

Humanitarian Situation Monitoring

Greater Bahr el Ghazal

November 2022 - March 2023| South Sudan

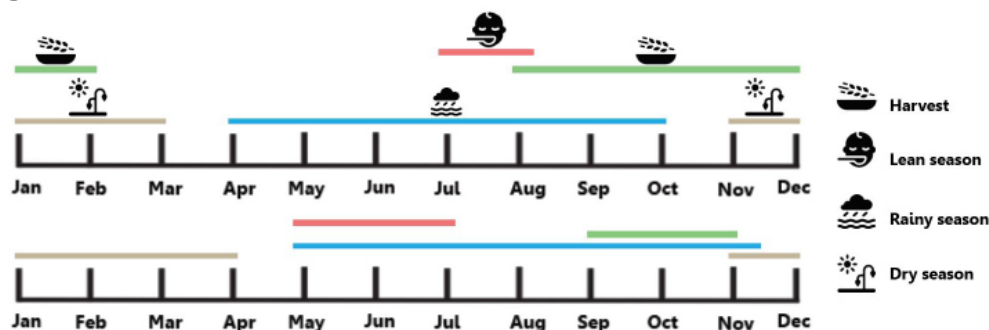


SITUATION OVERVIEW

CONTEXT & RATIONALE

Greater Bahr el Ghazal (GBeG) is one of the three regions that make up South Sudan. Located west of the Nile River, this region comprises four states, Western Bahr el Ghazal, Northern Bahr el Ghazal, Warrap, and Lakes that lie within four livelihood zones,¹ mostly experiencing unimodal rainfall.² This situation overview seeks to describe the conditions of people living in the Greater Bahr el Ghazal region during the reporting period of November 2022 - March 2023, as the rainy season ends, harvest wraps up for many communities, and dry season sets in. During this time, Greater Bahr el Ghazal **communities faced various shocks and stressors including, recurring violence and displacement, disease outbreaks, depleting food stocks, and rising prices.** In November 2022 an estimated **69% of the region's total population was classified as People in Need (PiN) of humanitarian assistance. The highest number of PiN in the region were in Warrap (0.9 million or 73% of the state's population) and Northern Bahr el Ghazal (0.65 million or 70% of the state's population).**³ At the end of November 2022, a total of **2.27 million people in Greater Bahr el Ghazal faced crisis-level (Integrated Food Security Phase Classification (IPC) Phase 3) or worse levels of food insecurity, representing about 54% of the region's total population. In Northern Bahr el Ghazal, the state worst affected by food insecurity in the region, that number was estimated to be 62% of the state's population, whereas, in Lakes and Warrap states, this number was estimated to be 57% each.**⁴ To support humanitarian actors' understanding of the complex dynamics of vulnerability, shocks, needs, and coping capacities in Greater Bahr el Ghazal, REACH has been monitoring the humanitarian situation in hard-to-reach areas since 2015. This situation overview is built on an analysis of monthly data that was collected by REACH enumerators through structured interviews conducted with key informants (KIs) knowledgeable about a

Figure 1: Seasonal calendar, Greater Bahr el Ghazal*



*The four livelihood zones' (Western plains groundnuts, sesame, sorghum; Western floodplain sorghum and cattle; Ironstone plateau agro-pastoral; Nile Basin Fishing and Agro-Pastoral) seasonal calendars roughly align with the seasons that are presented in figure 1.

hard-to-reach settlement throughout the region between November 2022 and March 2023. Where possible, findings were triangulated with secondary sources.

