





# Rapid Food Security Assessment

Boma, Pibor County in Jonglei state

 $28^{th}$  April to  $3^{rd}$  May, 2018

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### Background and context

Jebel Boma county previous Boma payam lies in the Eastern part of Boma state formally Pibor County, bordering Ethiopia to the East and Eastern Equatoria to the South. Boma county has a population of 24,089 based on the extrapolation of 2008 census and comprises of five payams of Boma (Gogo), Churi, Marua, Meiwun, and Kaziongor. The tribes living in Jebel Boma are Murle, Jie and Kachipo. The communities of Boma engage in various livelihood activities such as farming, small scale businesses and cattle rearing. The communities inhabiting low land Boma engage in pastoralism and those in the highlands and hills where rainfall is consistent allowing two harvests per year, are more focused on crop growing. Main crops produced are sorghum, maize, sweet potatoes and okra.

Jebel Boma county, like the rest of Boma state, was engulfed in a civil war between the government of South Sudan and the South Sudan Democratic Movement (SSDM)/South Sudan Democratic Army (SSDA) - Cobra faction between 2011 and 2013 until when the Peace Agreement between David Yau Yau (DYY) representing South Sudan Democratic Movement (SSDM)/South Sudan Democratic Army (SSDA) - Cobra Faction and the Government of Republic of South Sudan (GRSS) was signed in early May 2014.

During the conflict period the population were displaced to Ethiopia as refugees, others were displaced internally to Labarab, Dorein and other locations.

The local authorities reported increased number of returnees from Ethiopia and deteriorating food insecurity situation due to poor harvest last year.

## Objectives

The main objective of the mission was to assess the current humanitarian situation in Boma and to provide recommendations on a possible humanitarian response.

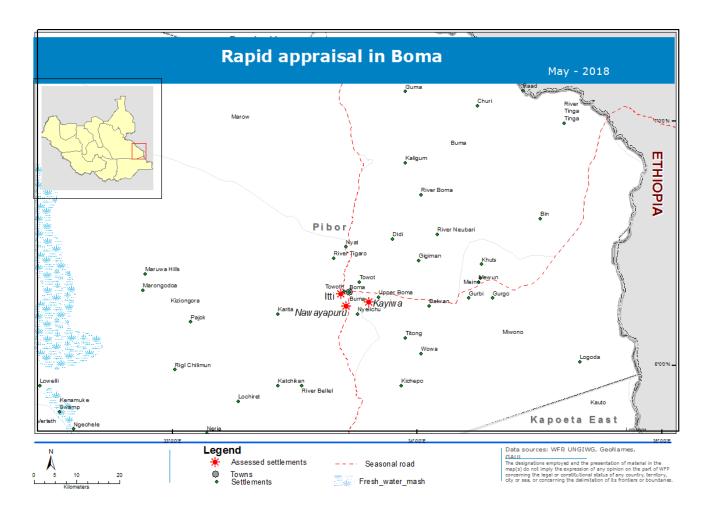
Following are the specific objectives of the joint rapid assessment:

- To provide an immediate and guick overview of the humanitarian situation in Boma;
- To identify existing gaps by sector (Food security, Nutrition, Health and WASH.) in order to advise for possible interventions by the government and humanitarian partners.

## Methodology

The assessment collected both quantitative and qualitative data to measure specific household food security indicators and to understand the food security situation at community level. Quantitative data was collected using household questionnaires while qualitative data was collected through focus group discussions with groups of men and women and key informant interviews with community leaders. A total of 89 randomly selected households were interviewed in the three locations (Kayiwa, Nawayapuru and Itti) and 4 focus group discussions (with women and men) were conducted.

| Table 1: Households assessed by Boma |    |  |  |
|--------------------------------------|----|--|--|
| Itti                                 | 39 |  |  |
| Kayiwa                               | 16 |  |  |
| Nawayapuru                           | 34 |  |  |
| Total                                | 89 |  |  |



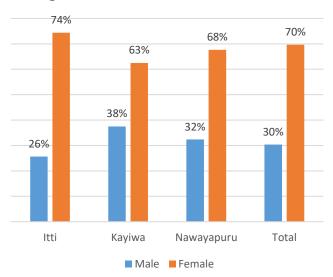
The assessment team visited Boma markets talked with some traders. Mid-Upper Arm Circumference (MUAC) screening of children under 5 years for malnutrition was also conducted during data collection.

