



Tonj Town Market

South Sudan Country Office

Rapid Market Assessment in Warrap State

December 2018

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Executive summary

This assessment was conducted in Kuajok, Tonj town, Akon, Thiet, Lunyaker, Liethnhom and Warrap markets in Warrap state. It was aimed at understanding the key sources of commodity supply by market and by season; availability of staple food commodities on local markets; the trade volume of staple food transacted on the markets; the price setting behaviors; the markets' potential for responding to increased demand; and propose the appropriate response options.

The market assessment collected primary data from wholesale and retail traders using a structured questionnaire. Furthermore, key informants and focus group discussion were conducted with stakeholders in the market.

A high number of mixed traders in Kuajok and Tonj town, with high presence of wholesalers compared to retailers largely run by foreigners were found. Though there was no armed conflict in Warrap, the number of traders especially foreign wholesalers has decreased compared to the pre-conflict period.

Sorghum, maize flour, wheat flour, maize grain, rice, sugar, cooking oil and groundnuts are the commonly traded food commodities in assessed markets. Locally produced staple foods such as sorghum and maize grain are traded seasonally. Field bean availability was limited to Kuajok and Tonj town and has low demand in the remaining markets.

Juba and Amiet are the main reliable commodity sources. However, bad road conditions, repeated checkpoint demanding payments, insecurity and transport costs were identified as challenges to the optimal functioning of markets.

Wau is the main wholesale market for both imported and locally produced sorghum supplying retail traders in Akon, Warrap, Lunyaker, Liethnhom and Thiet. Romic and Thiet markets in Tonj South are source markets to locally produced sorghum.

In normal year from October to March, farming households rely on own production in markets of Akon, Lunyaker, Liethnhom, Warrap and Thiet, hence traders neither assemble nor supply sorghum grain in these months. As the rainy season approaches, traders begin to aggregate sorghum from source markets for sell during the rainy months, which implies sorghum is traded seasonally in these markets.

The assessment result revealed mixed responses about price setting behavior, varying from individual decision to group price setting. In markets of Tonj Town and Kuajok, with high number of traders, the likelihood of trader collusion could be limited compared to the smaller markets.

For a period of six months (April- September), during the lean season, the FFA participants receive a monthly ration of cash or in-kind payment for their engagement in land clearing and production of staple foods. This encourages seasonal agricultural production and future agricultural activities.

From the last PDM survey, about 79 percent of FFA participants preferred in-kind assistance, whilst 57 percent of the respondents indicated that food had better value for household consumption, and 29 percent mentioned local markets don't supply food. The remaining households indicated distance of the market as the reason for their food preference. Contrary, households who have chosen cash as their first preference modality indicated the bargaining power and diversification of food as the two main reasons for their cash preference.

The preference of in-kind assistance by majority of programme participants should be considered in areas where the transition process from in-kind to CBT programme is feasible. Hence, there is need to have a continuous dialogue with the participating households. The seasonality and market prices should determine the transfer modality between cash and in-kind. Full scale cash in the next programme cycle can be considered if markets can support it. Furthermore, the determination of monthly transfer value should be sufficient to buy the same quantities of commodities distributed as in-kind.

Bad roads condition, insecurity, lack of hard currency, excessive tax, low demand and capital shortage were the main constraints identified by interviewed traders. As the economic crisis deepen, robberies in towns expanded, creating a sense of insecurity among traders, mainly the foreign traders in Tonj town.

Thus, from the market assessment and secondary information analysis, it is recommended that:

- *Kuajok, Tonj town and Warrap markets have the capacity to absorb full CBT programme.*
- *Akon, Liethnhom, Lunyaker and Thiet can absorb up to 50 percent of the induced demand.*

Finally, these recommendations are based on the number of participants with physical access to the assessed markets. FFA participants in the same county with market access challenges, should continue with the in-kind assistance.

1. Context

The conflict in South Sudan has impacted the economy, leading to a spike in the cost of living resulting in some households unable to meet their basic needs. The country has experienced hyperinflation, with general inflation reaching a peak of 549 percent¹ in September 2016. Additionally, the local currency lost its value over time on both the official and parallel markets. The country devalued the South Sudanese Pound (SSP) in December 2015. However, the intended result was not achieved due to inability of the Bank of South Sudan to protect the local currency, leading to an accelerated depreciation in parallel market. The dependence of the economy on single commodity (Crude Oil), and the decrease in oil production that comprised 95 percent of exports and 90 percent of government revenues, and a decline in price of oil in the international market worsened off the situation.

Since the devaluation of SSP, the local currency has continually depreciated both in the parallel and official markets. Compared to December 2015, exchange rate in the parallel market depreciated by 1062 percent in September 2018, and by 713 percent in official market. After its continuous depreciation until June 2018, when the parallel market exchange rate of one US dollar reached SSP 310, the local currency appreciated significantly in July 2018. Multiple reasons could be attributed to this, ranging from the peace process, agreement of the rivals allowing the Khartoum government to secure the oil fields in South Sudan, and to promise to rehabilitate oil fields to previous production levels. This has led the speculators and others who have held hard currency, as a coping mechanism to the increasing cost of living, to release some of their dollars in the parallel market. In addition, the provision of 40,000 US Dollar to each Member of Parliaments (amounting to a total of US\$ 16 million) has contributed for the appreciation of the local currency in the parallel market. In July, following the distributions of US Dollar to MPs, the parallel market exchange rate had dropped to SSP 160, for few days, and immediately bounced back to above SSP 200.