KEY MESSAGES

- AoK findings from November 2022 suggest that persistent flooding and flash flooding were the primary shocks affecting livelihoods in GBeG. With the end of the rainy season in November and December, AoK findings from March 2023 suggest that **economic shocks – rising prices –replaced flooding as the primary shock impacting livelihoods.** Secondary sources suggest that **conflict also likely acted as a shock during the reporting period.**⁵ This included **violence in the border area between Twic County in Warrap State and Abyei Administrative Area (AAA), and clashes in Rumbek North and Tonj East counties, in Lakes and Warrap states.** These incidents reportedly **led to displacement, disruption of access to food and livelihood sources, and disruption to the provision of humanitarian services in affected locations.**⁶
- According to FEWS NET updates, flooding and rainfall in November destroyed crops and disrupted the cultivation cycle in some parts of the region.⁷ Subsequently **in counties reportedly affected by flooding and conflict in Northern Bahr el Ghazal, and Warrap, the harvest was estimated to be significantly below average.**⁸ Reportedly, **households had exhausted their own food stocks by February, and were relying on wild foods, markets, and food assistance.**⁹
- Stagnant floodwaters in Tonj North and Twic counties, and flash flooding due to early rains in Tonj East and Rumbek North counties,¹⁰ may have exacerbated impediments to food access as **flooding-related movement barriers compounded barriers created by violence, making it difficult for communities to seek alternative sources of food.**¹¹
- Sub-sectional conflict and cattle raiding also reportedly caused destruction of productive assets including livestock, and limited livestock mobility, likely impacting reliance on livestock as a source of food and livelihood.¹² **Migrations were limited in Greater Tonj counties, and Twic – Abyei, in Warrap State due to fears of cattle raiding.**¹³

- AoK data suggests that **cash purchases were the most common modality for communities in assessed settlements to access food**. At the same time, reliance on own production of food for sustenance declined.
- In January 2023, **the price of 3.5 KGs of white sorghum** – a diet staple throughout the region – **rose to 286% of the five-year average in Rumbek Centre markets, and 230% higher than the price same time last year in Aweil Centre markets**. The steepest increase in price was observed in Lakes State (300% of the price last year during the same time).¹⁴
- **Aid cuts** to state hospitals and health centres across the region **adversely affected the availability of doctors and medicines**. In March 2023, active **measles outbreaks** were recorded in **16 counties** in the region,¹⁵ and reports indicated that a **Hepatitis E outbreak was also spreading**.¹⁶ The latter possibly indicated that sanitation and hygiene were below basic standards.¹⁷ These phenomena may have had overlapping effects and intensified health-related vulnerability of affected populations in GBeG.

METHODOLOGY OVERVIEW

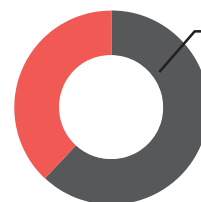
To provide an overview of the situation in hard-to-reach areas, REACH uses primary data from key informants (KIs) who have recently arrived from, recently visited, or receive regular information from a settlement or "Area of Knowledge" (AoK). Information for this report was collected from KIs interviewed throughout the country in May-October 2022. In-depth interviews on humanitarian needs were conducted using a structured survey tool. After data collection was completed, all data was aggregated at the settlement level, and settlements were assigned the modal or most credible response. When no consensus could be found for a settlement, that settlement was not included in reporting. Only counties with interview coverage of at least 5% of all settlements in each assessed month were included in analysis.¹⁸ Due to access and operational constraints, the specific settlements assessed within each county each month vary. To reduce the likelihood that variations in data are attributable to coverage differences, over time analyses were only conducted for counties with at least 70% consistent payam coverage throughout the period of analysis.¹⁹ Findings are not generalisable and should be considered indicative of the situation in assessed hard-to-reach areas between May and October 2022, unless specified otherwise. More details of the methodology can be found in the [AoK Terms of Reference](#).

Map 1: Assessment coverage



SHOCKS & STRESSORS

Between the months of November 2022 and March 2023 on average, KIs in 36% of assessed settlements reported the existence of livelihood-impacting shocks, with December being the month when such shocks were most commonly reported.



KIs in 62% of assessed settlements in Northern Bahr el Ghazal reported that their settlement had **experienced a shock that impacted livelihoods in the month prior to December 2022 data collection**

According to AoK data from November 2022, persistent flooding was the most commonly reported shock followed by rising prices. Over subsequent months the number of assessed settlements in which KIs reported persistent flooding as a shock declined, and by March 2023 rising prices emerged as the most commonly reported

shock to livelihoods. A lack of access to food due to the disruption of harvests by flooding may have led to high market prices for staples,²⁰ possibly leading to adverse food security and nutritional outcomes.²¹

Seasonal spikes in subnational conflicts also potentially affected food security outcomes as they reportedly created mobility and access barriers for humanitarian actors, and impeded the mobility of communities that typically use seasonal migration to supplant their food security and livelihood needs.²²