# Key findings

## Demographics

Overall, 70 percent of the households surveyed were headed by women while the remaining 30 percent were male-headed households (Figure 1). The average household size for the three sites is 6.8. In terms of residency status, 53 percent of the households were residents, 45 percent were returnees and 2 percent were IDPs.

Figure 1: Sex of the head of the household



#### **Food Security Situation**

The food security situation is poor mainly due to poor harvest last year caused by prolonged dry spell, insecurity, poor road access and lack of agricultural inputs. Currently, the community is surviving on own grown vegetables, wild foods and fruits (mangoes and shear butter (lulu). However, both mangoes and lulu will be off season very soon starting from third week of May 2018.

The food security situation in Nawayapuru is slightly better compared to Kayiwa and Itti. This could be because of the difference in the livelihoods and residence status. community in Nawayapuru are agro-pastorals and the livelihoods are cultivation and rearing of cattle, while in Kayiwa and Itti (Upper Boma) the community predominantly depend cultivation. The population in Nawayapuru are mainly residents and those of Kayiwa were people who returned from displacement (return was spontaneous from 2016, most people reported returning in September to November 2017).



#### Food sources:

The average number of meals consumed in one day reported during the survey by adult is 1 and 3.7 for children. The household's diet on a usual day is composed of wild foods/ vegetables and Mango fruits. In a normal year, households consumed 2-3 meals in a day mainly sourced from own production and markets, while currently the food consumption pattern for most household has changed due to deteriorated household's food stocks, reduced income options and disruptions of livelihood opportunities.

#### Food consumption score:

Food Consumption Score (FCS) based on seven-day recall period prior to the assessment show that 80 percent of the households have inadequate food consumption with 52 percent of households having poor food consumption while the other 28 percent have borderline food consumption score. As the lean season progresses, households with borderline food consumption are likely to fall into poor food consumption category. Kayiwa and Itti had the worst food consumption situation. Two out of three (67 percent) households in Itti and three-quarter (75 percent) of the surveyed households in Kayiwa had poor food consumption, whereas 28 and 25 percent respectively had borderline consumption. The situation in Nawayapuru was relatively better with 24 percent of the surveyed households having poor consumption and 29 percent borderline consumption (Figure 2).

75% 67% 52% 47% 29% 28% 28% 25% 24% 20% 5% 0% Itti Kayiwa Nawayapuru Overall ■ Poor ■ Borderline ■ Acceptable

**Figure 2: Food Consumption groups** 

#### Household hunger scale:

Overall, 71 percent of households were found to be facing moderate to severe hunger. Among them, 33 percent were in moderate hunger and 38 percent in severe hunger (Figure 3). Kayiwa (upper Boma) showed relatively higher levels of hunger 63 percent compared to Nawayapuru (26 percent) and (Itti 38 percent). The livelihood in Nawayapuru is cultivation and rearing of cattle while in Kayiwa (Upper Boma) is only cultivation. The population in Nawayapuru are mainly residents and those of Kayiwa were people who returned from displacement.

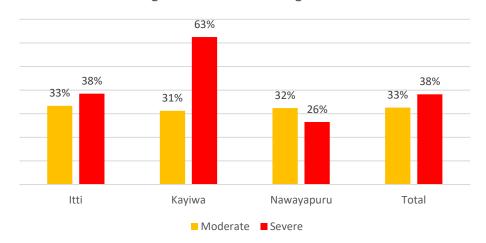


Figure 3: Households hunger scale

#### Food sources:

The main sources of cereals in the last seven days prior to the assessment reported includes market (43 percent), own production (31 percent), hunting/ gathering (17 percent), and gifts from neighbors/ relatives (5 percent). Very few (2 percent) reported food assistance and another 2 percent reported exchange of food commodities for labour as their as their major source of food for cereals.

