World Food Programme

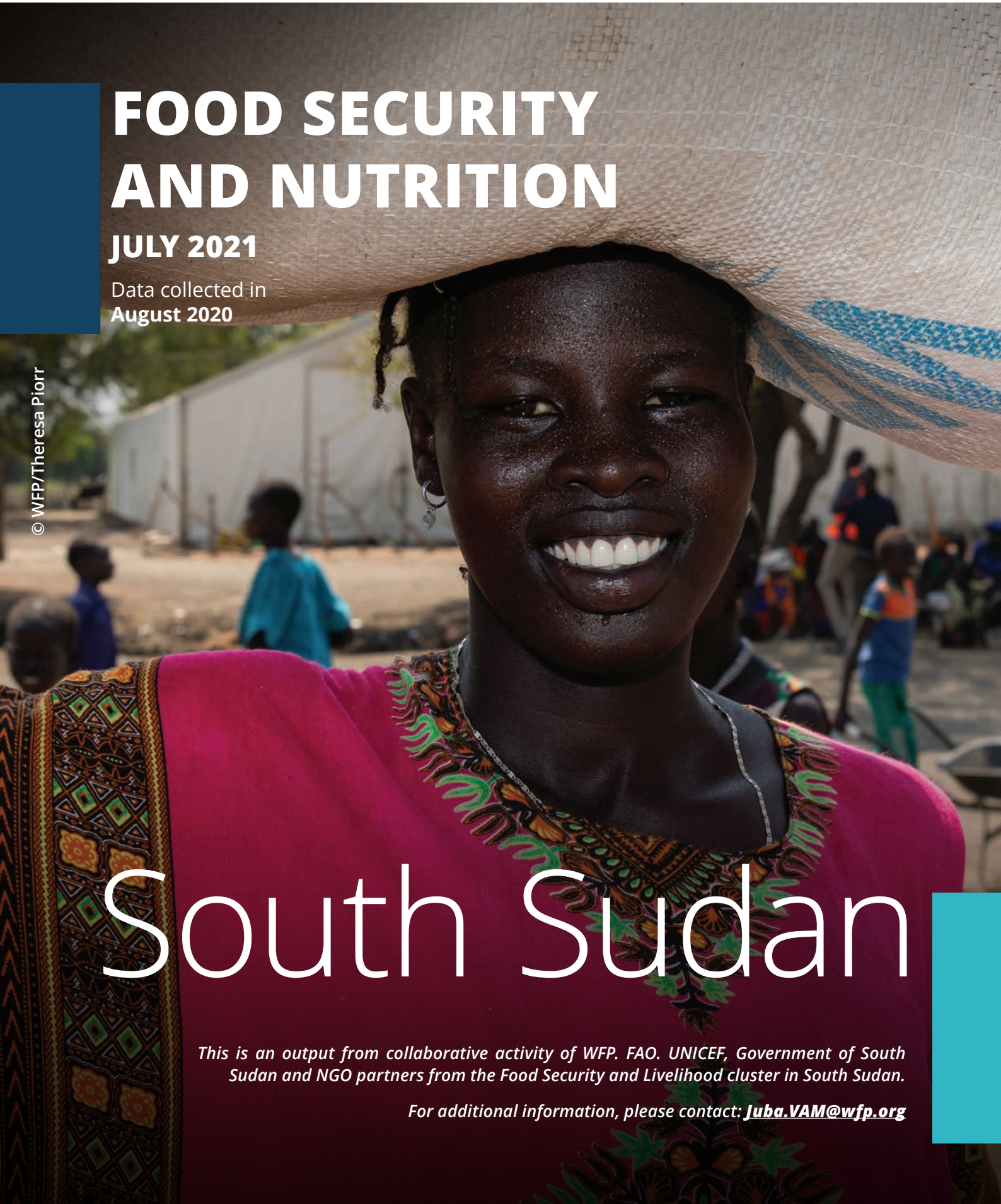
Food and Agriculture Organization of the United Nations

unicef

FOOD SECURITY AND NUTRITION

JULY 2021

Data collected in **August 2020**



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South Sudan

This is an output from collaborative activity of WFP. FAO. UNICEF, Government of South Sudan and NGO partners from the Food Security and Livelihood cluster in South Sudan.

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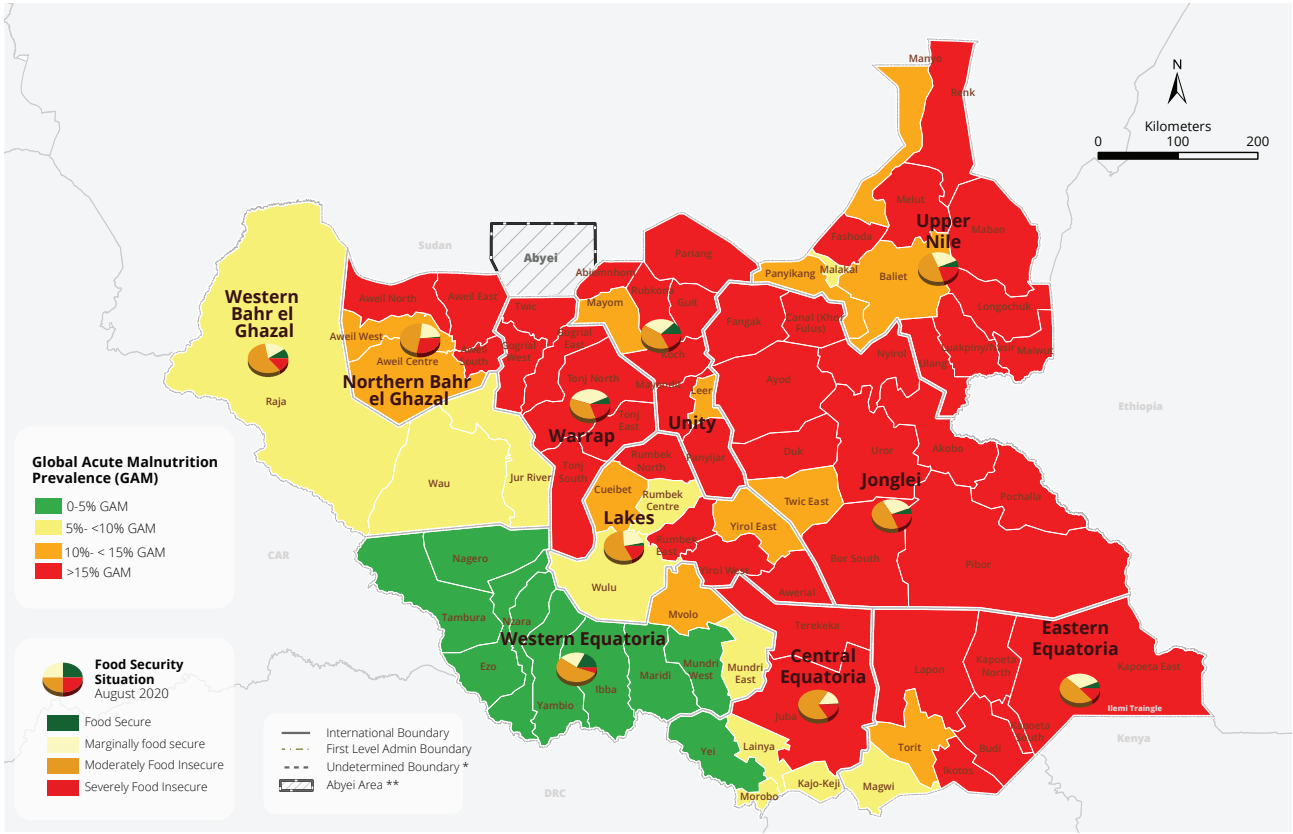
KEY FINDINGS

Overall, the food security situation in South Sudan remains worrisome despite an apparent slight improvement in food insecurity and malnutrition as compared to August 2019. Two successive years of devasting floods along with the impact of the COVID-19 pandemic and severe macro-economic challenges have further disrupted livelihoods and food production, contributed to increased prices and the erosion of households' purchasing and ultimately reduced access to food.

The food security outlook for the next growing season is generally worrisome as above-normal rainfall could lead to the escalation of the floods, adversely affecting the livelihoods, food security and well-being of communities in the central basin of the country. The crippling macroeconomic consequences of the global COVID-19 pandemic and weak economic growth continue to negatively impact food security, especially for the poorest and most vulnerable households. Figure 1 illustrates the food security and nutrition situation of households across the country for August 2021.

Figure 1: Map showing food security and nutrition situation, August 2020

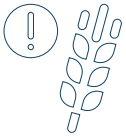


Data sources: WFP, OCHA, UNOPS, UNMISS,MAF, UNHAS, IOM, GAUL, Uni. of Bern

The designations employed and the presentation of material in the map(s) do not imply the expression of any opinion on the part of WFP concerning the legal or constitutional status of any country, territory, city or sea,or concerning the delimitation of its frontiers or boundaries.

* Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined ** Final status of the Abyei area is not yet determined

The key findings from the survey include:

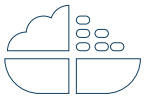


Food security overview

In this report, food insecurity is assessed based on WFP's Consolidated Approach to Reporting Indicators of Food Security (CARI). This approach classifies households into four food groups: food secure, marginally food security, moderately food insecure and severely food insecure. In this exercise, 67.3 percent of sampled households were to be food insecure. Of these households, 50.1 percent were found to be moderately food insecure, implying the presence of significant food consumption gaps, while 17.1 percent are assessed to be severely food insecure and have extreme food consumption gaps or face extreme loss of livelihood assets. Despite the significant downturn in economic and livelihood activities induced by COVID-19 related movement restriction for the greater part 2020, the estimated proportion of food insecure households decreased by 8 percent when compared to 2019. The most likely explanation for this unexpected result is the timing of the assessment which, unlike previous surveys, was conducted after the peak of the lean season. The availability of early green harvest at the time of the assessment may have contributed to reduced incidence of food insecurity among the most vulnerable household groups, particularly in rural areas.

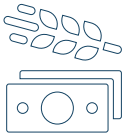
Nutrition situation

Global Acute Malnutrition (GAM) at national level was estimated at 15.3 percent based on modeling exercise. These rates fall within the same classification as the survey conducted in August 2019. In 2019, the GAM rate was estimated at 16.2 percent, indicating critical levels of malnutrition. However, Severe Acute Malnutrition (SAM) was much lower and was estimated at 3.2 percent. In Eastern Equatoria and Lakes States, the modeling estimates showed higher malnutrition rates which increased from serious level in 2019 to critical level for 2020 estimates. In Western Bar el Ghazal, malnutrition rates derived from the modeling exercise were lower. Accordingly, the greatest improvement in the nutrition situation was observed in Western Bahr el Ghazal and Western Equatoria as it showed higher malnutrition rates from serious levels in 2019 to critical levels for 2020 estimate.



Dietary Diversity and Quality

Household Dietary Diversity Score (HDDS) which measures food consumption based on a count of food groups consumed during the preceding 24 hours indicates that nationally, 32.9 percent of households had poor dietary diversity and consumed 0 to 2 groups. Some 39.1 percent of households had medium or average dietary diversity based on the consumption of 3 to 4 food groups while 29 percent had sufficient or diverse diets based on the consumption of five to 12 food groups. The proportion of households with poor diets increased to 39.2 percent in August 2020 from 25.3 percent in August 2019 while the proportion of households with average diets remained unchanged at 38 percent. At the national level, cereals and vegetables are the two most frequently consumed food groups for an average of 4.5 days and 2.7 days respectively. On average, pulses, milk and butter were consumed for 1.7, 1.4 and 1.6 days respectively during the 7 days prior to the survey. The least consumed food groups are fruits (0.4 days) and meat/fish (0.8) which are both consumed for less than one day. The low intake of protein-based foods along with other underlying factors likely contributed to the high incidence of malnutrition especially among children.



Livelihood coping

Nearly half of households across the country (48.8 percent) employed emergency coping strategies during the 6 months preceding the assessment in August 2020. At the national level, the proportion of households that employed emergency coping strategies increased by 7 percent from 41 percent in August 2019 to 48.8 percent in August 2020. On the contrary, slightly lower proportion of households (2.5 percent) used crisis coping strategies in August 2020, compared to August 2019.

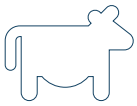
The use of emergency coping strategies substantially affects the household's future productivity and are more generally difficult to reverse and suggest that households were faced with severe level of food insecurity. Households' reliance on emergency coping strategies is highest in Jonglei (61.5 percent), Upper Nile (60.2 percent), Unity (58.1 percent), Warrap (49.3 percent), Lakes (48.8 percent), and Eastern Equatoria state (45.6 percent). Western Equatoria (40.7 percent), Western Bahr el Ghazal (37.1 percent) and Central Equatoria (36.1 percent of households that did not employ any livelihood-based coping strategies.

Access to land for cultivation

Overall, 90 percent of sampled households reported having access to land for cultivation at the time of survey and this represents a 2-percentage point decrease as compared to August 2019. This proportion was highest in Western Equatoria, Warrap and Northern Bahr el Ghazal, where households' access to land was 97 percent. Similarly, land access was equally high in Western Bahr el Ghazal (94 percent), Unity (92 percent), Central Equatoria (87 percent), Jonglei (81 percent) and Upper Nile 79 percent. As compared to August 2019, there is decrease in the proportion of households who had access to land in 2020 in Northern Bahr el Ghazal (4.6 percent), Unity (2.3 percent), Western Bahr el Ghazal (10.3 percent), Western Equatoria (13.0%) and lastly Warrap (by 12.6 percent). The decrease in access to land could be the result of an uptick in insecurity in certain key farming locations in those states.

Cereals production

Overall, 68 percent of households cultivated sorghum during the 2020 growing season, followed by maize (45 percent), groundnuts (39 percent), vegetables (21 percent) and sesame/simsim (16 percent), while rice and pigeon peas, potatoes, cowpeas, beans and millet were grown by relatively small proportion of households. At the state level, more than 8 in 10 households cultivated sorghum in Eastern Equatoria (81.3 percent), Jonglei (83.9 percent), Lakes (88.9 percent), increasing to more than 9 in 10 households in Northern Bahr el Ghazal (99.6 percent) and Warrap States (99.9 percent). Most of the households engaged in groundnuts cultivation during the 2020 growing season were concentrated in Lakes (92.3 percent), Central Equatoria (60.7 percent), Western Bahr el Ghazal (89.6 percent) and Western Equatoria (86.4 percent).



Livestock ownership

At the time of survey, 56 percent of the sampled households reported owning livestock, representing a 4.2 percent increase over the same period in 2019 when livestock ownership stood at 52.1 percent. Warrap (77 percent), Unity (71 percent), Lakes (70 percent), Eastern Equatoria (65 percent), Northern Bahr el Ghazal States (58 percent) reported the highest proportion of households that own livestock while Central Equatoria had the lowest proportion of households (31 percent) keeping livestock. As compared to August 2019, the proportion of households which owned livestock increased in most states except for the states of Jonglei and Unity which reported a decrease of 13.8 and 2.3 percent respectively.

Water

Some 31 per cent of households being able to access to improved water sources for drinking in less 30 minutes without facing protection concerns. Thus, the remaining 69 percent of households from across the country either do not have access to sufficient water for drinking, and/or rely on unimproved or surface water sources. The highest proportion of households relying on surface water or unimproved water sources were found in Greater Equatoria (70 per cent).

The coverage of WASH infrastructure across South Sudan in general is weak and the generally low access is split between improved latrines (17 per cent), latrines shared between a small group of households (4 per cent), and communal or shared latrines (2 per cent). As a result, 70 percent of households reported being affected by water or vector-borne diseases. Furthermore, the widespread poor access to WASH services combined with high prevalence of food insecurity has detrimental impact on the health of the most vulnerable members of the household as manifested in the high prevalence of malnutrition among children.

Sanitation

Across South Sudan, the proportion of households with access to sanitation has increased by 4 percent from 23 percent in August 2019 to 27 percent in August 2020. As in 2018 and 2019, the national average was driven by high levels of reported access in Western Equatoria. There were increases in the states with the lowest access, but Warrap and Unity recorded the lowest proportion of households (15 per cent) that have access to some form of latrines.

More than 90 percent of households in Tambura (98 per cent), Nzara (97 per cent), Ibba (95 per cent), Yambio and Maridi (94 per cent) in Western Equatoria had access to some form of latrines, but in 66 other counties across the country, less than 50 percent of households had access to some form of latrine. This low proportion of households with access to latrines across the country, highlights that the need to prioritize both increased sanitation infrastructure and sensitization on sanitation and good hygiene practices.

Access to fish for consumption

Overall, 29 percent of the households reported having access to fish. When disaggregated by state, Upper Nile had the highest proportion (67 percent) of households with access to fish, followed by Jonglei (52 percent), Unity (35 percent). Both Warrap and Western Bahr el Ghazal each reported 20 percent fish access among households, while Eastern Equatoria, Central Equatoria and Northern Bahr el Ghazal fish access for consumption is 11 percent, 12 percent and 13 percent respectively.

Assistance received

Overall, more than 50 percent of households in Western Bahr el Ghazal, Unity and Jonglei have consistently received humanitarian assistance since August 2018. In August 2020, more than 50 percent of households in Western Bahr el Ghazal (55.1 percent), Upper Nile (60.8 percent), Unity (75,5 percent), Lakes (58.5 percent) and Jonglei (72.9 percent) received humanitarian assistance while Western Equatoria (14.8 percent), Warrap (24.1 percent) and Northern Bahr el Ghazal (25.1) had the lower proportion of humanitarian recipient households.

During the three months preceding the assessment, 39.7 percent of households across South Sudan received food assistance, including more than 7 in 10 households in Jonglei (71.4 percent) and Unity (74 percent) States and more than 4 in 10 households in Lakes (47.7 percent), Upper Nile (48.5 percent) and Western Bahr el Ghazal (45 percent). Among households that received humanitarian food assistance, 65.8 percent were food insecure as compared to 68.3 percent of food insecure households who did not received food assistance. This is likely due to the dependence of households in these states mainly on food assistance and the lack of other food sources to meet all their food consumption needs.

1. FOOD SECURITY OVERVIEW

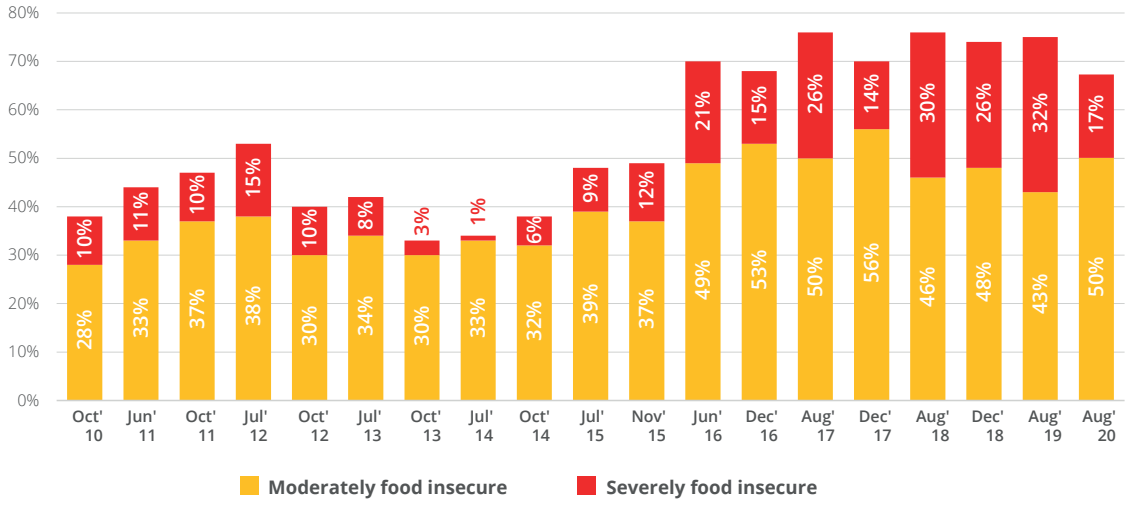
1.1. Overall food security trend (CARI)

The food security situation of household across South Sudan remains worrisome. Prolonged conflict and inter-communal clashes which have intensified displacement, loss of livelihoods and sustained asset depletion, while macro-economic challenges associated with the global COVID-19 pandemic and the rising cost of food commodities have eroded the purchasing power of market-dependent vulnerable households.

Food security analysis using the Consolidated Approach to Report Indicators of food insecurity (CARI) found that 67.3 percent of household across the country are food insecure. Of the households assessed as food insecure, 50.1 percent are moderately food insecure, implying they have significant food consumption gaps or are marginally able to meet minimum food needs only by resorting to irreversible coping strategies. Another 17.2 percent are severely food insecure and have extreme food consumption gaps or face extreme loss of livelihood assets (Figure 2).

Despite the significant downturn in livelihood and economic activities induced by the impact of COVID-19 related movement restriction for the greater part 2020, the proportion of food insecure households decreased by 8 percent when compared to the same period in 2019. The most obvious explanation even in the face of negative macro-economic challenges, loss of income sources and livelihoods due to COVID-19, can be found in the timing of the assessment which unlike previous surveys was conducted after the peak of the lean season. Improved access to some green harvest and vegetables likely contributed to the improved food security situation as compared to previous periods.

Figure 2: South Sudan food insecurity trends (CARI), 2010 to 2020



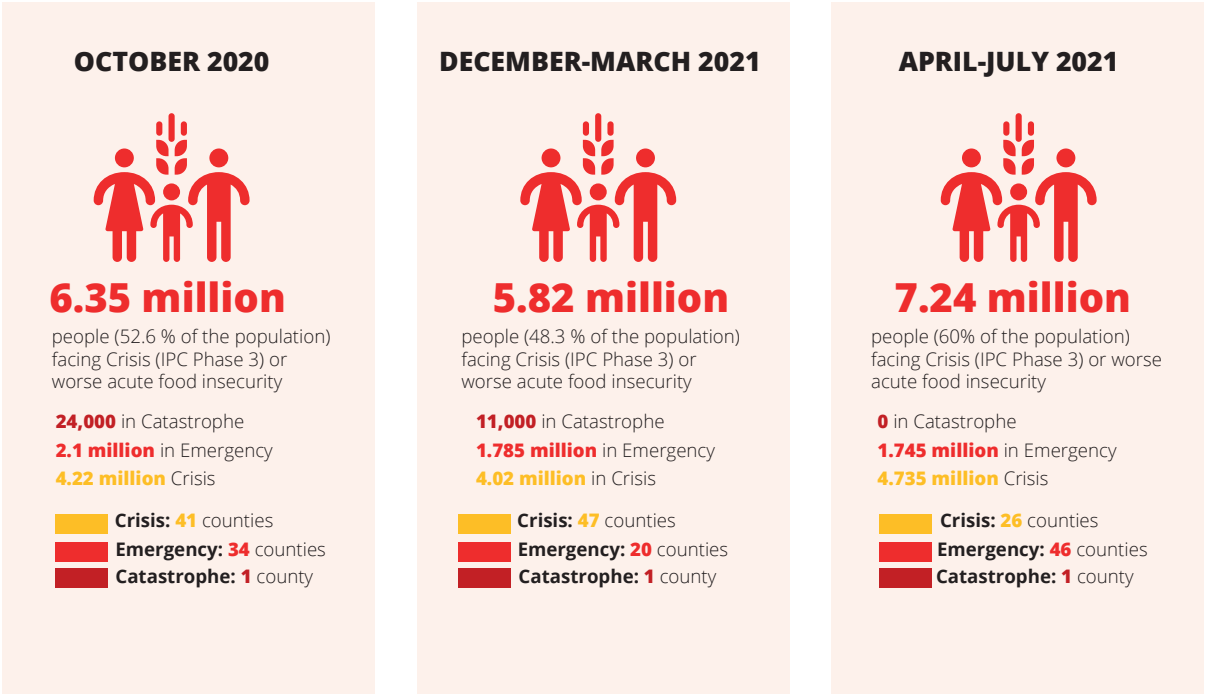
The highest incidence of food insecurity was recorded in Central Equatoria (84 percent), Lakes (74 percent), Northern Bahr el Ghazal (72 percent) and Western Bahr el Ghazal (72 percent). The prevalence of food insecurity is highest among households in states where the combined impact of persistent shocks associated with insecurity and population displacement coupled with COVID-19 induced challenges and constrained market access contributed to reduce access to food, income or access to markets for the most vulnerable households.

The high incidence of food insecurity in Central Equatoria (Figure 3) is underscored by its location as the epicenter of the COVID-19 pandemic which impacted negatively on socioeconomic activities, including severe contraction of livelihood activities in the informal sector and loss of income from casual labour wages due to pandemic-related movement restrictions. These debilitating constraints, together with macro-economic challenges associated with acute shortage of the US dollar and rapid depreciation of the South Sudanese pound impeded the flow of commercial imports and led to skyrocketing prices of food items which eroded the purchasing power of households.

In Lakes state on the other hand, the high incidence of food insecurity was the result of the loss of grains and field crops as a result of floods in Yiro East, Rumbek East, Rumbek Centre and Awerial while intercommunal conflicts in Cuibet, Rumbek North and Yirol West contributed to the disruption of seasonal livelihood activities and in some cases, the delivery of humanitarian assistance. In Northern Bahr el Ghazal, the late onset of the rains, coupled with extensive dry spells led a decrease in the area cultivated and low crop yield was further compounded by floods later in the season. Furthermore, COVID-19 induced movement restrictions, border closures and deterioration of road conditions impeded the inflow of food commodities from Sudan in the north and contributed to skyrocketing prices of food commodities in Western Bahr el Ghazal.

The resulting increase in food prices affected households' ability to purchase and consume adequate quantities of food items and this contributed to increased food insecurity.

Figure 3: Food insecurity situation by state



While the level of food insecurity across the country remain worrisome at 67 percent, it has improved as compared to August 2019 and August 2018 when the proportion of food insecurity households was 70% and 74% respectively. As compared to August 2019, the food security situation has improved substantially in Western Equatoria (27 percent), Eastern Equatoria (21 percent) and Western Bahr el Ghazal (17 percent) but deteriorated marginally by 1 percent in Unity State. When compared to August 2018, there is a general improvement in the food security situation in most states except for Warrap where it deteriorated by 6 percent.

The level of food insecurity is disproportionately high among IDPs and refugee returnees as compared to host community households. While 65.8 percent of host or residents are food insecure, the level of food insecurity among IDP, IDP returnees and refugee returnees is 83.9% percent, 64.8 percent, and 78.2 percent respectively. The high incidence of food insecurity among these two groups is primarily due to their vulnerability to market shocks as skyrocketing prices of food items have substantially eroded their purchasing power while livelihood and income sources have been hampered by the pandemic-induced movement restrictions.

