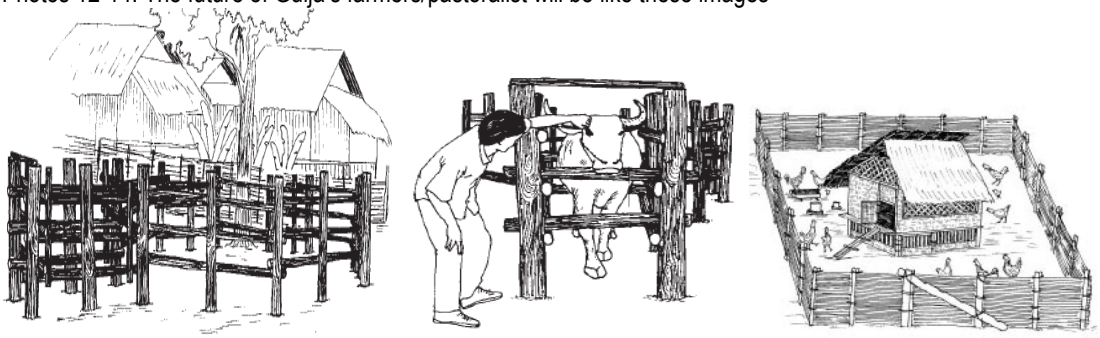
Photo 6-8: Fields activities with farmers/pastolists during the establishment of farmer field schools for livestock care and forage production in Nalazi

CwD, December 2010 in Nalazi sede

Photo 9-11: showing the actual traditional models of infrastructure to take care of animals

CwD, December 2010 in Guija district

Photos 12-14: The future of Guija's farmers/pastoralist will be like these images



UEM, Faculty of veterinary, trainings photos in December 2010

Gender Mainstreaming

Since field activities have started in Guija, most of the mobilized groups are constituted by woman (70% of local farmers). The emphasis on women's issues and prioritisation on women for project interventions will continue in 2011.

Photos 15-16: Training of woman's groups in preparing of Jam from Massala and Tomate


CWD, November 2010, in Chivonguene

Partnerships

In pilot project sites, NGO's such as **Samaritans purse** and **World relief** are also involved in the same type of activities such as establishing water infrastructures like boreholes in Nalazi's communities. This project is ensuring a good articulation as well as a good partnership and coordination with other stakeholders.

Challenges, Responses and Lessons Learned

Challenges encountered in 2010, particularly referring to Guija, include:

- There is no community Radio to broadcast information about climate changes and others issues;
- The local communities do not have radio receptors to access information about climate changes;
- The local communities do not understand Portuguese;
- The Guija's sites are difficult to access (difficult road conditions); and
- The schooling level within the local communities being low, and the awareness campaigns are difficult to organize.

The above challenges have been fully noted by the project implementation team, and will be addressed during 2011.

Annexes:

1. Financial Report
2. Annual Work Plan for next upcoming year