

REPORT OF THE TRAINING of TRAINERS (ToT) ON DROUGHT RESILIENT CROPS MANAGEMENT

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INTRODUCTION

The Gambia Red Cross Society in partnership with the World Food Program, under the Peace Building Fund PBF project organized a 3 days Training of Trainers (ToT) from the 18th to 20th October, 2021. The training targets 30 Participants (14 female and 16 male) from ten communities on Drought Resilient Crops Management DRCM at Jenoi Agricultural Center. It was facilitated by the National Agricultural Research Institute NARI and Department of Agriculture. This is a fulfillment of the project requirement to trained participants from the beneficiary's community on DRCM. The training was designed to build the capacity of the community members for proper and efficient production of crops during drought.



Objectives

- Strengthening of the capacity of the community members on DRCM, Enhanced communities with techniques on land, water, and woodland management techniques.
- Building the technical capacity of participant to carry on conducting training in their respective communities.
- Raising awareness on Climate Change CC and its impacts and coping mechanisms.

Expected Results

1. Clear knowledge of the right crops to grow at the right time.
2. The communities to develop new techniques on crop production and management.
3. Clear understanding of Climate Change CC and its impacts.
4. Capacity building in Climate Change coping mechanism.
5. Each trainee to train a minimum of 50 beneficiaries in their respective communities.

Day one 18th October, 2021

OPENING CEREMONY

WFP Program Assistant Mr. Njogu Jeng highlighted the importance of the training to all participants during his opening remarks, emphasizing that the training was part of the recommendation made during the assessment of the PBF project into the communities. He also highlighted the importance of Peaceful coexistence among communities, this was core objectives of the project, and can only be obtained via the PBF approach.

The above was followed by the introduction of the various trainers: Dr. Ismaila Mbenga & Dr. Ebrima Sonko (NARI) Bakary Gassama (Department of Agriculture).

Basically, a clear message was sent to all participants on the relevance of the training, and how much it can positively impact their various communities via knowledge transfer mechanism. The GRCS Protection and Gender Inclusion focal point also included the importance of gender role within the program. In most communities women are primary target of climate change drastic effects. Therefore, their inclusion is paramount. The GRCS PGI unit is planning for a post monitoring visit to ensure the sustainability of the implemented program is maintained. After all, we are expecting a total of 1500 beneficiaries to be trained after the ToT program within the 10 targeted communities. All beneficiaries were accommodated during the training, transportation cost and allowances were also given.

During his presentation, Dr. Ebrima Sonko of NARI, highlighted the following:

1. WHAT ARE GOOD SEED?

- Good seed must be pure
- Well filled and uniform in size and shape



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- Seed must be viable and obtain seedlings vigor
- Free from seed borne diseases
- Free from weed and inert matter

2. SITE SELECTION

- The site free from another crop verity
- The site free from pest and disease occurrence
- The site free from animals and bird's damage
- The site should be easily accessible

3. LAND PREPARATION

- Plugging till or dig-up,
- Harrowing to break the soil clod into smaller mass and incorporation
- Plugging water level, plugging depts., and inundate after plugging.

4. TYPES OF PLOUGHING

- Wet plugging
- Dry plugging

5. NURSERY PREPARATION

- Bed preparation sowing
- Standard tray nursery preparation

Recommendation size of a nursery is 1meter widths by 15 meters length.

6. TRANSPLANTING

- Make sure that soil for planting is sufficiently moist for repaid water absorption by the seed.
- Turn up planting equipment to maximize planting efficiently with uniform plant spacing and depth.
- Plant crop according to the recommended spacing
- Plant according to the cropping calendar
- Transplant as soon as after harvest to make two/three seasons possible
- Transplant using rope of 20cm by 20 cm spacing.

7. TRANSPLANTING TYPES

- Transplanting using planting robe and transplanting using rice Tran's planter.

8. WEED MANAGEMENT

- Weed first 2 weeks after planting
- 2nd weeding 2 weeks after the first depending on the crop and aggressive of the weed
- Apply herbicide to control weed at pre-planting with emergence (with a guide by Ext agents)

9. WATER MANAGEMENT

- Make sure that there is sufficient moisture in the soil during transplanting time
- Control water immediately after transplant up to 3-5 days
- Supply adequate water at vegetative via-grain formation periods.

10. FERTILIZER APPLICATION

- Apply the recommended dose of fertilizer
- NPK 15-15-15 basal at rate 4bags /ha
- UREA 46% as top dressing in two splits of 20bags /ha: (ie) vegetative and grain formation.



Figure 1 Demonstration of fertilizer application method & Sample of good fertilizer.