1.2. Integrated Phase Classification (IPC)[1] food security trends

The Integrated Phase Classification (IPC) which has been conducted in South Sudan for more than a decade is a vital source of food security information for humanitarian assistance programming and decision-making pertaining to the severity of acute food insecurity and malnutrition situation. The estimation of the proportion of the population in need of humanitarian assistance is based on the IPC analysis. The October 2020 IPC for acute food insecurity and malnutrition analysis was conducted for three periods: the current period (October-November 2020), first projection (December-March 2021) and the second projection (April-July 2021). The findings from the analysis are summarized below (Figure 4):

Figure 4: IPC October 2020 - current and projected analysis

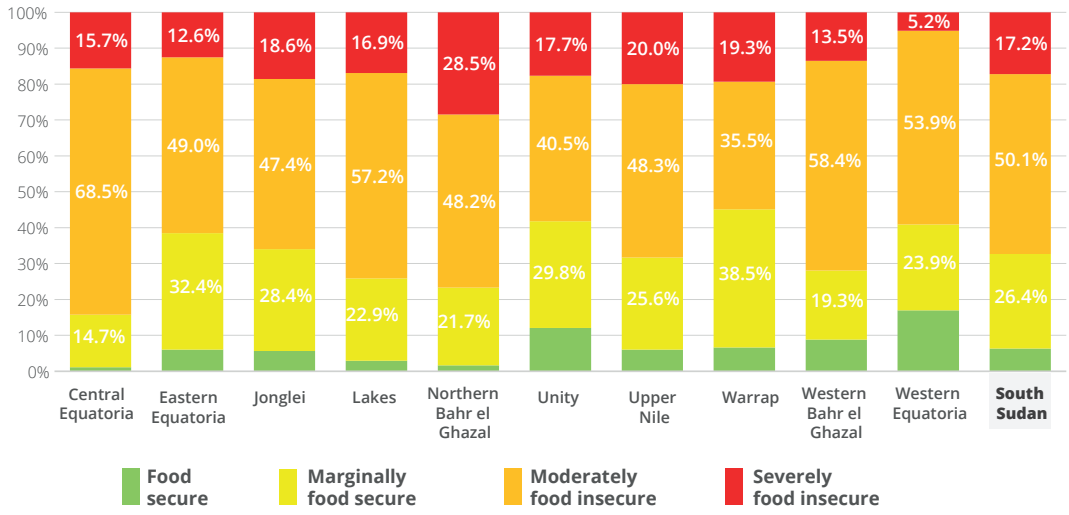
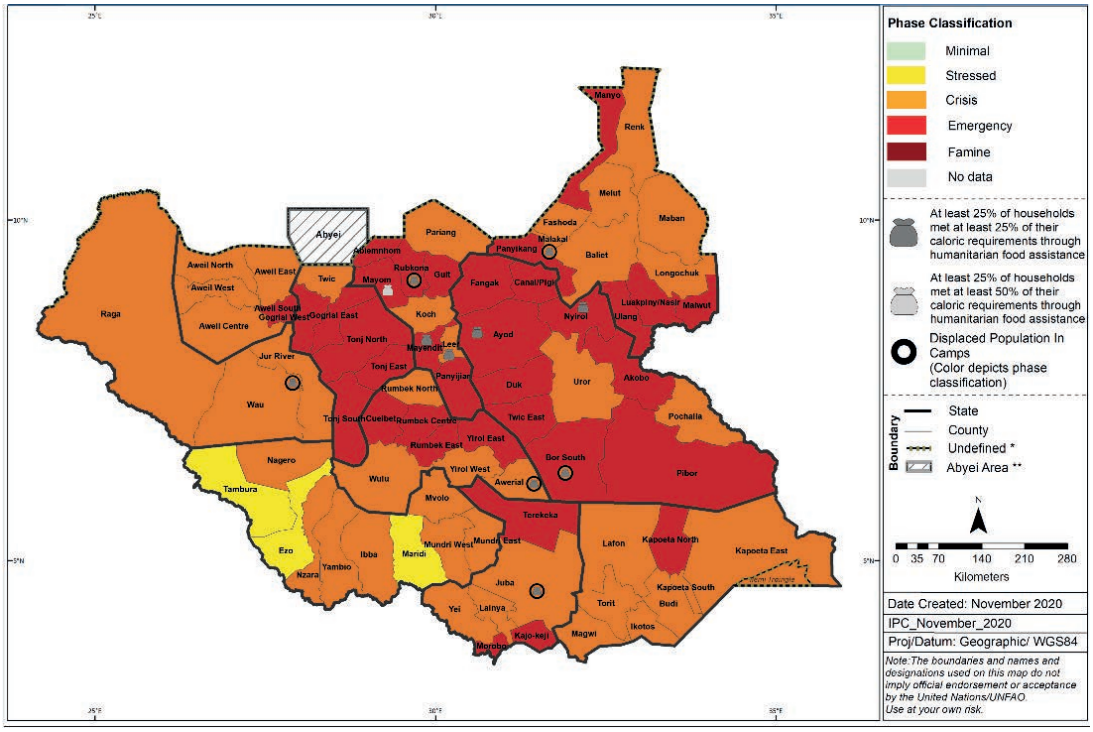


Figure 5: IPC map for current analysis period for October-November 2020

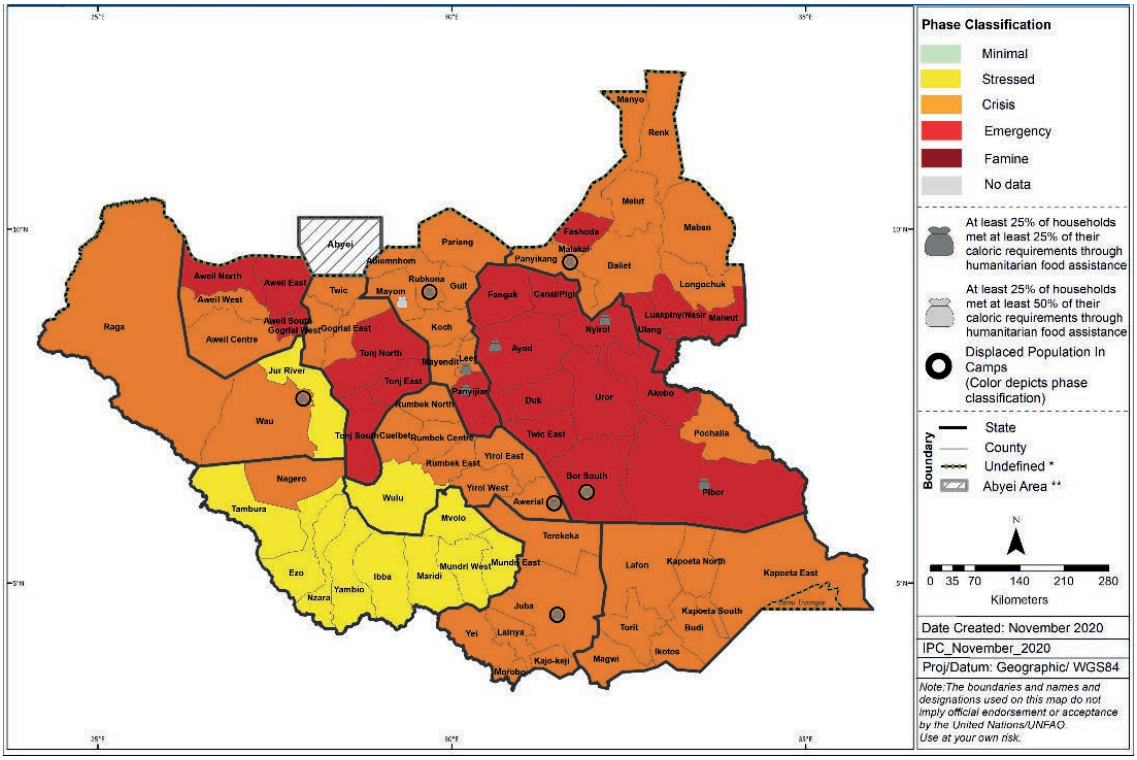


1 The Integrated Food Security Phase Classification (IPC) is an innovative multi-partner initiative for improving food security and nutrition analysis and decision-making. The main goal of the IPC is to provide decision-makers with a rigorous, evidence- and consensus-based analysis of food insecurity and acute malnutrition situations, to inform emergency responses as well as medium- and long-term policy and programming.

During the current IPC analysis period (October-November 2020), a total of 6.35 individuals are estimated to face acute food insecurity (IPC Phase 3) or worse outcomes. Of this, 24,000 people are estimated to be in Catastrophe, meaning that those households will have an extreme lack of food and other essential needs even with the employment of coping strategies and are at high risk of starvation or death (Figure 5).

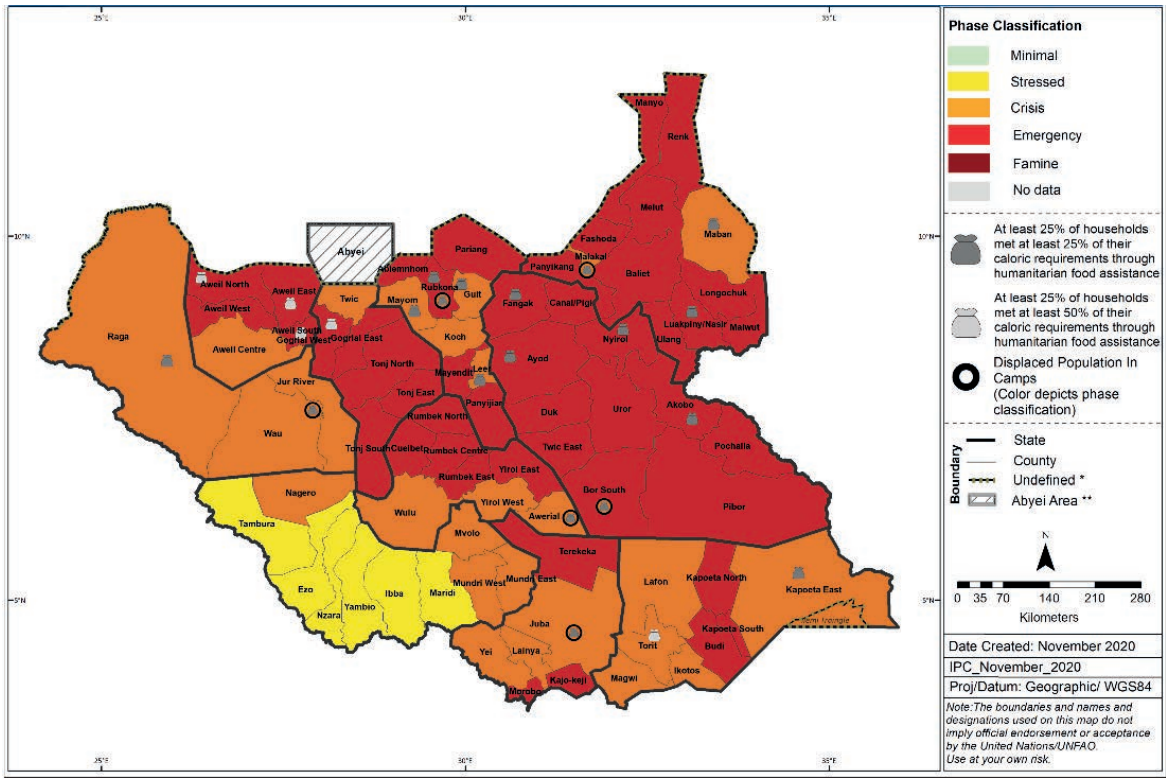
The people assessed to be facing Catastrophe (IPC Phase 5) acute food insecurity are in Pibor County (11,000) in Pibor Administration Area, and in Tonj North County (13,000) in Warrap State. In comparison with August 2019, the proportion of the population phasing IPC Phase 3 or worse acute food insecurity outcomes remain unchanged. In addition, 2.1 million people are estimated to phase emergency acute food insecurity, characterized by large food consumption gaps. Overall, the food security situation across South Sudan remain elevated due to a multiple vulnerability such as the impact of floods and COVID-19 induced restrictions on livelihoods, insecurity and macroeconomic challenges affecting access to food.

Figure 6: IPC projected analysis for December 2020 to March 2021



During the first projected period (December 2020 to March 2021), a total of 5.82 million individuals are estimated to face IPC Phase 3 acute food insecurity outcomes or worse. Of those, 11,000 individuals are estimated to be catastrophe, while 1.79 people are projected to face emergency food insecurity outcomes with another 4.02 million people facing crisis (Figure 6). The population that is likely to be in Catastrophe (IPC Phase 5) acute food insecurity are in Pibor County in Pibor Administrative Area. As compared to the second projection in 2019, the proportion of the population facing IPC phase three or worse food insecurity outcomes has increased by 28.2 percent.

Figure 7: IPC projected analysis for April-July 2021

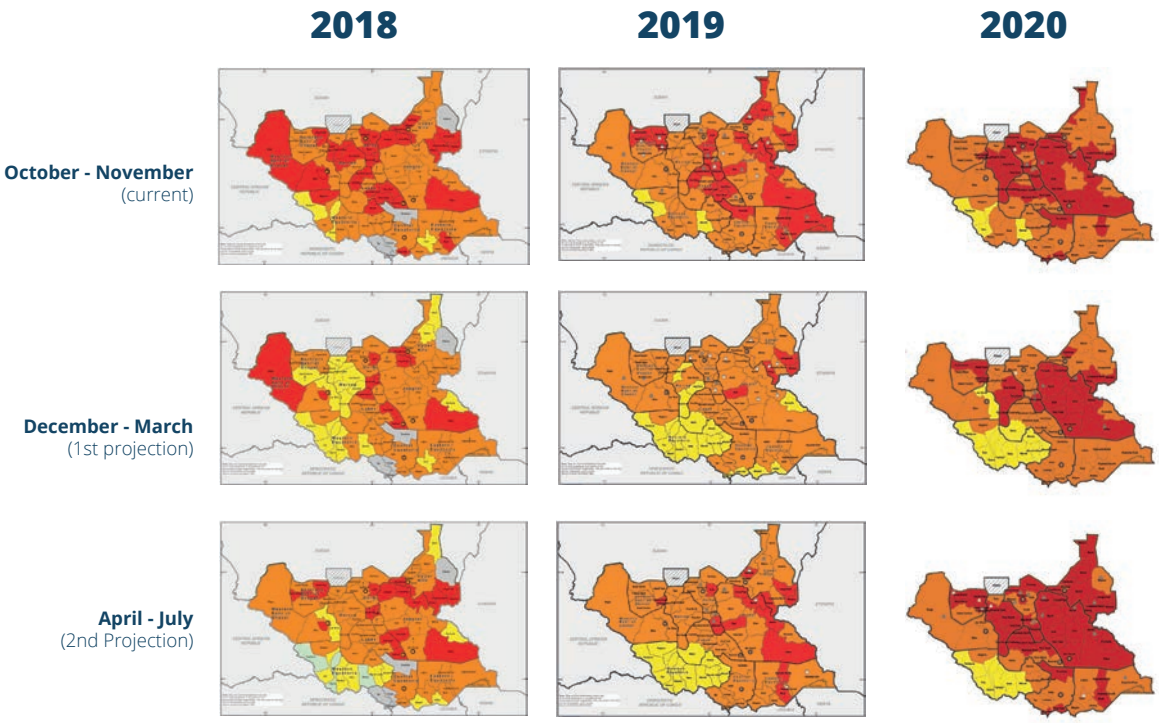


During the second projected period (April to July 2021), a total of 7.2 million people or 60 percent of the country's population is estimated to be IPC acute food insecurity Phase 3 or worse with no population in catastrophe. An estimated 1.75 million people will face emergency food insecurity outcomes while 4.74 will be affected by crisis food insecurity (Figure 7).

Overall, the proportion of the population in Crisis (IPC Phase 3) acute food insecurity or worse has decreased by 6 percent during the past 2 years, on account of the combined impact of increased access to humanitarian assistance, relative improvement in the security situation which has facilitated the pursuit of livelihood activities and access to markets. An estimated 52 percent of the population faced Crisis (IPC Phase 3) or worse acute food insecurity in October 2020 compared to 54.3 percent in August 2019 and 58.6 percent in September 2018. However, the proportion of the population in Crisis (IPC Phase 3) or worse has increased over the past 2 years. The worsening food security situation during the projected phase is largely attributed to the extensive impact of floods during the past two growing seasons which has further compounded existing vulnerabilities and strained food access.

An estimated 48.3 percent of the population will face Crisis or worse acute food insecurity during the first projection from December to March 2021, compared to 38.8 percent in September to December 2019 and 42.5 in October to December 2018. The proportion of the population facing Crisis or worse food insecurity has increased drastically during the projected period as compared to the past two years as a result of the combined impacts of floods, effects of COVID-19 induced restrictions and worsening macro-economic challenges which have led to soaring prices of food items. An estimated 60 percent of the population will be in Crisis or worse food insecurity from April to July 2021 compared to 47.1 percent in January to April 2020 and 48.8 percent for January to March 2019 (Figure 8).

Figure 8: Trends in population in need of assistance from 2018 to 2020



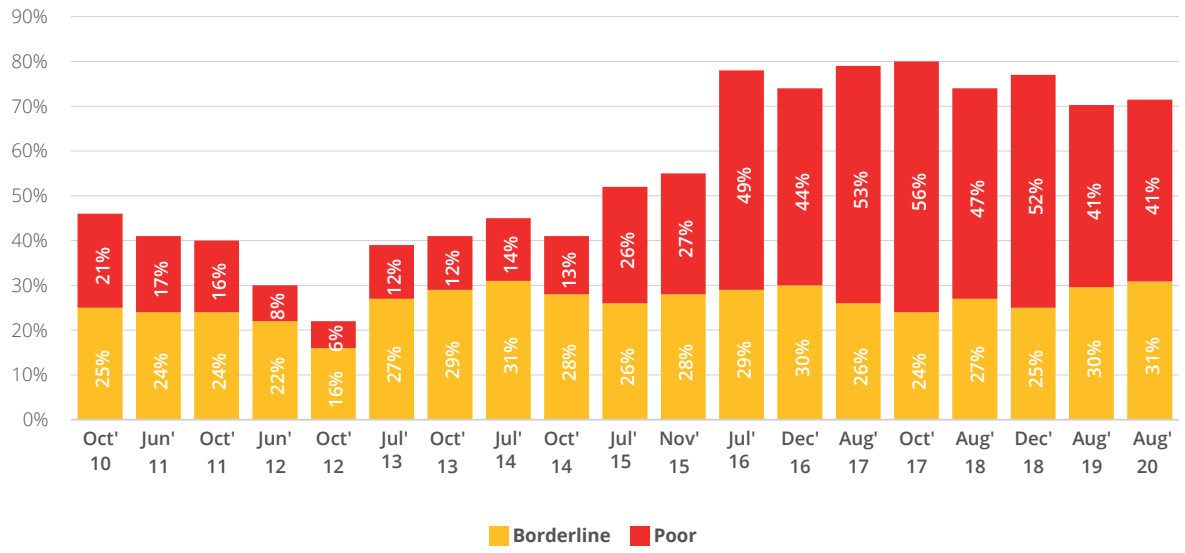
2. FOOD SECURITY OUTCOME INDICATORS

2.1. Food Consumption

Food Consumption Score is the most common indicator for measuring food security and is calculated by collecting information on the consumption frequency of food items for various food groups over a 7-day reference period. In August 2020, 72 percent of households in South Sudan were confronted with inadequate food consumption which is reflective of insufficient dietary and nutrient intake. The high proportion of households with inadequate food consumption is likely the consequence of diminished livelihoods and incomes, coupled with high prices of food items which reduces household level access to staples. Some 31 percent of households had borderline food consumption and 41 percent had poor food consumption.

As compared to August 2019, the proportion of households with inadequate food consumption has increased marginally by 1 percent. Inadequate food consumption implies that household members are not getting sufficient nutrients from their current consumption to maintain a healthy living and are at high risk of malnutrition which further renders the affected population highly susceptible to infectious diseases.

Figure 9: Food Consumption Score



At the state level, the proportion of households with inadequate food consumption has increased in Central Equatorial (marginally by 0.4 percent), Eastern Equatoria (3.7 percent), Jonglei (7.1 percent), Northern Bahr el Ghazal (4.7 percent), Unity (12.8 percent) compared to August 2019. In 5 other states, the proportion of households with inadequate food consumption has decreased. The states which recorded increased proportion of households with inadequate food consumption are characterized by the presence of some counties with elevated level of poor and borderline food consumption. The counties in which 9 in 10 households are experiencing inadequate food consumption include Juba (97.2 percent), Kajo-keji (97.2 percent), Lainya (93.5 percent), Terekeka (92.5 percent) Yei (91.7 percent), Canal/Pigi (97.1 percent), Awerial (90.7 percent), Wulu (90.7 percent), Maban (100 percent), Ibba (91.7 percent), Wau (92.5 percent) and Ulang (96.3 percent).

The highest proportion of households with inadequate food consumption in Central Equatoria (94 percent) State is the result of two key factors. Firstly, the impact of the covid-19 induced restrictions on livelihood, income and reduced purchase power of households has been highly pervasive in the state. In addition, the largely urban and peri-urban households did not benefit substantially from the arrive of early green harvest which contributed to the improved consumption in most other parts of the country.

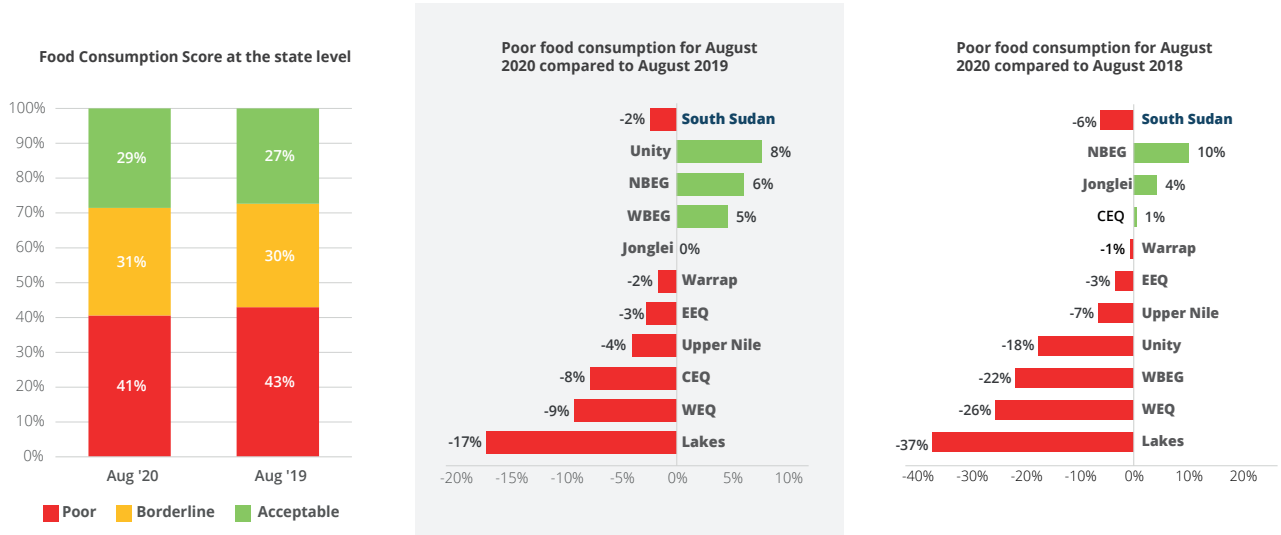
The rate of severe food insecurity among households across the country decreased to 17.2 percent from 32.3 percent in August 2019. As a result, the proportion of food insecure households decreased from 76.5 percent in August 2019 to 67.2 percent in August 2020 which is quite consistent with the marginal decrease in inadequate food consumption from 72.7 percent to 71.5 percent during this period.

Acceptable FCS increased from 27.3% to 28.5%	**Poor HDDS decreased from 36.7 0 to 32.9**	**2.4% decrease in poor FCS**
rCSI ***increased*** from **11.73 to 14.2**	Severe Hunger ***increased*** by **3%**	Emergency coping ***increased*** from **41% to 48.8 %**

Since August 2018, the proportion of households with inadequate food consumption has consistently decreased, moving from 77 percent in August 2019 to the current level of 65 percent. This reflects the gains attained from the relative improvement in the security situation which supported the revival of some livelihood activities and boosted access to food. At the national level, the proportion of households with poor food consumption has decreased consistently from 46.7 percent in August 2018, to 43 percent in August 2019 and to 40.6 percent in August 2020. This was accompanied by an increase in the proportion of households experiencing borderline food consumption, from 26.9 percent in August 2018 to 29.7 percent in August 2019 and to 30.9 percent in August 2020.

In Lakes State the proportion of households with inadequate food consumption decreased by 17 percent in August 2020 when compared to August 2019 and by 37 percent when compared with August 2018. In Western Equatoria, Central Equatoria and Upper Nile, the proportion of households with inadequate food consumption improved by 9 percent, 8 percent and 4 percent respectively as compared to August 2019 (Figure 10).

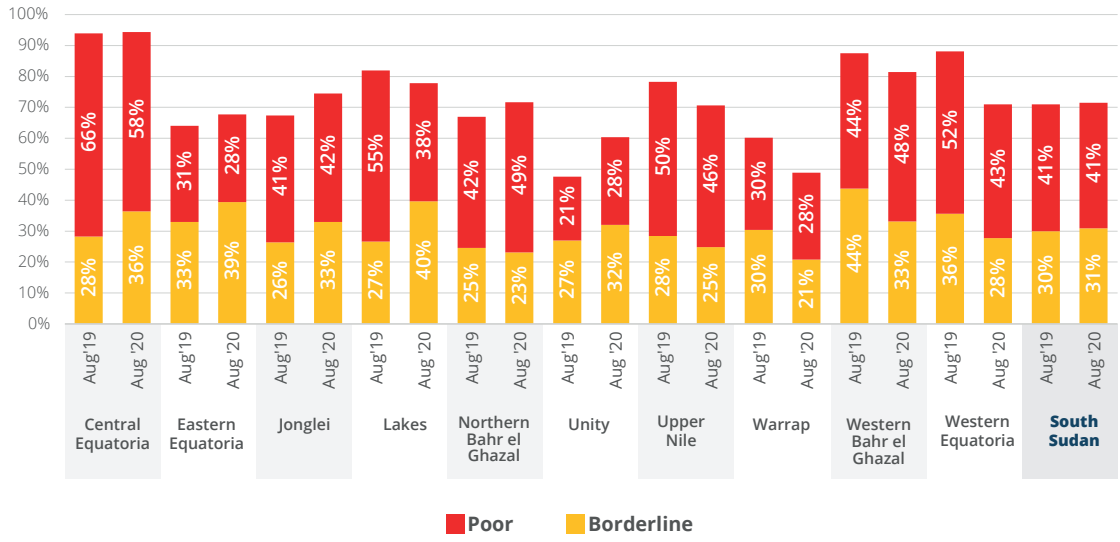
Figure 10: Food Consumption Score in August 2020 compared to August 2019



On the contrary, the incidence of inadequate food consumption increased by 8 percent in Unity, 6 percent in Northern Bahr el Ghazal and by 5 percent Western Bahr el Ghazal in August 2020 as compared the August 2019. When compared to August 2018, only Jonglei and Norther Bahr el Ghazal State experienced an increase in the proportion of households with inadequate food consumption.

Across the country, the proportion of households with acceptable food consumption has been trending upwards for the past two years, increasing from 26.5 percent in August 2018, to 27.3 percent in August 2019 and to 28.5 percent in August 2020. Warrap (51.1 percent), Unity (39.7 percent) and Eastern Equatoria (32.3 percent) have the highest proportion of households with adequate food consumption, which is consistent with the situation in August 2019 (Figure 11).

Figure 11: Current food consumption trends by states compared to August 2019



In Warrap State, the high proportion of households with adequate food consumption is largely attributed to food access from own-produced sources and market purchase as general food distributions reached only 3.9 percent of households. Unity State had the highest proportion of households (73.4 percent) who had access to general food distributions while a quarter (25.7 percent) of households in Central Equatoria had access to general food distributions.

2.2. Dietary Diversity

Household Dietary Diversity Score (HDDS) is a proxy indicator of household food access and is used to measure the quality of a household's diet based on the number of different food groups consumed. Households that are confronted by food access constraints either due to lower household level stocks, loss of income or increased prices of food commodities tend to have a reduced variety and number of food items available for consumption.

Overall, the HDDS or the count of food groups consumed during the preceding 24 hours indicates that nationally, 32.9 percent of households had poor dietary diversity and consumed 0 to 2 groups. Some 39.1 percent of households had medium or average dietary diversity based on the consumption of 3 to 4 food groups while 29 percent had sufficient or diverse diets based on the consumption of 5 to 12 food groups. The proportion of households with poor diets increased to 39.2 percent in August 2020 from 25.3 percent in August 2019 while the proportion of households with average diets remained unchanged at 38 percent. The incidence of poor diets is highly prevalent in Terekeka (78.7 percent), Canal/Pigi (71.3), Maban (84.3) and Panyikang (73.4 percent) where at least 7 in 10 households are affected. On the contrary, Malgwi, Pochalla, Renk, Jur River and Maridi are the counties in which at least 6 in 10 households had diverse diets.

At the national level, cereals and vegetables are the two most frequently consumed food groups for average of 4.5 days and 2.7 days respectively. On average, pulses, milk and butter were consumed for 1.7, 1.4 and 1.6 days respectively during the 7 days prior to the survey. The least consumed food groups are fruits (0.4 days) and meat/fish (0.8) which are both consumed for less than one day. The low intake of protein-based foods coupled with poor access to water and sanitation services contribute to the high incidence of malnutrition especially among children.

Cereal consumption by households in Warrap, Unity and Eastern Equatoria was 5.6, 5.4 and 5.3 days respectively. Similarly, households in Eastern Equatoria and Warrap consumed vegetables for the highest number of days at 4.2 and 3.7 days respectively. Greater access to pulse ensures that households in Lakes State have the highest consumption of that food (3.3 days), but the lowest consumption of cereals (3 days). Overall, Upper Nile state tops in the consumption of meat/fish (1.5 days) followed by Jonglei state (1.3) on account of the presence of rivers and other water bodies which serve as key sources of fish for a greater part of the year.

At the county level, the locations that are well noted for significant consumption of milk are Kapoeta East (4.3 days), Kapoeta North (3.8 days), Koch (3.4 days), Mayom (4.2 days), Pariang (4.3 days), Rubkona (3 days), Gogrial West (3.2 days) and Renk (3.6 days) and most of these locations are prominent for the dominance of agro-pastoral livelihoods.

