

Linthipe Field day, 13 April 2018

Overview

Africa RISING in collaboration with Dedza District Agriculture Office (DAO) and Linthipe EPA staff organised a field day on 13 April 2018 in Linthipe Africa RISING sites. The total attendance for the field day was 634 (241 males and 393 females) which included USAID representatives, Chief Scientist for Africa RISING from Arusha, Malawi Africa RISING staff and partners (CIAT, LUANAR), LUANAR MSc students who are funded by AR, Dedza District Commissioner and District Executive Committee members, Dedza District Agriculture Development Officer and other District staff members, host farmers from Linthipe EPA, visiting farmers from Golomoti EPA, traditional leaders and extension workers from the host EPA. The breakdown of attendance is as detailed in the table below.

Table 1: Attendance of field day

Date of field day	Host EPA	Attendance		
		Male	Female	Total
13/04/2018	Linthipe	241	393	634

Exchange visit

Exchange visit was organised as part of the field day activities. A total of 53 farmers (24 males and 29 females) attended the field day from Golomoti EPA to appreciate how their fellow farmers are implementing Africa RISING technologies. The aim of the exchange visit was to enable farmers from the two EPAs (Golomoti and Linthipe) interact and share ideas. Table 2 gives details of the exchange visit while figure 1 shows the farmers from the two EPAs interacting during the field day

Table 2: farmer exchange visit

EPA farmers from	EPA farmers to	Male	Female	Total
Golomoti	Linthipe	24	29	53



Figure 1. Sharing Ideas: *Farmers from Linthipe and Golomoti EPAs exchanging ideas in Linthipe EPA*

A Visit to demonstration plot on drought tolerant bean varieties

The assistant DADO for Dedza welcomed all the visitors to the first demonstration plot that was hosted by 15 farmers (6 males, 9 females). Mrs Annes Kaole (farmer) showcased the three drought tolerant bean varieties namely SER 83, SER 45 and SUG 131 that had just been released by CIAT as one of the strategies to deal with climate change. The demonstration had six plots where each of the three varieties were planted on two of the plots. One of the two plots was fertilized to test if fertilizer can have any impact on the yield. The beans were planted on 24 January 2018 and weeded twice on 10 February and 4 March respectively. Mr Dynos Tsinkha (Farmer) explained that though the seeds were received very late were doing very well as they are short duration varieties. There was a question on how farmers who are used to climbing beans will fit dwarfs into their farming system. Responding to it GVH Mwenje said these new varieties (Dwarfs) need to be grown as sole crops just as ground nuts since they withstand dry spells better hence can be cultivated everywhere including hotter areas like Golomoti.

An official from CIAT responding to a question about yield potential of these varieties gave an average of 2 tonnes per hectare. She also indicated that these are short duration (60 days) varieties and resistant to drought hence can be tried in Golomoti.



Figure 2: Chifuniro Mankhwala (left) from CIAT explaining more about the newly introduced bean varieties. Dynos Tsinkha briefing the audience on the performance of the newly introduced drought tolerant bean varieties

A Visit to a sustainable intensification (SI) field at Nkhanganya Village

A sustainable intensification trial focusses on intercropping of maize and legumes, intercropping of two legumes, commonly referred to as doubled up legume cropping system and legume/maize rotations. The legumes such as groundnut, soybean and cowpea are planted as sole crops or intercropped with pigeonpea in a legume phase. In the rotation phase, all the plots are planted with maize except for maize+pigeonpea intercrop that is maintained every year. In the design, there are also continuous maize plots with no fertilizer (control) and full rate of fertilizer (100 Kg of NPK as basal and 100Kg of urea as top dressing). All the maize following legumes in a rotation are given a half rate of fertilizer (50KgNPK/ha as basal and 50KgUrea/ha as top dressing). The idea is to compare the yields of maize in continuous maize plots and maize in rotation which receive reduced quantities of fertilizer. During this day only one SI field hosted by Angelina Kuyenda was visited. This year it was in rotation phase where only maize and maize plus pigeon pea intercrop were cultivated. Bruce Sosola from USAID wanted to learn from farmers on whether applying half rate of fertilizer during rotation phase only applies to basal dressing or both basal and top dressing. He also wanted to know why 90 cm spacing is used on pigeon pea and maize intercrop instead of 75cm. Jason a host farmer of a similar trial indicated that half rate applies to both basal and top dressing. On spacing for pigeon pea and maize intercrop they wanted as much as possible to minimize competition.