According to the Integrated Food Security Phase Classification² (IPC), some 42.5 percent of the people in South Sudan are classified in IPC crisis, emergency or catastrophe phases in December 2018, and projected to reach 48.8 percent from January to March 2019. Of the total population classified as crisis, emergency and catastrophic, Warrap had the least proportion at 15 percent in December, and the second lowest from Western Equatoria for the projection period, January to March 2019.

Crop and livestock production are the main livelihoods in Warrap state. Sorghum, maize grain, cowpea, groundnuts and sesame are grown using a traditional farming practices. According to FAO/WFP Crop and Food Security Assessment Mission (CFSAM), the country had a total cereal deficit of 482,287 tonnes for 2018 consumption year. Of the total deficit, Warrap state had the least cereal deficit of 830 metric tonnes³, which indicates local cereal production covers a significant proportion of household requirements. This cereal deficit is basically expected to be met through commercial imports and food assistance.

WFP South Sudan Country Office implements Food for Asset (FFA) as one of the resilience projects. FFA provides short-term food assistance to food insecure households who participate in various community-

¹ South Sudan National Bureau of Statistics

² IPC Communication Summary – September 2018.

³ FAO/WFP Crop and Food Security Assessment Mission to South Sudan, March 2018.

based projects and agricultural activities. The project creates productive physical assets and builds human capacity, which promote the restoration of livelihoods and enhance the resilience of the targeted communities against future shocks, both natural and man-made. FFA helps communities to develop infrastructure such as community access roads, multipurpose water ponds, school and health facilities, and others. Infrastructure development activities under FFA are limited to low-tech, low-cost and labor-intensive work that can be easily managed by the communities.

The FFA project implementation manual indicates the following criteria need to be met to select participants from targeted communities.

- One person per household;
- Not salaried;
- Able bodied and willing to contribute his / her labor capacity in the project work;
- Above 18 years of age and not too old;
- Women who are not pregnant or breast-feeding; and
- Resident of the targeted community and who can commute to the project site.

In Warrap, Food for Asset programme is implemented in counties of Gogrial East, Gogrial West, Tonj East, Tonj North and Tonj South, covering some 33,113⁴ programme participants. About 59 percent of the programme participants are women, and men account for the remaining 41 percent. Cash as a transfer modality is distributed to 30 percent of participants of the programme, while in-kind assistance covers the majority, 70 percent of participants. A monthly cash payment equivalent to US \$ 40.5 per household, converted into local currency at the on-going exchange rate, is distributed to project participants. The in-kind distribution comprises 27 kilograms of cereal, 4.5 kilograms of pulse, 2.7 liters of oil and 0.5 kilograms of salt.

2. Objectives

The market assessment was conducted in seven markets selected from four counties; Warrap in Tonj North, Lunyakor and Liethnhom in Gogrial East, Tonj town and Thiet in Tonj South, Akon and Kuajok in Gogrial West. These markets were selected purposely due to their proximity and access to FFA programme participants.

The assessment was aimed at:

- Understanding the key supply sources of the markets by season;
- Analyze availability of staple food commodities on local markets;
- Estimate the trade volume of staple food transacted on the markets;
- Understand the price setting behaviors including competition and transparency of transactions;
- Analyze the markets potential for responding to increased demand; and
- Propose the appropriate response options in the assessed markets.