Table 1: Average days of consumption by different food commodities eaten

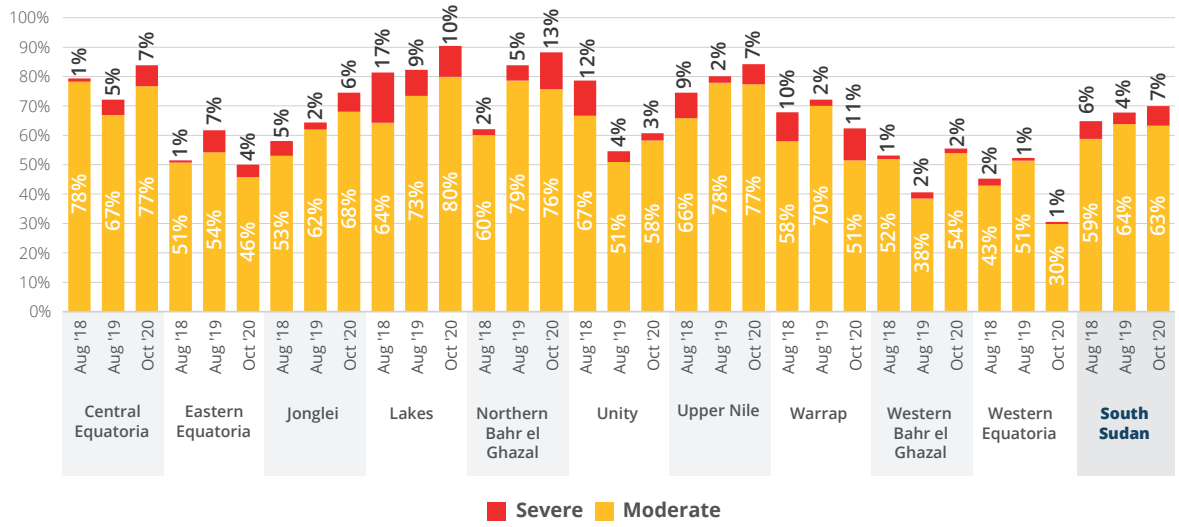
	Cereals, roots, tubers	Pulses	Milk/ Dairy	Meat/fish/ eggs	Vegetables	Fruits	Oil/ butter	Sugar	Condiments
CEQ	4.13	1.97	0.04	0.29	3.28	0.68	1.05	0.75	2.36
EEQ	5.25	1.05	1.73	0.67	4.24	0.55	2.82	1.19	3.83
Jonglei	4.38	1.26	1.40	1.26	1.49	0.38	2.24	0.72	0.58
Lakes	2.99	3.27	0.88	0.38	3.15	0.27	1.14	2.55	2.56
NBEG	4.61	1.11	1.57	0.66	3.38	0.23	0.72	1.60	3.04
Unity	5.40	0.62	3.06	0.90	1.06	0.19	1.68	0.91	0.90
Upper Nile	3.71	0.78	1.66	1.45	1.82	0.39	1.86	1.69	1.23
Warrap	5.57	2.22	2.61	0.66	3.68	0.19	1.02	1.72	3.49
WBEG	3.75	2.42	0.43	0.47	2.84	0.36	1.35	2.52	2.98
WEQ	4.57	2.71	0.26	0.44	3.00	0.81	1.93	0.89	3.51
South Sudan	4.49	1.66	1.44	0.77	2.71	0.40	1.62	1.34	2.27

2.3. Household Hunger Scale

Constrained food access resulting from depleted household level stocks, high prices of staples in both rural and urban areas, coupled with chronic poverty have contributed to high prevalence of food deprivation and hunger. The Households Hunger Scale (HHS) measures the prevalence and perception of food deprivation by focusing on the quantity dimension of food access. At the national level, 70 percent of households reported moderate (63 percent) to severe (7 percent) incidence of hunger during the 30 days preceding the assessment. The proportion of households reporting severe hunger increased by 3 percent as compared to August 2019 while the proportion of households reporting moderate hunger decreased marginally by 1 percent during the same period.

At the national level, the proportion of households with severe hunger has increased by 2.8 percent from 3.9 percent in August 2019 to 6.7 percent in August 2020. The impact of unusually high food prices was higher among households that experienced severe hunger (20.8 percent) as compared to the impact on households with moderate hunger (17 percent) and slight hunger (16.2 percent). More households which were affected by severe hunger were also affected by insecurity and violence (8 percent). The prevalence of moderate hunger decreased marginally, from 63.8 percent in August 2019 to 63.2 percent in August 2020 (Figure 12).

Figure 12: Trends in household hunger scale by state



At the state level, prevalence of severe hunger was linked to flooding of homes in Central Equatoria (26.3 percent) and too much rain and destruction of crops by floods (29 percent) in Eastern Equatoria. The impact of unusually high food prices was also widely reported among households affected by severely hunger in Western Equatoria (27.4 percent), Warrap (31.4 percent), Unity (15.2 percent), Northern Bahr el Ghazal (26.8 percent) and Lakes State (31.6 percent).

A slightly higher proportion of IDPs (9.3 percent) reported severe hunger compared to the host population (6.7 percent) and IDP returnees (4.5 percent). The incidence of severe hunger was also higher among households that did not receive food assistance during the 3 months preceding the assessment (8.4 percent) than households that received assistance (4.9 percent). Furthermore, a higher proportion of households that did not plant crops during the last growing season (14.3 percent) reported severe hunger as compared to household which planted crops (5.8 percent).

Households that reported severe hunger relied significantly on the consumption of wild foods during the seven days preceding the assessment. Some 4.7 percent of IDP households relied on the gathering of wild foods during the week of the assessment compared to 2.8 percent of host community households. On average, households reporting severe catastrophe consumed wild foods for 2.3 days while households with severe emergency in their HHS score consumed wild foods for 1.7 days. On the other hand, wild food consumption among households with moderate hunger was 1.4 days.

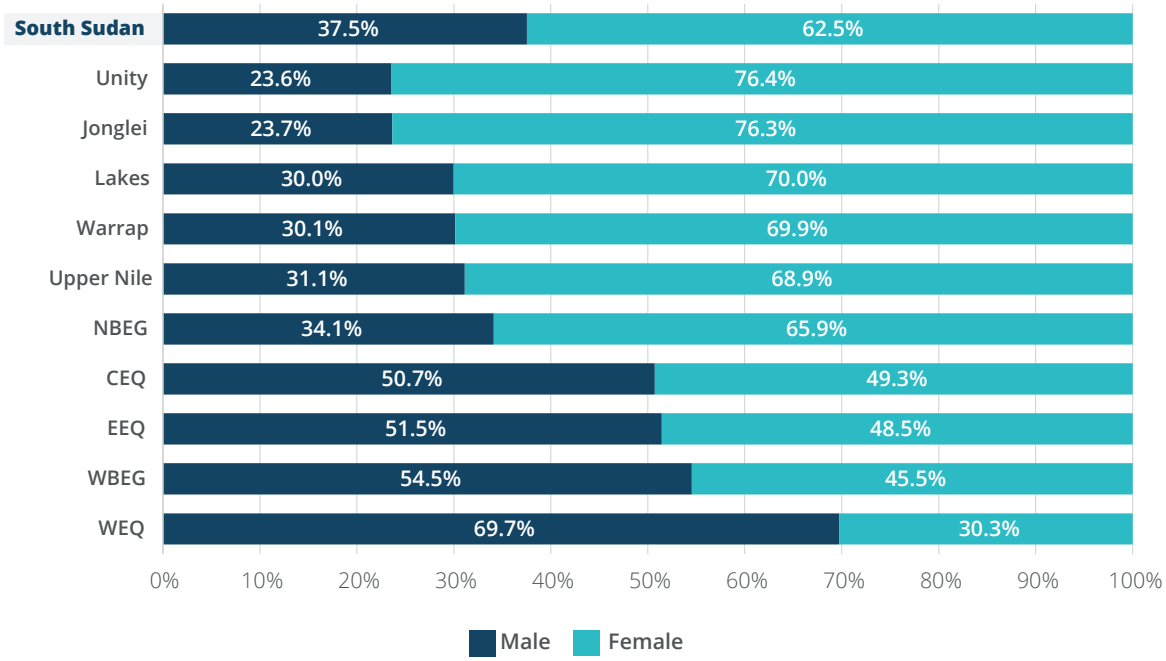
3. HOUSEHOLD SOCIO-DEMOGRAPHIC & FOOD INSECURITY PROFILES

3.1. Head of Household

Female-head households are the dominant demographic group (62.5 percent) with a significant variation in the proportion of these households across the 10 states. Whereas Unity (76.4 percent), Jonglei (76.3 percent), Lakes (70 percent), Warrap (69.9 percent), Upper Nile (68.9 percent) and Northern Bahr el Ghazal (65.9 percent) all had over 65 percent of households headed by females (Figure 13), Western Bahr el Ghazal, Wester Equatoria, Central and Eastern Equatoria had more male-headed households in the survey (>50 percent).

The high proportion of female-headed households in the Greater Upper Niles reflects the impacts of conflict and combat which have drawn more men to the frontlines. With the onset of the COVID-19 pandemic which has caused the loss of livelihoods and constrained food access, it is the female-headed household who ultimately bears the brunt of its impact.

Figure 13: Sex of household head



3.2. Households hosting IDPs

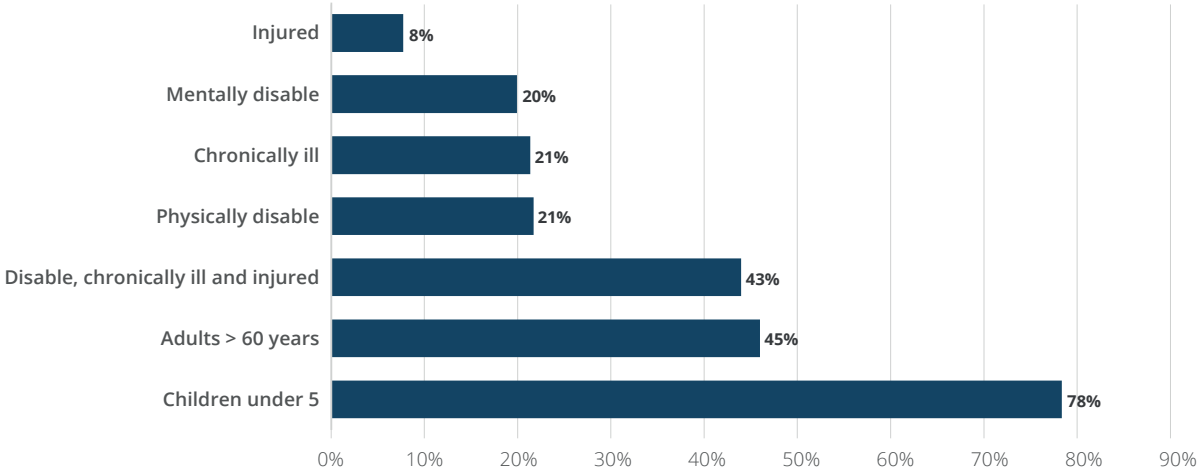
At the national level, 11.4 percent of households across South Sudan host displaced populations, with Jonglei (24.6 percent), Upper Nile (20.9 percent), Eastern Equatoria (10 percent), Lakes (12 percent) and Unity (10.4 percent) having the highest proportion of households. These states are all flashpoints for insecurity, localized violence and inter-communal strife which forced people to abandon their homes and seek refuge in the safer areas. Furthermore, Central Equatoria (17.8 percent), Jonglei (12.8 percent) and Upper Nile (19 percent) have a large proportion of households hosting returnees who were previously displaced inside or outside South Sudan. Some 36.4 percent of households reported the existence of good relationship between displaced groups and host communities.

3.3. Disability

The likelihood of food insecurity increases with disability of a household member due to the inability of disabled members to contribute economically to the productivity of that household. Nationally, one in five households (21.5 percent) has at least one member with physical disability, which potentially hampers their ability to contribute to livelihood activities and food access within the household. Upper Nile (30.4 percent), Western Equatoria (27.4 percent), Jonglei (24.8 percent), Lakes (24.1 percent) Unity (24.4 percent) and West Bahr el Ghazal (23.1 percent) have the highest proportion of households with physically disabled members. In addition, 21.1 percent of households across South Sudan reported having at least one member with chronic illness. Lakes (26.2 percent), Upper Nile (23.6 percent), Unity (23.3 percent), Warrap (25.4 percent), Western Equatoria (23.6 percent), Jonglei (21.9 percent) and Central Equatoria (22.8 percent) have the largest proportions of households with at least one member being chronically ill.

General economic productivity and access to food within the households depends largely on the role of the economically active members in providing support and care to children and the elderly. With 77.5 percent of households at the national level reporting the presence of children, the economically active population have a significant responsibility for providing for the food security and nutritional needs of this population. Moreover, 45.5 percent of households have at least one member over the age of sixty years (Figure 14). At the state level, more than 8 in 10 households in Jonglei (84.5 percent), Lakes (81.2 percent) and Upper Nile (84.5 percent) have at least a child under 5 years of age while more than 5 in 10 households have an elderly member in Jonglei (53.2 percent), Lakes (61.8 percent), Unity (59.9 percent) and Upper Nile (61 percent).

Figure 14: Demographic profile of households

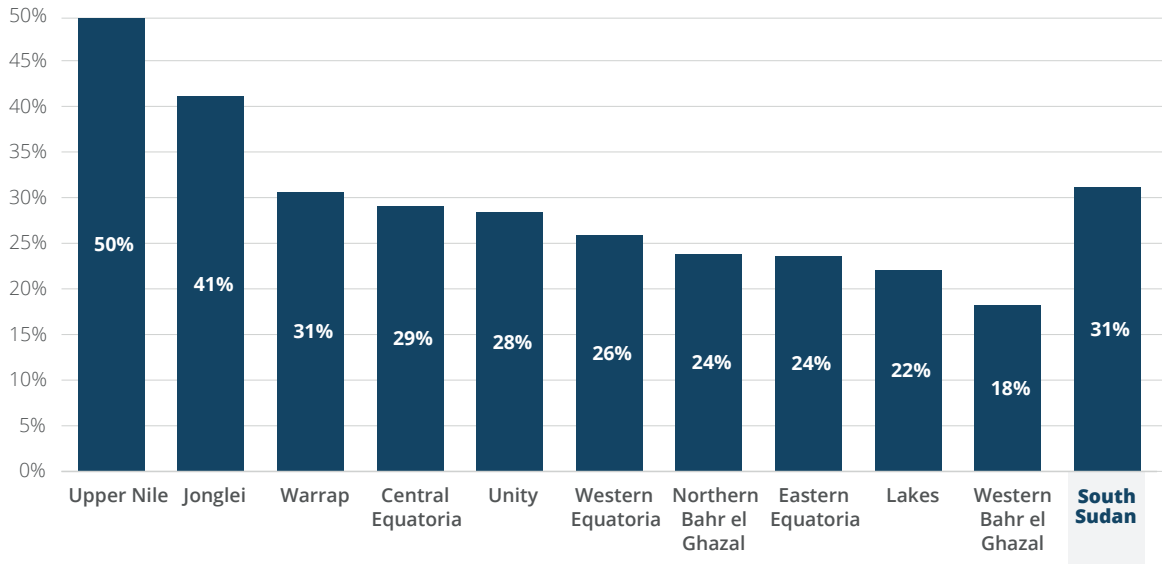


3.4. Migration

Migration has been a central component in livelihoods in some parts of the country, particularly among pastoral households as it entails the movement of livestock from one grazing ground to another in a seasonal cycle. The conflict and security situation in the country and the concomitant challenges of violence and poverty have shaped others form of migration as a response to insecurity. Nationally, 31 percent of households report the migration of at least one member during the 6 months preceding the assessment (Figure 15), with Upper Nile (50 percent), Jonglei (41 percent) and Warrap (31 percent) being the top 3 states.

The three top reasons for migration are for education (25.5 percent), due to lack of food (22.6 percent) and to join other family members or relatives (16.7 percent). Lack of food is the primary reason for migration in Eastern Equatoria (35.5 percent), Jonglei (34.9 percent), and Upper Nile (31.9 percent). However, in Northern Bahr el Ghazal (32.9 percent) and Warrap (27.2 percent), search for employment was the main reason for migration while in Unity (40 percent) and Western Equatoria States (30.1 percent) education was the main reason for migration.

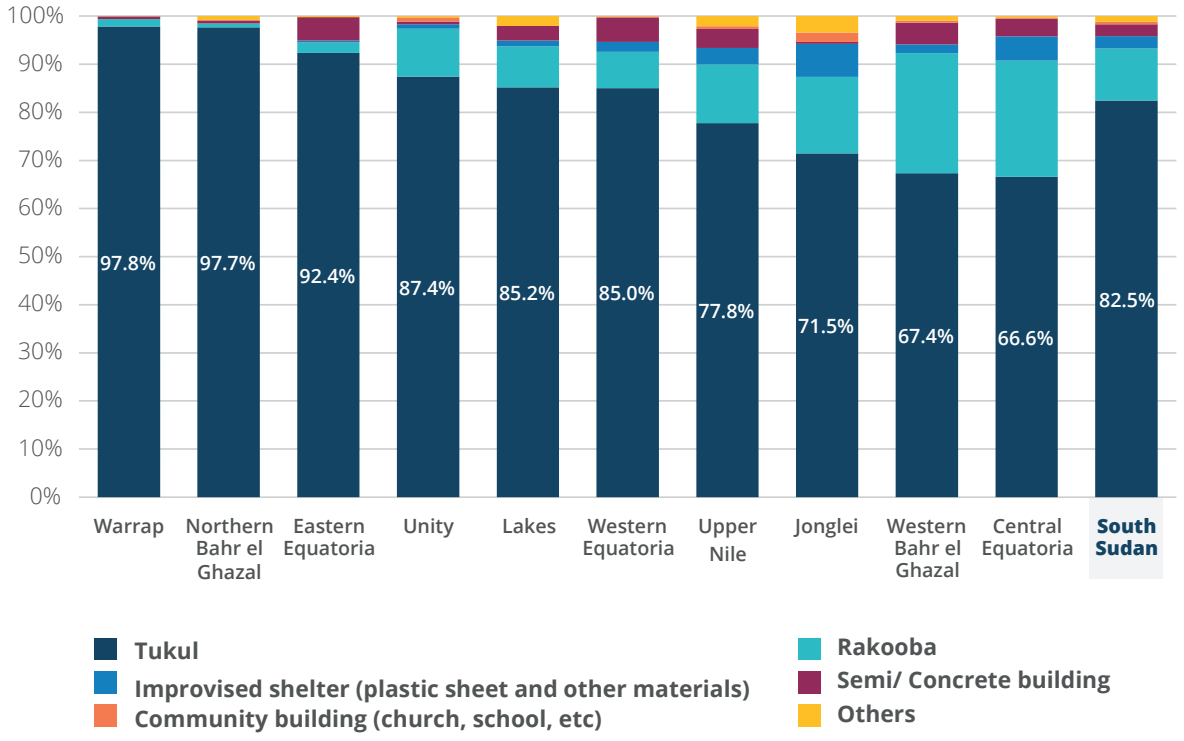
Figure 15: Households reporting at least one member migrating in the past one year



3.5. Housing

Overall, most households across the country live in Tukul (87.6%), with fewer households living in Rakooba (7.5%) improvised shelter (2%) and semi/concrete buildings (2.6%). At the state level, a slightly higher proportion of households reside in Rakooba in Central Equatoria (16.8%), Jonglei (11.8%), Unity (10.7%), Upper Nile (18.5%) and Western Bahr el Ghazal (13.7%). This kind of dwelling structure is more common in rural areas. Some 94.9% of households own the houses in which they reside, with Western Bahr el Ghazal and Upper Nile reporting the lowest proportion of house ownership at 87% and 87.6% respectively (Figure 16.

Figure 16: Types of shelter



3.6. Social Networks

Membership of a social group such as farmers association, savings group or mothers support group is considered an important tool for strengthening social bonds, enforcing collective action and to generate social capital which can be an important strategy for improving economic and social well-being (Figure 17). Overall, twenty-four (24) percent of households belonged to a social group and 22 percent of households are reported to have benefitted from some form of training during the last 12 months. High membership of social groups was reported in Western Equatoria (45 percent), Western Bahr el Ghazal (35 percent) and Warrap States (32 percent). Contrary to the general trend, there are more households in Unity (28 percent), Upper Nile (19 percent) and Central Equatoria (15 percent) which received training than those who belong to a social group.

Figure 17: Membership of social network and participation in training

3.7. Food Security Profiling

The vulnerability of households to food insecurity or their ability to access enough food to is determined by key characteristics including livelihoods, socio-economic, demographic and institutional factors. Table 2 provides a snapshot of core characteristics of severely food-insecure households.

Table 2: Characteristics of food insecure households

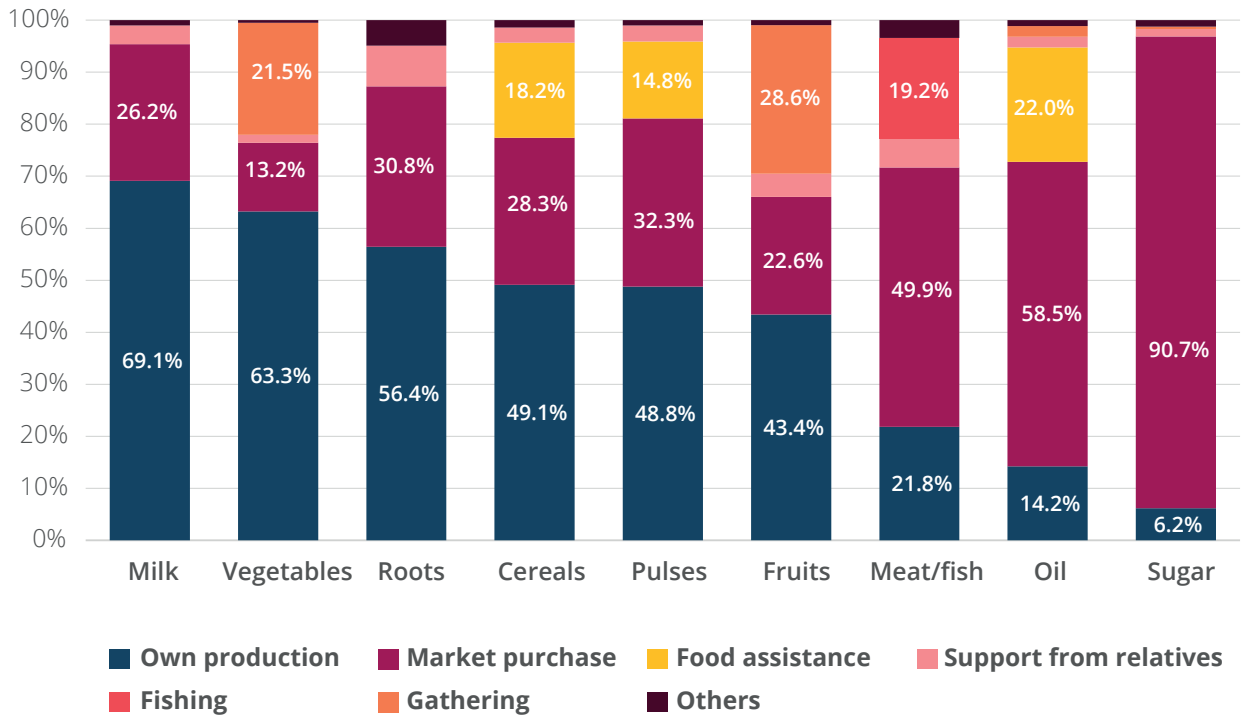
CHARACTERISTICS	ATTRIBUTE	OBSERVATION
	Female headed households	Severe food insecurity affects 17.9 percent of female-headed households compared to 16.2 percent of male-headed households.
	Lack of education of the household head	17.7 percent of households with no formal education, started but did not finish primary school or completed primary school are severely food insecure.
	Presence of physically/ mentally disabled/ chronically ill or injured household member	20.4 percent of households with physically/ mentally disabled/ chronically ill or injured member were more likely to be severely food insecure than households without such members.
	Access to GFD in the last month	17.4 percent of households without access to General Food Distributions in the last month were more likely to be severely food insecure.
	Household hosting orphans/ returnees and IDPs	21.8 percent of households hosting orphans, returnees, IDP returnees and IDPs were likely to be severely food insecure.
	Livestock ownership- access to milk, income and meat/ blood	20.2% of households which did not own livestock were severely food insecure compared to 14.9 percent of households who owned livestock but severely food insecure.
	Livelihood source	Households which relied on unskilled casual labor (31.8 percent) and begging (46.1 percent) are more likely to be severely food insecure.
	Assets sold/ looted	Households which had their assets looted or destroyed during the preceding 12 months were more likely to be severely food insecure (20.2 percent) than those whose assets were not looted (15.8 percent).
	Households affected by shocks	28 percent of households which had their crops destroyed by floods were more likely to be food insecure compared to 16.4 percent of households whose crops were not destroyed by floods.

4. SOURCES OF FOOD

4.1. Overall food sources

In general, households' own production was the main source of milk (69.1 percent), vegetables (63.2 percent), roots and tubers (56.4 percent), cereals (49.1 percent), pulses (48.8 percent) and fruits (43.4 percent) across the country. On the contrary, market purchase was the main sources of sugar (90.7 percent), oil (58.5 percent) and meat/fish (49.9 percent). Food assistance accounted for 18.2 percent of cereals, 14 percent of pulses, and 22 percent of the oil consumed by households. Gathering constituted an important source of fruits and vegetables for 28.6 and 21.5 percent of households respectively while 19.2 percent of households relied on fishing for fish consumption (Figure 18). [BOX]

Figure 18: Sources of food by different food groups

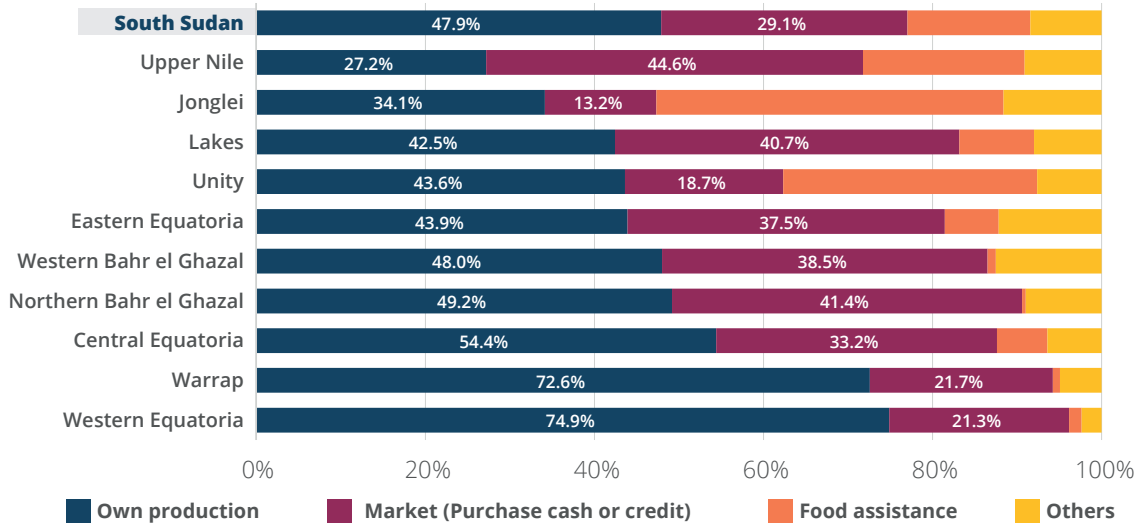


4.2. Food sources by state

Overall, 47.9 percent of households across South Sudan relied on own-produced cereals and grains to meet their food needs during the week preceding the assessment. Western Equatoria (74.9 percent), Warrap (76.2 percent) and Central Equatoria (54.1.1 percent) have the highest proportion of households that relied on own production to meet their needs for cereals and grains. More than 40 percent of households in Northern Bahr el Ghazal (49.2 percent), 48 percent in Western Bahr el Ghazal, 43.9 percent in Eastern Equatoria, 43.6 percent in Unity and 42.5 percent in Lake States also relied on own-produced cereals to meet their food needs during the 7 days preceding the assessment (Figure 19). On the other hand, Upper Nile (44.6 percent), Lakes (40.7 percent) and Northern Bahr el Ghazal (41.4 percent) have the highest proportion of households that relied on market purchases to meet the consumption of cereals and grains. With respect to pulses, more than 70 percent of households relied primarily on own produced sources in Lakes (79.2 percent), Warrap (73.2 percent) and Western Equatoria (74.3 percent) while market purchases dominates access to pulses in Northern Bahr el Ghazal (71.5 percent), Upper Nile (67.1 percent) and Eastern Equatoria (51.8 percent).

