

Utooni Development Organization in partnership with Sahakarini

Project title; promoting sustainable water and food
security in Machakos and Makueni Counties

Project update report



Report submitted to; Sahakarini
Date; 7th June 2016
Report prepared by; John Mutisya

Introduction

Climate change is considered to be one of the serious threats of sustainable development globally. Studies have shown that 90% of disasters afflicting the world are related to severe weather and extreme climate change effects. Impacts of climate change are experienced in many sectors such as environment, food security, human health, economic activities, natural resources and physical infrastructure. For example among the key findings of the Fourth Assessment Report (AR4), (IPCC, 2007) are;

- Millions of people globally will be exposed to increased water shortage (stress)
- Access to food in many African countries will be severely compromised, and

In Africa the effects of climate change have been experienced having caused severe water shortage and food insecurity especially in the Arid and semi arid lands (ASALs). International relief organizations, government departments and local non-governmental organizations (NGOs) have come up with different programs trying to find ways of mitigating these effects.

Utooni Development Organization (UDO) being one of the local NGOs in Kenya working in the eastern and rift valley parts of Kenya, partnered with Sahakarini to help the vulnerable community members learn, understand and find ways to mitigate the effects of climate change. The project targeted subsistent farmers in the eastern part of Kenya who were facing water and food insecurity.

Achievements

1. Water security

Water scarcity in the area was becoming a chronic challenge faced year in year out leaving the community members with no option than to spend long hours queuing for water. Farming activities were allocated minimal time and commitment leading to another challenge of food insecurity. Livelihoods were severely affected.

After the implementation of the project the community members are now able to access water near their homes reducing their walking distance from 6 kilometres to less than two kilometres. Hygiene levels have gone high reducing water borne diseases. School going children are able to attend school regularly and with confidence for being clean and neat.



Photo; community members beside their sand dams which are holding large volumes of water

2. Food security

UDO advocated for growing of drought tolerant crops which are able to persevere the prevailing weather conditions characterised by high temperatures, minimal rainfall, flash floods, diseases and pests and poor soil fertility.

Previously these food crops were not being grown in the area since people had embraced the culture of growing maize and beans which were failing in seven out of ten seasons.

The crops promoted by UDO have proved to be productive and the fields are currently looking good, data for the yields from the previous season will be compiled and send to gauge the level of improvement and also show comparison. October – December rain season was marked by high levels of rainfall in most parts of the country, this was good news for the farmers since some of the crops such as Pigeon peas and Dolichos lab lab were planted in this season to mature in July 2016 (two seasons).



Photo; A member of Kyeni Kya Mamiloki shg showing his pigeon peas doing well in his farm



Photos; Left- Member of Wingu Makanda shg weeding her farm of Dolichos lab lab; Right- Another member of Wingu Makanda weeding his farm with cow peas intercropped with pigeon peas.

Terracing

Terracing have been embraced by the farmers in the project area, many farms were producing minimal yields, this was being caused by changes in rainfall patterns reducing the volume and causing flash floods which was away the soil nutrients and causing soil erosion. Terraces impound the water during such floods, farm yields have been significantly improved giving the farmers guarantee of food supply to feed their families. Some of the farmers mix crop production and livestock production, terraces have supported growth of vegetation giving a reliable supply of fodder for the animals, milk production has improved enabling them to have a source of income



Photo; Members of Wingu Makanda shg weeding their Dolichos lab lab which are flowering well beside a terrace with bananas



Photos; A terrace done by a member of Kyeni kya Mamiloki shg supporting growth of fodder for livestock

Tree planting

Community members were trained in tree nursery management and have managed to establish tree nurseries which enable them to raise enough seedlings for planting during the October - December rain season which is the most appropriate.



Photo; members of Kyeni Kya Mamiloki shg in their tree nursery which has different varieties of tree seedlings

Other activities

The farmers have managed to establish other activities to improve their livelihoods such as;

- village savings and loan groups; the farmers pool funds together and lend to their members at a minimal interest rates so as to establish small businesses and pay school fees. The government of Kenya Is supporting these groups
- women development groups; women in these groups have joined together and included other members of the community and formed development groups which are also benefiting from government
- poultry husbandry; the indigenous breed of poultry is resistant to diseases and does not require large amount of capital, additionally, the cereals produced by the farmers are the main source of food for the poultry making it a cost effective venture for the farmers. UDO has capacity build the farmers on good housing, hygiene and vaccination so as to ensure that they get good returns.



Photo; a community member feeding his indigenous chicken

- Fruit tree farming; being a dry area, some fruit varieties such as paw paws, mangoes, oranges, passion and lemon do well creating a reliable source of income



Photo; Bananas planted inside a terrace benefiting from the water impounded by the terrace

- Irrigation farming; having a source of water has enabled the farmers to take advantage of the climatic conditions of the area, dry period is always longer giving an opportunity for the farmers to get reliable market for vegetables and fruits. Last season Kyeni kya Mamiloki have managed to raise Kenya shillings twenty thousand as profit through sale of water melons.



Photo; Irrigation farming by Kyeni kya Mamiloki shg members; Top- Kales ready for harvest; Below- Water melons

- Capacity building; UDO has a team of staff with a wealth of knowledge on different fields, they have been devoting their efforts in ensuring that the community members gain from the knowledge,



Photo; community members listening keenly during a training session

- Value addition; the farm produce of sweet potatoes, pumpkins and cereals produced by the farmers do not fetch high prices when sold raw compared to when value addition is done. Exchange programs have been organised where the farmers have been taken to other groups which are doing value addition successfully (e.g. Makuta Mwea shg).

Project sustainability

Water necessity is a daily subject for each and every member of the community, provision of water to the community through the sand dam is a continuous process touching all age levels. Life cannot be the same when all community members have no food; therefore, activities which add to the family food basket are always embraced by the community. The issue of sustainability is brought about by the fact that what can deter sustainability of the project is cost of maintenance and conflict in sharing the resources; sand dams do not require any skills of spare parts to maintain, farming knowledge is progressive therefore once the farmers get the initial knowledge they are able to carry out farming generation after generation.

Conclusion

By evaluating the current status of the farmers and comparing how they were before the project, we can prove that their livelihoods have been improved. Sahakarini has made a difference in the lives many families. UDO welcomes a visit by representatives from Sahakarini hoping to share the experience at the grass root level.