⁴ Excludes FFA programme participants in Abyei area

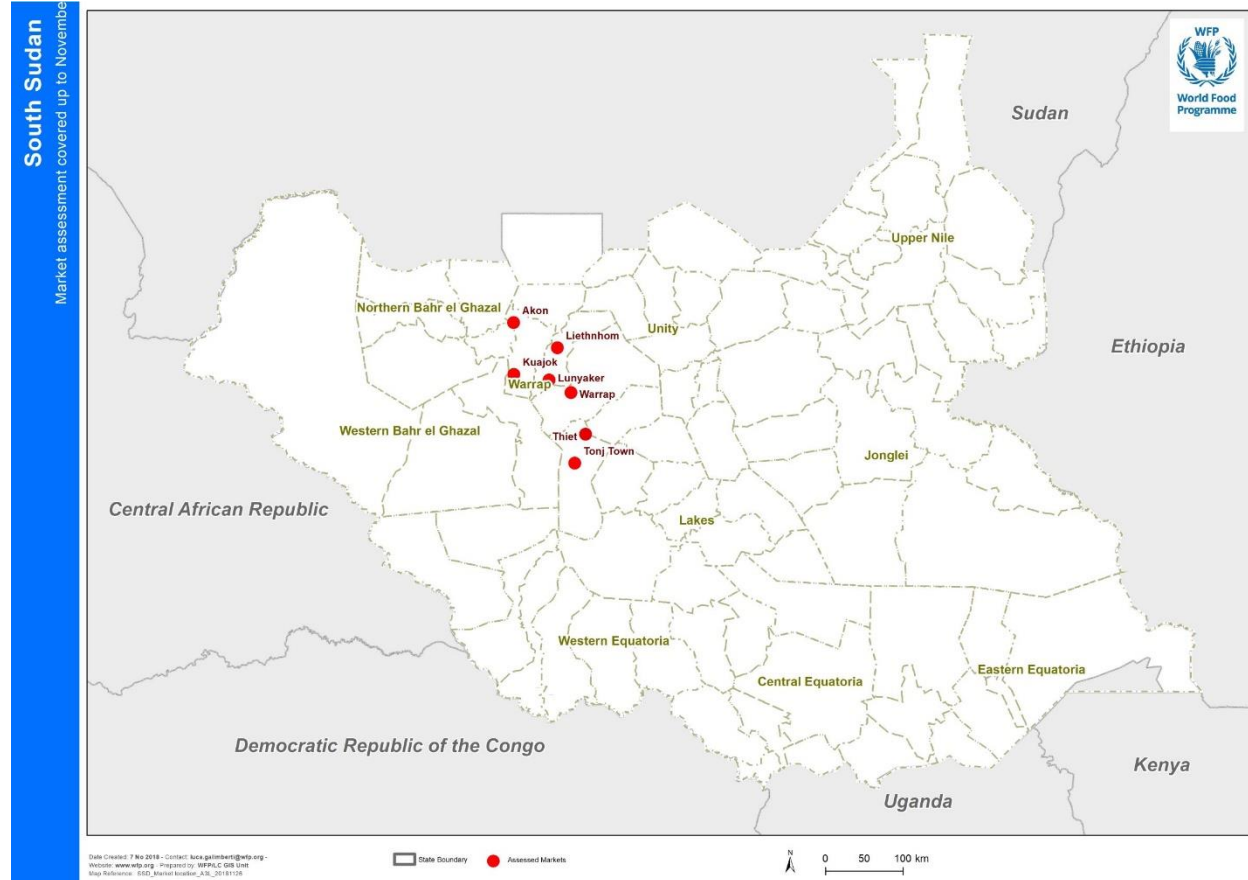
3. Methodology

The market assessment was conducted using structured questionnaire to collect primary data from wholesale and retail traders. Furthermore, interviews of key informants were carried out specifically the chamber of commerce in each of the assessed markets, Relief and Rehabilitation commissioners of each counties and at least two individual traders per market. **Table 1** depicts the number of traders interviewed using a structured questionnaire and key informant checklist.

Table 1. Interviews conducted

	Akon	Kuajok	Lunyaker	Liethnhom	Tonj Town	Thiet	Warrap
Wholesale		16				7	
Retail	3	21	11			11	18
Mixed, wholesae, and retail	3	4			5	8	
Chamber of Commerce Relief and Rehabilitation Commission	1	1	1			1	1
Key informants	3	3		1	4	4	1
Focus group discussion	1	1	1	1	1		1
Total	11	47	13	7	32	4	21

Figure 1. Assessed markets



4. Market structure and conduct

4.1 Number of traders

Table 2 depicts estimated number of traders that operate in each market. Kuajok was the former state capital, and it has the highest number of traders in Warrap. There are traders in Kuajok and Tonj town exclusively dealing in wholesale business. About 60 percent of traders in Kuajok and Tonj town have been in the business for more than four years, which can be considered as perseverance considering the economic crisis environment. Furthermore, wholesalers in Tonj town (15 percent) and in Kuajok (19 percent) have more than one shop in the same market or other places, which magnifies the capacity to increase trade volume. Wholesale foreign traders comprise about 44 percent of interviewed traders in Kuajok and 42 percent in Tonj town. Akon, Liethnhom, Thiet, Warrap and Lunyaker markets are small retail markets, dominated by low capacity South Sudanese traders. In Akon, some traders operate as both wholesalers and retailers.

Table 2. Number of traders

Market	Wholesale	Retail	Mixed Wholesale, Retail	Total
Akon		20	12	35
Kuajok	19	133	18	170
Lunyaker		19		22
Liethnhom		17		17
Tonj Town	12	84	11	107
Thiet*		15		15
Warrap		25		25

* Estimates of assessment team

Though Warrap state was not a conflict area, the number of foreign wholesale traders in Tonj town and Kuajok decreased after the conflict in South Sudan. Similarly, following a clan conflict in Lunyaker (2017), wholesalers (two) who used to supply sorghum and other items left the market. Generally, the higher the number of traders, like in Kuajok and Tonj, the more the competition among traders in the market.

4.2 Commodity supply sources

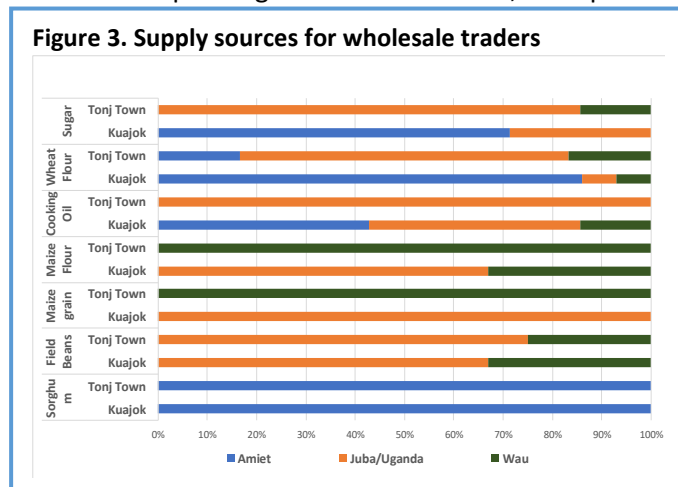
Sorghum, maize flour, wheat flour, maize grain, rice, sugar, cooking oil and groundnuts are the commonly traded food commodities in assessed markets. Locally produced staple foods such as sorghum and maize grain are traded on a seasonal basis. During the assessment, sorghum grain was traded only in the markets of Kuajok and Tonj town; with the commodity not available in the remaining markets. Traders indicated that from September/October to April/May, demand for sorghum was very low, due to localized harvest by farming households. **Figure 2** depicts granary with sorghum and maize stocks, indicative of storage capacity of farmers and hence the low demand immediately after harvest. Traders stock sorghum for sell during the lean season that coincide with rainy season from April.