#### Coping strategies:

In the one week precceding the assessment, amoung the households that applied coping strategies, 10 percent applied low, medium and high coping stratgeies respectively. The commonly applied coping strates are: increased consumption of wild foods and Mangoes, relying on less preferred foods, reduce number of meals eaten per day and restriction of consumption by adults in order to give for small children.



Overall

Nawayapuru

Kayiwa

Itti

10%

42%

41%

63%

Figure 4: Households adopting emergency and crisis coping strategies

#### Livelihoods and income sources:

The current source of income among the assessed households was sale of natural products such as firewood and shea butter nut (lulu). However, before displacement and return, the major source of income was sale of crop products mainly vegetables, maize and cassava and petty trade. For Nawayapuru the main income source was sale of animal products and crop products mainly sorghum. The population was displaced in 2013 during the conflict and started returning since 2015. According to local authority 8,075 individuals returned since the beginning of 2018 and have their livelihood disrupted.

The major livelihood activity in the assessed areas is crop farming. The crops mostly grown include maize, sorghum, cassava and vegetables. The population in Upper Boma (Kayiwa and Itti) do not keep cattle. However, there are some local chicken in some households in Itti which they mentioned as key to their current coping strategy. The communities (Jie) in Nawayapuru grow crops as well as looking after livestock (cattle, sheep and goats).

#### Agriculture:

The communities in the assessed locations are currently engaged in land preparation and planting of crops. The crops planted currently are maize and beans in Kayiwa (Upper Boma) and cassava in Nawayapuru. The maize plant was observed to be at vegetative stage just below knee height with some being affected by worm pest. The farmers expect to harvest maize in July.

#### Markets:

Access to market was reported as not a major problem in Boma. The market is about 2 hours walk from Kayiwa is and only 45 minutes' walk from Nawayapuru.



Boma market is moderately functioning with limited commodities including sugar, salt, beans, biscuits, onions and sorghum flour. The shops are all retail and sell commodities packaged in small sizes (100 g). The price of sugar (100 g) is 100 SSP, 100 g of Maize floor cost 100 SSP and one kg of meat cost 200 SSP. Traders package the commodities in small sizes so that the consumer can afford to buy. There is limited circulation of money among the local communities who do not have reliable source of income.

#### Nutrition:

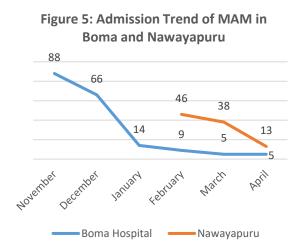
The current nutrition situation is that it is stable with the potential of deteriorating when the lean season reaches its peak. Families are engaged in less desirable feeding practices including restricting their meals to an average of once a day comprising only vegetables, wild fruits including mangoes and shea fruits (lulu) which will be out of season by the middle of May, adults prioritizing children, skipping meals and going to bed hungry.

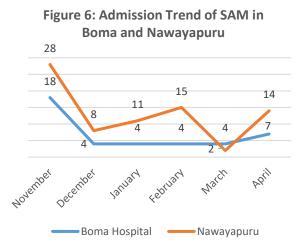
The relative stability of the nutrition situation especially around Itti as depicted by admissions for both MAM and SAM in the Boma Hospital can partly be attributed to the easier access to the health and nutrition services for mothers and children in the community. Access to the wild fruits and vegetables following the onset of the early rains boosted food consumption and likely improved overall nutritional wellbeing.

Majority of malnutrition cases are admitted from communities around and beyond Nawayapuru. These communities access nutrition services in Nawayapuru because it is the nearest to them.

Admission numbers for MAM admissions includes both Boma Hospital and Nawayapuru from November to January 2018 before Nawayapuru had their own TSFP from February 2018.

