

# Samaritan's Purse

## Rapid Staple Crop Seed Assessment in Southern Mayendit County



*Prepared land lying fallow due to the lack of staple crop seeds.*

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## **Rapid Staple Crop Seed Assessment in Southern Mayendit County – 28 April 2016**

### **Introduction**

During crop planting season in 2015 (May-June), fighting erupted in Mayendit forcing local populations to flee to the swamps for protection. Livelihood assets were lost and the fighting corresponded with the planting season, with the result of most farmers failing to plant in 2015. Families who normally produce grain for food and sell any surplus as the sole source of revenue, are now being forced to rely on food aid. The agricultural sector is especially impacted by compounding factors including weather pattern changes (El Niño) and global climate variability which has resulted in further crop losses in the Eastern Africa region. Eating water lily, using traditional fishing methods and migrating to other places were among a variety of strategies adopted by households in order to cope with the situation until WFP and Samaritan's Purse were able to restart general food distributions (GFD) in the county.

Traditional responses to disasters in an agricultural context include direct seed and tool distribution in order to restore farm production by enabling farmers to rapidly regain their livelihoods. Though relative peace has been restored and residents have started to prepare land for plantation, they are currently facing an acute shortage of staple crop seed. The response given so far in terms of restoring farm production has been the emergency distribution of fishing and vegetable kits. Vegetable seeds were distributed twice between October 2015 and April 2016. Farmers have been organized into groups for the dissemination of improved techniques for vegetable production, with the goal of increasing food security and diet diversity for better nutrition. Without timely and adequate staple crop seed however, the already dire food security situation will continue to worsen in the year to come.

Considering the fast approaching rainy season, which is the only cropping window for Mayendit in the calendar year, several farmers have approached Samaritan's Purse for staple crop seed support. This assessment, therefore, is conceived as a result of repeated question by the community and the observation of frustrated farmers who have prepared land, but are finding it difficult to obtain staple crop seed. The assessment attempts to provide more information concerning the seed shortage for the 2016 cropping calendar.

### **General Information**

Mayendit County is comprised of 13 total payams located in Southern Liech State (formerly southern Unity State). The eight northern payams are: Thaker, Jaguar, Tutnyang, Leah, Tharjiathbor, Dablual, Mirnyal, and Rubkuai, with payams currently held by either SPLA or SPLA-IO. This assessment focused on Southern Mayendit.

The five southern payams are separated from the eight northern payams by 20 kilometers of swamp, impassable by vehicle. The five southern payams are: Madol 1, Madol 2, Bhor, Pabuong, and Malkuer, governed by the SPLA. There is no road access to Southern Mayendit; logistics by air are necessary to transport relief cargo or personnel. The area remains occupied

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by armed actors, though stable. Population is estimated at 21,581 individuals, including recent returnees and Internally Displaced Persons (IDPs), or 4,258 households. Despite food and nutrition interventions, the proxy GAM rate for children under five remains at 14.01%.<sup>1</sup>

### Methodology

A rapid assessment of household seed reserves was conducted in Southern Mayendit from 18 - 23 April 2016. Data was collected on key aspects of staple crop seed reserve quantity, seed supply source, and expected dates of planting and harvest. A structured interview questionnaire was developed and in-depth interviews were carried out with 252 selected farmers. Because of the rapid nature of the survey, a list of households targeted for vegetable seed distribution was used as a sampling frame. Farmers were selected using a stratified random sampling method from the households list. The interviewees were predominately female (90.5%).

The survey results were complemented by detailed field observation. The assessment was conducted in the five payams of Southern Mayendit. Fifty farmers were interviewed from each payam. Data was collected by three enumerators with the supervision of the Samaritan's Purse Food Security and Livelihoods Program Manager. The collected data was coded and analyzed using Excel 2010. Monthly market survey results carried out by Samaritan's Purse were also used as an input in the results analysis.

Farmers were asked to estimate the quantity of their staple crop seed reserve as "None", "Some", or "Enough", limiting the responses to three for simplicity. For the purpose of this survey, "Some" was defined as when the seed reserve a farmer has in possession is sufficient to plant on less than half of the land prepared. "Enough" was defined as when the seed reserve is sufficient to cover the whole land prepared for cropping.

### Food Security Context

Prior to the acute conflict beginning in May 2015, the food security situation in Mayendit County was classified at "Emergency" (IPC Phase 4) with some households likely in "Catastrophe" (IPC Phase 5) in late April/early May 2015.<sup>2</sup> Data from another study collected from a rapid assessment, and triangulated through satellite imagery, concluded that planting by households had already decreased by 30 percent from 2012 to 2014.<sup>3</sup>

The acute conflict affecting Southern Unity from mid-May until late 2015 only caused further detriment to food security. An enormous economic burden and social stresses were placed on the conflict-affected population. Food stocks were not available because of households' failure

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<sup>1</sup> *SP/UNIDO Mass MUAC Screening Report*. March 2016

<sup>2</sup> *Food Security Outlook: Emergency (IPC Phase 4) persists in Greater Upper Nile, Crisis (IPC Phase 3) increases in western areas*. July 2015 to December 2015.