Likewise, field bean, was available only in markets of Tonj town and Kuajok. In markets of Akon, Liethnhom, Thiet, Lunyaker and Warrap, field bean was not available. Traders indicated that local community consume cowpea and groundnut as a substitute to field bean, and as a result traders are reluctant to supply field bean. Fresh vegetables such as tomatoes and okra were observed, largely in Tonj town and Kuajok, but in small quantities. Onion was the most commonly available fresh vegetable in all assessed markets. Livestock products such as fresh milk and dried fish were also traded in these markets.

Imported foods in the markets were mainly from Asia, Uganda and Sudan, moved through Nimule and Amiet trade routes. Amiet, Juba/Uganda and Wau are key supply markets (Figure 3). White sorghum, wheat flour, cooking oil, salt, sugar and fava bean are imported from the Sudan through Amiet market, located in Agok. Food commodities that come from Uganda via Juba include maize flour, maize grain, wheat flour, field bean, vegetable oil, sugar and rice. Romic and Thiet in Tonj South were identified as sources of locally produced sorghum, and a portion of sorghum was mentioned as food distributed through FFA programme.

Traders prefer specific markets to source commodities depending on roads condition, transport cost, security, availability of the commodities, prices and other factors such as business partnerships with traders at source markets. Juba and Amiet are considered as the most reliable sources, where commodities are available abundantly. Wholesalers in Kuajok prefer Amiet, while traders in Tonj town prefer Juba/Uganda due to the above factors. However, some of the commodities might not be available in Amiet or Juba. For instance, maize meal and field bean come from Uganda, while white sugar and cooking oil (Groundnut) come from Sudan, through Amiet trade route. However, cooking oil from Sudan was expensive, and less demanded by rural households, but is mainly used by food vendors and restaurants to make *foul*. Less expensive imported vegetable oil originates from Asia through Uganda is purchased by most households.



Wau is the nearest wholesale market for all markets covered in this assessment. It is a crucial source market specifically to retailers in Akon, Warrap, Lunyaker, Liethnhom and Thiet. Some wholesale traders in Tonj town and Kuajok also purchase goods from Wau, especially during the rainy season. Some traders from Amiet and Wau deliver food commodities to the traders in Akon, Warrap, Lunyaker, Liethnhom and Thiet.

4.3 Restocking frequency

Restocking period depends primarily on demand, capital, storage capacity, season, transport type, travel time and other related factors. Transporting goods with big capacity trucks takes longer time as compared to light vehicles with low loading capacity, especially during the rainy season. During the dry season, on average it takes about six days to travel to the source markets (Juba, Amiet), procure commodities and return to Kuajok and Tonj town. The time increases to about three weeks during the rainy season due to bad road conditions along the trade routes. Restocking frequency varies with season (**Table 3**), being more frequent during the dry season and less frequent and longer during rainy months. The longer the number of days spent on travel, the higher the transaction costs, leading to higher prices of commodities in the markets. Due to its proximity to all markets, it took about a day trip to restock goods from Wau.

Table 3. Travel time and restocking frequency

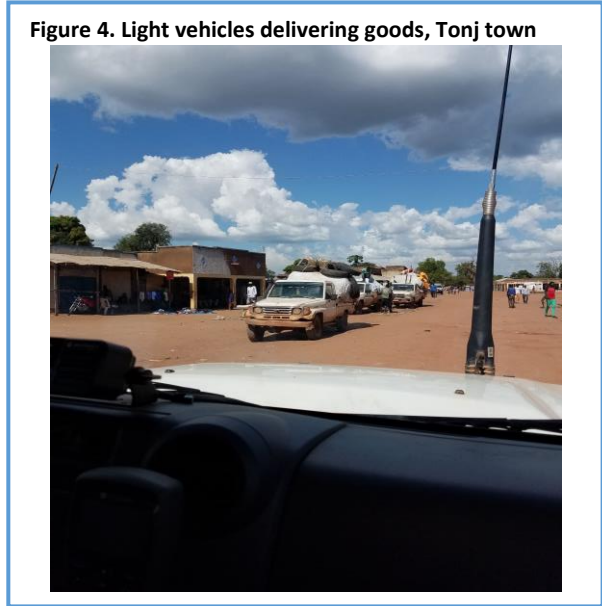
		Travel time (Dry season)	Travel time (Rainy season)	Restocking (Dry season)	Restocking (Rainy season)
Wholesale	Tonj Town	6	21	16	28
	Kuajok	6	22	23	42
Mixed, wholesale, retail	Akon	2	7	17	33
	Kuajok	5	16	22	41
	Tonj Town	3	8	16	23
Retail	Lunyaker	4	6	9	19
	Liethnhom	1	2	14	26
	Akon	1	2	14	30
	Warrap	2	2	18	28
	Thiet	1	1	21	42

As the rainy season approaches, some wholesalers keep large stocks to minimize transaction costs and bad road conditions. However, capital constraints, price variability and uncertainty about the security situation were some of the barriers affecting restocking.

