Increasing Community Resilience to Drought in Makueni District in Kenya



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Overview

- Kenya's ecosystems are fragile and vulnerable due to increased pressure by human activities
- ASALs in Kenya expected to be the most vulnerable areas to climate change (increased frequency and severity of both droughts and floods) (UNFCC,2002)
- Rain-fed agriculture is the mainstay of the Kenyan economy
- The climate impacts of water resources are largest in the marginal rainfall areas of the country
- Climate variability especially drought occurrences exert severe impacts on hydro-electric energy resources (power rationing)

Pilot project

- GOALS
 - Reduce community vulnerability to drought exacerbated by climate variability and change
 - Gather information from the field and relate it to the information needs for policy makers in order to inform relevant policies

FUNDS: United Nations Environment Program (UNEP)

- Executing Agency: African Centre for Technology Studies
 (ACTS), International Institute for Sustainable Development
 (IISD) and Centre for Science Technology Innovations
- BUDGET: US\$300,000
- DURATION: 3 years (2006 2009)

Location

- Sakai Makueni district Eastern Province in Kenya
- Devastating impact of past droughts on the communities
- Dominant livelihood is marginal mixed farming
- Site selection:
 - Vulnerability (sensitivity) of livelihoods to drought or climate change;
 - High concentration of population hence possibility of maximizing project impact;
 - Ease of up-scaling since the livelihood is widespread in Makueni District;
 - Ease of access;
 - On-going related activities in the area => drought Management activities of the Arid Lands Resource Management Project (ALRMP)

Context

- Enhancing adaptive capacity of Sakai community:
 - Availing information (weather/climate) in good time
 - Enhancing their understanding of the information
 - Strengthening and diversifying their livelihoods introduction of new farming technologies
 - Improving their capacity to buy the right seeds and diversify by availing credit

Objectives

- To enhance communities' effective use seasonal weather and climate information to increase production
- To improve access to high quality planting seeds
- To inform the farmers on appropriate agronomic practices for the identified crop verities, based on seasonal weather and climate forecasts
- To increase sources of high quality water for domestic use and irrigation and reduce distances to these sources
- To create opportunities for economic diversification
- To enhance provision of alternative livelihoods
- To establish a database (e.g. developing spatial representation (mapping) of social-economic information in the project area)

Activities

- Putting together a multi-sectoral implementation project team
- Needs and priorities assessment and rapid vulnerability assessment at community level
- Community awareness and sensitization on the reality of climate change
- Identification and documentation of specific constraints to communities adaptive strategies
- Participatory engagement for preparation of action plans based on the identified problems and needs to enhance adaptation strategies
- Mapping of baseline information through GIS
- Matching information needs at the policy level with community needs to scope field activities and priorities
- Development of a website

Mixed cropping as normally practiced by the farmers A demonstration of proper spacing advocated by the projec A close up of the current millet crop in one of the farms Millet crop in a Demonstration plot

Samples of legume and cereal seed bulking plots already in field

Farmer's bean crop as a result of current enhanced rains

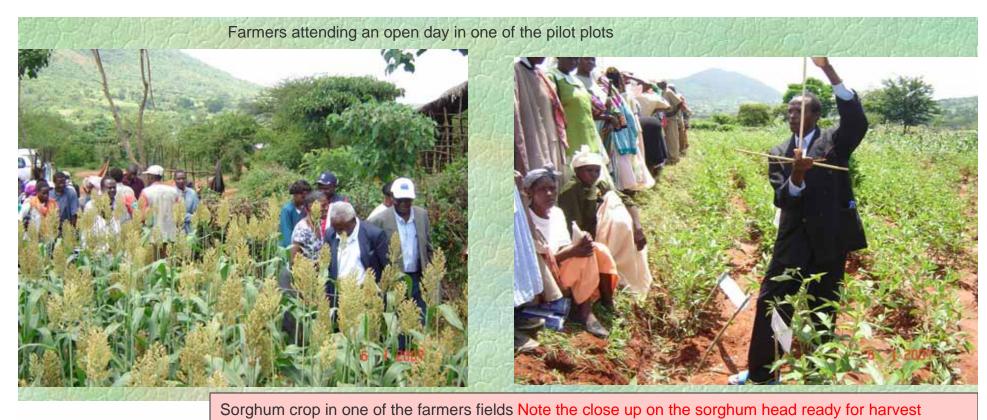
The positive impact of water management efforts in the demo plots





Maize crop







Conservation, storage and Utilization of produce from the

project



Field day sorghum cake with participants enjoying it





Post harvest handling of project produce to reduce post-harvest losses



Innovative elements of project

- Participatory engagement of local stakeholders (communities, district steering committee etc) (selection criteria of farming households and self-help groups) => OWNERSHIP
- Utilization of existing structures => partnering ("piggy-back") with on-going Arid Lands Resources Management Programme (ALRMP) activities on drought preparedness in Makueni district
- Translation and dissemination of national weather and climate forecast into specific forecast for the project site

Micro-financing through self-help groups

Opportunities

- Community running off with project
- ALMP in up-scaling and funding of project activities (climate info, sand dams, alternative livelihoods)
- Draft policy =>incorporation of climate change

Lessons?

- Participatory stakeholder engagement
- Encouraging community capacity building (training, demos, diversification of livelihoods)
- Database "An academic pursuit or sustainability goal?"

Challenges

- Climate data and information updates not availed as frequently as required
- Shortage of rain-guage for measuring rainfall amounts
- Leaching and water logging was experienced in plots with sandy soils and resources were not provided for top dressing to supplement the farmers' efforts Need to activate the credit component.
- Field attack by many types of insects due to enhanced moisture and the farmers' inability to cope with the situation due to inadequate resources
- High expectations on the part of the participating farmers
- Slow flow of funds for follow-up activities.

Conclusion



The participation in and ownership of the project by local communities ensuring sustainability and replicability (upscaling)



The project has enabled social learning by enhancing common knowledge, awareness, and skills by engaging different stakeholders in sharing diverse perspectives, and thinking and acting together