Violence and Displacement

In October 2022, a series of clashes broke out between communities in Twic County, Warrap State and Abyei Administrative Area (AAA) leading to the loss of life and property, displacement, restricted mobility for communities in the area, and restricted humanitarian access to AAA. Similar clashes reportedly continued to recur between January and March 2023.²³

A REACH study on the impact of recurring conflict shocks in these locations reported that between February 2022 and March 2023, 36,000 individuals were displaced across Twic County, leading to mobility barriers in areas falling between the AAA and Twic border. Reports also suggested that targeting of assets and property was common during these clashes potentially leading to a loss of resources for people on their return.²⁴ Secondary data suggests that these clashes could have depleted households' food stocks during post-harvest months, restricted their mobility from accessing other sources of food, negatively impacted their livestock numbers through cattle raids, and hampered preparations for the 2023 harvest.²⁵

From September 2022 onwards, the counties on the border between Warrap and Lakes states also reportedly saw an escalation in sub-sectional conflicts and cattle raiding, affecting Rumbek North, Cueibet, Yirol West, Rumbek East and Rumbek Central in Lakes State, and Tonj East, Tonj West and Tonj North in Warrap State.²⁶ Since 2019 these conflicts have, reportedly, seasonally spiked at the beginning and end of the rainy season (from May to mid-November) when receding floodwater allows for cattle keeper mobility while cattle camps are still in close proximity to each other and to settlements.²⁷ With the onset of the lean season in November, this is usually also the time when communities rely on cattle for consumption coping, meaning that an increase in cattle-affecting conflict could possibly affect food access and coping capacity during a period characterised by consumption gaps for the communities.²⁸

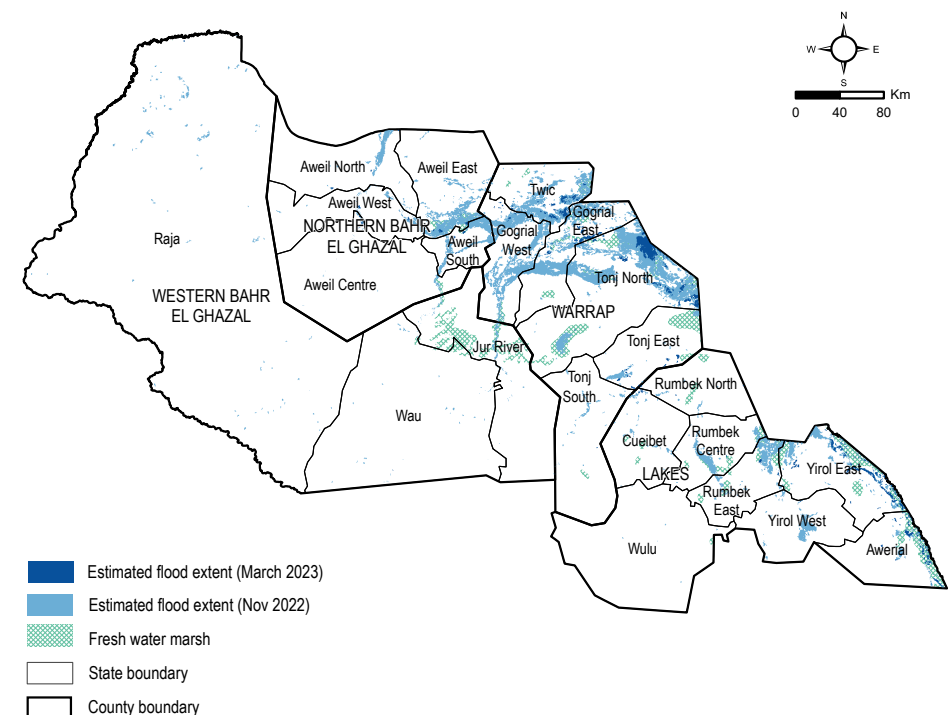
In March 2023 these counties reportedly remained volatile with imminent insecurity threats including revenge attacks, bandits, localized crimes, cattle raiding, and theft, potentially interfering with households' livelihood activities.²⁹

IPC analysis for projections rested on assumptions that the conflict in Twic-AAA border would likely continue.³⁰ During this period, conflict reportedly expanded in the area, further driving displacement from the northern part of the county, which may have exacerbated food security needs.³¹ Similarly, while IPC projection analysis accounted for the potential of violence breaking out in Tonj East and Rumbek North, the same was not anticipated in the neighbouring counties of Cueibet, Yirol West, Rumbek East and Rumbek Central of Lakes State. This could have possibly further aggravated food insecurity in Lakes State.³²

AoK data indicates that movement barriers experienced by counties that were at the epicentre of such conflict events were significant. According to data aggregated from the months of January to March 2023, assessed settlements in which KIs reported the existence of movement barriers were located primarily in two counties within the region: Rumbek North (58% of assessed settlements), Lakes State, and Twic (43%), Warrap State.