4.4 Transport

Trucks with a capacity of 10 to 25 tonnes are commonly used by traders to transport goods during the dry season (October -May). However, during the peak rainy months of July and August, most traders use light vehicles with capacity of 1-2 tonnes (**Figure 4**) to pass challenging muddy roads, both from Juba and Amiet routes. As most traders use frequent restocking strategy, group truck renting is a common practice among traders in all the assessed markets, to maximize the economies of scale.

Transport cost to deliver commodities varies by season, during the rainy months, transport costs are high. For example, a truck of 10 tonnes capacity costs SSP 120,000 to transport goods from Amiet to Kuajok in the dry season, and during the rainy season, the transport cost increases to SSP 350,000, an increase of 200 percent. Additionally, transporters pay additional costs to pull trucks trapped in muddy roads. It is common to



observe tractors along Amiet trade routes. Compared to 2017, transport costs increased from SSP 80,000 to SSP 120, 000 for 10 tonnes truck, from Amiet to Kuajok, 50 percent increases.

4.5 Monthly trade volume

The monthly trade volume of food items was estimated based on traders self-reported data. Hence, these average estimates could have some variance, but provides insights on the overall market trade volumes. To avoid double counting, the estimates considered only sales volume reported by the wholesalers, except in smaller markets where retailers operate. In retail markets such as Akon, Warrap, Lunyaker, Liethnhom and Thiet, monthly trade volume of retailers is a better proxy to estimate sales volume⁵.

In a normal year, farming households rely on own staple production for consumption, but this last for a few months usually from October to March. Hence, traders do not supply sorghum in Akon, Lunyaker, Liethnhom, Warrap and Thiet markets during this period. As the rainy season approaches, traders stock sorghum and other commodities for sell during the rainy months (April/May - September/October). This implies sorghum is traded seasonally in these five markets. Hence, the estimated sorghum trade volume represents the average monthly sales volume from April to September. **Table 4** depicts estimated monthly trade volume in the assessed markets.

Table 4. Estimated monthly trade volume, Mt

	Sorghum*	Field Bean	White Maize	Maize Flour	Cooking Oil	Wheat Flour	Sugar	Rice
Akon	78			47	14	61	36	
Kuajok	525	122	128	72	57	241	124	90
Liethnhom	32			9	2	10	13	
Lunyaker	37		19	16	2	11	9	
Tonj town	88	23	12	30	17	49	61	49
Warrap	70			14	3	11	16	20
Thiet				9	3	6	7	

During the assessment, field bean was not observed in markets of Akon, Thiet, Lunyaker, Warrap and Liethnhom. Key informants have indicated that consumption of field bean is not common. Instead, cowpeas and groundnuts are consumed as a substitute to field bean.

Compared to 2017, about 38 percent of traders reported a decrease in trade volumes due to low purchasing power of consumers, better production in the area, reduced demand from recipient markets, insecurity and other related factors.

Weekly market days are held and for Akon, Wednesday is the market day where farmers sell their products such as sorghum, maize grain, groundnut, livestock and livestock products directly to consumers and traders.

⁵ It doesn't include trade volume sold by local farmers on a weekly open market day.

4.6 Storage

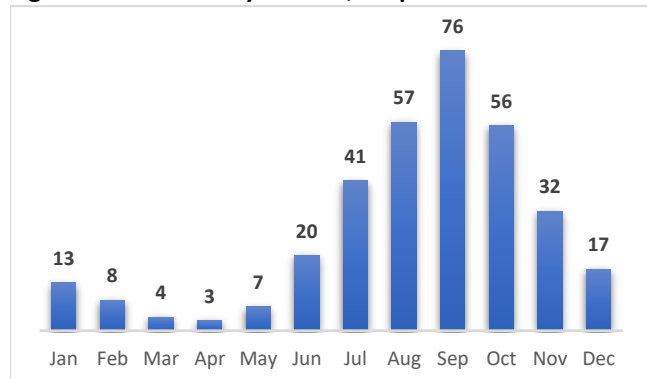
In assessed markets, shops serve multiple purposes and are used for daily trade as well as for storage. However, few wholesale traders in Tonj town and Kuajok have exclusive storage facilities constructed from permanent structures, with concrete floor. Otherwise, in the remaining markets shops were constructed from temporary structure using corrugated iron with commodities stacked on the dusty ground floors (**Figure 5**). Because of poor storage, these shops are likely to leak during the rainy season leading to spoiling of the food commodities. Given these poor storage facilities coupled with the hot climate, fresh vegetables and fruit with short shelf life are rarely supplied from the markets. However, red onion, imported from Sudan through Amiet, with longer shelf life was available in all assessed markets. By considering available space exclusively for storage, Kuajok, Tonj town and Akon markets have the total storage capacity of 2,104 tonnes, 791 tonnes and 232 tonnes, respectively. The remaining markets had no storage facilities.

Figure 5. Shop in Akon, Gogrial West



Additionally, the assessment captured qualitative seasonal differences on sales volume and availability of staples in the market. About 40 to 76 percent of respondents indicated staples were not readily available in the markets from June to September (**Figure 6**). The main reasons could be long restocking lead time, bad road conditions resulting in high transaction costs, and lean season associated with deteriorated purchasing power of consumers. Hence, these months are associated with high retail prices in the markets.