Households are more generally reliant on market purchase for the consumption of meat/fish/eggs, with the highest proportions in Northern Bahr el Ghazal (88.2 percent), Lakes (70.3 percent), Warrap (87.2 percent), Upper Nile (75.7 percent), Western Bahr el Ghazal (74.3 percent) and Western Equatoria (79.8 percent). Reliance of gathering from the wild is the main source of fruits consumption in Central Equatoria (42.5 percent), Jonglei (35 percent), Northern Bahr el Ghazal (46.2 percent) Unity (44 percent) and Warrap (52.6 percent).

Figure 19 Sources of cereal and tubers



4.3. Food assistance as source of food

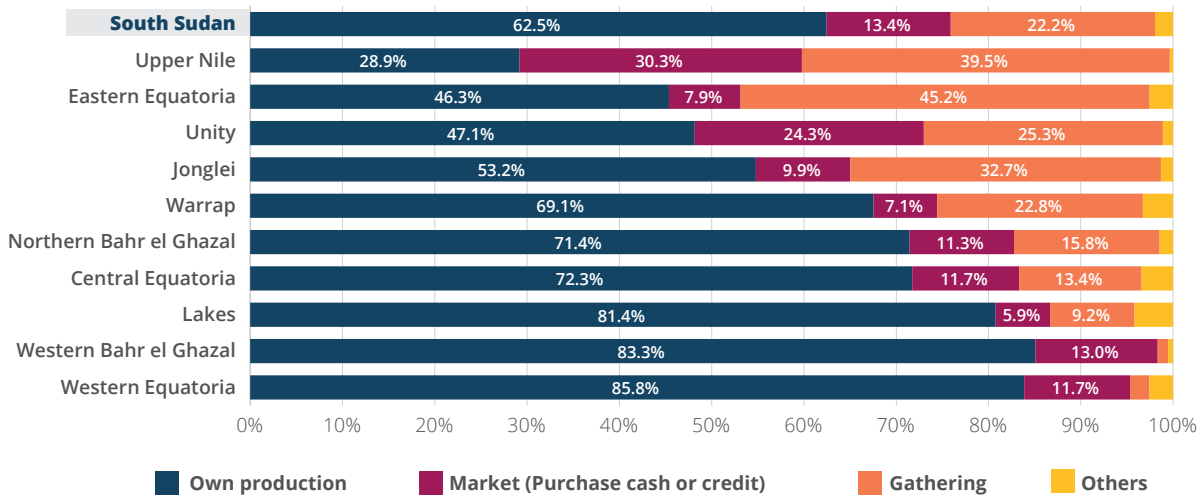
Food assistance constitute a key source of food for households in some parts of the country. While 18.2 percent of households in received cereals and grains, food assistance constituted the main source of grains for most households in Jonglei State (53.9 percent). In Unity and Upper Nile States food assistance in the form of cereals and grains was 37.4 and 24 percent respectively. Similarly, 53.7 percent of households in Jonglei state sourced their pulses through humanitarian food assistance compared to 35.9 percent in Unity, 17.4 percent in Upper Nile and 11.5 percent in Eastern Equatoria. Across the states with a significant number of food assistance beneficiaries, a higher proportion of households have access to oil, reaching 63 percent of households in Jonglei, 29.7 percent in Unity and 27.3 percent in Upper Nile State.

In general, food assistance was scaled up in Jonglei in 2020 enabling many more households to be assisted as compared to the previous year. In that state, the proportion of households that received pulses increased by 4.9 percent from 48.8 percent in August 2019 to 53.7 percent in August 2020. On the other hand, the proportion of households that received pulses decreased by 34.4 percent and 15.7 percent in Unity and Upper Nile respectively in August 2020 as compared to August 2019. Similarly, the proportion of households that received oil increased by 25.9 percent in Jonglei in 2020 as compared to August 2019. The proportion of households that received oil decreased by 32 percent in Unity, but increased by 3.7 percent in Upper Nile in August 2020 compared to August 2019.

4.4. Wild foods and vegetables

Vegetable consumption is generally based on households' own produced sources across most states, with to 4 in 5 households (Figure 20) relying on this source in Western Equatoria (85.6 percent), West Bahr el Ghazal (83.3 percent) and Lakes (81.4 percent). Gathering from the wild contributes a sizeable share of households' consumption of vegetables in Upper Nile (39.5 percent), Eastern Equatoria (45.2 percent), Unity (25.3 percent) and Warrap (22.8 percent).

Figure 20: Sources of vegetables and leaves



5. NUTRITION STATUS OF CHILDREN (0-59 MONTHS) AND WOMEN (15 TO 49 YEARS)

5.1. Child nutrition

5.1.1. Acute malnutrition

GAM estimates for this assessment were generated through modelling exercise. While only MUAC data was taken from children and Pregnant and Lactating Women, the data from MUAC screening was not used for this analysis due to low technical plausibility. A modelling exercise using random forest was conducted by the Nutrition information working group where data from previous surveys conducted during similar season was used. Food security, Livelihood, health and WASH variables were used to model the final estimate. Training of the model was done using previous survey results and a technical team was used to validate the final estimates based on historical trends and current contextual unfolding, including the impact of covid to program coverage and admissions.

5.1.2. Nutrition status of children from modelling exercise.

Global Acute Malnutrition (GAM) at national level was estimated at 15.8 percent using the modeling exercise. In 2019 , survey conducted during the same period had estimated a GAM prevalence of 16.2 percent . These two rates are in the critical range, above the WHO emergency threshold of 15%.

5.1.3. Malnutrition trends 2014-2021

Comparison of the current malnutrition status of children was done through graphical representation of seasonal estimation since 2014 to current results (2020). Trends are as shown in Figure 21.

Figure 21: National Malnutrition trends for Lean

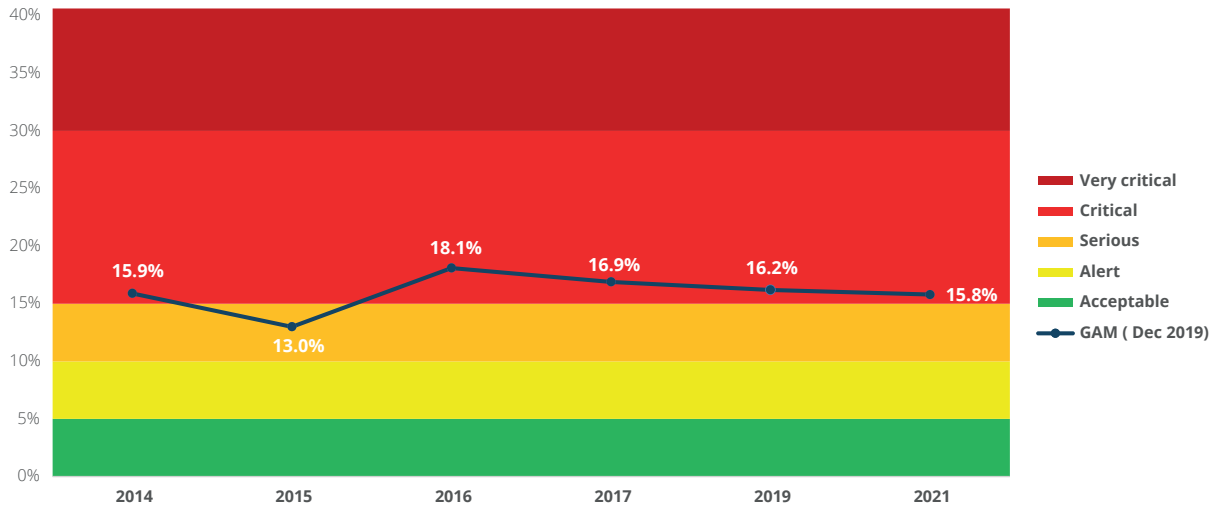
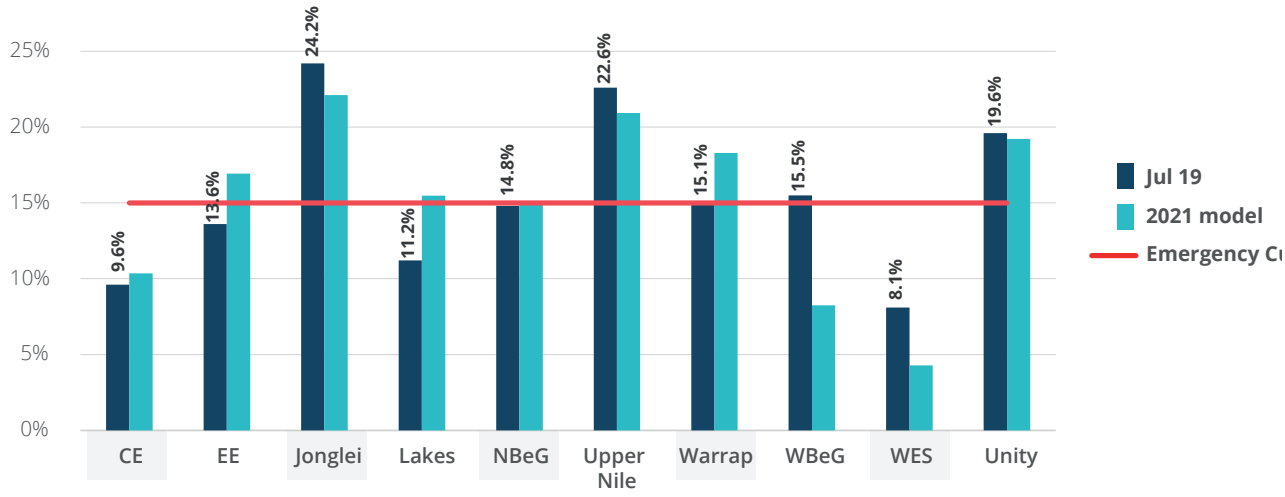


Figure 21 above shows national rates of malnutrition during the Lean season. Except in 2015 when the country recorded serious levels of malnutrition, the other years show critical levels. The modelling exercise using past survey data, estimated national GAM rate at 15.8 percent, classified as critical and above the WHO emergency threshold. This corresponds to the surveys conducted within similar seasons in the past years. The national differences between 2019 survey and 2020 modelling showed no significant difference with overlapping Confidence Interval.

5.1.4. State Level Malnutrition Rates

At state level, 2021 estimations indicated similar pattern as compared to previous surveys (Figure 22).

Figure 22: State level malnutrition rates



Malnutrition level at state level was estimated to fall within the same classification as previous surveys in most states. Jonglei , Upper Nile and Unity maintained malnutrition levels above the emergency level (>15%). In eastern Equatoria and Lakes, the estimates showed higher malnutrition rates in 2020 compared to 2019 survey, phase classification got worst changing from serious levels in 2019 to critical levels for 2020 estimates. In Western Bar el Ghazal, 2020 estimates were lower than in 2019 based on the modelling exercise results. The highest improvement was observed in Western Bahr el Ghazal and Western Equatoria as shown in figure 22 above.

5.2. IYCF practices

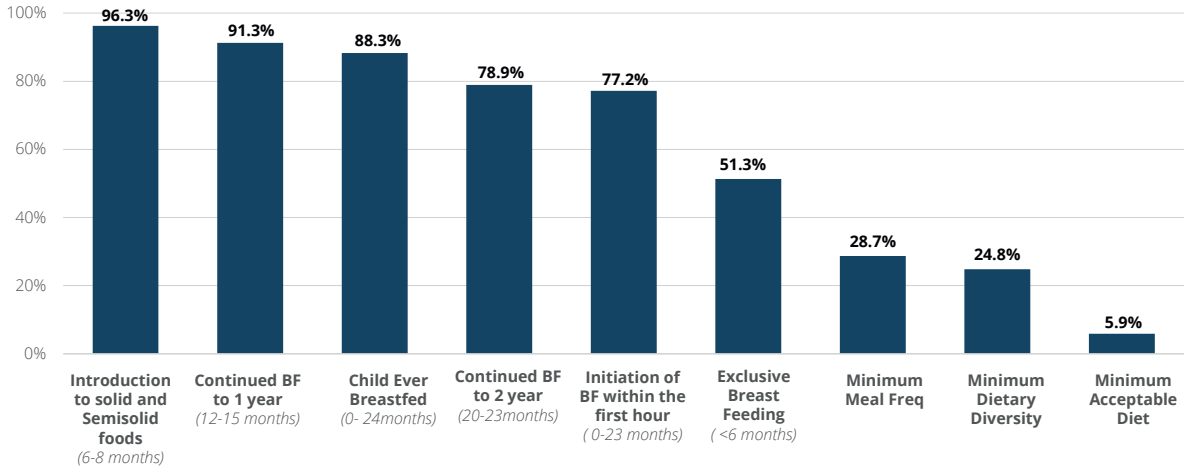
Inadequate Infant and young feeding practices affects food intake, making it one of the immediate causes of malnutrition based on the nutrition causal framework. Infant and young feeding assessment targeted children aged 0-23 months. Based on WHO definition of the specific IYCF indicators, parents and caregivers were asked to respond to specific questions based on the child's age. A 24-hour recall was used to collect data. The standard indicators and age cut-off are in Table 3.

Table 3: Standard indicators and age cutoff

Indicator	Age (Assessment subject)
Early initiation	0-23
Exclusive Breastfeeding (EBF)	<6
Child ever BF	0-23
Continued BF to 1 year	12-15
Continued BF to 2 years	20-23
Minimum Meal Frequency (MMF)	6-23
Minimum Dietary Diversity (MDD)	6-23
Minimum Acceptable Diet (MAD)	6-23

A total of 4,248 children aged 0 to 23 months were included in the survey, out of which 48.9 percent were girls and 51.1 percent boys. IYCF indicators were analyzed at national level (Figure 23).

Figure 23: IYCF indicators at the national level



Exclusive breastfeeding (EBF) was practiced by 51percent of respondents, representing a 17-percentage decrease from the previous survey which estimated EBF at 68.1 percent. Other than breastmilk, children below 6 months who were not exclusively breastfed were introduced to water (17 percent), milk (9.5 percent), formula (7.6 percent) and porridge (15.2 percent). The rest of liquids were given to less than 5 percent of the children below 6 months. Jonglei and Unity States recorded highest proportion of children who were introduced to porridge and milk at 35 percent and 33.5 percent , before attaining the required age for introduction of complementary food.

The assessment showed 77.2 percent of newborn babies were initiated to breast milk within one hour of birth as recommended. This is similar to findings from similar assessment conducted in August and January 2019. Continued breastfeeding rates were considerably high. Continued breastfeeding at one year refers to proportion of children 12 – 15.9 months of age who are still fed on breast milk. The findings show that breastfeeding at one year was 91.3 percent similar findings to two previous surveys. Breastfeeding at two years (children 20 – 23 months) was 78.9 percent. This represents a 20-percentage point increase from August 2019.

Optimal complementary feeding practices is key in sustaining the gains of EBF after the first 6 months. Both the adequacy and quality of complementary food is important for optimal growth and development. Results for the assessment showed sub-optimal complementary feeding practices. Only 24.8 percent of children 6-23 months received required quality of food diversification while 28.7 percent of children received the required meal frequency. Meal frequency is considered a proxy for energy intake from foods other than breast milk. The minimum acceptable diet (MAD) is an indicator that shows children who received required minimum dietary diversity and minimum meal frequency. Some 5.9 percent of children met the minimum acceptable diet , these rates continue to be low as observed from historical trends of previous surveys.

5.2.1. Infant and young child feeding at state level.

The sample size for IYCF was not adequate for analysis at state level. However, the below table shows indicative levels of IYCF in different states. There is indicative difference in IYCF indicators at state level. Calculation of the sample size did not specifically adjust for IYCF indicators and therefore there is need to interpret the results with caution at state level. EBF has a big difference between states. Northern Bahr el Ghazal State has ahigh rate of EBF Practice at 78 percent compared to the EBF of 34 percent in Jonglei State (Table 4). The Equatorias have double the proportion of children attaining Minimum Acceptable Diet (MAD). Western Bahr el Ghazal recorded the lowest proportion of children achieving MAD with only 2 children out of 100 getting the recommended dietary requirement.

Table 4: Infant and young child feeding at state level

State	Ever Breastfed	Early Initiation	Exclusive breastfeeding	Continued BF to 1 year	Continued BF to 2 years	Introduction of solid and semi solid foods	Minimum Dietary diversity	Minimum Meal frequency	Minimum Acceptable diet
Central Equatoria	89%	70%	69%	97%	77%	97%	25%	25%	8%
Eastern Equatoria	95%	66%	62%	93%	80%	97%	20%	39%	9%
Jonglei	88%	85%	32%	89%	82%	95%	17%	26%	4%
Lakes	85%	84%	58%	90%	73%	96%	24%	31%	6%
Northern BerG	92%	77%	78%	96%	74%	97%	22%	29%	5%
Unity	85%	86%	42%	87%	81%	96%	31%	20%	4%
Upper Nile	86%	74%	41%	95%	93%	97%	20%	33%	5%
Warrap	91%	92%	62%	90%	63%	93%	25%	28%	4%
Western BerG	90%	59%	67%	94%	82%	97%	24%	23%	2%
Western Equatoria	86%	67%	59%	88%	70%	98%	37%	29%	11%

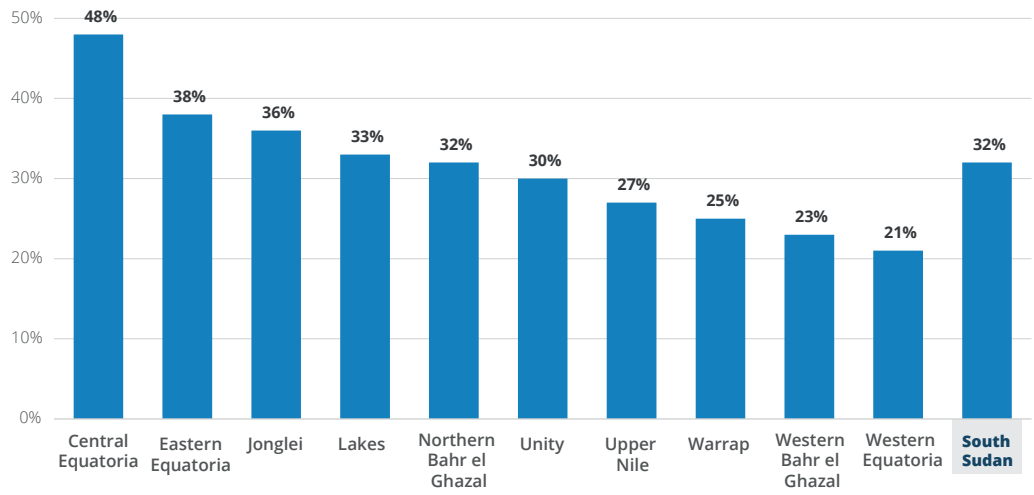
5.3. Bottle feeding

Caregivers of children 0-23 months were asked if their children drunk from a bottle with a nipple the day preceding the survey. Nearly half (45.1 percent) of the assessment respondents reported to have fed their children using a bottle the previous day. Analysis of morbidity (diarrhea) incidences among the group of respondents using bottle feeding showed no significant difference from those not using (p=0.462).

5.4. Women nutrition

Overall, 32 percent of women's diet are diversified as required. Apart from Western Equatoria where approximately half of the women of childbearing age received minimum dietary diversity, less than 50% of women in the rest of the states received the required WDD. Northern Bahr el Ghazal and Warrap states have the lowest Women Dietary Diversity with only 2 in every 10 women achieving the recommended WDD. Western Equatoria had the highest Dietary Diversity for Women (Figure 24). Dietary diversity among women has a direct correlation with child development for Pregnant women. Pregnant mothers need additional nutrients during pregnancy and when nutrient needs are not met, mothers may experience fatigue and wasting.

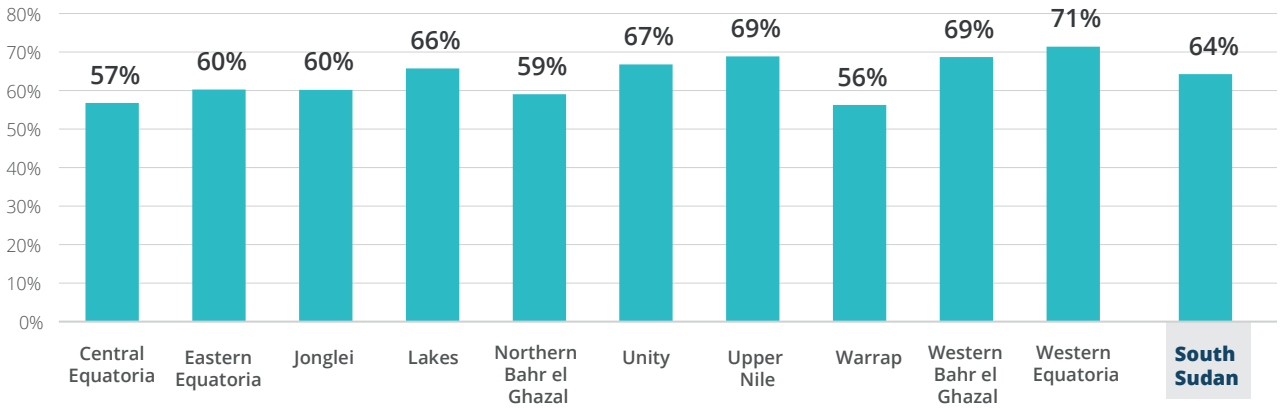
Figure 24: Minimum Dietary Diversity Women



5.5. Retrospective morbidity

Morbidity data for children aged (0-59 months) was collected from all the sampled households with children. Caregivers were the main respondents to this question (Figure 25). The interviews were based on retrospective two week recall prior to the survey data collection. 64 percent of total surveyed children were reportedly sick from one or more illness in the two weeks prior to the survey data collection. No difference was observed in morbidity between boys and girls (p=0777). This is indicative fo the burden of disease which is known to contribute to malnutrition.

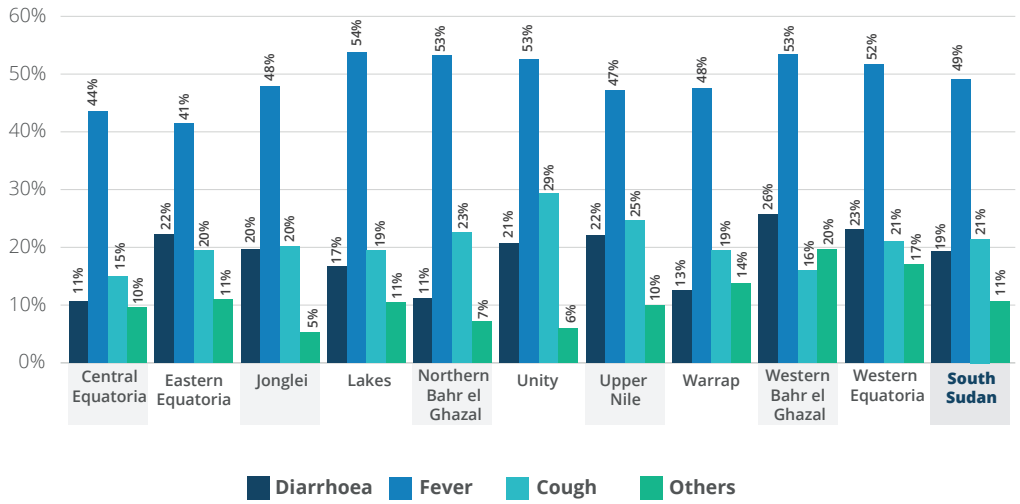
Figure 25: Morbidity among children 0-59 months two weeks retrospective



5.6. Symptom breakdown

Similar to previous rounds of FSNMS, the highest proportion of children reported fever as the most common symptom (49.9 percent) followed by Cough (21.7 percent) and Diarrhea (19.3 percent). Diarrhea disease is known to cause rapid deterioration of children health due to loss of nutrient and dehydration. These diseases contribute to high malnutrition rates and are some of the immediate causes of malnutrition (Figure 26).

Figure 26: Morbidity symptoms retrospective 2 weeks



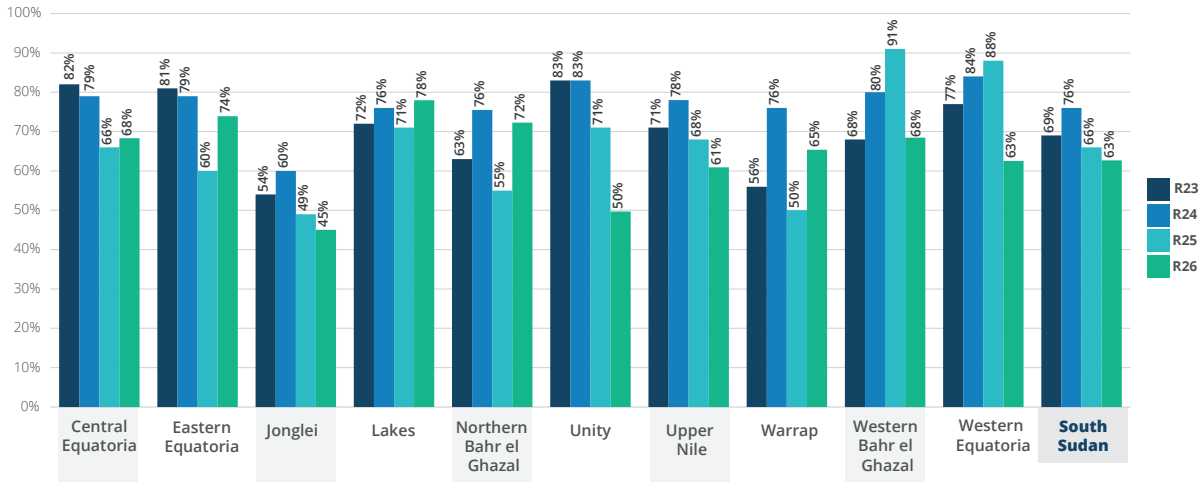
5.7. Vitamin A supplement and deworming

5.7.1. Vitamin A supplements

Vitamin A has multiple benefits to a child, including supporting a strong immune system, reducing incidence and severity of diarrhea and prevention of blindness. Vitamin A has also been shown to improve a child's survival chance by 12 percent. Data on Vitamin A and Deworming was collected for children 6-59 months and 12-59 months respectively. Caregivers were asked were asked whether the child received Vitamin A and deworming tablets in the past six months.

At national level, 63 percent of children 6-59 months had received Vitamin A supplements. 63 percent of children 12-59 months had also been dewormed. These rates are below the recommended threshold of >80 percent required to have adequate impact of public health importance. Overall, Vitamin A supplementation is lower than the previous surveys (Figure 27). During the period under study, some programs including vaccination campaigns were suspended to reduce the risk of Covid-19 transmission.

Figure 27: Vitamin A supplementation



5.8. Conclusion

Malnutrition rate in South Sudan is critical, surpassing WHO emergency threshold of >15%. The modelling exercise for October 2020 produced similar malnutrition patterns observed during previous years, where actual anthropometry data was collected. The high malnutrition rates above the emergency threshold is attributed to existence of aggravating factors. Morbidity rates were very high in all states with an estimated 3 children out of 10 reporting being ill. The negative impact of morbidity was compounded with poor quality of diet where only 5.9% of children achieved the required MAD (minimum Acceptable diet). Conflict and internal displacement contributed to program delivery challenges. Some program sites were suspended and other became inaccessible. Flooding was also an aggravating factor. Flooding contributed to internal displacement in some locations, disrupting household livelihoods. Water contamination is also a common outcome of the massive flooding. High morbidity could be attributed to the flooding that contaminates water sources.

Strong and continuous treatment programme was one of the mitigating factors that ensured malnutrition did not escalate beyond the normal trends. Nutrition cluster and partners were also keen to monitor the flooding and coordinated activities that ensured continuity of treatment. Nutrition partners put on measures to ensure treatment continued under the restricted movement due to Covid-19. Training for staff and equipping of sites with protective equipment ensured that treatment continued. Program adaptations to reduce contact and time period at sites were also adopted.