Fig: Admission trends for MAM and SAM at TSFP and OTP Centers in Boma (Itti) and Nawayapuru





The defaulters in the nutrition programmes (OTP and TSFP) were considerably high because majority of the population are nomads and as such are constantly on the move in search of greener pastures and water for their livestock and the people are mostly at cattle camps.

Anthropometric data, including MUAC and Oedema were collected at the household level from 85 children 6 – 59 months old. The MUAC screening results indicate that, 12.9 percent of the sampled children were acutely malnourished. None of the children were found with Oedema. Details are given in below table:

| Table 2: Prevalence of acute malnutrition based on MUAC cut off's (and/or oedema) and by sex |                   |                  |                  |  |
|----------------------------------------------------------------------------------------------|-------------------|------------------|------------------|--|
|                                                                                              | All               | Boys             | Girls            |  |
|                                                                                              | n = 85            | n = 35           | n = 50           |  |
| Acute malnutrition (< 125 mm and/or oedema)                                                  | (11) 12.9 percent | (5) 14.3 percent | (6) 12.0 percent |  |
| Proportion of moderate malnutrition (< 125 mm and >= 115 mm, no oedema)                      | (5) 5.9 percent   | (3) 8.6 percent  | (2) 4.0 percent  |  |
| Proportion of severe malnutrition (< 115 mm and/or oedema)                                   | (6) 7.1 percent   | (2) 5.7 percent  | (4) 8.0 percent  |  |

Coverage for the nutrition services are however not wide enough as populations around Kessingor, Khoraldep and those between Boma and Maruwor, Mewun and Nyaat as well as Labarab find it difficult to travel such long distances from a minimum of about 4 hours to a full day and a half's walk to access nutrition services at Boma Hospital, Nawayapuru and Maruwor.

TSFP services in Maruwor have been truncated due to lack of supplies (RUSF and CSB++) since December 2017 despite the secondary transport agreement that WFP has with the nutrition partner on the ground. Per that agreement, nutrition supplies (RUSF and CSB++) will be delivered to the central point of Boma by WFP for onward distribution to the 3 or 4 nutrition (TSFP) sites including Boma Hospital, Nawayapuru, Maruwor and Nyaat (not yet active).

The absence of services in Maruwor which would have covered some of the population in and around Labarab and surrounding communities means that potentially significant number of moderate acute malnutrition cases are untreated and treated SAM cases may not receive the continuum of care necessary for a full recovery. The absence of other food and livelihood support in Maruwor may also further aggravate the malnutrition situation there. The inability of the team to conduct the assessment



in those areas makes it difficult for a more informed analysis of the nutrition situation there. OTP services there are however ongoing for the treatment of severely malnourished cases.

Micronutrient supplementation including Vitamin A and Iron, and deworming is actively ongoing by the EPI unit of the Boma Hospital operated by IMA.

There is no stabilization center in Boma and malnutrition cases that have complications are referred to the medical center for treatment/clinical management of the infections before being referred to the OTP upon recovery. Majority of such cases come from Kessingor and Labarab.

To avoid duplication of services, the designated OTP, TSFP U5 and TSFP PLW days are done concurrently in all the sites, this way beneficiaries are not able to crisscross from one site to the other in order to benefit more than once.

Some mothers from far places often prefer to come to Boma hospital to combine with other income generating activities in the Boma Market.

The limitation of the nutrition assessment/screening was that, the household level of the assessment was carried out at the same time OTP, TSFP for under 5 and TSFP for PLW was carried out at the nutrition sites. It was therefore likely that children who were acutely malnourished were missed at the time of the household interviews screenings. The nature of the sample selected was too small and can only provide an idea of the nutrition situation but not a conclusive determination of GAM in the area.

#### Nutrition of Pregnant and Lactating Women

Anthropometric data of 85 of the mothers of the children indicated that 50.6 percent of them were acutely malnourished with MUAC measurements less than 23 cm.