Keith from USAID wanted to know the technologies that Africa RISING introduced in Linthipe and whether the farmers will maintain them after Africa RISING. He was assured by the farmers that the technologies will be maintained as they are benefitting the farmers in terms of yield, nutrition and soil fertility improvement.

Councillor of the area was interested in knowing why maize was intercropped with only pigeon pea not with other legumes. The reason given was that it was a rotation phase which followed a legume phase.



Figure 3: Ms Lucia Mtekama (left) highlighting on the benefits of legume and maize rotations at the SI mother trial (right)

A visit to groundnut seed production field at Nkhanganya village

Lack of good quality legume seed is one of the challenges faced by smallholder farmers in Malawi. In its quest to curb the challenge, Africa RISING project introduced a seed multiplication programme for legumes like groundnut, soybean and pigeonpea in other impact areas. Smallholder farmers under this programme receive training on seed multiplication process and eventually receive between 10 to 20 kgs of basic seed for multiplication to come up with either certified or quality declared seed. Rhizobia inoculant is also provided for farmers multiplying soybean seed. The produced seed is then bought by Africa RISING to redistribute to more farmers for grain production and to use in other trials however seed farmers are asked to retain some

seed for expansion. Beneficiary EPAs include Linthipe, Golomoti, Mtubwi, Nsanama, Nyambi, Ntiya and Lungwena. A total of 210 farmers have so far benefitted from the programme.

During the field day, a groundnut seed multiplication field was visited. The farmers explained the principles of seed multiplication and agronomic practices they follow in their seed fields. Some of the practices highlighted by the farmers were observance of isolation distance, roguing, weeding, rotation and planting groundnut in double rows.



Figure 6: Host farmers and participants discussing groundnut seed multiplication process

A visit to a maize field grown in rotation with` soybean seed field at Nkhanganya village

Following legume seed multiplication farmers are asked to rotate the fields with a cereal crop to take advantage of the residual nitrogen and also as a pest and disease management method. In the picture below Mr Charles Kuyenda (Left) explained the benefits of cereal legume rotation with the assistance of Mrs Beatrice Mulande (Right) both of whom are benefitting from the seed multiplication programme introduced last season.



Figure 4: Charles Kuyenda (Left), one of the beneficiaries of legume seed multiplication programme showcasing maize grown in rotation with soybean seed as Edward Mzumara of Africa RISING looks on

A Visit to an improved goat pen

Apart from working in the mother-baby and seed multiplication fields, farmers are also being trained to make and use improved livestock pens, use improved breeds and to preserve feed for livestock. Among the advantages this modern pen will allow the farmers to stall feed their goats so that they won't damage crops in the fields especially pigeon pea whose maturity period is longer than most of the crops in the area. In the picture below the host farmers are explaining the benefits of the improved pen to the guests.



Figure 5: Host farmers in Nkhanganya village showcasing the improved livestock pen to distinguished guests

A visit to a food processing and nutrition stand

Africa RISING farmers are not only trained to produce crops but also on how to use the produced crops to improve their household nutrition. They are also trained to process some of the crops into various end products like milk from soya and powder from groundnut. In the pictures below the farmers are showcasing six food groups and a plate of one of soybean products.



Figure 6: Linthipe farmers showcasing six food groups (Left) and a plate of balls made from soybean products (Right)

Social activities

During the field day, the participants were treated to other social activities like traditional dances, choir singing and poems as seen in the pictures below.



Figure 7: Participants being entertained and educated through traditional dances from gule wamkulu (Left) and choirs (Right)

Processing – District Agriculture Development Officer (DADO)

He asked the farmers to explain what they had learnt after visiting all the stands.