<sup>3</sup> *Special Report: Satellite imagery confirms reduction in cultivated area in Mayendit County*. August 29, 2014.

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to plant crops and the looting of food reserves. According to an FSL Baseline Survey conducted by Samaritan's Purse in October/November 2015, only 27.7% of respondents indicated that they had planted staple crops during the 2015 planting season<sup>4</sup>. Desperate farmers were forced to eat the seeds they had on hand to survive. Low or no yields from the 2014 and 2015 planting seasons will have serious consequences in the 2016 planting season, which could lead to another year of dependence on food assistance.

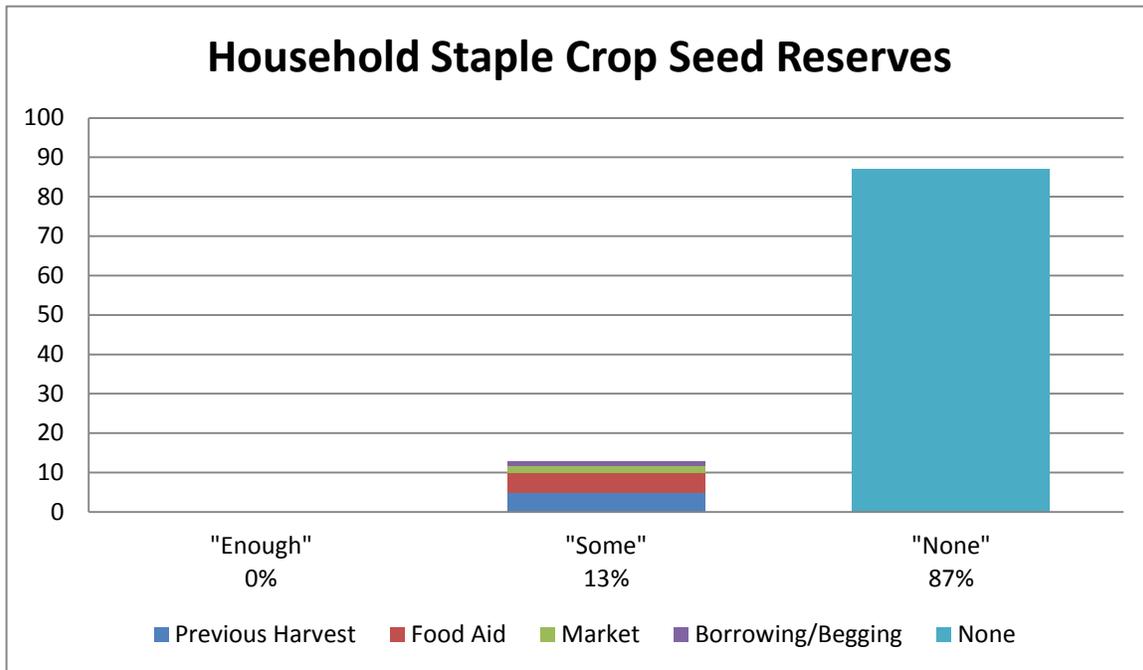
### Seed Availability and Sources

The results from this survey indicate that no household has enough seed reserve for the 2016 planting season. Only 13% (32 households) have "Some" amount of seed reserves for planting in May. Out of these 32 households, only 37.5% (12) indicated that their seed reserve came from previous harvest. All of these respondents were from the more geographically isolated payam of Malkuer. Though there was large-scale displacement at the onset of the acute crisis, Malkuer was less affected than the other four payams. Residents of Malkuer were able to return much sooner after the active fighting ended, and some returnees were able to resume their planting activities. The other households with "Some" seed (20 respondents) reported the GFD (12), local market (5), and borrowing from neighbor/friends (3) as their source of their current seed reserve.

Though 5.5% of respondents indicated that they have purchased or plan to purchase seed from the local market, monthly market surveys consistently indicate that there is no seed available. People often fail to distinguish between seed and food grain, with some who can afford to do so purchasing grains to be used for planting, with these supplies resulting from food aid distributions. Studies show that grains used as planting inputs produce far lower yields than genuine seeds. As well, of those who reported that they didn't have any seed, 27.4% said they plan to plant grains received through GFD. These two indicators together suggest that one third of the population is relying on food grains from GFD for planting materials during the upcoming planting season. These grains have the potential to bring new diseases and weeds to the area, and also contaminate the genetic resources of local varieties. As well, this means that food rations are being diverted for other purposes as a coping mechanism, reducing the calories available to beneficiaries through the GFD rations.

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<sup>4</sup> FSL Baseline Assessment, Samaritan's Purse. October/November 2015.



Of the respondents, 87% (220) do not have any reserves of staple crop seeds to be planted this year. Such a widespread scarcity of seed suggests that seed support is critical to reboot agricultural production and this must be done quickly before the planting window closes.