Figure 6. Food scarcity months, Response %



Poor storage facilities coupled with insecurity and capital constraints could be the reasons for traders not holding stocks but make temporal arrangements that makes commodities sufficiently available throughout the year.

4.7 Price determination

Most interviewed traders reported each trader determines his or her own selling prices in markets. However, 24 percent in Kuajok and nine percent retailers in Tonj town indicated prices were fixed collectively among traders in the market. Similarly, the same practice was reported by 14 percent and six

percent of wholesalers in Tonj town and Kuajok, respectively. Furthermore, group traders’ price fixing was a common practice in Akon.

On the other hand, traders make mobile calls, specifically to Juba, every morning to know the prevailing exchange rate between SSP and US dollar, then, based on available information and discussion with wholesalers in Juba or Wau, adjust their selling prices, accordingly. However, when local currency appreciates, traders take weeks to adjust prices downward, until they are sure the exchange rate is stable.

Generally, price determination in each of these markets depend on parallel market exchange rate and wholesale prices in Wau and Juba. Traders in Kuajok and Tonj town have business relationship with traders in major markets, which helps them to access up-to-date market information that is used to make price adjustments normally upwards. Generally, traders in Tonj town and Kuajok markets are less likely to collude in price fixing; however, the remaining markets are likely to be conducive for such behavior.

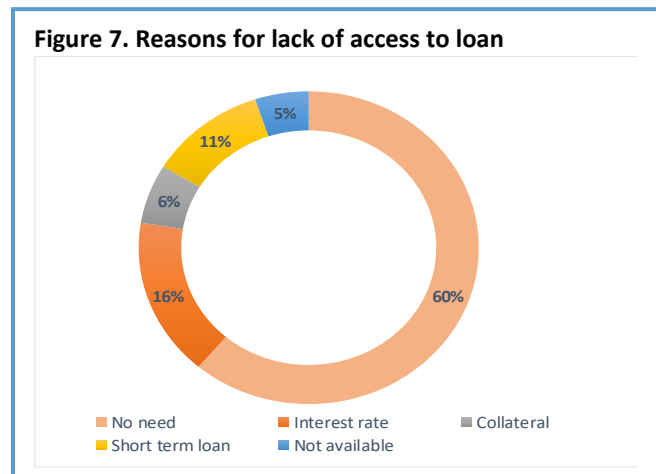
5. Induced demand

The analysis of Post Distribution Monitoring data (July 2018) reveals that FFA beneficiary households in Warrap had an average food expenditure share⁶ of 62 percent. Furthermore, the analysis showed that 47 percent had a high to very high share of expenditure on food, which is a clear indication of their economic vulnerability. Disaggregated food security analysis indicated that FFA households in Warrap, half of food expenditure was on cereal, 16 percent on sugar, 13 percent on livestock products, 6.5 percent on edible oil, 5 percent on pulses and the remaining percent on roots, snacks and condiments. These proportions of expenditure were applied to estimate the additional demand in each of the assessed markets.

Furthermore, the field office has provided a list of Bomas (**Annex 1**) and number of FFA participants who have physical access to the assessed markets. FFA participants who are not in the catchment and don’t have physical access were excluded from the demand analysis. Then, the computed induced demand is compared with the monthly trade volume, to come up with market response capacity to absorb the additional demand. Due to absence of field bean in Thiet, Lunyaker, Warrap, Liethnhom and Akon, the induced demand of pulse in these locations was not computed. However, groundnuts, a substitute to field beans is readily available in the assessed markets. It was revealed that groundnuts in these markets were from local production.

6. Access to Loan

There are no functional banks in all the assessed locations, and hence traders don’t have access to formal loans. KCB (Kenya Commercial Bank), operational in Kuajok closed operations in 2016. Despite limited access to loans, traders in some markets had received loans in the last two years to run business. Traders in Kuajok (22 percent), Lunyaker (63 percent) Tonj Town (19 percent) and Warrap (26 percent) had received in-kind or short-term loans to run their business.



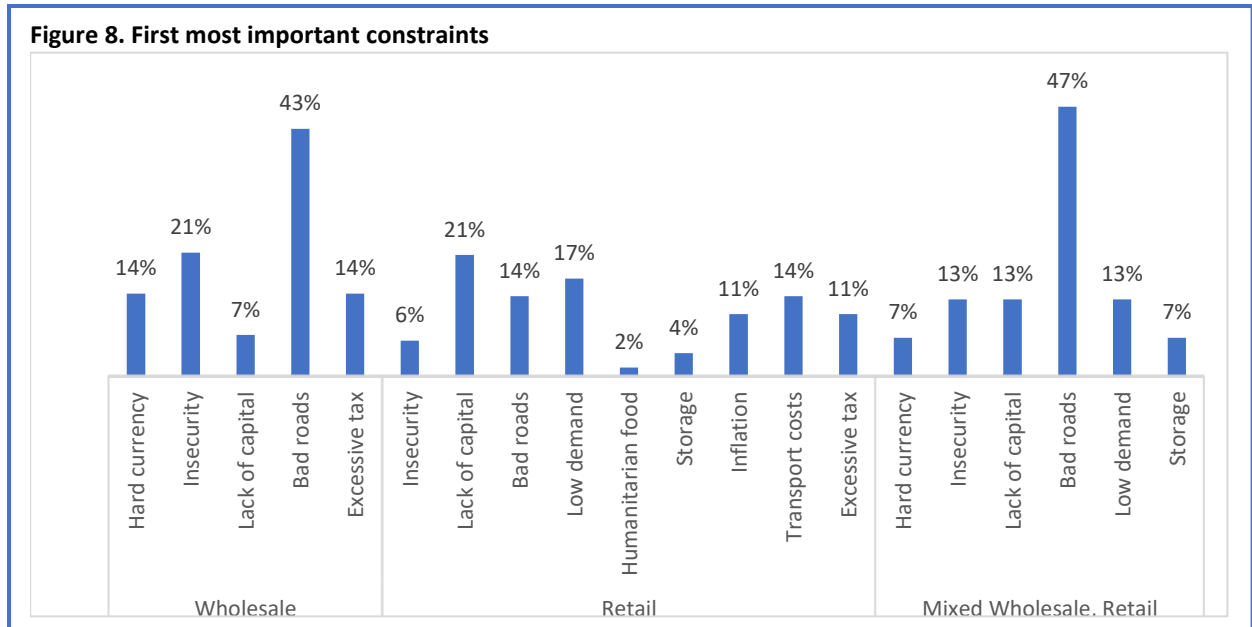
⁶ It accounted food expenditure on cash and credit.