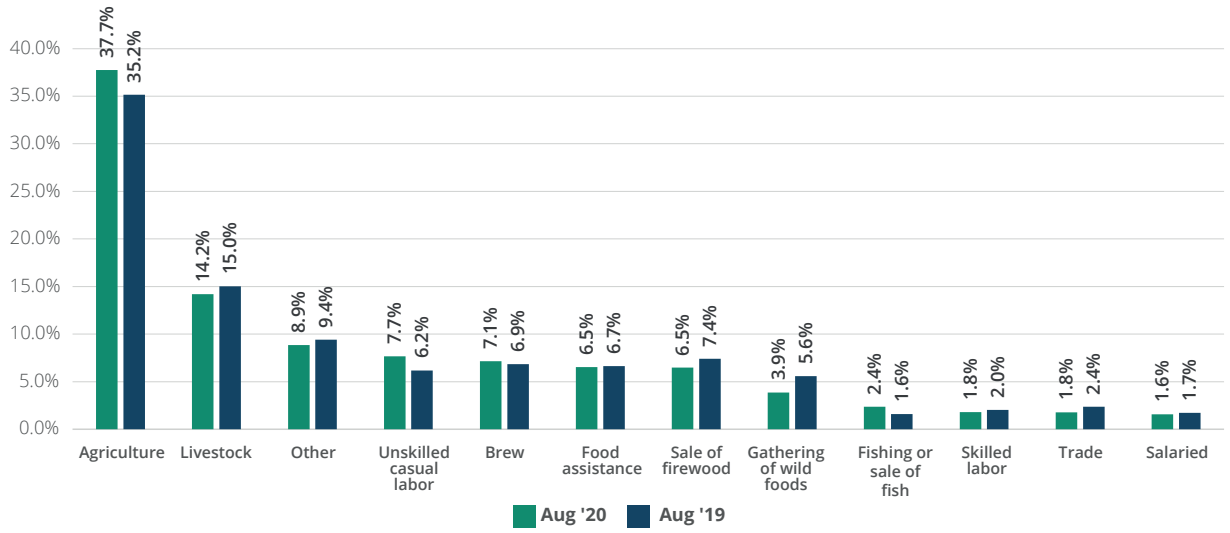
6. LIVELIHOODS, INCOME AND EXPENDITURE

6.1. Main Sources of Livelihoods

Households' ability to pursue livelihood activities using a combination of available assets and strategies is central to their capacity to obtain food, income and other goods and services to maintain their well-being. Most households do not necessarily pursue a single livelihood activity in order to ensure access to food and other basic needs. Rather, they are engaged in a combination of activities either simultaneous or at different times of the year to guarantee their well-being. To better understand the range of livelihood activities, households were asked to indicate the two most important activities for getting food and income during the last three months (Figure 28). Taken together, the top five livelihoods which are central to households' access to food and income are agriculture (37.7 percent), livestock production (14.2 percent), unskilled casual labour activities (7.7 percent) brewing/sale of alcoholic beverages (7.1 percent) and food assistance (6.5 percent).

Despite the impact of COVID-19 induced movement restrictions on livelihood activities and likely impact of price hikes on the cost of agricultural inputs, the proportion of households engaged in agriculture increased marginally by 2.5 percent from 35.2 percent in August 2019 to 37.7 percent in August 2020. The marginal increase in agricultural livelihoods has been attributed to an increase in the proportion of household that participated in cropping during the 2020 growing (94.8 percent in 2020 compared to 89 percent during the 2019 growing season). Activities based on livestock or sale of livestock products decreased marginally by nearly one percent (0.8 percent) while unskilled casual labour increased slightly by 1.5 percent as compared to the previous year.

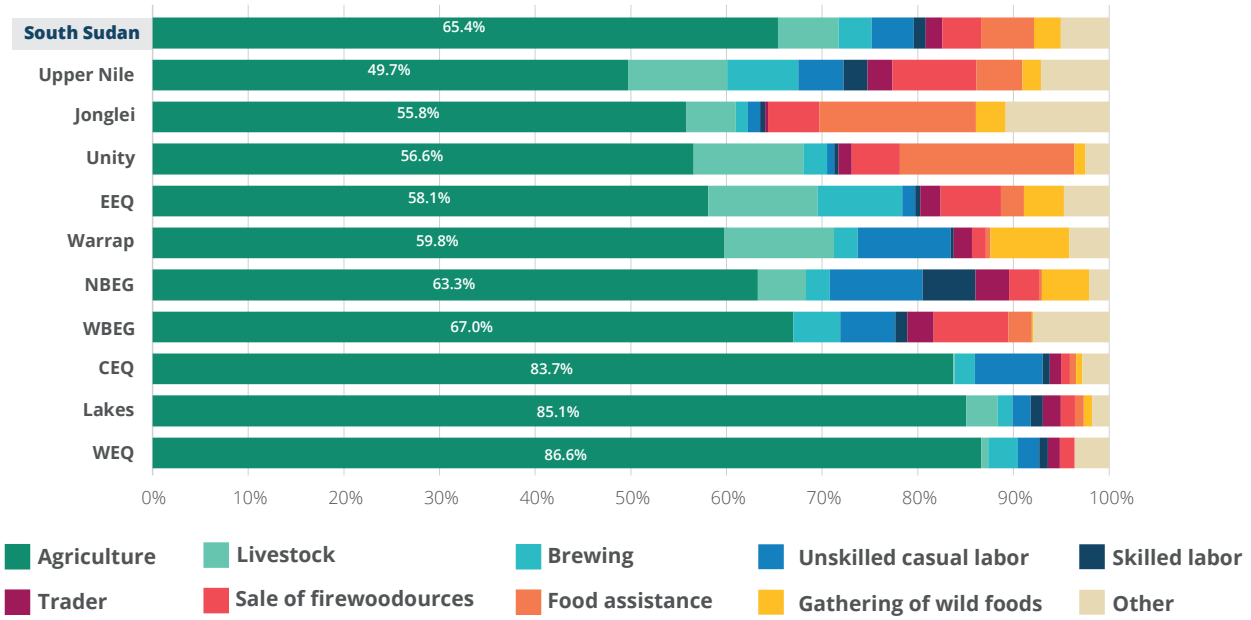
Figure 28: Livelihood sources



Based on livelihood analysis conducted for the first main source of income alone, 65.6 percent of households relied on agriculture, while 6 percent depended on food assistance or sale of food assistance, with 5.7 percent relying on the sale of livestock and livestock products. While agricultural source of income has increased by 3.8 percent as compared to December 2019 (when it was 61.8 percent), reliance on the sale livestock has decreased marginally by 0.8 percent from 6.5 percent in August 2019 to 5.7 percent in August 2020 due to significant loss of livestock to diseases, flood-induced illnesses and cattle rustling.

Reliance on agriculture for access to food and income is generally high across all states (Figure 29), but comparatively higher in Western Equatoria (86.6 percent), Central Equatoria (83.7 percent) and Lake States (85.1 percent). With a greater focus on agriculture in these states, reliance of livestock is of minimal importance. On the contrary, the states in which nearly 60 percent of households sourced their food and income through agriculture-based activities such as Eastern Equatoria (11.4 percent) Unity (11.5 percent), Upper Nile (10.3 percent) and Warrap State (11.4 percent) tend to have sizeable proportion of households who derived their food and income through the sale of livestock and livestock products.

Figure 29: Livelihood sources by state

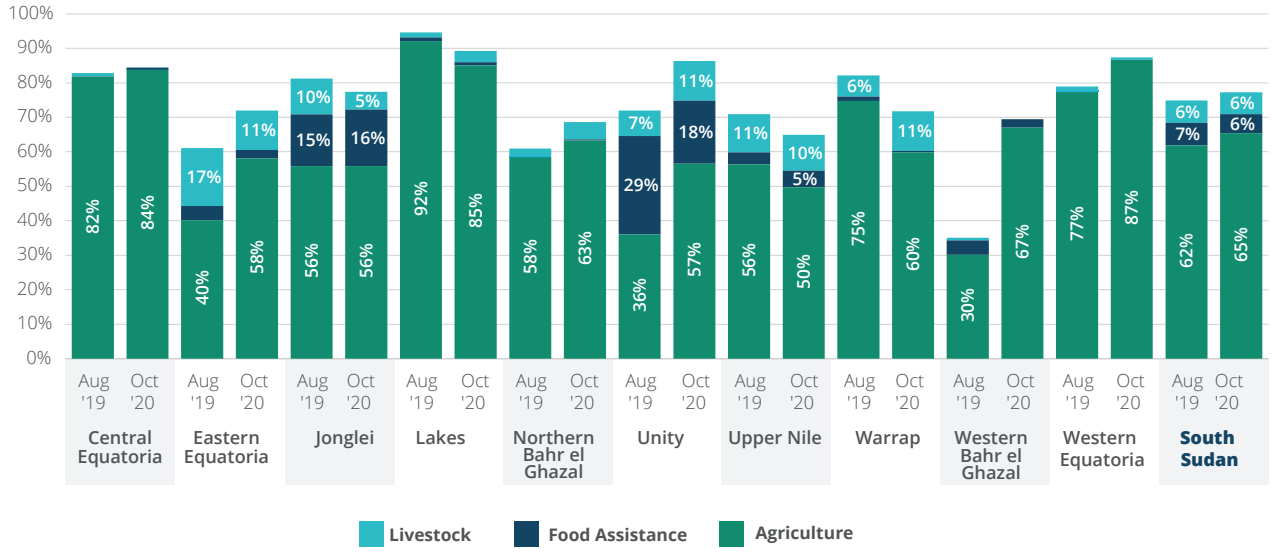


Reliance on livestock for food and income has decreased in Eastern Equatoria and Jonglei by 5.4 percent and 5.2 percent respectively and increased by 4.1 percent in Unity, 5.3 percent in Warrap and in Upper Nile by 0.7 percent. While the proportion of households reliant on food assistance for food and income has decreased by 10.2 percent from 28.5 percent in August 2019 to 18.3 percent, it increased slightly by 1.4 percent in Jonglei State from 15 percent in August 2019 to 16.4 percent in August 2020. The impact of livestock losses contributed to the decrease in this source of income.

Agriculture remains the main source of livelihood for households across all states and overall, 65 percent of households are engaged in agriculture (Figure 30) compared to 62 percent in 2019. As compared to the 2019 growing season, the proportion of households engaged in agriculture as the main source of livelihood have increased in 2% Central Equatoria, 18% in Eastern Equatoria, 7% in Northern Bahr el Ghazal, 21 percent in Unity, 37 percent in Western Bahr el Ghazal and 10% Western Equatoria. The increase in the proportion of households engaged in agriculture is largely attributed to impact of the revitalized peace agreement which has brought about a lull in large-scale hostilities across the country and enabled access to fields for crop cultivations.

On the contrary, the proportion of households engaged in agriculture as the main source of livelihood has decreased by 7 percent in Lakes, 6 percent in Upper Nile and has remained unchanged in Jonglei state. The decreased in agricultural livelihoods in some locations is due to continuing incidence of sub-national and localized conflicts which limited access to cultivated areas. It could also be attributed to the devastating impacts of floods in both the 2019 and 2020 agricultural seasons which resulted in the submergence of some low-lying agricultural fields.

Figure 30 Main Livelihood Changes in August 2020 compared to August 2019



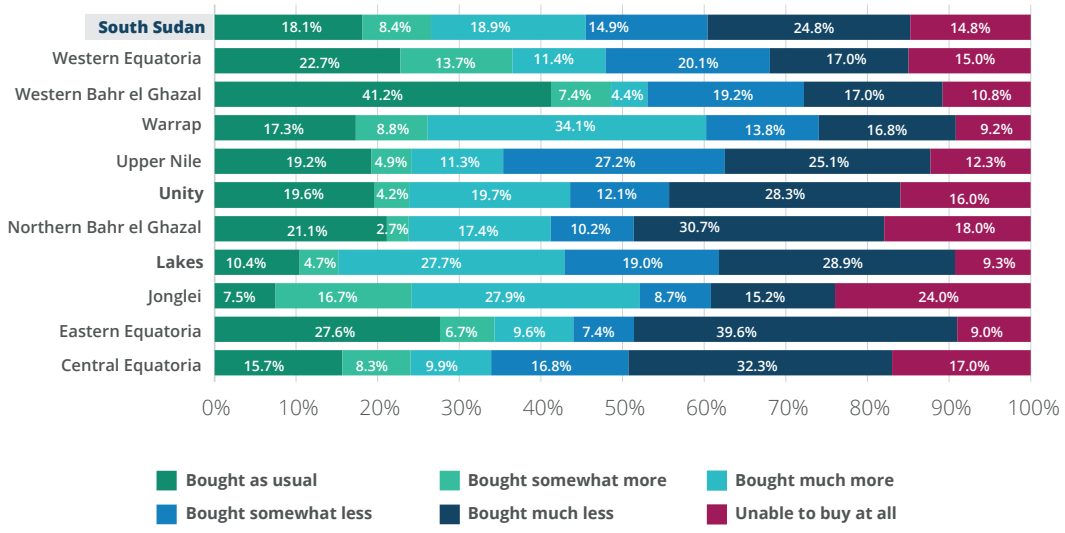
6.2. Household expenditure on food.

Two successive years of severe seasonal flooding which affected over one million people, coupled with the economic and health impact of COVID-19 on loss of livelihoods and income, high inflationary trends and rising cost of food and other basic needs have compounded vulnerability to food insecurity. As a result of the impact of these shocks 60.7 percent of households reported a decrease in households' ability to access income or food.

The impact of COVID-19 on socio-economic activities and along with the rising inflation and sharp depreciation in the value of the South Sudanese pound is reflected in 39.8 percent of households across the country who purchased less food or cereals after the introduction of COVID-related restrictions. The decrease in food or cereal purchase was higher in Upper Nile (52.3 percent) Central Equatoria (49.1 percent), Lakes (47.9 percent), Eastern Equatoria (47 percent), Northern Bahr el Ghazal (40.8 percent) and Unity State (40.5 percent). The reasons for the decrease in purchase of food or cereals include increased prices (48.2 percent), lack of money to purchase food items (40 percent) and restrictions to go out (27.4 percent).

The proportion of households who reported increased prices as the reason for the decrease in food purchase were largely in Western Bahr el Ghazal (63.2 percent), Lakes (55.3 percent), Northern Bahr el Ghazal (53.5 percent), Central Equatoria (51.7 percent) and Unity State (50.3 percent). On the hand, the decrease in food purchase due to lack of cash manifested prominently among households in Central Equatoria (59.1 percent), Northern Bahr el Ghazal (56 percent) Western Bahr el Ghazal (49.4 percent) and Western Equatoria (47.8 percent). Figure 31 is the changes in the level of purchase by state.

Figure 31: Changes in level of purchase by state



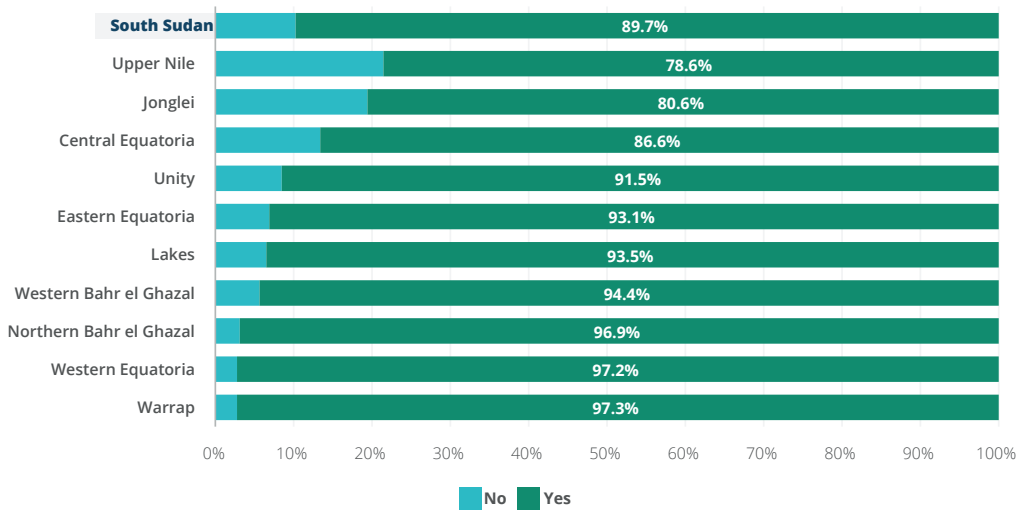
7. AGRICULTURE

7.1. Land access

Overall, 90 percent of sampled households reported having access to land for cultivation at the time of survey. This proportion was highest in Western Equatoria, Warrap and Northern Bahr el Ghazal, with each accounting for 97 percent. Land access was equality high in Western Bahr el Ghazal (94 percent), Lakes (93 percent), Eastern Equatoria (93 percent), Unity (92 percent), Central Equatoria (87 percent), Jonglei (81 percent) and lastly, Upper Nile 79 percent (Figure 32).

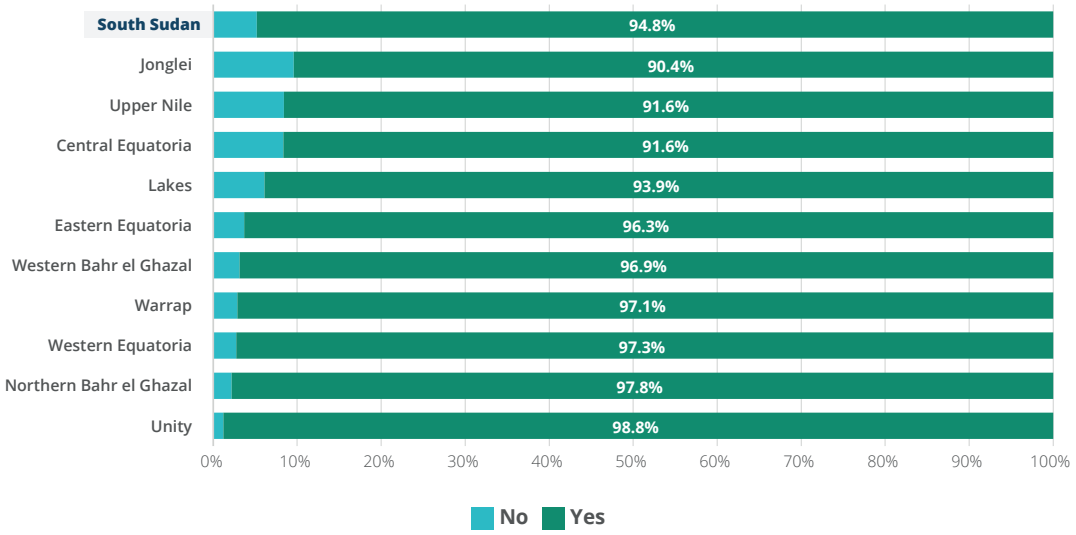
While comparing the current proportion of households in each state with access to land for cultivation vis-à-vis the proportion in August 2019, there is a significant decrease of household's proportion in Northern Bahr el Ghazal (by 4.59 percent), Unity (by 2.28 percent), Western Bahr el Ghazal (by 10.3 percent), Western Equatoria (by 13.0 percent) and lastly Warrap (by 12.6 percent).

Figure 32: Households with access to land for cultivation



Of those households who reported having access to land for cultivation, 95 percent cultivated crops during the last season preceding the survey, which is 5.8 percent higher than the same season in 2019. Unity State reported the highest cultivation rate (99 percent) as presented in Figure 33. Overall, the households who did not participate in cultivation although having access to land composed of 5%. Most of the households cited insecurity (27.95 percent) as the main impediment towards their participation in agricultural activities. The proportion of households having problems of insecurity have increased by 14.7 percent compared to previous year August 2019. Majority of the households who reported insecurity as the main reason preventing them from cultivating their land were from Jonglei, Western Bahr el Ghazal and Central Equatoria. Unconducive weather conditions for farming (27.5 percent) was another reason for not cultivating, with the highest prevalence in Upper Nile, Jonglei and Unity states.

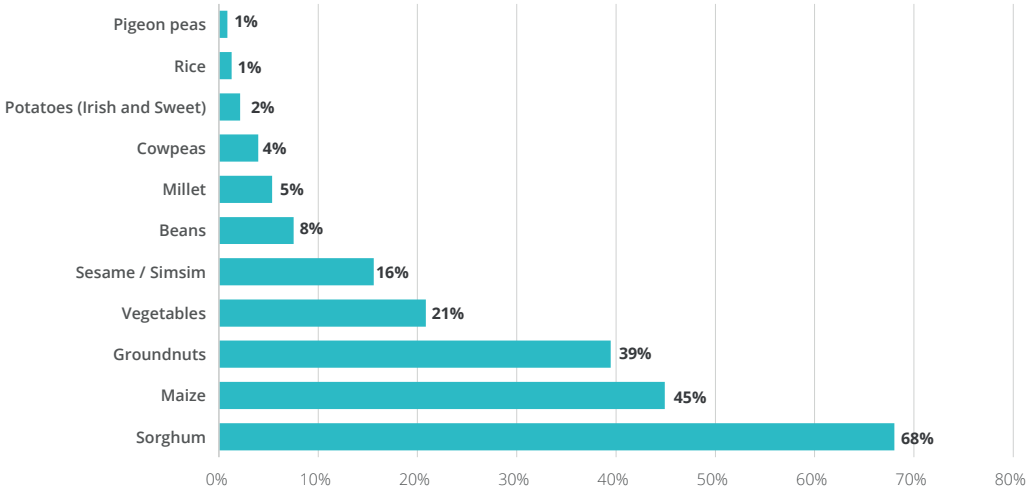
Figure 33: Households who cultivated their land in the season preceding the survey



7.2. Crop planting

Overall, sorghum was the most cultivated crop (68 percent) by households during the 2020 growing season, followed by maize (45 percent), groundnuts (39 percent), vegetables (21 percent) and sesame/simsim (16 percent), while rice and pigeon peas, potatoes, cowpeas, beans and millet were grown by an insignificant number of proportion (Figure 34).

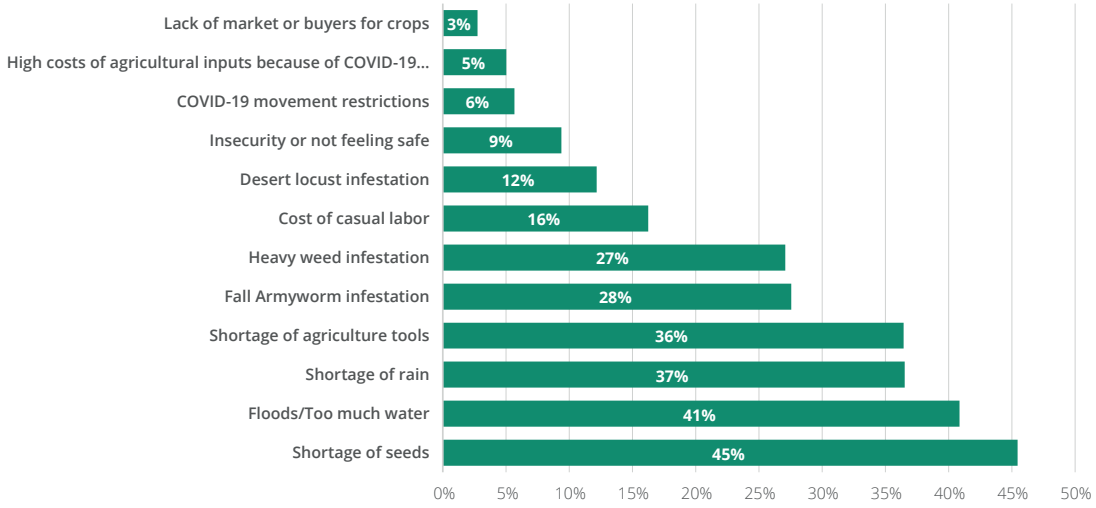
Figure 34: Proportion of households that cultivated various food crops in 2020



7.3. Challenges to agricultural production

Shortage of seeds was cited by a substantial proportion of households as being the major constraint to agriculture (45.5 percent), increasing by 2.6 percent from 42.9 percent recorded in August 2019. Other challenges to agriculture are floods (41 percent), shortage of rain (37 percent) and shortage of agricultural tools (36 percent) (Figure 35).

Figure 35: Main challenges to agriculture



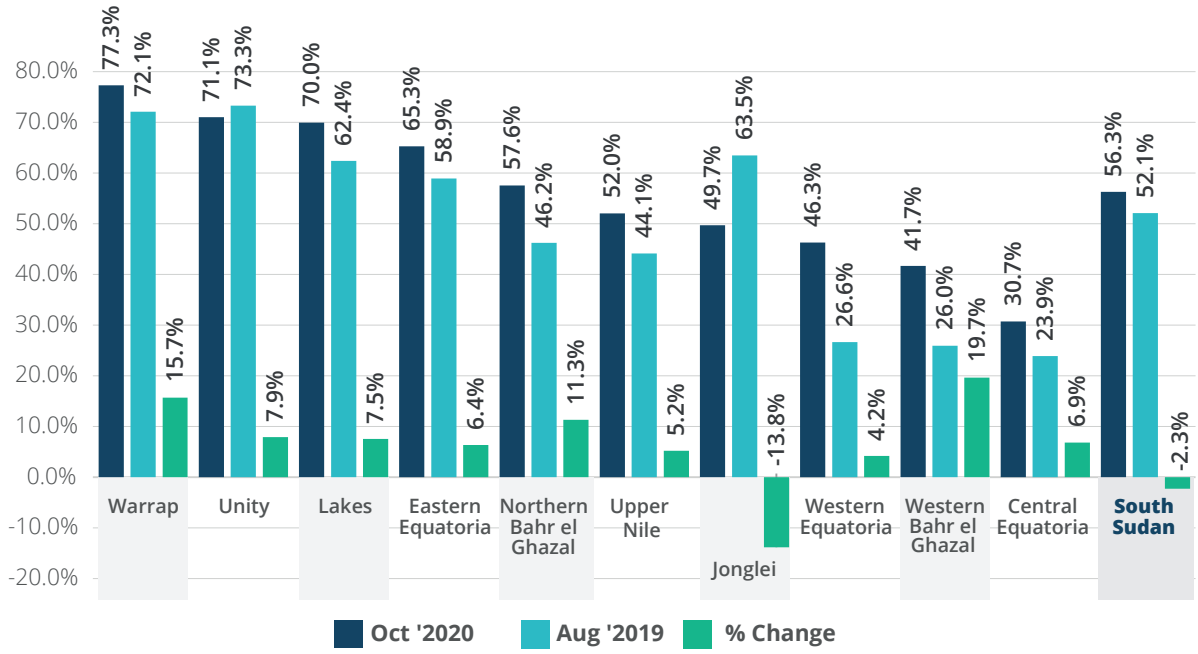
Northern Bahr el Ghazal (66 percent) had the highest proportion of household reporting shortage of seeds as the main challenge facing their agricultural activities, followed by Western Bahr el Ghazal (65 percent), Central Equatoria (62 percent), Lakes (56 percent) and Warrap (54 percent). Most households in Jonglei (81 percent), Unity 73 percent and Central Equatoria (61 percent) reported being affected by floods. Shortage of rain was reported mostly in Northern Bahr el Ghazal (88 percent), Warrap (80 percent), Western Bahr el Ghazal (58 percent), Upper Nile (46 percent) and Lakes (45 percent). Shortage of agricultural tools was highly prevalent in Central Equatoria (60 percent), followed by Warrap, Lakes, and Northern Bahr el Ghazal having a reporting rate of 55 percent, 45 percent, and 41 percent, respectively.

8. LIVESTOCK

8.1. Livestock ownership

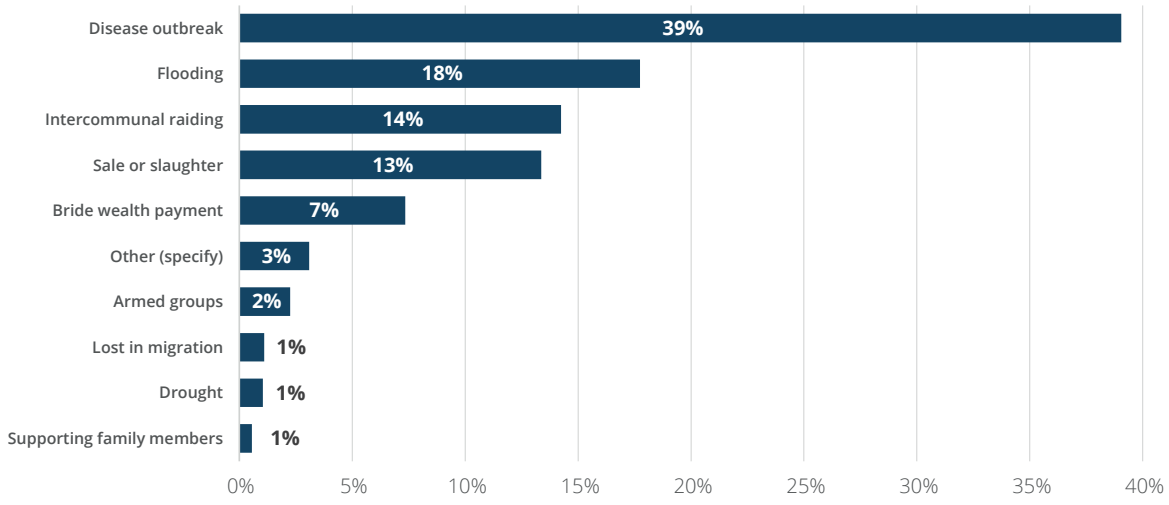
At the time of survey, 56 percent of the sampled households reported owning livestock, representing an increase of 4.2 percent compared to the same period in 2019 when livestock ownership stood at 52.1 percent. The proportion of households keeping livestock was highest in Warrap (77 percent), Unity (71 percent), Lakes (70 percent), Eastern Equatoria (65 percent), Northern Bahr el Ghazal (58 percent), while Central Equatoria had the lowest proportion (31 percent) of households keeping livestock at the time of the survey (figure 5). Almost all states have recorded an increased proportion of households rearing farm animals compared to August 2019 (Figure 36), except in the states of Jonglei (49.7 percent a drop by 13.8 percent) and Unity (71.1 percent a drop by 2.3 percent).