Rainfall, flooding and stagnant flood waters

Map 2: Estimated flood extent November 2022 vs March 2023



In October 2022, just before the beginning of the reporting period, an estimated 1.2 million people were affected by flooding in GBeG, according to an assessment conducted by Relief and Rehabilitation Commission of South Sudan (RRC) and the United Nations Development Programme (UNDP).³³

Satellite imaging shows that as late as mid-January 2023, a total of 9,806 km² of land in GBeG appeared to be affected by flood waters, suggesting the presence of sitting flood water from the 2022 rainy season. Satellite imaging from March 2023 indicates that Twic County, Warrap State, was most affected in terms of population potentially exposed to flood water; Tonj North County in Warrap State was the most affected in terms of the area of land affected by flood water.³⁴

In all counties in the region, floodwaters progressively receded by the end of the reporting period (see map 2.1), likely, enough to permit household movement and recovery of trade and market supply in many areas, with the exception of Akop and Alabek Payams in Tonj North County of Warrap State where FEWS Net reported that floodwater was still limiting full recovery in February 2023.³⁵

Rainfall data also indicates above-average levels of rainfall in the beginning of March 2023 in Tonj East and Rumbek North counties, which reportedly experienced flash floods that month.³⁶ Reports indicate that rainfall also started earlier than normal in parts of Raja County of Western Bahr el Ghazal.³⁷

IPC phase classification in Rumbek North in Lakes State, and Aweil Centre in Northern Bahr el Ghazal, was based on the assumption that during the dry season in January, February, and March, receding flood water would allow communities to finish harvesting crops and enable population movement to aid livestock activities, and search for wild foods. However, the presence of stagnant flood waters until late February, early rainfall and flooding in March and April, continued violence, restrictions in mobility, and competition over limited pastures, may have resulted in worse food security outcomes than projected in these counties.³⁸

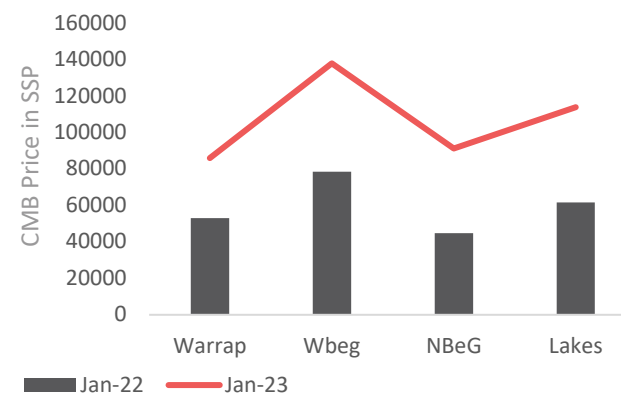
Rise in Prices

In January 2023, high exchange rates between the South Sudanese Pound (SSP) and United States Dollar (USD), coupled with reportedly below-average harvests and high import costs, likely drove an increase in staple food and fuel prices. Based on available market price monitoring data in CLIMIS Dashboard, the retail prices of 3.5 kg of white sorghum in January 2023 were 230% higher than prices same time last year in Aweil Centre markets, and 286% of the five-year average in Rumbek Centre markets.³⁹

In March 2023, Crop & Livestock Market Information System (CLiMIS) data indicates

that the steepest price rise across the region occurred in markets in Lakes State where sorghum prices were 300% of March 2022 prices. As a result, the cost of minimum expenditure basket (MEB) for food and non-food items – a metric indicating the cost of basic food and non-food needs – as calculated from data available in CLiMIS dashboard, had risen by 85% from January 2022 to January 2023 in Lakes and 104% in Northern Bahr el Ghazal.