12 HARVESTING



- To determine the best harvesting date, conduct regular scouting of crops
- Harvest went approximately 80% of the half reach physiological maturity
- Keep records of counting date (knowing the crop growing cycle).
- Appropriate storage system.

13. HARVESTING METHOD

- Manual harvesting.
- Harvesting using ripper.
- Harvesting using rice harvester

14. THRESHING:

Threshing of rice involves separating grains from panicles without removing the seed it can be either by hand by using a treadles or machine. Dr. Ismaila Mbenga followed by presenting on Pest and Disease Control. He noted that pest and disease can be described as an organism that competes with human, animals' useful plants, structure or possession. He further stated that Pest alone contributes upto 25% to 40% drop on the global rice production. He also added that more than 100 species of pest are associated with rice at one storage or another. He also describes the different types of pests, such as *Borer pest*, *Sunking pest*, *Defoliator pest* and *Non insect pest*. This was trailed by presentation on Integrated Pest Management (IPM) which outlined.

- Introduction
- Types of pest
- Integrated Pest Management IPM
- Principal of IPM

Dr. Mbenga put emphasis on IPM as the best and most efficient measure to be taken if we are targeting for the reduction and eradication of Pest dominance within the agricultural lands. IPM also justified and minimize risks to human health and less factors to Climate Change. He finally shared the Principals of IPM namely.

- Prevention
- Common pest in the Gambia
- Consideration of the ecosystem
- Surveillance
- Decision making
- Non -chemical method
- Pesticides selection
- Anti-resistance
- Control



➤ Evaluation

DAY 2, 19TH October, 2021

After the recap of day 1 program, Mr. Bakary Gassama of Department of Agriculture DoA made a presentation on Good Agronomic Practices (GAP) for safe groundnut). In his debate he talked about the significance of Pre- Harvest and Post- Harvest good Practices. He noted that groundnut is cultivated in Semi-arid tropical and sub-tropical regions nearly in 100 countries in six continents. He also talks about the importance and use of groundnuts. This was followed by presentation on pre- harvest practices. He further mentioned the pre-harvest practices such as site selection, seed selection, Germination test, planting space, weeding control, fertilizer application, timely harvest and appropriate harvesting techniques.

A presentation was done on Crop protection, Pest and disease prevention and control by Dr Ismaila Mbenga . In his demonstration, he showed to all participants the different types of insects and their damages on crops. He further talked about all the beneficial bacterium. He mentioned that field observation on insect's pest and diseases are to be initiated twenty (20) days after sowing, and five areas need to be selected randomly in every field. This sequence was concluded by a discussion on economic thresholds levels and presentation on common disease of groundnut and its management. The next discussion was on Aflatoxin contamination. He also talks about post-harvest contamination such as improper drying, improper shelling of groundnuts, poor storage condition, birds eating crops, poor transportation and use of airtight containers. This was shadowed by a presentation on fertilizer application by Bakery Gassama (DOA) enlightening the following:

- Why do we need to apply fertilizer on our crops?
- What do we use as fertilizer?
- What does fertilizer does to the soil?

This was followed by presentation on climate change and its effect by Dr. Sonko. Next on the day's activity was a group work. The participants were divided in to three groups

Group 1: What are the measures farmer's practices to control Alplatoxin Contamination?

Group 2: What are the techniques practice by the on rice production (seeds-Seeds)?

Group 3: What are the techniques used by groundnut producers (seed to seed)?

DAY THREE 20th October, 2021

The third day of the training was a recap on all the previous sessions. A group presentation was organize for participants to share their knowledge gained from the training and how relevant this training will impact in their livelihood activities. All participants displayed a

readiness to share the knowledge with their teams. This shows that this project has provided multiple opportunities to leave happily and earn a better and sustainable livelihood. The training facilitators also shared contact details via Whatsapp Group Platform in case of any advice or support needed in the future during the step down training.



Figure 2 Groupe Presentation during the ToT training.

A closing ceremony was launched to thank all participants, the facilitators , GRCS , WFP, Department of Agriculture and NARI for coming up with such a project which is not only giving them new knowledge on their livelihoods and how to increase their harvest but instead very educative and has elevated the level of socialization between the various communities. This project cleared the pathway leading to Peaceful coexistence within communities that never shared common ground prior.

The existence of chronic livelihoods crises in many parts of the Gambia, including these communities is the biggest challenge. Large number of people are living in circumstances which are normally associated with humanitarian crises, but for extended period of time. This raises issues around the nature and duration of humanitarian programs (and therefore funding cycles), social safety nets, and linking relief and development programming. The question is how can people be supported or rebuilt in protracted emergencies, this raises technical, institutional and ideological issues.



Gallery



Figure 3 Training in Progress in LRR



Figure 4 Group work session in Jenoi