Wholesalers in source markets, followed by friends and relatives were the two main sources of loans.

Exorbitant interest rates, collateral requirements and short payment duration were the main reasons why some traders could not access to loans in the last two years (Figure 7).

7. Market constraints

Interviewed traders were requested to identify the most important constraints to increase trade volume and expand business. Bad road condition was the first most important constraint to 43 percent of wholesaler, and to 47 percent of mixed wholesale and retail traders. Furthermore, insecurity, lack of hard currency, excessive tax and capital shortage were identified as constraints by wholesalers. Low demand was also mentioned as a challenge, specifically among traders in Kuajok and Tonj town, where high number of government staff stay (Figure 8).



After the creation of 32 states, the number of checkpoints along the trade route has increased, leading to multiple payments, resulting in high transaction costs. All transaction costs traders bear are transferred to the consumers, leading to high commodity prices in the market. Taxes paid along the checkpoints were built into the high transport costs, while formal payments were covered by the trader.

As the economic crisis deepens, thefts expanded in the townships, creating a sense of insecurity among traders, especially the foreign traders. In one week prior to this assessment, two wholesalers in Tonj town were robbed a large amount of cash. Furthermore, due to closure of bank services, traders are obliged to carry large amount of cash while traveling to restock commodities, which makes them vulnerable.

8. Market response capacity

Based on the estimated monthly trade volume and expected additional demand from a planned cash injection, the capacity of the markets to absorb the demand was gauged and depicted in **Table 5**. For instance, the induced demand for cereal in Akon is about 30 percent of traded volume in the market.

Accordingly, markets capacity for different commodities varies with the number of programme participants and monthly trade volume in the market. The additional demand capacity for cereals was least in Akon and Thiet. Similarly, the induced demand in Liethnhom and Lunyaker was beyond the market expandability. With regards to cooking oil, Akon, Liethnhom and Lunyaker lack the capacity to absorb the total additional demand.

The overlap of FFA implementation months with food scarce months could be one of the challenges to fully scale up CBT programmes in some of the markets characterized as low capacity, such as Lunyaker, Liethnhom, Warrap, Thiet and Akon.

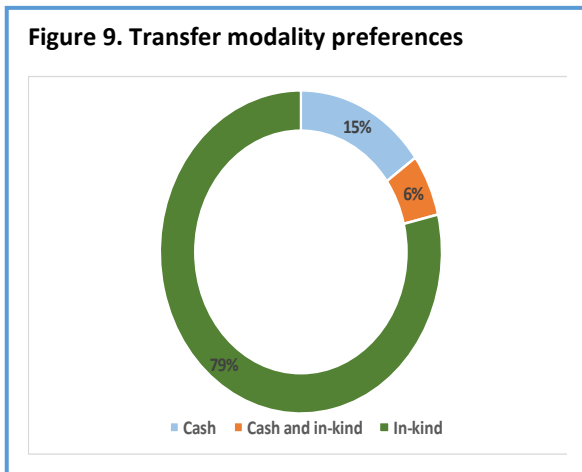
Table 5. Induced demand, %

	Cereal	Pulse	Oil
Akon	30		15
Kuajok	1	0.40	2
Liethnhom	24		53
Lunyaker	24		73
Thiet	113		28
Tonj Town	9	4	8
Warrap	8		20

9. Household preferences

Based on the PDM survey, about 79 percent of FFA participants have chosen in-kind assistance (**Figure 9**). About 57 percent of the respondents indicated that food has better value for household consumption, and 29 percent mentioned local markets don't supply food. The remaining households indicated distance of the market as the reason for their food preference.

Households that choose cash as their first preference modality indicated the bargaining power (48 percent of the households) and diversification of food (29 percent of the households) as the two main reasons for their cash preferences. Additionally, ten percent of interviewed households found easiness of cash to manage as a reason to choose cash and the remaining 13 percent households mentioned other factors.



PDM survey has also captured the utilization of cash received from FFA project. Accordingly, households spent the highest proportion of cash on food items. Most interviewed households (86 percent), used cash to buy cereal and cereal products, 8 percent on pulse and 2.8 percent on livestock products. The proportion of cash spent on non-food accounted about 2.8 percent.