Figure 2: CMB Price across Greater Bahr el Ghazal states in Jan 2022 vs Jan 2023 (CLiMIS)



AoK data findings suggest a similar trend in market price of staples. In March 2023, KIs in 79% of assessed settlements that reported facing any challenges at the marketplace (93% of all assessed settlements) reported that the challenge they faced was the high price of market purchases.

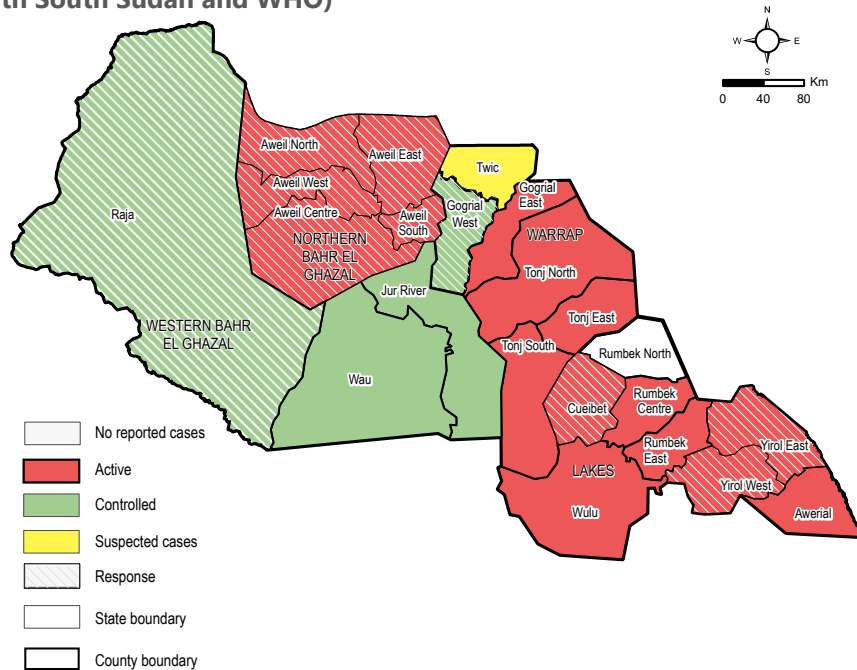
Disease Outbreaks

The Ministry of Health of the Republic of South Sudan declared a measles outbreak in the county on the 10th of December 2022. A total of 2,135 cases were recorded between 28th October 2022 and 23 February 2023 in GBeG. As of 23rd February, 16 counties across the region had active outbreaks. Apart from its direct effect on the body, which can be lethal, the measles virus also weakens the immune system and makes a child more vulnerable to other infectious diseases like pneumonia and diarrhoea.⁴⁰ Cueibet County, Lakes State recorded the highest case fatality rate (4.9%), while Aweil Centre in Warrap had the highest attack rate (3.8 cases per 1000 pop) among counties with confirmed outbreaks across the country.⁴¹

A month after the end of the reporting period, in April 2023, the Government of South Sudan had recorded 90 cases of Hepatitis E in Wau, Western Bahr el Ghazal. At the

same time, neighbouring Jur River, in the same State, had been identified as a hotspot county. Hepatitis E occurs in conditions characterised by inadequate water supply, limited access to adequate clean drinking water, poor environmental sanitation and personal hygiene, and limited health services.⁴² These outbreaks could potentially indicate pockets of regions requiring access to basic WASH services.

Map 3: Active, controlled, and suspected Measles outbreak by county (Ministry of Health South Sudan and WHO)