### Timing

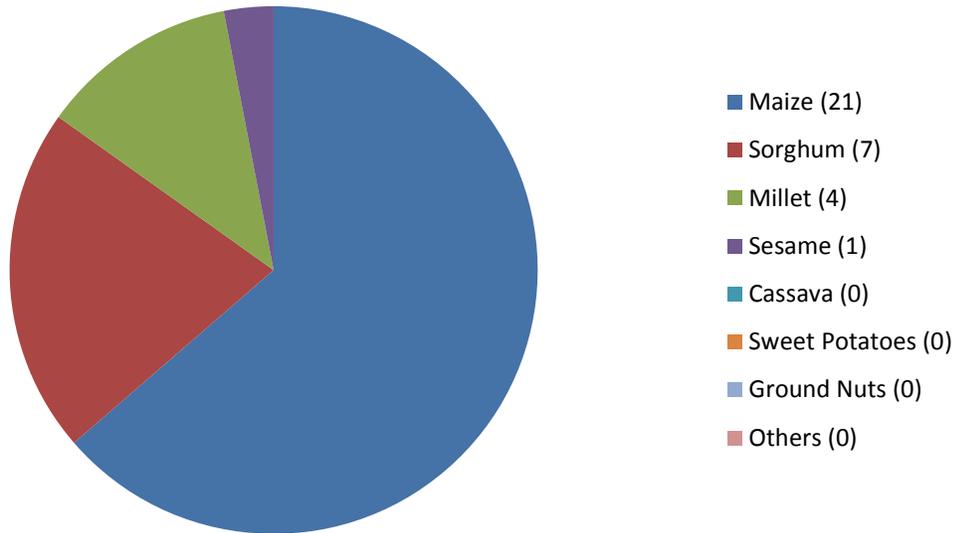
Availability of seed at the right time is essential for ensuring good crop production and food security. When it comes to planting time, all respondents (100%) indicated the month of May as the time for planting, with varying months of harvest between August-October. Delays in planting will result in serious yield losses from the shortage of moisture at critical growth stages (flower bud initiation, flowering, and fruit setting), and disease or insect infestation. Unless farmers are able to plant within the next few weeks, the current food crisis will continue, increasing the dependence on food aid throughout the year.

### Staple Crop Diversity

Maize was the leading crop, with 21 of the 32 respondents with "Some" seed indicating they would plant maize. Only 7 respondents indicated they would plant sorghum and 4 who would plant millet. These results are consistent with the FSL Baseline Survey in which 95% of surveyed households who had planted reporting that they had planted maize<sup>5</sup>.

<sup>5</sup> FSL Baseline Assessment, Samaritan's Purse. October/November 2015.

## Staple Crop Diversity



While seed diversity could be limited due to overall lack of crop seeds and other factors, the region has a history of reliance on maize and sorghum. As these two crops can only be planted during two months of the year, food security is greatly affected. Diet as a whole suffers from a lack of diversity.

### Summary of Key Findings

- 87% of households do not have any seed for the upcoming planting season
- 0% of households have enough seed reserves for the upcoming planting season
- 27.4% of households indicated they would try to plant grains from GFD if there is no alternative means of obtaining staple crop seeds
- 58% of households replied “I don’t know” to the question of where they plan to get staple crop seeds for the upcoming planting season
- 100% of households said the time to plant this year would be the month of May
- 87.5% of households will plant only maize and/or sorghum

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### **Suggested Response**

- An immediate response is needed for staple crop seed support through the provision of seeds.
- The timing of this response should correspond with the preferred planting month of May.
- Many households lost their tools during the conflict and need these items replaced for crop production.
- Seed storage and seed multiplication needs to be taught so that households can properly recover from the years of shocks during planting seasons.
- Future projects need to address the issue of staple crop diversity to ensure greater food security, increasing the number of months with food stocks and diversity in diet.

Annex 1:



Nyawut is a mother of eight living in Southern Mayendit. She prepared her land, making rows for maize and sorghum, as the rains have started early this year. However, Nyawut says she is not ready to plant. Like her neighbors, she doesn't have any staple crop seeds.

The last time that Nyawut was able to plant these crops that her family relies on was in June 2014. That year, she went to Panyijar to get seeds. Even then her harvest was small, resulting in a yield of just three bags in October 2014.

Displaced by the conflict during planting season last year, hardly anyone was able to plant, much less save seeds for this year. Seeds are also not available in the local market or from neighboring counties. While there may be seeds in Panyijar again, Nyawut says the route is too insecure and she may be accused of sympathizing with one party to the conflict when she crosses the lines.

Nyawut has exhausted all of her other options. She walked three hours one way from her home in Bhor to Malkuer, a payam less affected by the recent acute conflict. There, she begged Malkuer residents for seeds, but they refused as they are concerned they don't have enough themselves this year.

Not having seed is a major problem when you are a subsistence farmer with only a two month planting window (May and June). Like so many others in Mayendit, Nyawut and her family have been surviving almost exclusively on food aid and water lilies to sustain them since 2015.

Nyawut had to borrow a hoe from her neighbor to make the rows in her garden this month, as she lost hers during the conflict. However, Nyawut said she would gladly cultivate more land if she knew that she could plant. "We are suffering because we lack seed. We can only wait for someone to help us." If residents do not receive staple crop seed before the planting window closes, they will be dependent on food aid for another year.

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Annex 2 – Map of Former Unity State, including Mayendit County

