

# **OVER COMING DRY SPELLS WITH FLOOD BASED** FARMING SYSTEMS

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Field Day and Farmer Exchange Visit on Rainwater Harvesting and Flood

**Based Farming Systems** 

Flood Based Livelihood Network - Malawi Chapter

**Rainwater Harvesting Association of Malawi** 

Ministry of Agriculture, Irrigation and Water Development

**JANUARY 2018** 

# Introduction

The Rainwater Harvesting Association of Malawi (RHAM) in collaboration with the Land Resource Conservation Department under the Ministry Of Agriculture Irrigation and Water Development (MOAIWD) organised a field day on 29<sup>th</sup> of January 2018 in Mitundu Extension Planning Area (EPA), Lilongwe, Central Malawi. The field day was aimed at letting farmers appreciate the crop stand under different in-situ water harvesting technologies promoted by the association under the programme entitled "Asia to Africa; Testing the Adaptability of Flood Based Resource Management" in collaboration with Flood Based Livelihood Network (FBLN) and Meta Meta in Netherlands.

## Attendance

The field day was attended by 366 farmers led by the Chief Agriculture Extension Officer Lilongwe Agriculture Development Division (ADD), Dr.Grace Phiri representing the Programme Manager, Chief Land Resource Conservation Officer, Lilongwe ADD and Chairman of the Rainwater Harvesting Association of Malawi (RHAM), Mr MacPherson Nthara, various departments from MOAIWD were represented including journalists from two media houses, Zodiak TV and Rainbow TV. 20 farmers from a different part of Lilongwe, Chiwamba EPA who are also practising flood based farming systems were also in attendance on a learning tour.



Cross of farmers and Extension on a field showcasing conservation agriculture and Organic manure application

#### **Dry Spells in Malawi**

After 4 weeks of a serious dry spell in January, crops like maize which is the staple food in Malawi were heavily affected in many parts of the country. Many farmers have been advised to replant due to the damage. It is estimated that over 270,000 Hectares of Maize have been affected by the dry spells. The dry spells have almost affected all 28 administrative districts of the country including Lilongwe which had previously been receiving good amounts of rainfall.

## The techniques

During the field day, farmers in Mitundu EPA indicated that the last rains were received on 30<sup>th</sup> December, 2017 and then a dry spell followed up to 26<sup>th</sup> January 2018. Farmers in Mitundu who happen to be introduced to in-situ water harvesting techniques such as Conservation Agriculture, Manure application, Water Absorption Trenches (WATs), pit planting and road run-off.



Farmers listening attentively

# Impacts

According to the community leader, Group Village Headman (GVH) Kanyumbu of Traditional Authority Chiseka in Mitundu, their crops have been able to survive the dry spell all because of the different rainwater harvesting and flood based farming practises which they have been implementing for the last two years.



GVH Kanyumbu describing some of the technologies to participants

Road water harvesting also known as road run-off harvesting was highly praised in his speech. The roads which were unpassable during rainy seasons are now in good shape since the introduction of road run off harvesting by the programme. The fields which were losing top fertile soils through soil erosion were in good condition following the reclaiming of land as a result of implementing in-situ water harvesting. This was complemented by planting pits (30cm x 30cm x 30cm) which many farmers have dug in their fields. The water collected in these pits harvest recharge the ground water, helps to keep moisture enabling plants to with withstand dry spells. The local leader, GVH Kanyumbu urged other farmers to follow suit so that they mitigate the impacts of climate change.

The GVH also said farmers have taken the innovations to their homes. They are diverting road run off from surrounding foot paths and open fields into their home gardens which form part of Integrated Homestead farming (IHF). They are able to grow different fruit trees and vegetables using the runoff which for the past years had been causing damage to fields and land degradation.



Banana grown using road run-off

Some of the benefits that farmers have noticed include improved ground water recharge evidenced by the revival of some boreholes which had dried up. The tree planting exercise which the association is promoting under this project has also contributed to groundwater recharge, nutrient availability to our fields, economic development and nutrition status of their families. Farmer's fields which were previously abandoned due to land degradation have been reclaimed and they able to cultivate in them again. Up-stream water harvesting has increased water availability downstream in wet lands also referred to as Dambos which are mostly used for vegetable production and grazing of livestock. The GVH indicated that they not just planting any type of tree, but only beneficial trees, these include fruit trees and nitrogen fixing trees.

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