Figure 36: Comparison of household owning livestock - Current vs December 2019



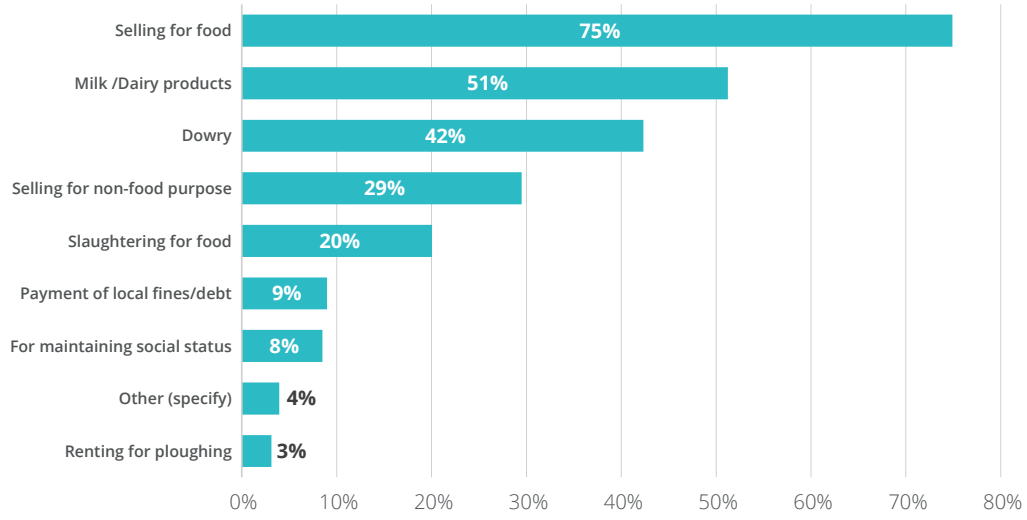
Of the household who reported owning livestock, 39 per cent cited disease outbreaks as the main cause of reduction in their livestock number. As compared to a similar period in 2019, the proportion has dropped by nearly 15 percent. The other factors contributing to reduced livestock numbers are flooding (18 percent), inter-communal raiding (14 percent) and sale/ slaughter (13 percent) (Figure 37). Western Equatoria had the largest proportion of households (82.8 percent) reporting disease outbreaks as the main reason for livestock reduction, followed by Eastern Equatoria (64.8 percent), and Central Equatoria (47.4 percent). Flooding as a constraint to livestock keeping was mainly reported by households in Upper Nile and Jonglei states, at 52.5 percent and 43.2 percent respectively. Intercommunal raiding was reported the most (43.1 percent) among the households of Lakes, followed by households from Unity region (34.6 percent).

Figure 37: Reason for current loss of livestock compared to previous years



The households who reported keeping livestock were asked the main reason for rearing livestock. More than three-quarter (75.1 percent) of the households cited the sale of livestock for food, for production of milk and dairy products (51 percent), dowry payment (42 percent), purchase of non-food items (29 percent), and slaughtering for food (20 percent) as the main reason for the keeping livestock (Figure 38).

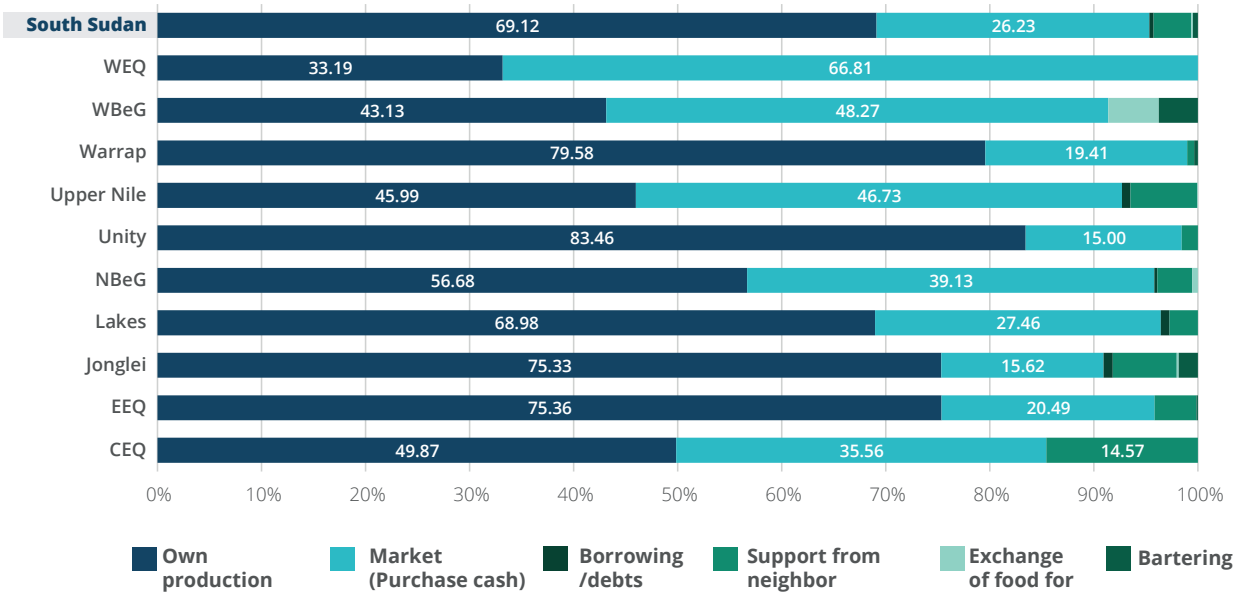
Figure 38: Main use of livestock



8.2. Access to Milk

Overall, most of the sampled households get their milk and dairy products from their own production (69.1 percent, a drop of 7.8 percent compared to the same period in 2019) followed by purchase from the market (26.2 percent, increase by 7.5 percent from 2019). Most of the households from Unity (83.5 percent) get their milk and dairy products from their own production. Households' access to milk in Warrap, Eastern Equatoria, Jonglei and lakes is 79.6 percent, 75.4 percent, 75.3 percent and 69 percent respectively (Figure 39).

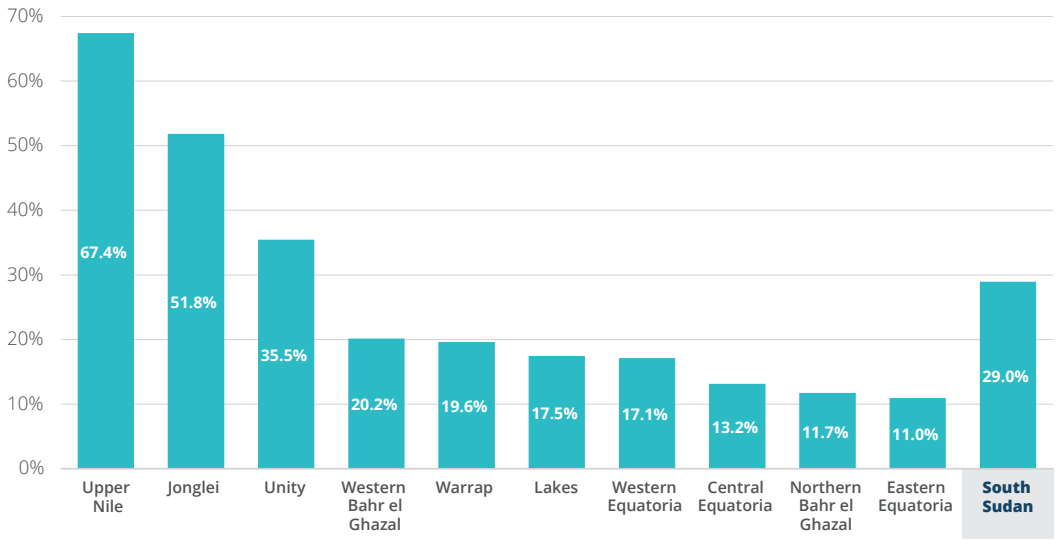
Figure 39: Sources of milk for consumption by states



8.3. Fishing and Access to Fish for Consumption

Overall, 29 percent of the households reported having access to fish. Disaggregated by State, Upper Nile had the largest proportion (67 percent) of households having access to fish, followed by Jonglei (52 percent), Unity (35 percent), Warrap and Western Bahr el Ghazal each reporting 20 percent, while Eastern Equatoria, Central Equatoria and Northern Bahr el Ghazal had 11 percent, 12 percent and 13 percent respectively reporting access to fish (Figure 40).

Figure 40: Household having access to fish

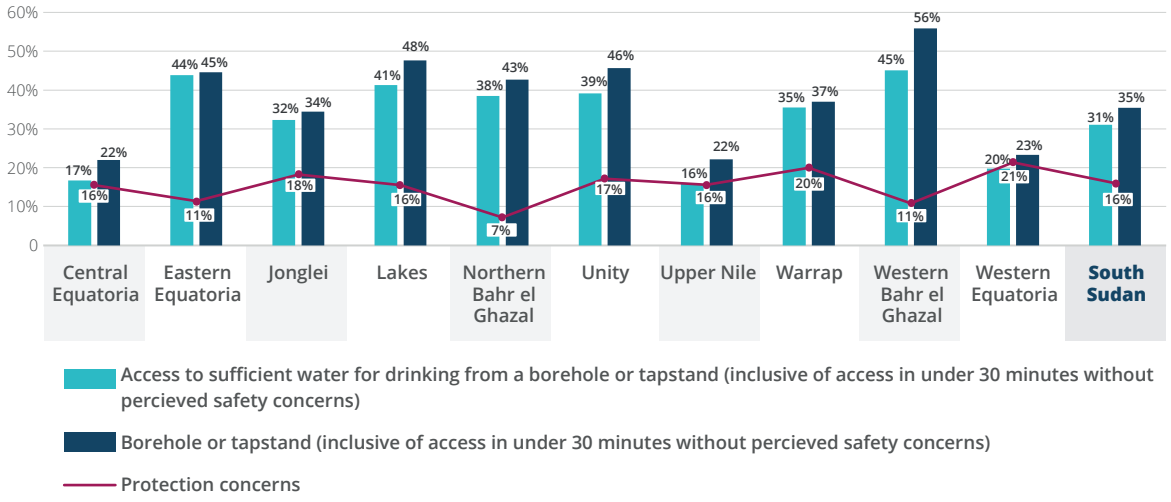


9. WATER AND SANITATION

9.1. WASH Summary and Severity mapping[2]

Some 31 percent of households reported having access to sufficient water for drinking, from improved water source in under 30 minutes without facing protection concerns. Thus, the remaining 69 per cent of households from across the country either do not have access to sufficient water for drinking, and/or rely on unimproved or surface water sources.

Figure 41: Access to improved water sources



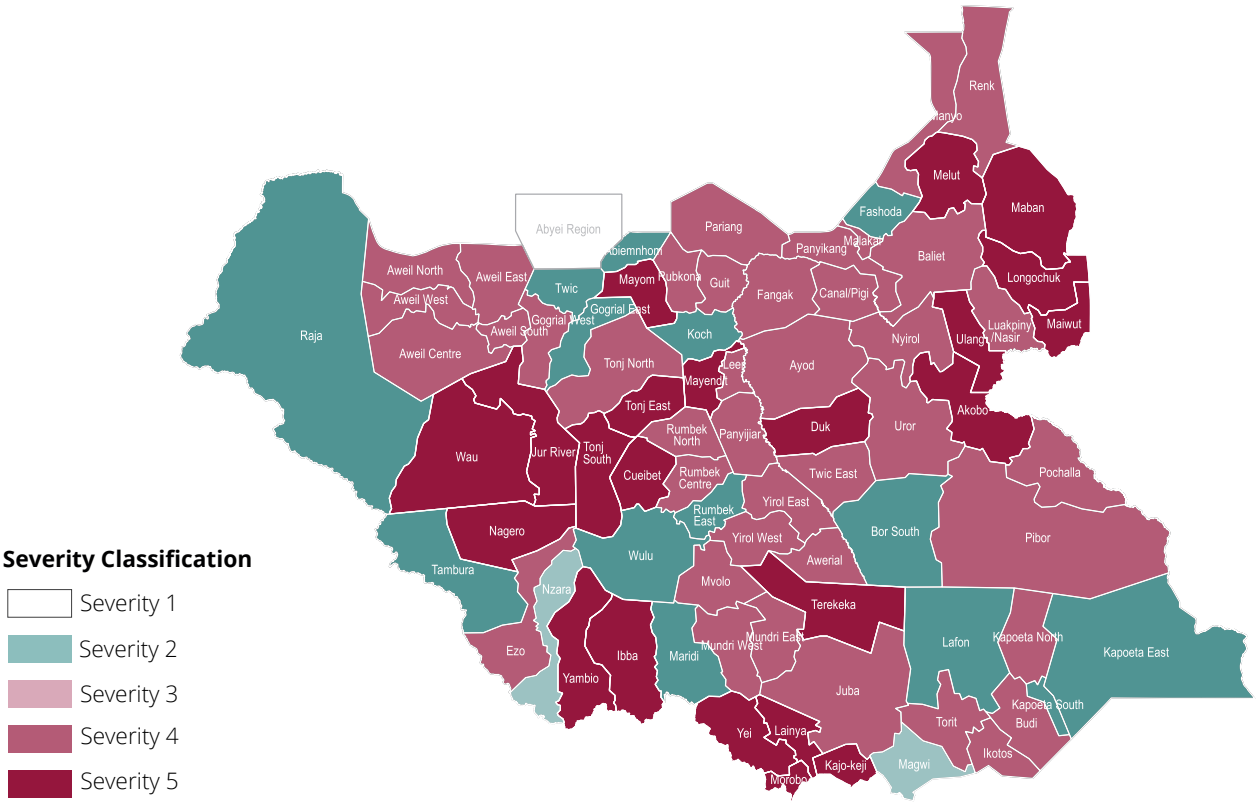
The highest proportion of households relying on surface water or unimproved water sources were found in Greater Equatoria (70 percent). Access to sanitation remains low, split between improved latrines (17 percent of households reporting owning a latrine in their compound), latrines shared between a small group of households (4 percent), and communal or shared latrines (2 percent). In addition to physical WASH infrastructure, only 17 percent of households reported ownership of two key WASH items - buckets/jerrycans and soap.

These key indicators show that WASH infrastructure coverage alone, for instance, water points and latrines, is weak in South Sudan. However, the impact of poor WASH coverage is measurable through a multi-sectoral view. Poor access to WASH services and goods combined with high levels of food insecurity has a detrimental impact on the health of the most vulnerable, as seen through the high prevalence of malnutrition and water-borne diseases, with 70 percent of households reporting members being affected by a water or vector-borne disease. The most commonly self-reported diseases were malaria, fever and acute watery diarrhea.

The WASH situation remains concerning across the entire country. Integrating new data collected in 2020 on adequate quantity of water collected, a new severity scale was calculated including households without sufficient access to water for drinking. Some 22 countries reported that 20 percent or more households did not have sufficient water for drinking, classifying them to a severity level of five. Similarly, 44 counties were classified as severity level four, 14 as severity three and two as severity level two. As seen in Figure 42, Central Equatoria had the highest proportion of households in Severity Five at 32 percent, followed by 27 percent in Upper Nile and 21 percent in Western Bahr el Ghazal.

2 The overall severity was calculated at a Household (HH) level and aggregated up to the county level. Each HH was classified using one critical indicator and 6 compounding indicators (HH and area level). The scores from all 6 compounding indicators were added together, with all parameters given equal weight, and then divided by 6, producing the final compounding score for the HH. However, if the HH was positive for the critical indicator, they were automatically classified as Severity 5, overriding the compounding score. The critical indicator is Access to sufficient quantity of water for drinking, and the compounding indicators are: Access to a sufficient quality of water; Access to sanitation facilities; Access to sufficient material for handwashing; Presence of self-reported vector and water borne diseases; Covid-19 prevention; and Water storage device ownership.

Figure 42: WASH severity mapping



9.2. Access to water

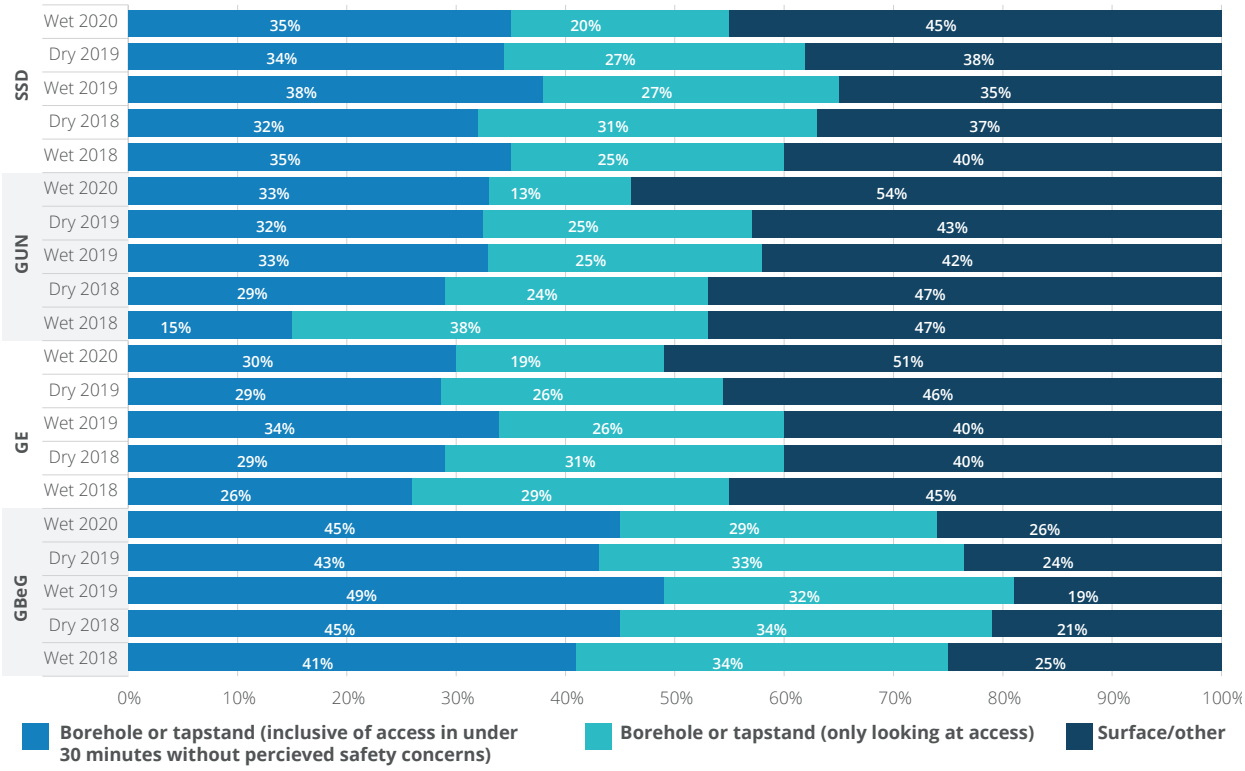
In August 2020, 31 percent of households reported access to sufficient water for drinking, from an improved water source in under 30 minutes without facing protection concerns. Three out of the four counties with the lowest access were found in Greater Upper Nile: Pigi/Canal and Ulang (0 per cent), Panyikang (1 per cent), and Morobo and Pibor (3 per cent).

Across the country, 35 percent of households reported access to an improved water source in less than 30 minutes without protection concerns. As compared to August 2019, the lowest proportion of households with access were found in Greater Equatoria (GE) States having the lowest proportion across the country (30 per cent).

However, GUN had the highest proportion of households reliant of surface or unimproved water (51percent), and the three counties that reported more than 90 percent of households used surface water or unimproved water sources as their primary source of water came from Greater Upper Nile - Canal/Pigi and Maiwut (100 per cent), Panyikang (97 per cent) and Pibor (93 per cent). As compared to August 2018 and August 2019, access to water from borehole or tap stand across the country almost doubled when perception of safety and time spent accessing water points are not considered.

In August 2020, data was collected on the quantity of water available. Across the country, 83% of households reported sufficient access to drinking water, with the lowest proportion found in Central Equatoria (68 per cent), followed by Upper Nile (27%) (Figure 43). As a vital requirement for COVID-19 mitigation, sufficient access to water for handwashing, was reported in 61 percent of households, with the lowest reported access found in Upper Nile (49 per cent), followed by Unity and Jonglei (51 per cent). Across the country, 79 per cent reported having access to sufficient water for cooking, with the lowest proportion found in Central Equatoria (65 per cent), followed by Upper Nile (67 per cent).

Figure 43: Sources of water for households by states



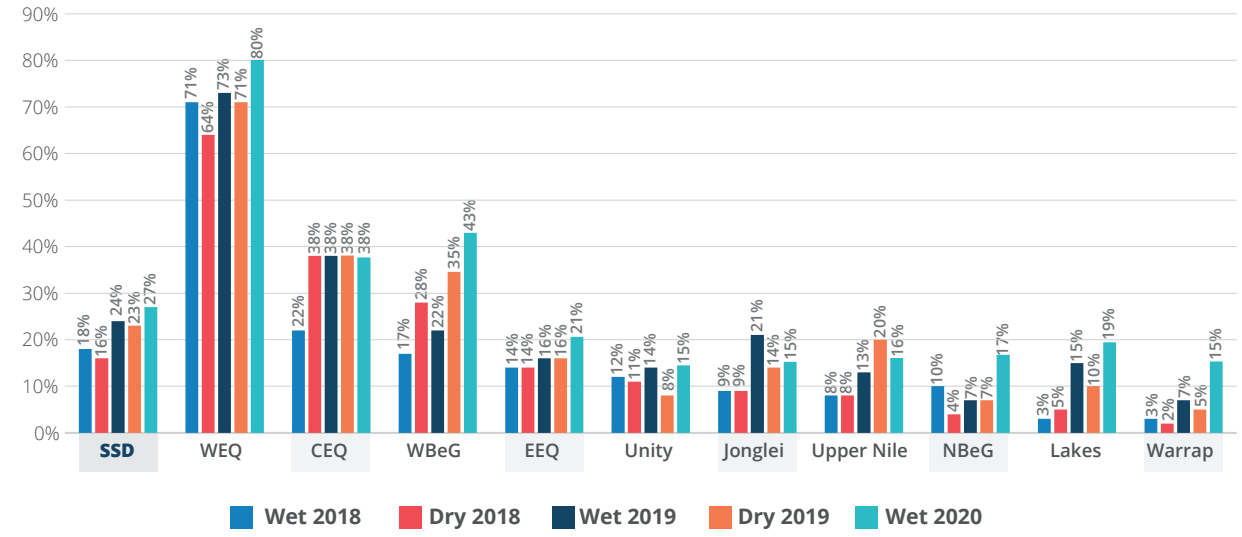
The largest proportion of households reporting perceptions of insecurity when accessing water points were in GUN (17 percent), followed by Greater Equatoria (16 percent) and Greater Bahr el Ghazal States (14 percent). Although 54 percent of households in Ulang County had safety concerns while accessing their preferred water points, the national average remained constant at 16 per cent, indicating that throughout the country, some population groups continue to face protection concerns while accessing water.

9.3. Access to sanitation

Across South Sudan, access to latrines has increased as compared to August 2019 (Figure 44). As in August 2018 and August 2019, the national average was driven by high levels of reported access in Western Equatoria and while there were increases in the states with the lowest access, Warrap and Unity State recorded the lowest proportion of households (15 per cent) that had access to some form of latrine (household, communal or institutional).

The only counties reporting 90 per cent or more households with access to some form of latrine were Tambura (98 per cent), Nzara (97 per cent), Ibba (95 per cent), Yambio and Maridi (94 per cent). In 66 counties, less than 50 percent of households had access to some form of latrine. The rationale behind the lack of access and use of improved sanitation facilities stem from these states traditionally having more widespread sanitation infrastructure and established cultural practices around latrine use. This low proportion of households with access to latrines across the country, highlights the need to prioritize both increased sanitation infrastructure and sensitization on their usage.

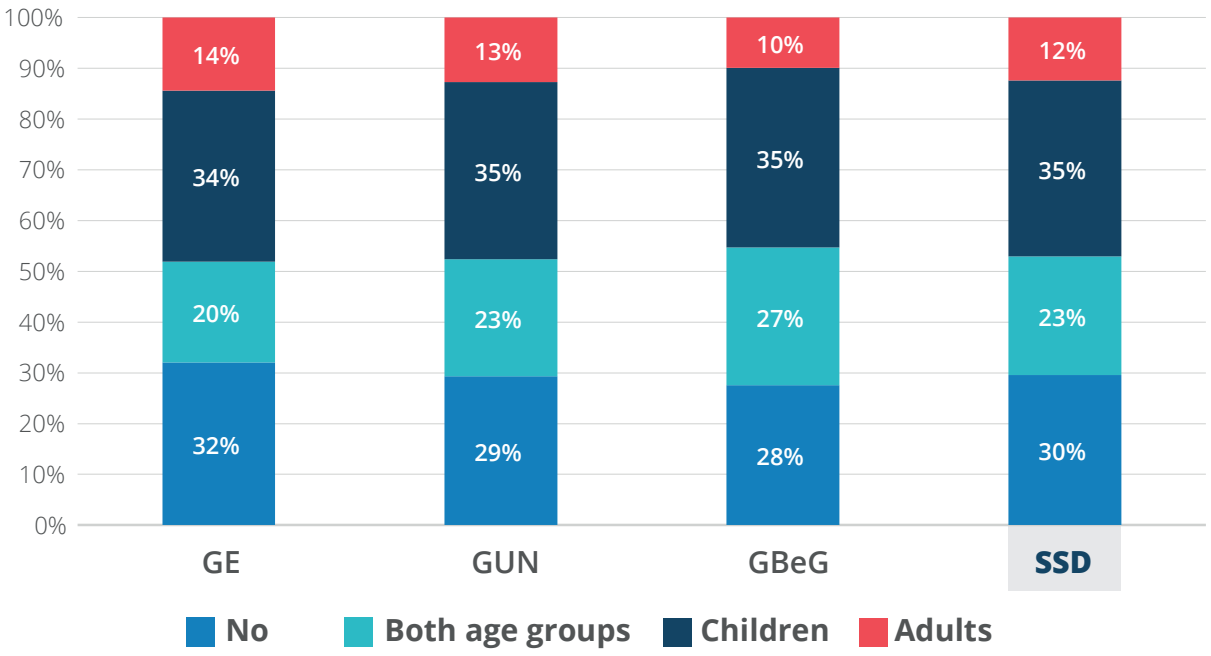
Figure 44: Access to sanitation in 2020 compared to 2019 and 2018



9.4. Self-diagnosed water and vector borne diseases

In August 2019, 73 per cent of households reported a self-diagnosed vector or water-borne disease in the two weeks prior to data collection (Figure 45). When broken down into age groups, as in 2018 and 2019, it was more commonly found that children under 5 years of age would fall ill as opposed to adults.