In response farmers said they were impressed with a modern livestock pen and will try to construct their own at their houses. They had also learnt how to adjust their ridges to recommended spacing of 75cm apart, planting double rows of groundnut on one ridge and 1 maize plant per station at 25cm between stations. Some said they had learnt how to produce so many recipes with their harvested groundnut and soybean to improve nutrition status of their households.

The DADO then asked the farmers where they can buy legume seed.

They mentioned Chitedze Research Station and other agrodealers in Linthipe but one farmer said since our fellow farmers are now able to produce both groundnut and soybean seed they can save themselves the trouble of travelling to Dedza or Lilongwe looking for legume seed. They can just buy from their friends next door.

SPEECHES

Group village headman (GVH) Nkhanganya

She was so happy to learn new farming technologies introduced by Africa Rising Project. The GVH also expressed gratitude for the hard work being done by Linthipe EPA extension officers in advancing agriculture development in their section. Finally she thanked Africa Rising for improving farmers' lives through seed multiplication program.

Agriculture Development Committee (ADC) Chairperson

The chair for Area Development committee for Traditional Authority Kaphuka encouraged farmers to participate in development activities in order to improve their livelihoods.

District Agriculture Extension Committee (DAEC) Chair

He thanked all the farmers who took part in hosting the trials for making the event colourful. He also applauded Africa Rising for introducing the projects which gave farmers the opportunity to experiment with various technologies. He finally encouraged farmers to adopt technologies which they find viable and life changing.

Councillor for Traditional Authority Kaphuka ward

The councillor expressed excitement with various non-governmental organisations for their willingness to develop his ward. He acknowledged the importance of cereal legume rotations and other improved farming technologies being practiced under the project. He therefore advised farmers to practice those technologies. He underscored the need for farmers to follow family planning methods which may assist to ease population pressure on land and hence have healthy farms.

District Commissioner for Dedza

The District commissioner showed appreciation for choosing Linthipe EPA to host such an event. He pleaded with Africa Rising officials present to share reports on the results of the research activities being practised. He encouraged farmers to practice what they are being taught under the project. He also thanked the NGOs for assisting with developing farmers in the district as the DADO alone cannot manage. Finally he thanked Africa RISING for bringing the project to Linthipe EPA.

Council Chairperson

He thanked the distinguished guests for gracing the field day. He expressed how excited he always is to receive so many NGOs to work in Dedza. He acknowledged the importance of incorporating legumes in maize systems to improve soil fertility. He also showed appreciation for modern livestock pens. He was so pleased to see intensification of maize production through following recommended agricultural practices like spacing and soil fertility improvement.

Professor Matete from IITA/ Africa RISING Project

He started with explaining the meaning of Africa Research in Sustainable Intensification for the Next Generation (Africa RISING) after noticing a lot of participants were confusing it with any other development projects. He said Africa RISING came to Linthipe to introduce technologies that work hence urged scientists to put results on paper so that development partners and farmers can use. He emphasized that the only legacy Africa RISING could leave is a Book which is expected to be out by the end of this year. He thanked farmers and scientists for contributing towards producing that book and finally thanked the American people through USAID for the financial assistance towards the project.

GUEST OF HONOUR FROM USAID

He thanked participants and everyone who took part in organising the field day. He said he was impressed with what he saw in the field and congratulated everyone for the progress made under Africa RISING project. He encouraged farmers to learn, keep the knowledge and share it to future generations as Africa RISING will not stay forever. He reminded everyone how climate change is affecting us like how predictable rainfall was 30 years ago which is not the case now because of what others are doing somewhere else. That he said was the reason Africa RISING is there to introduce technologies to deal with climate change shocks. He said whether the project ends farmers will still live on hence better to consider themselves as the project so that it lives forever. He assured the gathering how happy American people always are to help farmers and other people to learn new things. Finally he thanked farmers and participants for the wonderful event.



Figure 8: Professor Matete from IITA/Africa RISING delivering his speech (Left), Guest of honour, Keith from USAID making his final remarks (Right)