
TERMS OF REFERENCE FOR MISSION TO GREATER MAGWI TO DETERMINE TYPE AND EXTEND OF PEST INFESTATION ON CEREAL CROP

TRODUCTION

In 2017, the FS&L cluster predicts that the food security in South Sudan is likely to deteriorate to unprecedented levels, with thousands of people at risk of famine. At the height of the lean season in July 2016, some 4.8 million people were estimated to be severely food insecure. In the last quarter of 2016 and following the harvest, partners estimated that some 3.7 million people were food insecure - representing an increase of one million people compared to the same period in 2015 – and food security experts warned that the benefits of the harvest would be short-lived. It is projected that some 5 million people will be in urgent need of food security and livelihoods support during the lean season in 2017. This includes some 302,800 refugees who will require food assistance in 2017.

According to IPC report for January 2017, the spread of armed conflict into the Greater Equatoria region, which is the country's most productive agricultural zone, contributed heavily to an estimated 40 percent year-on-year decline of South Sudan's net cereals production in 2017 as compared to 2016. Greater Magwi, one of the green belts has been severely affected by this conflict. The fighting in Pajok that began on 3rd April 2017 made the situation even worse with the displacement of the communities who had just planted the crop for the first season. The few people that remained in other Payams managed to tend to their crops past the weeding level. However, reports of worms invading the crop at this point began emerging again. Originally, it was clear which pest was the culprit with the recent FAO, FEWSNET and other reports on the presence of the fall worms across the region being reported.

The worm infestation in Magwi is creating substantial damage to the crop especially maize and Africa Life Aid set out to find out facts on this matter. This TOR represents but not limited to activities to be undertaken by its field team in Magwi, Obbo, Pajok and Lobone areas. The team shall therefore seek to establish the following. to:

1. Exact type of pest.
2. Exact part of the crop that is mostly attacked whether the stalk, leaves or the grain etc and take pictures of the same
3. Look at the most affected crop and if you can get the farmer, find out the following:
 - The source of seed planted - whether satisfied, local, recycles from same farm
 - Mode and timing of land preparation, planting (if late of early),
 - General health of the crop - size of stalk, colour, height etc
 - History of whether the same pest has been there before even if just a few number of crop was affected
 - Try to also find if there are farmers whose crop is not affected and also look at the same details as above,

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4. Find out the level of crop infestation through:

- Random selection of several farms throughout the areas and subdivide the land into squares of one unit and from every unit (Say one square meter) count the number of crops and then count the number of the ones affected and the ones that are not. Do several of this across each farm and record the results in a tabulated form. Develop some sort of serialization for the units for each farm.
- Determine the economic level of injury of these crops and whether it's necessary to maintain the crop or destroy it. (this maybe a tricky affair but it's necessary for the sake of providing room for destruction of the pests and room for a second different crop to be planted cushioning the farmers against hunger in next lean season)

5. Discuss with the farmers in their opinion the rate of spread of the pest and determine;

- When were the pests first detected and at what point/level of spread.
- Compare the described level of infestation then and now to estimate rate of spread.

6. Find out and describe any of the Pests control techniques being applied and find out

- If the methods are effective
- If the method is applied by all the farmers across the counties and if there are cases of success.

7. Discuss with the farmers the next action depending on the outcomes of the damage to crop and agree on the following;

- If level of crop damage is beyond economic sense, will the farmers agree to destroy the remaining crop?
- The crop is already lost to pests. Destruction and burning of the crop will help control the pest in next season. What will be the measures to mitigate the food shortage caused by the pests?
- Is there enough time to destroy the crop and plant another one? Remind farmers that a different crop should be planted to avoid reemergence of the pest.
- If the season allows, do farmers have access to the alternative crop seed and tools given the recent security situation especially in Pajok? If not, what are the possible sources?

8. Conclusion.

- Derive from the extent of damage to crops
- Provide a way forward especially if the crop can be salvaged through which methods!
- Suggest next mode of action to mitigate against hunger in next seasons.
- Suggest any necessary extension services that will ensure pest control and sustainable crop