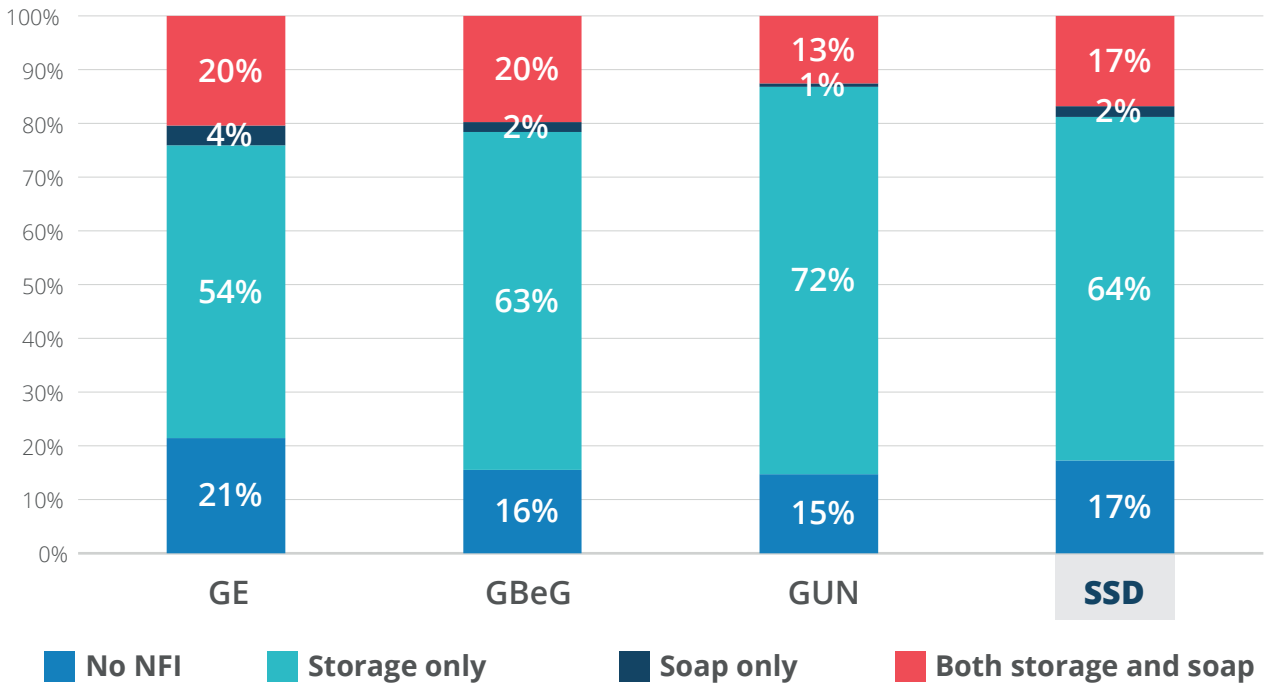
Figure 45: Self-diagnosed water and vector borne diseases



9.5. Access to WASH non-food items

The high prevalence of households with a member being ill is likely not only connected to poor access to improved water but also limited WASH non-food items (NFIs). The proportion of households with access to both soap and at least one unbroken water storage device with a lid was 17 percent. WASH NFIs did not move more than a few percentage points from August 2018. In August 2019, 15 percent of households reported access to both WASH NFIs such as soap and buckets/jerrycans (Figure 46), with 17 counties reporting 50 percent or less of households having all three items.

Figure 46: Access to WASH non-food items



Eighty-one (81 percent) of households reported access to at least one jerrycan or bucket. This left 19 percent of households without access to a jerrycan or bucket that can be sealed once water was collected. Central Equatoria had the lowest reported ownership (47 percent) followed by Western Bahr el Ghazal (25 per cent). Even if water is collected from an improved water source, inadequate storage conditions can lead to an increase in the microbial contamination of water stored within, thus increasing the risk of infectious diseases.

The risk of contracting and limiting the spread of water-borne diseases is further compounded by limited access to the key sanitation NFI, soap with only 19 percent of household reportedly owning soap. Some 30 counties reported 10 per cent or less household access to soap. The lowest proportion of households able to produce soap when asked came from Upper Nile (8 per cent), Jonglei (11 per cent) and Central Equatoria (14 per cent).

10. MARKETS AND HOUSEHOLD FOOD ACCESS

10.1. Market access and food availability and access in local markets

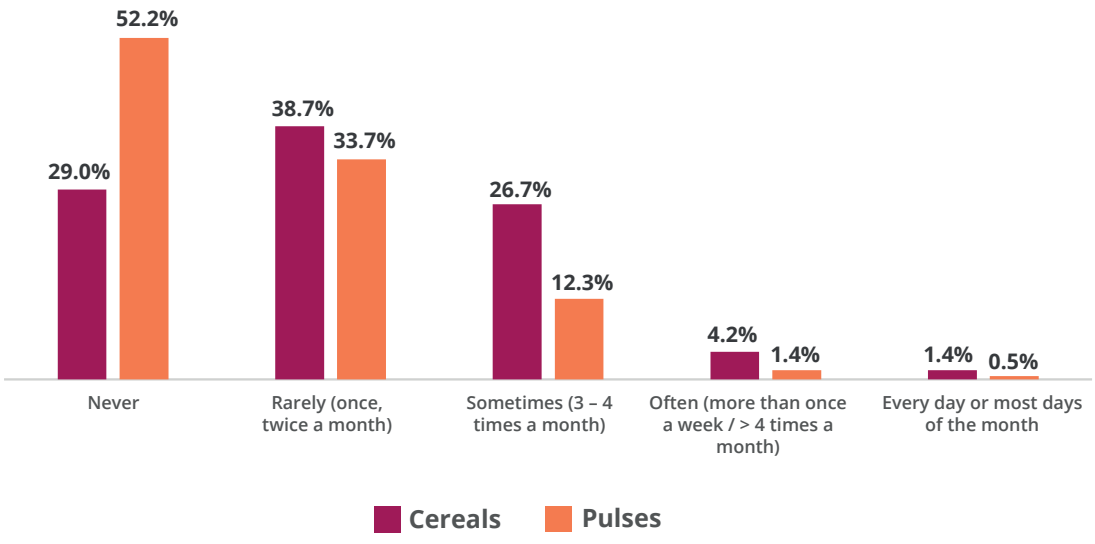
Overall, about 62.3 percent of households normally purchase staple food from local markets within the village or in the neighboring village with 15.4 percent of households purchasing locally from other community members while 4 percent of households purchased from mobile traders and other available options. Some 18.3 of households across all states did not purchase staple food from any source. However, the proportion of households that did not purchase staples in Jonglei state was exceptionally high at 35.9 percent.

Respondents were also asked about the frequency at which they purchased cereals (maize, sorghum, millet, etc.) and pulses from the market, using cash or credit, in the preceding month. Accordingly, 40.1 percent of surveyed households purchased cereals once, or twice while 32.6 percent households purchased pulses from the market. Additionally, one in four households (25.2 percent) purchased cereals three to four times a month while 12.5 percent of households purchased pulses three to four times a month. About 53.2 percent of households didn't purchase pulses and 29.4 percent households did not also purchase cereals, which could be associated with seasonal factors for farming households.

After the identification of Covid-19 cases in South Sudan and restrictions were introduced in April, consumers, mainly better off households, rushed to purchase food items in bulk as a mechanism to cope with any future supply disruptions in the region. About 27.3 percent of the surveyed households reported that they bought more than the usual amount and 19.4 percent households reported buying the normal or the usual quantity for consumption.

Nearly four in ten interviewed households (38.9 percent) bought less than the usual amount of food items while one in seven households were unable to buy any staple food items. Among households who did not buy staple cereals at some point during the pandemic, many of them reported the lack of cash or credit (57.6 percent), increase in prices of cereal and inability to afford (28.9%). Others also mentioned lack of stocks in shops (14.9 percent), restricted movement to go outside due to Covid-19 (16.9 percent), lack of transport to go markets (11 percent), closure of local markets (12.6 percent) and lack of opportunity to work as casual labor and earn income (8.8 percent).

Figure 47: Frequency of food purchase by households at the national level



Respondents were asked to indicate whether members of their household who travelled to and from the market during the 30 days preceding the assessment experienced any challenges. Accordingly, about one in two households reported distance to the markets or lack of means of transport as one of the challenges household members experienced. Though conflict or other violence was indicated as challenges by 8.9 percent of households across the country, many more households from Jonglei (13.4 percent), Lakes (13 percent), Western Bahr el Ghazal (19.4 percent) and Upper Nile (13.9 percent) were affected by conflict. About 18.2 percent of households in Lakes state also reported it was not safe to travel to the nearest marketplace.

Furthermore, too much water or flooding on the way to marketplace was also another challenge faced by 16.9 percent of the respondents, with a high proportion of households affected in Jonglei (30.3 percent) and Upper Nile (31.9 percent) States. Restrictions in movement due to COVID-19 was also reported by 10 percent of interviewed households in Western Equatoria, Lakes, Western Bahr el Ghazal and Upper Nile states.

10.2. Market prices

The harvest season is normally characterized by decrease in staple food prices, especially for unprocessed and raw agricultural products. However, during the last quarter of 2020, retail prices of food commodities sharply rose across markets in South Sudan as compared to the long-term average, the last quarter of the previous and against all the preceding quarters in the year. From October to December 2020, retail prices of white sorghum (feterita) increased in Juba, ranging from 100 to 122 percent as compared 2019 and by 260 to 263 percent compared to the five-year monthly average. The price of a malua of white sorghum increased by 25 percentage points from SSP 800 to 1000 between September and October 2020.

White maize grain is the preferred staple cereal in some parts of the country including Greater Equatoria, and the retail price of this cereal witnessed huge surge during the last three months of 2020. The observed abrupt increase in food prices in Juba and other markets across the country was driven by many interlinked factors such as rapid depreciation of the local currency, market inefficiencies, bad road conditions and associated high transport cost, checkpoint payments along the trade routes and the impact of localized conflicts.

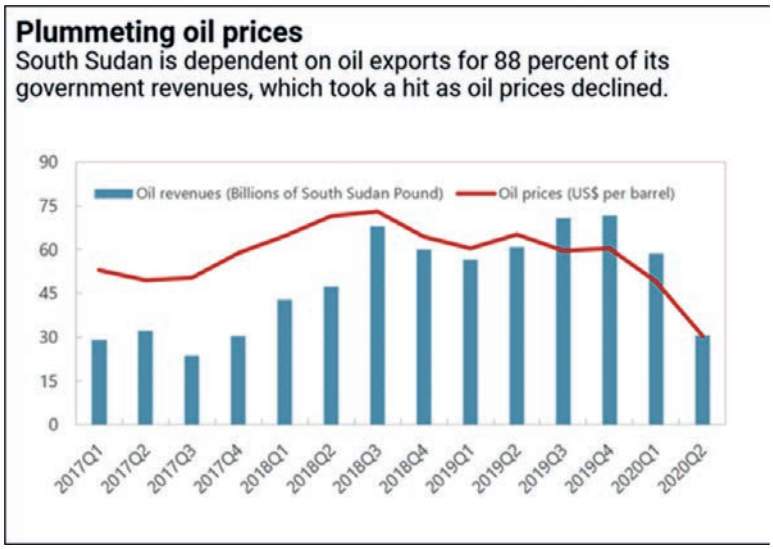
11. MACROECONOMIC CRISIS IMPLICATIONS ON FOOD SECURITY

11.1. Macro-economic situation

In South Sudan the oil sector is the key driver of the economy, followed by services and agriculture. The reopening of some of the damaged oil wells following the 2018 peace agreement increased the daily oil production in February 2019. At the same time, inflation has continued plummeting, from 88.5 percent in 2018 to 24.5 percent in 2019 and further declined to 16.9 percent in 2020, with a decline of 9.7 percent expected in 2021.

The fiscal deficit went down from 6.1 percent in 2018 to 2.5 percent of the GDP in 2019. However, projections indicate that if reforms are put into place, the fiscal deficit is likely to go down to 1.3 percent of GDP and 0.5 percent in 2021. High extrabudgetary spending has left South Sudan in debt distress and as a result, the country's current account deficit has widened from 4.5 percent in 2018 to 6.4 percent of the GDP in 2019. These fiscal deficits are expected to be covered by the oil exports revenue. However, due to the Covid-19 pandemic, South Sudan experienced a decline in oil prices (Figure 48). Therefore, it is projected that the GDP is likely to contract by 0.4 percent, if Covid-19 is contained by the third quarter of 2020. The worst-case scenario is that if Covid-19 persists up until the end of 2021, the GDP is projected to be 3.6 percent.

Figure 48: Oil price trends in relation to oil revenue in South Sudan



The oil revenue in South Sudan has been impacted by the collapse of the world oil prices, due to the direct and indirect impacts of COVID19 across several important players in the world economy. The reduction in oil prices has triggered a depreciation in the currency and an adjustment in the balance of payments.

11.2. Implications of the economic crisis on livelihoods and food insecurity

The impact of Covid-19 goes beyond health as it has disrupted people's lives due to the negative effect of reduced economic activities and fewer jobs, less income and therefore reduced purchasing power. Due to the impact of Covid-19, labour opportunities for the urban poor have declined and is likely continue due to the lingering impact of containments measures and protocols.

According to the National Bureau of Statistics, the overall cost of living as measured by consumer price index has shown mixed trends in 2020. From January to May, the consumer price index increased, followed by declining trend for two months in June and July. From August to October 2020, the consumer price index continued to increase, and the overall year-on-year inflation rate was 11.5 percent as compared to 170.5 percent in October 2019. The inflation rate for food and non-alcoholic beverages increased by 20.4 percent over the same period. In November and December 2020, the overall cost of living stood at 78 percent and 58 percent respectively. This implies a 3-percentage point decrease over November 2019 and 11 percentage power decrease over December 2019.

11.3. Depreciated local currency

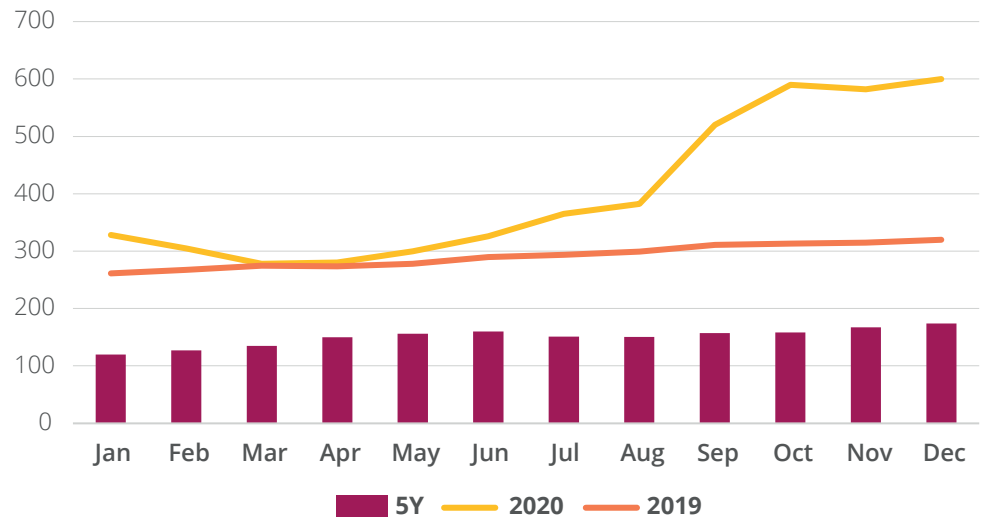
The fall in global crude oil prices and reduced production capacity have resulted in upward pressure on currency exchange rate as the country's access to foreign exchange has been drastically impacted and import bills continue to rise. In the first half of 2020, local currency exchange rate was relatively stable at elevated level, and even slightly appreciated around April 2020, linked to depressed demand for US dollar as Covid-19 cases were identified and it was not very clear how trades would be impacted by the pandemic.

Furthermore, the signing and implementation of the revitalized peace agreement also contributed to the stability, as it increased the level of confidence among the business community and citizens as well. However, the exchange rate at the parallel market moved back to its normal increasing trend, and hit its peak in mid-October 2020, when one US dollar exchanged at 750 SSP for few days in Juba parallel market. From January to August, the SSP depreciated by 20 percent as compared to the same month in 2019 (Figure 49). However, the rate of depreciation widened from September to October, ranging from 40-47 percent. In October 2020, the parallel market exchange rates for the South Sudanese Pound were unstable than at any point in the past nine months.

The unstable exchange rate increased the demand for US dollars, leading to further depreciation of the South Sudanese Pound and hence increased food prices. Furthermore, the impact of skyrocketing exchange rate in mid-October has been visibly observed in Juba where the price of white wheat bread (10 pieces) sharply increased overnight from SSP 300 to SSP 500, representing 66 percent upsurge. As import and markets contribute significantly to the supply of staple food items in the country, the depreciation of the local currency has direct negative implications on household purchasing power.

For a country that relies heavily on import of staple foods, the rapid depreciation of the local currency from 2015 to date has made food imports more expensive, decreasing the purchasing power of households living with inelastic incomes and high rates of unemployment. Food prices increased sharply in 2019 and 2020 in tandem with the currency devaluation, inflation, disrupted agricultural production and trade flows thus limiting households' economic access to food, affecting not only the poor who mainly rely on markets during the lean season but also returnees, and IDPs who have lost assets and are yet to recover. In addition, the Covid-19 pandemic has not made it easy for consumers especially due to the restrictions that were put into place, including border closures restricting official cross border activities.

Figure 49: Trends in exchange between the US Dollar and South Sudanese Pound



11.4. Decimated value of wages and massive unemployment

Over time, the SSP has fallen in value so much that salaries of formally employed and wages of those in informal employment cannot match the higher food prices. The real value of salaries of civil servants paid in SSP fell to below USD10 in as early as 2017 to date from an average of USD 100-500. This is compounded by the contracting national economic growth that reduced employment opportunities, including casual labour opportunities and trade.

Salaried staff in the public service went for several months without pay in 2020, resulting in significant salary arrears. The reduced incomes and employment opportunities of the poor imply they are less able to acquire food, leading to the adoption of negative coping strategies such as substitution of less preferred and cheaper alternatives and non-diversified diets, selling of productive assets, becoming trapped in debt, withdrawing children from school and migration.

11.5. Increased cost of agricultural and livestock inputs

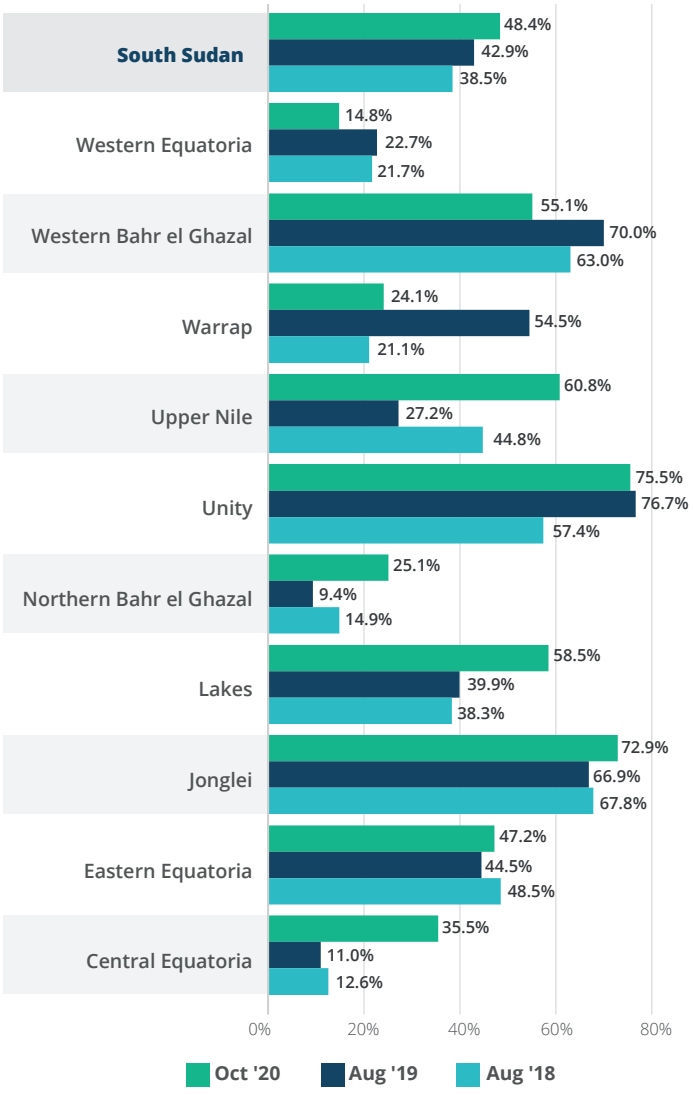
Agricultural production and livestock sectors have also been affected by the crisis as households' inability to afford high cost of inputs (seeds and fertilizers) and drugs, led to reduced acreage under cultivation, ultimately reducing food availability for consumption and in the markets. Livelihoods have been damaged and destroyed, with agricultural production reduced by a third as insecurity and economic crisis hampered agricultural activities.

12. HUMANITARIAN ASSISTANCE RECEIVED

12.1. Households receiving humanitarian assistance

The humanitarian situation in South Sudan remain volatile and the most vulnerable segment of the population who are either displaced or affected by different facets of insecurity depend on live-saving humanitarian assistance to secure their food consumption. While there has been a lull in large-scale hostilities since 2018, the compounding effects of COVID-19 and widespread floods further escalated the scale of humanitarian needs across the country. Against the backdrop of increasing resource constraints, these needs continue to be prioritized to reduce risk to lives and livelihoods.

Figure 50: Households receiving humanitarian assistance



The proportion of households receiving humanitarian assistance has increased progressively since 2018 due to the general improvement in access in various states. Nearly half (48.4 percent) of the surveyed households across the country received humanitarian assistance during the three months preceding the assessment (Figure 50). As compared to August 2019 and August 2018, the proportion of assistance recipients have increased by 5.4 percent and 10 percent respectively.

Overall, more than half of households in Western Bahr el Ghazal, Unity and Jonglei have consistently received humanitarian assistance since August 2018. In August 2020, more than 50 percent of households in Western Bahr el Ghazal (55.1 percent), Upper Nile (60.8 percent), Unity (75,5 percent), Lakes (58.5 percent) and Jonglei (72.9 percent) received humanitarian assistance while Western Equatoria (14.8 percent), Warrap (24.1 percent) and Northern Bahr el Ghazal (25.1) had the lowest proportion of humanitarian recipient households.

During the three months preceding the assessment, 39.7 percent of households across South Sudan received food assistance. More than 7 in 10 households in Jonglei (71.4 percent) and Unity (74 percent) States received food assistance while more than 4 in 10 households in Lakes (47.7 percent), Upper Nile (48.5 percent) and Western Bahr el Ghazal (45 percent) also received humanitarian food assistance. At the national level, the proportion of food insecure households that received food during the three months preceding the assessment

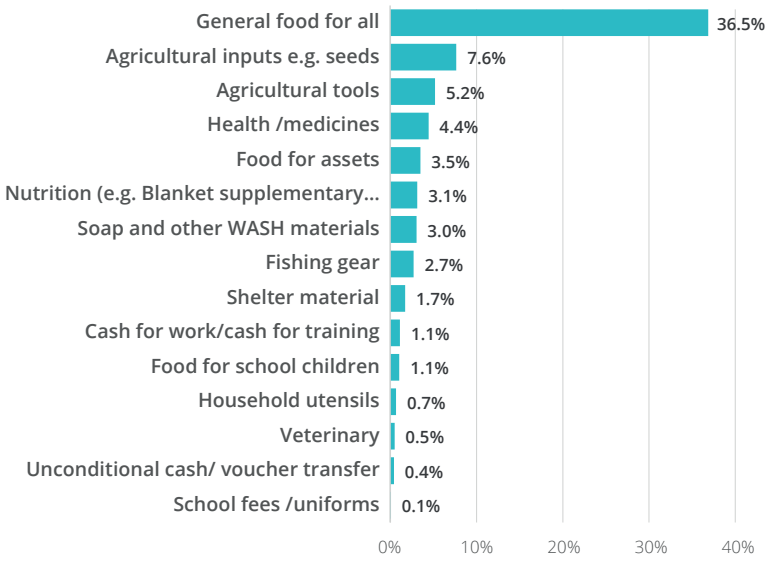
were marginally lower than those who did not receive any assistance. Among households that received humanitarian food assistance, 65.8 percent were food insecure as compared to 68.3 percent of food insecure households who did not received assistance. The highest proportion of food insecure households who received humanitarian food assistance during the three months prior to the assessment are in Central Equatoria State (87.3 percent). Despite the high proportion of households who received food assistance in Jonglei and Unity, the level of food insecurity among food assistance recipients in those states was 63.3 percent and 58.6 percent respectively. This is likely due to the dependence of households in these states mainly on food assistance and the lack of other food sources to meet all their food consumption needs.

Across South Sudan, the proportion of food assistance recipient households with poor food consumption was slightly lower (37.5 percent) than those which did not receive any assistance (42.6 percent). The proportion food assistance recipient households with poor food consumption was highest in Central Equatoria (57.8 percent) and Western Bahr el Ghazal (60.8 percent) reflecting the inadequacy of available food sources and compounded by reduced market access due to rising prices and low purchasing power.

12.2. Type of assistance received

As food insecurity is generally a perennial problem for most households across South Sudan, general food distributions accounted for 36.5 percent of humanitarian assistance received by households, with the provision of agricultural inputs, (7.6 percent), agricultural tools (5.2 percent), health services/medicine (4.4 percent) and food assistance for assets creation rounding up as the top five types of humanitarian assistance (Figure 51).

Figure 51: Type of assistance received



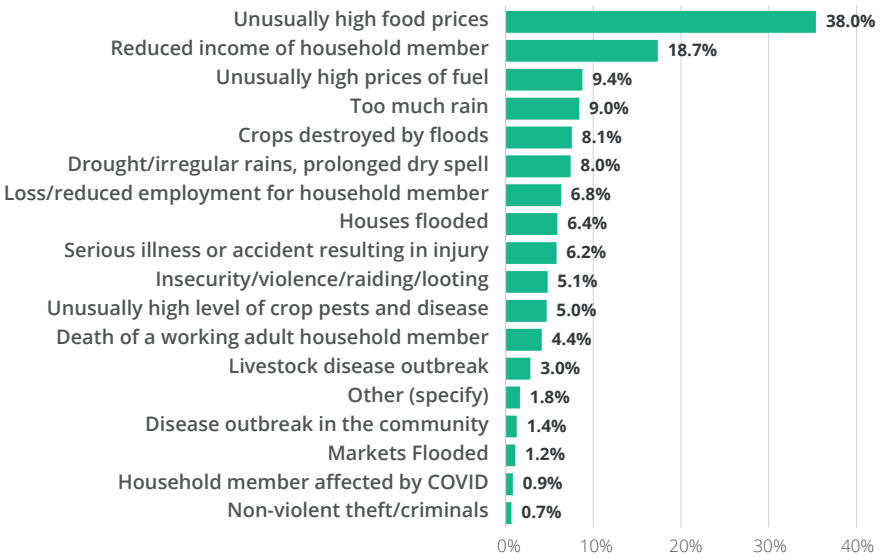
During the three months preceding the assessment, than 7 in 10 households in Jonglei (70.9 percent) and Unity (73.4 percent) received general food distributions with more than 4 in 10 households also receiving general food distributions in Lakes (44.5 percent), Upper Nile (48 percent) and Western Bahr el Ghazal (41.1 percent). Assistance in the form of agricultural inputs were directed more to Central Equatoria (15.5 percent), Eastern Equatoria (17.2 percent) and Upper Nile (12.5 percent).

13. SHOCKS AND COPING

13.1. Shocks

Difficulties or challenges that impact negatively on livelihoods activities, assets and resources at the disposal of the households generally reduces their capacity to general income, access food and secure their well-being. Overall, unusually higher prices of food commodities (38 percent), reduced access to income by members of the households (18.7 percent), unusually high prices of fuel (9.4 percent) and too much rain (9 percent), destruction of crops by flood water (8.1 percent) and prolonged dry spells (8 percent) are some of the shocks which affected households during the six months prior to the assessment.