Mothers were observed to be visibly wasted and weak. When they were interviewed they said most often they prefer to feed the children with the little food they managed to acquire first. And since there were many mouths to feed (according to the community elders, a household has at least 10 members), there is usually very little left for the adults. Some of those who were returnees from Ethiopia only in the past 3 months admitted to receiving some nutrition supplies prior to their return from the refugee camps.

A mother who just returned from the TSFP site as beneficiary on the day of the assessment had cooked twothirds of the CSB++ she was provided for the consumption for her household members and her neighbor's children.

Mothers/ women have very high physically demanding tasks including looking for raw materials for the construction of houses and constructing Tukul, looking for firewood, fetching water, farming, collection of wild foods meal preparation and caring for children. These activities require the amount of energy their daily meal consumption or energy intake cannot provide, contributing to their less optimum nutritional status.

#### Infant and Young Child Feeding Practices

No distribution of infant formula to children was recorded in the area since the beginning of the crisis.

Exclusive breastfeeding is not a common practice among mothers because some mothers who were interviewed said giving water or food to their children sooner than six months enabled the children to grow faster. Early initiation of breastfeeding is also not widely practiced because mothers after delivery would take time to bath and purify themselves before putting the newborn to the breast.

Data from 82 of the 85 mothers interviewed indicate that 45percent of the children were still being breastfed. But out of those being breastfed 37percent of them are above 2 years.

Since complementary feeding starts sooner, the meals often introduced to the infants include porridge, soups and cow milk. However, mothers breastfeed mainly on demand regardless of the age of the child before the child is weaned at 2 years minimum. In the lean season when cereals are scarce, it is common for mothers to stick to breastmilk, cow milk and wild fruits for children under the age of 2 years and between 2 and 5 years.

Children who were still breastfeeding looked healthier than those who were no longer breastfeeding. According to some (few) mothers interviewed, the lack of enough food at the household level has made it difficult to wean children who should be weaned because they are above the age of 2 years and under normal circumstances.

#### Health

Boma has a medical facility located in Itti that is operated by IMA more like a PHCC, even though it provides more services than a PHCC would. It has 3 clinical officers, 4 nurses, 2 midwives, 2 lab technicians, 1 Epi Supervisor and 3 vaccinators.

There are other health facilities/ PHCUs dotted around including Jebel Boma, Gugu PHCU (Covers Kayiwa, Jonglei and Gugu), Khoraldep PHCU (Covers Jie, Kessingor and Nawayapuru), Churi PHCU (Covers Majat and Nyaat) and Mewun PHCU (Covers Mewun payam, Ngoro and part of Rumit). It could however not be confirmed whether these health facilities were operational or not.

Data gathered from the households about the health of the children 6 – 59 months indicate that, 63.5percent of them suffered from illness within the 2 weeks preceding assessment. Of those who suffered illnesses, 85.2 percent had fever, 53.7 percent cough and 37 percent had cough. Some of the children had suffered more than one illness in the past 2 weeks according to their mothers, this include 46.3percent from Diarrhea and Fever, 35.2 from Fever and cough and 29.6percent from all three. Other illnesses reported by mothers include single cases eye infection, common cold and skin infection.

Per records available at the medical Centre, 65 children under the age of 59 months and



75 individuals above 5 years were treated and discharged for malaria. Making it the most common ailment in the area and from communities that are closer to Boma and can therefore access its services. Pneumonia, a lower respiratory tract infection was the second most common illness with a total of 27 cases of which 5 were severe. The other was Diarrheal Diseases with a total of 12 cases reported among under 5s. Of the 12 patients, one presented with bloody stool. The Boma Medical Centre however has no capacity in its laboratory to carry out stool analysis to determine the etiology of the diarrhea.

According to staff at the hospital, the medical facility is a shadow of its former self as it does not have a functioning theater, medical doctors nor the capacity to admit patients overnight due to insecurity. Patients within critical condition are often stabilized and asked to come back the next day to continue treatment until he/she fully recovers. The lack of desire to keep patients overnight is both shared by the authorities in the medical facility and the patients due to insecurity.