10. Conclusions and recommendations

In 2018, Warrap is one of the states in South Sudan with a least food deficit, which suggests local production is likely to cover most of household requirements. Unlike the Equatoria and other states, agricultural activities were not disrupted by the conflict. However, the impact of conflict in the country has disrupted the trade routes, impacting the functioning of markets.

FFA participants receive a monthly ration of cash or in-kind for six months (April- September) for their engagement in community projects, land clearing, cultivation of land and production of staple foods. In addition to the monthly assistance, they benefit more from seasonal agricultural production.

Juba and Amiet are the main supply sources of food commodities for traders, and these markets are considered as reliable by the interviewed traders. However, bad road conditions, repeated checkpoint payments, insecurity and transport costs were identified as challenges to the optimal functioning of markets.

There are wholesale traders in Kuajok and Tonj town, while traders in other assessed markets are predominantly retailers. Related to price determination, there were mixed responses, varying from individual decision to group price setting. In markets of Tonj town and Kuajok, where the number of traders is high, the likelihood of collusion might not be serious as compared to the remaining small markets.

An overlap between FFA implementation period and rainy season is associated with the scarcity of items in the markets. This provides a conducive environment for traders to manipulate the market and fix prices at will. However, consultation with the traders and chamber of commerce ahead of the CBT intervention is likely to minimize the chance of collusion among traders.

The preference of in-kind assistance by majority of programme participants is the most important factor in the transition process from in-kind to CBT programme. Hence, continuous consultation with the participating households is highly encouraged. The options could be to introduce cash the first three months, and in-kind in the last three months of the programme implementation. Furthermore, the determination of monthly transfer value should be sufficient to buy the same quantities of commodities distributed as in-kind.

Monthly trade volume in each market was compared with the expected additional demand from FFA programme cash injection. Other contributing factors, such as seasonality of the intervention, restocking frequency, number of traders, storage facility, availability of transport facilities and source markets situation were analyzed to come up with the final recommendation of the market response capacity.

Thus, from the market assessment and secondary information analysis, it is recommended that:

- Kuajok, Tonj town and Warrap markets have the capacity to absorb full switch to cash
- Akon, Liethnhom, Lunyaker and Thiet can absorb up to 50 percent of induced demand.

Finally, the above recommendations are based on the number of participants with physical access to the assessed markets. Thus, FFA participants in the same county with access challenges, should continue with the in-kind assistance.

Annex 1. Number of FFA participants with access to assessed markets

Market	County	Payam	Boma	# of participants with market access
Akon	Gogrial West	Akon South	Agaldit	227
Akon	Gogrial West	Akon South	Ayien	130
Akon	Gogrial West	Akon South	Rup	265
Akon	Gogrial West	Alek North	Makuac	398
Akon	Gogrial West	Alek North	Malek-ngok	336
Akon	Gogrial West	Alek North	Man-kuaac\ Mankuaac	222
Akon	Gogrial West	Alek South	Alek	398
Akon	Gogrial West	Alek South	Atukuel	478
Akon	Gogrial West	Alek South	Ngap-athian\ Ngapathian	356
				2,810
Kuajok	Gogrial West	Kuac South	Dong	431
Kuajok	Gogrial West	Kuac South	Wunkuelthii	377
				808
Lietnhom	Gogrial East	Nyang	Mayenjur\Mayen-Jur & Gamdhang	402
Luonyaker	Gogrial East	Pathuon East	Mayom-biong\ Mayom Biong	300
Luonyaker	Gogrial East	Pathuon East	Yiik-ador\ Yak Adoor	252
Luonyaker	Gogrial East	Pathuon West	Luonyaker	187
Luonyaker	Gogrial East	Pathuon West	Majok	174
Lietnhom	Gogrial East	Toch East	Nyangdit	237
Lietnhom	Gogrial East	Toch East	Thuramon\ Thur-Amuom	223
Luonyaker	Gogrial East	Toch North	Mangol\ Mangol-Apuk	239
Luonyaker	Gogrial East	Toch North	Mayom-chol	250
				2,264
Warrap Town	Tonj North	Awuul	Awuul\ Awul (Agany)	150
Warrap Town	Tonj North	Awuul	Pagakdit\ Pagak-Dit	189
Warrap Town	Tonj North	Man-loor	Pankot	110
Warrap Town	Tonj North	Man-loor	Parasika\ Pharek-Sika	109
				558
Thiet	Tonj South	Jak	Majok	130
Thiet	Tonj South	Jak	Jak-ameeth	105
Thiet	Tonj South	Thiet	Ngap-anet	392
Thiet	Tonj South	Thiet	Thiet	638
Thiet	Tonj South	Thiet	Yiith-kuel\ Yith-Kuel	106
				1,371
Tonj Town	Tonj South	Wath-alel	Mabior-yar	141
Tonj Town	Tonj South	Wath-alel	Pawel	135
Tonj Town	Tonj South	Tonj	Aguka\ Aguga	145
Tonj Town	Tonj South	Tonj	Malual-muok	149
Tonj Town	Tonj South	Tonj	Tonj	458
Tonj Town	Tonj South	Manyang-ngok	Cuei-cok	105
Tonj Town	Tonj South	Manyang-ngok	Wanth Alel One(inves. GIS)	215
				1,348