Figure 52: shocks affecting households

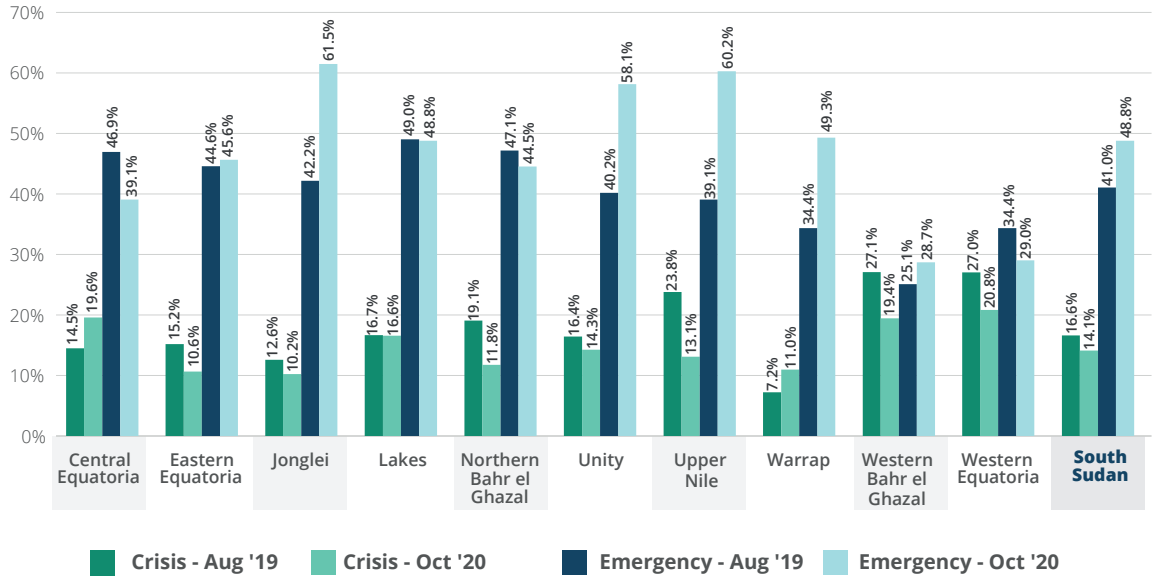


At the state level, unusually high food price was one of the most pervasive shock, affecting 55 percent of households in Western Bahr el Ghazal, 46.7 percent in Western Equatoria, 46.6 percent in Lakes, 45.5 percent in Northern Bahr el Ghazal and 44 percent in Central Equatoria. The impact of floods on crops was more commonly reported by households in Jonglei (13.8 percent), Unity (14.9 percent) and Upper Nile (10.8 percent). Similarly, drought or irregular rains affected households in Northern Bahr el Ghazal (19.5 percent), Warrap (16.2 percent) and Western Bahr el Ghazal (10.6 percent). On the contrary, 32.5 percent of households across the country are reported not to have been affected by floods. Most households Upper Nile (54.3 percent), Unity (57.6 percent), and Eastern Equatoria (51. percent) were spared the impact of shocks. This notwithstanding, 61.9 percent of households who were not affected by shocks were food insecure, with 47.7 percent experiencing moderate food insecurity while 14.2 percent experiencing severe food insecurity. Food insecurity among shock affected households was 71.2 percent. Similarly, 83.6 percent of households that were not affected by shocks used food-based coping strategies compared to 90.7 percent of shock affected households who used food-based strategies

13.2. Livelihood-based coping strategies

The shocks and economic turbulence that affected household during the six months preceding the assessment eroded the purchasing power of those households, compelling to adopt a variety of strategies to guarantee access to food. The strategies employed by households through the utilization of available household assets and activities tend to have far-reaching negative implications for future productivity and resilience of that household. Nearly half of households across the country (48.8 percent) employed emergency coping strategies during the 6 months preceding the assessment in August 2020 (Figure 52). Emergency coping strategies substantially affect the household's future productivity and are more generally difficult to reverse and suggest that households were faced with severe level of food insecurity. While 26.8 percent of households did not employ any livelihood-based coping strategies, stress and crisis coping strategies were used by 10.2 and 14.1 percent of households respectively.

Figure 53: Crisis and emergency coping strategies 2019 and 2020



Households' reliance on emergency coping strategies is highest in Jonglei (61.5 percent), Upper Nile (60.2 percent), Unity (58.1 percent), Warrap (49.3 percent), Lakes (48.8 percent), and Eastern Equatoria state (45.6 percent). Western Equatoria (40.7 percent), Western Bahr el Ghazal (37.1 percent) and Central Equatoria (36.1 percent).

13.3. Reduced coping strategies

Constrained food access within the household often lead to short-term alteration of food consumption patterns using the limited resources at their disposal. The reduced coping strategy index computes the frequency and severity of five standard food consumption behaviors into a score which is an indicator of household food access or food security status. Households that have large food consumption gaps use more severe food-based strategies and have a higher score in the reduced coping strategy index.

Overall, the vast majority of households (87.7 percent) used food-based coping strategies to cope with inadequate food access during the week preceding the assessment. At the state level, more than 9 in 10 households used food-based coping strategies in Central Equatoria (96.4 percent), Jonglei (96.5 percent), Lakes (98.3 percent), Northern Bahr el Ghazal (94.9 percent) and Upper Nile (97.2 percent). Among households that relied on the use of food-based coping strategies, 4 in 5 households (81.4 percent) reduced portion size during meals, with a similar proportion of households also resorting to the use of less preferred foods (79.7 percent). The vast majority of households in Central Equatoria (92.2 percent), Jonglei (91.7 percent), Lakes (95.4 percent), Upper Nile (91.8 percent) and Northern Bahr el Ghazal (89.9 percent) reduced portion sizes during meals.

As compared to August 2019, the proportion of households that relied on food-based coping strategies decreased slightly by 2.2 percent from 90 percent to 87.7 percent. Households' reliance on less preferred foods and reduction in position size during meals also decreased slightly by 2.3 and 1.3 percent respectively. While households' reliance on the use of food-based strategies either decreased on remain comparable to August 2019 in most states, Warrap recorded the large decrease of 22.7 percent from 90.2 percent in August 2019 to 67.5 percent of households in August 2020.

14. CONCLUSIONS AND RECOMMENDATIONS

14.1. Conclusions

Food security situation

Despite the slight decrease in the incidence of food insecurity and malnutrition as compared to August 2019, the food security situation across the country remain worrisome as two successive year of devastating floods, coupled with the impact COVID-19 pandemic and crippling macro-economic challenges have increased prices of food items, reduced purchasing power and access to food.

Acute Malnutrition

While the prevalence of Global Acute Malnutrition remains elevated and of grave concern across many parts of the country, estimates from the current assessment suggest improvement in the nutrition in Western Bahr el Ghazal and Western Equatoria States between August 2019 and August 2020.

WASH issues

Access to WASH infrastructure across the country is very low and is split between access to improved latrines shared between a small group of households and communal or shared latrines. As a result, 7 in 10 households reported being affected by water or vector-borne diseases such as cholera, typhoid, diarrhea and dysentery.

Markets Interventions

Despite the opening of major trade route to state capitals and rural markets, trade and market disruption on the Canal/Pigi to Renk road as well as movement restrictions in the Western Corridor (Juba-Maridi) and other parts of the country disrupted the free movement of goods and increased the cost of food items.

Market dependent rural and urban households continue to suffer inadequate food access and consumption partly explained by low purchasing power due to the slow recovery of markets and livelihoods as well as the sustained negative impact of the economic crisis and high food prices. As a result, most households are resorting to coping strategies that erodes their long-term resilience.

Livelihood and income sources

In spite of the role agricultural activities, livestock keeping and unskilled casual labour wages as the top three most important livelihood activities across the country, the ability of most households to access income or food has decreased due to the multi-dimension impact of the COVID-19 and other shocks. The value of the limited income generated by households is increasingly eroded by crippling inflation, increasing prices of staple foods as well as rising prices of fuel and cost of transportation.

Shocks

The impact of unusually higher prices of food commodities, reduced access to income for household members, unusually high prices of fuel, too much rain, destruction of crops by flood water, prolonged dry spells and other shocks have compounded the food security situation of most households due to reduced capacity to general income, access food and secure their well-being. This compelled the affected households to adopt coping strategies that have potentially far-reaching negative implications for future productivity and resilience.

14.2. Recommendations

Area of Intervention	Recommendation	Responsibility
Food Security	• Humanitarian assistance should be sustained to avert the continued acute food insecurity conditions in most counties in the country. Given the persistent food insecurity conditions, there is need to consider conditionality for the different contexts to avert development of the food aid dependency syndrome within the affected populations. • To address the protracted food deficit and the food consumption gap of households, increased investments in security stabilization, livelihoods and market support is needed. • Special attention needs to be given to the extremely vulnerable households such as households headed by disabled, child headed, women headed, without sustainable livelihoods and able-bodied persons. Sustainable form of safety nets should be considered	WFP and Partners UN agencies, Donors. NGOs and Government
Nutrition Interventions	• Curative interventions: There is need to sustain the current nutrition treatment programs (Targeted Supplementary Feeding Programme (TSFP), Outpatient therapeutic program and Stabilization Centers) and scale-up to locations where coverage is limited. • Nutrition interventions not limited to TSFP but also initiatives to educate the populations to expand their dietary patterns as well as nutrition sensitive agriculture should be promoted to reduce the continued increase in acute malnutrition. • As some malnutrition is also caused by poor WATSAN and child feeding practices, there is need to strengthen the programmes associated with these causes. • Preventive interventions and integration: Scaling up of quality Growth Monitoring and quality social behavior change communication on nutrition, health and WASH as well as strengthen inter-sectoral collaboration with health, WASH and the Food Security and Livelihood cluster to implement Blanket Supplementary Feeding Programmes during the lean season. • Program Convergence: Reinforce partnership convergence between Outpatient therapeutic program and Targeted Supplementary Feeding Programme and strengthen geographic convergence of nutrition, health, WASH and FSL interventions at village/Boma level. • Improve quality and scope and analysis of bi-annual FSNMS to monitor nutrition situation by strengthening surveillance in counties where the nutrition situation is critical and projected to deteriorate.	WFP and Partners UNICEF/ WFP/ FAO/ Government and partners UNICEF/ WHO/ relevant NGOs and Government UNICEF/ WFP / WHO / Government and partners All stakeholders UNICEF, Ministry of Health and relevant NGOs
Market interventions	• Market and trade policies such as removal of multiple taxes and access limitations along major trade routes and improving market access through opening up of roads will be crucial for strengthening the supply and availability of food and other essential items. • To stimulate food production in states and counties engaged in agricultural production, the provision of seeds and tools (farm inputs) will be crucial in supporting farmers to increase the acreage cultivated.	Government of South Sudan UN agencies, NGOs, Donors and Government
Livelihoods and income sources	• In states and counties where households are engaged in pastoral activities, support for livestock production and small-scale subsistence producers should be scaled-up as the survey revealed that the main challenges in rearing livestock (which are also the same reasons for the decrease in livestock ownership) include disease outbreaks and lack of veterinary services. • The scaleup of veterinary support (animal health services such as treatment and vaccination) would significantly contribute towards improving livestock productivity and mitigating losses.	UN agencies, NGOs and Government
WASH	• To address the weak coverage of water and sanitation services and its detrimental impact on malnutrition and diseases, agencies involved in the WASH sector need to scale-up the provision of these services to the most vulnerable segment of the population.	UN agencies, NGOs and Government

Peace building	• Peace building, promotion of re-integration of returnees as well as peaceful co-existence between communities should also be prioritized, to ensure sustainable resumption of livelihoods of the population across the country.	UN agencies, NGOs and Government
Shocks	• The humanitarian community and the Government of South Sudan need to support communities to reduce rural poverty and mitigate the impact of shocks by implementing resilience building programs complemented with comprehensive small-scale agriculture development to create employment opportunities for the youth and women.	UN agencies, NGOs and Government

ANNEXES

Annex 1: Methodological notes

The Food Security and Nutrition Monitoring System (FSNMS) is a nationwide exercise establish to monitor key food security indicators, acute and chronic malnutrition rates among children below 5 years and mothers as well as identifying geographic areas and socio-economic groups that are food insecure.

The twenty sixth round of the FSNMS was conducted in July-September 2020. It involved surveys of households across the country with a sampling plan provided by the National Bureau of Statistics in order to obtain statistically representative results on food security at county level. The sampling size was designed by considering 95 percent confidence interval, a margin of error of 10 percent. Random selection of clusters or enumeration areas (EA) was done at the first stage of a two-stage stratified and households were randomly selected at the second stage. During this round, nine clusters or enumeration areas (EA) were selected in each county and 12 households were selected per enumeration area making the total of 105 households per county.

The survey instrument consisted of food security and nutrition modules. Training of enumerators was provided in 33 locations across the country that preceded the Training of Trainers (ToT) in Juba in late July 2020. The trainings were facilitated by WFP, FAO, UNICEF, Food Security Cluster, the Government and FEWSNET colleagues. Electronic tablets were used for data collection in the field and data was uploading into the online server.

As a result of the ongoing Covid-19 pandemic, only MUAC was taken for both children and Pregnant and Lactating Women. IYCF data was collected at HH level for both children and WCBA. The assessment covered all the states and reached 79 counties. Data was collected between August to August 2020. Data quality form the MUAC screening was analyzed but was not used due to low technical plausibility score.

The Open Data Kit (ODK) was used as the data collection tool, programmed with high quality data checks to ensure high quality data at the time of data collection. Once the data was uploaded, regular data quality checks were carried, and feedback was provided to the teams in the field to further improve the quality of data. The data was online plotted on the map using Tableau through which real time data collection monitoring was ensured and regular updates were shared with the partners and teams on the ground.

Access constraints due to heavy rains and impassable roads were the main challenge during this round of data collection. The total number of households surveyed was 8,512.

Annex 2: Main food security outcome indicators by state and county

		Food Consumption Score				Household Dietary Diversity (HDDS)				rCSI				Household Hunger Scale					Livelihood Coping Strategies					Food Expenditure Share			
State	County	Mean	Poor	Borderline	Acceptable	Mean	Phase 4+ (0-2 food groups)	Phase 3 (3-4 food groups)	Phase 1-2 (5+ food groups)	Mean	Phase 1	Phase 2	Phase 3+	(None) 0	(Slight) 1	(Moderate) 2-3	(Severe emergency) 4	(Severe catastrophe) 5-6	Mean	HH not adopting coping strategies	Stress coping strategies	Crisis coping strategies	Emergencies coping strategies	Low	Medium	High	Very High
Central Equatoria	Juba	18	71%	26%	3%	3	54%	38%	8%	19	6%	52%	43%	14%	3%	79%	1%	4%	2	52%	8%	12%	28%	63%	27%	10%	0%
	Kajo-keji	21	58%	39%	3%	3	31%	50%	19%	12	5%	87%	8%	2%	0%	98%	0%	0%	2	66%	0%	28%	6%	28%	10%	51%	10%
	Lainya	23	46%	47%	6%	3	44%	33%	23%	13	2%	82%	16%	6%	7%	86%	0%	0%	3	14%	12%	18%	56%	45%	23%	21%	10%
	Morobo	23	50%	36%	14%	4	29%	37%	35%	15	6%	67%	27%	9%	20%	68%	2%	1%	3	5%	3%	30%	63%	42%	33%	13%	12%
	Terekeka	21	52%	41%	8%	2	79%	20%	1%	19	1%	61%	38%	5%	11%	56%	16%	13%	3	18%	5%	13%	65%	42%	30%	19%	10%
	Yei	23	46%	45%	8%	3	37%	41%	22%	17	15%	40%	45%	11%	12%	71%	3%	3%	3	19%	3%	29%	50%	44%	27%	19%	11%
Eastern Equatoria	Budi	30	30%	40%	31%	4	16%	59%	25%	35	5%	14%	81%	9%	1%	82%	6%	2%	3	28%	9%	11%	52%	43%	19%	17%	21%
	Ikotos	28	34%	43%	23%	4	9%	70%	21%	6	38%	56%	6%	80%	5%	16%	0%	0%	2	23%	11%	3%	63%	64%	17%	14%	6%
	Kapoeta East	37	27%	16%	57%	3	38%	46%	15%	25	11%	40%	49%	13%	8%	78%	0%	1%	3	13%	12%	8%	68%	37%	13%	8%	43%
	Kapoeta North	34	25%	31%	44%	3	46%	38%	16%	30	1%	26%	73%	0%	1%	76%	9%	14%	4	0%	4%	19%	78%	1%	7%	36%	56%
	Kapoeta South	31	38%	26%	36%	2	51%	34%	15%	16	7%	56%	36%	11%	11%	74%	4%	1%	3	3%	11%	18%	69%	47%	19%	33%	1%
	Lafon	32	22%	43%	35%	4	11%	42%	47%	12	47%	20%	32%	61%	8%	31%	0%	0%	2	50%	8%	24%	18%	35%	6%	36%	23%
	Magwi	26	29%	56%	15%	6	2%	34%	64%	3	69%	28%	4%	83%	5%	12%	0%	0%	2	75%	10%	3%	12%	51%	17%	17%	14%
	Torit	27	26%	60%	14%	4	10%	67%	23%	5	50%	45%	5%	70%	6%	24%	0%	0%	2	60%	6%	1%	32%	31%	10%	22%	37%
Jonglei	Akobo	38	32%	17%	51%	5	33%	7%	60%	17	0%	65%	35%	17%	4%	67%	6%	6%	3	1%	1%	2%	96%	54%	31%	15%	0%
	Ayod	31	36%	30%	34%	3	27%	60%	13%	12	3%	94%	4%	12%	9%	78%	0%	1%	2	14%	2%	11%	73%	58%	38%	4%	0%
	Bor South	21	62%	25%	13%	3	39%	50%	11%	17	0%	55%	45%	5%	4%	90%	1%	0%	3	14%	11%	12%	64%	35%	49%	15%	2%
	Canal/Pigi	15	68%	30%	3%	2	71%	25%	4%	13	14%	64%	22%	11%	1%	87%	1%	0%	2	8%	3%	11%	78%	69%	29%	3%	0%
	Duk	34	25%	24%	50%	3	33%	53%	14%	15	3%	67%	31%	25%	46%	29%	0%	0%	3	31%	11%	19%	39%	10%	16%	35%	39%
	Fangak	20	61%	23%	16%	2	70%	28%	3%	13	4%	83%	14%	1%	4%	91%	5%	0%	3	8%	5%	6%	81%	40%	20%	16%	24%
	Nyirol	26	30%	61%	9%	2	68%	27%	6%	23	21%	19%	59%	60%	5%	36%	0%	0%	2	27%	4%	19%	51%	67%	20%	13%	0%
	Pibor	16	72%	21%	7%	3	60%	12%	27%	22	2%	43%	55%	1%	1%	52%	13%	33%	3	9%	10%	15%	66%	29%	30%	30%	12%
	Pochalla	31	14%	53%	33%	6	5%	31%	64%	15	0%	87%	13%	19%	29%	51%	0%	0%	2	56%	5%	8%	31%	55%	29%	6%	9%
	Twic East	27	37%	44%	19%	3	44%	39%	17%	19	5%	46%	50%	3%	1%	90%	4%	3%	3	9%	6%	18%	67%	10%	16%	72%	3%
	Uror	33	10%	50%	40%	3	30%	50%	20%	5	49%	48%	3%	38%	16%	44%	2%	1%	1	79%	3%	1%	18%	89%	7%	4%	0%
Lakes	Awerial	22	59%	31%	9%	5	20%	33%	46%	17	0%	69%	31%	4%	10%	78%	5%	4%	3	3%	15%	22%	60%	30%	15%	39%	17%
	Cueibet	24	56%	19%	26%	3	42%	30%	29%	16	6%	62%	31%	5%	3%	85%	6%	2%	3	25%	20%	21%	33%	20%	31%	40%	9%
	Rumbek Centre	32	14%	60%	26%	4	15%	47%	38%	22	5%	31%	65%	3%	2%	75%	10%	10%	3	19%	11%	19%	50%	1%	8%	33%	57%
	Rumbek East	21	51%	37%	12%	2	56%	32%	11%	15	1%	82%	17%	8%	14%	76%	3%	0%	2	15%	10%	15%	60%	84%	12%	3%	1%
	Rumbek North	23	50%	26%	23%	3	48%	31%	21%	19	0%	58%	42%	2%	5%	87%	3%	4%	2	27%	7%	7%	60%	50%	31%	0%	19%
	Wulu	22	47%	44%	9%	3	33%	39%	28%	17	4%	56%	41%	4%	4%	87%	6%	0%	2	44%	16%	8%	31%	33%	39%	24%	4%
	Yirol East	25	53%	26%	21%	3	26%	64%	10%	24	0%	30%	70%	1%	4%	69%	19%	8%	3	14%	9%	13%	64%	44%	30%	19%	7%
	Yirol West	32	14%	53%	33%	4	13%	40%	47%	16	2%	67%	31%	6%	5%	88%	2%	0%	3	23%	18%	18%	42%	8%	40%	39%	13%
Northern Bahr el Ghazal	Aweil Centre	32	33%	31%	36%	4	19%	53%	29%	15	27%	32%	41%	19%	8%	69%	3%	0%	3	12%	40%	11%	37%	18%	24%	34%	24%
	Aweil East	25	48%	28%	24%	4	19%	43%	38%	13	13%	68%	19%	0%	7%	82%	6%	6%	3	22%	29%	3%	46%	5%	17%	44%	35%
	Aweil North	24	63%	13%	25%	3	42%	28%	31%	17	3%	62%	35%	7%	13%	73%	6%	1%	3	16%	27%	15%	43%	33%	19%	29%	19%
	Aweil South	26	56%	16%	29%	3	40%	33%	27%	21	1%	47%	52%	6%	2%	55%	10%	28%	3	13%	20%	16%	51%	24%	19%	32%	25%
	Aweil West	29	42%	23%	35%	5	24%	34%	42%	17	4%	63%	33%	6%	6%	81%	4%	5%	3	15%	20%	22%	43%	6%	11%	32%	51%
Unity	Abiemnhom	30	32%	33%	35%	4	36%	25%	39%	19	5%	49%	47%	8%	6%	84%	1%	1%	3	5%	2%	32%	61%	30%	28%	8%	34%
	Guit	28	31%	40%	29%	5	34%	23%	43%	8	21%	79%	0%	41%	14%	45%	0%	0%	2	19%	23%	8%	50%	94%	6%	1%	0%
	Koch	33	24%	31%	44%	3	31%	49%	20%	4	52%	48%	0%	39%	6%	56%	0%	0%	2	60%	1%	5%	34%	56%	21%	19%	3%
	Leer	35	8%	36%	56%	4	26%	45%	29%	3	57%	42%	1%	33%	13%	47%	6%	0%	2	35%	18%	16%	31%	54%	20%	24%	2%
	Mayendit	23	53%	29%	18%	2	67%	20%	13%	21	32%	15%	53%	48%	5%	45%	0%	1%	2	28%	7%	17%	48%	27%	57%	6%	10%
	Mayom	29	27%	42%	31%	3	44%	43%	13%	18	0%	55%	45%	6%	1%	85%	6%	2%	3	3%	5%	9%	83%	45%	33%	19%	2%
	Panyijiar	32	30%	33%	37%	3	35%	43%	22%	17	4%	53%	43%	11%	31%	58%	0%	0%	4	2%	0%	18%	80%	2%	10%	44%	44%
	Pariang	40	8%	28%	64%	4	21%	36%	43%	11	6%	81%	13%	7%	18%	70%	1%	4%	3	15%	15%	30%	41%	38%	20%	31%	10%
	Rubkona	29	39%	23%	38%	2	66%	29%	6%	10	36%	36%	28%	62%	10%	28%	0%	0%	3	23%	6%	13%	58%	52%	15%	2%	31%
Upper Nile	Baliet	24	53%	28%	19%	2	49%	44%	6%	10	17%	71%	12%	3%	2%	84%	6%	6%	2	15%	19%	23%	43%	57%	18%	13%	12%
	Fashoda	14	85%	2%	13%	3	42%	38%	20%	9	0%	100%	0%	3%	0%	81%	11%	6%	2	52%	12%	1%	35%	62%	6%	31%	1%
	Longochuk	15	85%	12%	4%	4	50%	14%	36%	14	0%	94%	6%	1%	8%	86%	5%	0%	3	5%	3%	10%	83%	23%	68%	9%	0%
	Luakpiny/Nasir	31	20%	46%	33%	4	30%	42%	29%	15	10%	56%	34%	6%	3%	86%	5%	0%	3	14%	8%	11%	67%	11%	56%	32%	0%
	Maban	8	99%	1%	0%	1	84%	13%	3%	10	8%	84%	7%	1%	4%	92%	3%	0%	2	19%	17%	8%	56%	78%	21%	1%	0%
	Maiwut	15	78%	18%	3%	4	47%	15%	38%	14	0%	89%	11%	0%	14%	79%	3%	4%	3	1%	1%	4%	94%	48%	47%	5%	0%
	Malakal	29	27%	51%	22%	5	5%	39%	56%	15	3%	68%	29%	4%	4%	87%	4%	2%	2	6%	5%	22%	67%	75%	17%	7%	1%
	Manyo	16	73%	15%	11%	4	26%	34%	40%	9	5%	92%	4%	3%	1%	92%	3%	1%	3	30%	5%	9%	56%	19%	48%	28%	5%
	Melut	31	34%	21%	45%	3	32%	41%	27%	12	5%	77%	19%	12%	22%	66%	0%	0%	2	22%	19%	13%	46%	79%	14%	7%	0%
	Panyikang	24	55%	22%	22%	2	73%	21%	6%	13	24%	51%	25%	24%	10%	65%	1%	0%	2	22%	10%	15%	53%	53%	18%	25%	4%
	Renk	55	5%	9%	86%	6	6%	15%	80%	12	8%	81%	11%	21%	19%	53%	6%	1%	3	21%	30%	25%	24%	19%	30%	27%	24%
	Ulang	14	83%	14%	4%	2	62%	23%	15%	15	1%	83%	16%	1%	1%	75%	13%	10%	3	17%	2%	5%	76%	0%	62%	25%	13%
Warrap	Abyei	27	50%	19%	31%	3	47%	28%	25%	24	19%	18%	63%	20%	6%	70%	3%	0%	3	37%	30%	9%	24%	9%	14%	42%	35%
	Gogrial East	34	33%	21%	45%	4	31%	36%	33%	5	63%	33%	4%	24%	6%	66%	2%	2%	3	28%	9%	11%	52%	8%	25%	34%	32%
	Gogrial West	35	24%	27%	49%	4	20%	49%	32%	17	22%	35%	43%	14%	8%	68%	8%	2%	3	10%	7%	18%	65%	7%	13%	30%	50%
	Tonj East	34	35%	23%	42%	3	34%	57%	8%	15	32%	35%	32%	45%	3%	37%	2%	13%	3	21%	10%	7%	61%	14%	32%	35%	19%
	Tonj North	47	8%	14%	78%	4	11%	52%	37%	4	85%	6%	9%	58%	4%	13%	4%	21%	2	52%	6%	9%	32%	19%	27%	49%	5%
	Tonj South	30	41%	23%	36%	3	24%	55%	21%	18	28%	28%	44%	28%	6%	50%	1%	16%	3	18%	7%	12%	63%	8%	41%	25%	26%
	Twic	34	37%	16%	47%	5	27%	22%	51%	11	8%	86%	6%	36%	4%	60%	0%	0%	2	43%	19%	4%	34%	5%	41%	37%	18%
Western Bahr el Ghazal	Jur River	28	31%	44%	25%	5	7%	30%	63%	7	45%	47%	7%	61%	10%	29%	0%	0%	2	41%	19%	9%	31%	32%	38%	18%	12%
	Raja	32	36%	29%	35%	5	12%	36%	52%	15	6%	60%	33%	24%	11%	62%	0%	3%	2	42%	12%	14%	32%	27%	37%	30%	6%
	Wau	17	68%	24%	7%	4	29%	35%	36%	12	9%	74%	17%	9%	13%	75%	3%	0%	2	32%	12%	31%	25%	47%	29%	19%	6%
Wester Equatoria	Ezo	33	20%	24%	56%	4	15%	55%	31%	4	63%	33%	4%	83%	7%	10%	0%	0%	1	78%	8%	7%	6%	90%	5%	3%	3%
	Ibba	21	59%	32%	8%	4	20%	43%	37%	17	9%	49%	42%	32%	10%	53%	3%	2%	3	10%	10%	38%	42%	40%	34%	17%	9%
	Maridi	32	12%	51%	37%	5	2%	33%	65%	8	13%	84%	3%	31%	49%	20%	0%	0%	2	50%	8%	34%	7%	91%	7%	1%	1%
	Mundri East	27	40%	39%	22%	5	7%	36%	57%	15	0%	72%	28%	11%	40%	49%	0%	0%	3	7%	13%	10%	69%	44%	39%	14%	3%
	Mundri West	27	32%	45%	22%	4	16%	37%	47%	14	18%	49%	33%	34%	23%	43%	0%	0%	2	51%	17%	14%	19%	74%	18%	6%	2%
	Mvolo	18	65%	23%	12%	4	29%	40%	31%	18	4%	69%	27%	14%	5%	77%	3%	1%	2	31%	5%	8%	57%	62%	31%	4%	3%
	Nagero	13	89%	8%	3%	2	69%	29%	1%	14	14%	53%	33%	18%	22%	51%	8%	0%	2	42%	21%	29%	8%	49%	8%	10%	33%
	Nzara	14	89%	11%	0%	3	34%	36%	31%	5	57%	42%	1%	60%	35%	5%	0%	0%	2	64%	4%	15%	18%	81%	19%	0%	0%
	Tambura	32	20%	31%	50%	4	18%	48%	34%	5	62%	34%	4%	88%	8%	4%	0%	0%	2	61%	4%	4%	31%	58%	38%	4%	0%
	Yambio	26	54%	12%	35%	4	20%	47%	33%	8	33%	62%	5%	63%	11%	26%	0%	0%	2	19%	13%	44%	24%	81%	17%	3%	0%