Patients with gunshot wounds for instance are stabilized and referred to ICRC. They are then airlifted by a charter flight to Juba for full treatment and recovery. There have not been any mortality cases recorded at the facility since January 2018.

According to the staff, other cases of non-communicable diseases are being closely monitored.

The hospital conducts screening for malnutrition on every patient under the age of 5 years and refer acute malnutrition cases to the OTP/TSFP situated in the premises of the medical facility.

The EPI unit has been actively conducting outreach to immunize the population against Polio in part of Mewun, Rumit and Gugu payam. Was carried out 3 days prior to the assessment. Deworming and iron supplementation which falls under the remit of the EPI are carried out every Tuesdays and Thursdays. The EPI unit however see the need to expand coverage further to cover the hard to reach areas.

#### **WASH**

No WASH partner was active in Boma or the surrounding payams at the time of the assessment. Nanyapuru had the greatest WASH needs of all sites visited, with no access to a basic water source (borehole or tap stand),

latrines and animal and human excrement commonly observed in compounds. Itti was the only assessed settlement that had perennial access to a borehole or tap stand. Both Nanyapuru and Kaiwa depend on boreholes located in neighbouring settlements that take 30 minutes to reach, or surface water. Households (HHs) reported not using water treatment methods at the HH level. Insufficient access to WASH Non Food Items (NFIs) was reported or observed in all assessed locations. Observed jerry cans were often unsanitary. Open defecation was the most common practice in all assessed settlements.

Water borne diseases (e.g., diarrhoea) were reported as a common problem for adults and children. An insufficient understanding and utilization of hygiene practices was reported in all assessed areas.



#### Protection

Women are often at higher risk walking longer distance to collect mangoes and wild fruits. However, no incident was reported this year. Women and children taking the risk of coming back to South Sudan from Ethiopia refugee camp. It was reported by the authorities that four women died due to sickness on their way back from Ethiopia refugee camp, and six children got lost on the way.

Returnees escaping from Dima camp in Ethiopia due to the existing conflict between Anyuak and Murle; through the bush are integrated within the host community, majority are women and children. There is no clear number yet.

#### Service Mapping

The mission was informed that the following humanitarian partners are currently active in Boma,

| SI | СР                            | Activities                     | Coverage area                    |
|----|-------------------------------|--------------------------------|----------------------------------|
| 1  | Plan International (PI)       | GFD – Vulnerable<br>households | Boma County                      |
| 2  | Real Medical Foundation (RMF) | Nutrition                      | Boma town and Nawayapuru village |
| 3  | IMA                           | Health                         | Boma town                        |
| 4  | ACROSS                        | School Feeding                 | Boma town                        |
| 5  | VSF                           | Livelihood                     | Boma County                      |

#### Recommendations:

The overall food security, nutrition, WASH and health situation is assessed to be poor and has deteriorated. Given the poor accessibility of Boma to other locations and availability of some livelihood opportunities, future interventions to support the populations need to focus on strengthening resilience.

The findings of this rapid appraisal translate into the following recommendations:

- As the planting season has started, distribution of seeds (field crops and vegetables) and tools to the community will further improve future food security.
- A two-month food ration during the lean season to support other livelihood interventions is recommended.
- Any assistance should be preceded by a population verification exercise.
- The nutrition partner on the ground (RMF) should immediately restock nutrition supplies to last at least until the end of the lean season in Boma, Nawayapuru, and Marwu. The Nyaat site needs to be activated again.
- A scale up of nutrition services (at least as outreach) to Kessingor, Khoraldep and Labarab is also urgently required. There is a limited time for these areas to remain accessible by road until they become cut off from the heavy rains.
- Since the rains are starting, it is recommended to provide returnees and host communities with Long Lasting Insecticide Treated Nets to prevent episodes of malaria cases.
- Newly returned households should be provided with in-kind shelter materials.