ACCESS TO BASIC NEEDS & SERVICES

Access to Food

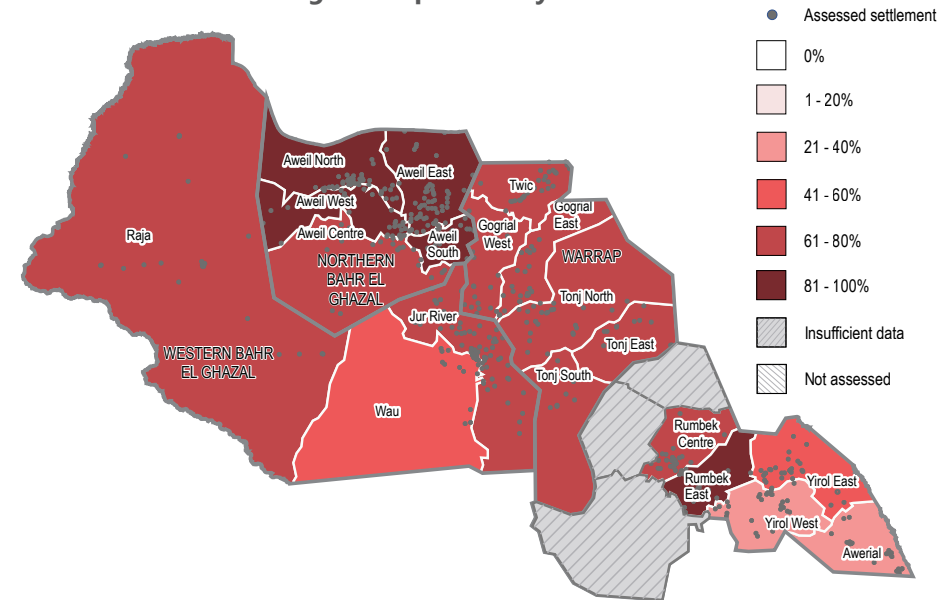
In April 2023, the Food Security and Livelihoods Cluster in South Sudan identified Tonj East, Aweil East, and the Twic-Abyei border in Warrap State, and Rumbek North in Lakes State, as food insecurity hotspots.⁴³



KIs in 74% of assessed settlements in the region in March reported that **most people** in their settlement were **unable to access enough food during the previous month**.

REACH AoK findings suggest that people were unable to access enough food in most settlements across the region. This was particularly notable in Aweil North, Aweil South and Aweil East of Northern Bahr el Ghazal, and Rumbek North and Cueibet of Lakes State, where KIs in all assessed settlements in March reported that most people were unable to access enough food during the previous month.

Map 4: proportion of assessed settlements where KIs reported that most people did not have access to enough food per county



According to Standardised Monitoring and Assessment of Relief and Transitions (SMART) surveys held in Aweil East, Aweil South and Aweil North counties of Northern Bahr el Ghazal, the reported transformation of the state's economy towards markets and commercialisation of labour was the main cause of high levels of food insecurity despite relative stability.⁴⁴ Given the reportedly high market reliance on food purchases,⁴⁵ the high prices of staples in the main markets, 265% above the four-year average in January 2023, may have contributed to a relatively poorer food security situation for at least some people in Northern Bahr el Ghazal in 2023.⁴⁶

Within the subset of assessed settlements where KIs reported that most people were unable to access enough food in the month of February, the two most reported reasons some people were unable to access food were high prices and lack of food stocks (reported in 20% and 31% of assessed settlements respectively across the region). In Northern Bahr el Ghazal, within this subset, KIs in 44% of assessed settlements reported the lack of food stocks, and in 41% of assessed settlements reported high prices, as the main reasons some people couldn't access food. Additionally, KIs in 38% of

assessed settlements within this subset in Rumbek North, Lakes State, and 14% in Twic, Warrap State, reported that the presence of conflict and insecurity were the main reasons some people could not access food in these counties.

In March, KIs in 66% of assessed settlements across GBeG reported that communities bought their food with cash.⁴⁷ KIs in all assessed settlements in Rumbek East (100%) and most in Rumbek North (95%) in Lakes State, and in Aweil West (91%), Aweil South (89%) and Aweil North (86%) in Northern Bahr el Ghazal, and Raja in Western Bahr el Ghazal, reported obtaining food through cash purchases as well.

AoK data indicates a decrease in the proportion of assessed settlements where KIs reported reliance on own production (aggregating for reports of cultivation and/or fishing) between November 2022 and March 2023. AoK data from March 2023 suggests a 39% decrease in the proportion of assessed settlements in Rumbek North in Lakes State, 31% in Aweil West in Northern Bahr el Ghazal, and 26% in Tonj East in Warrap State, where KIs reported that communities relied on own production through cultivation and/or fishing for food, compared to AoK data from November 2022.

However, a steady upward trend in the percentage of assessed settlements where KIs reported relying on markets was observed during the same time. AoK findings from March indicate a 34% increase in proportion of assessed settlements in Aweil East, Northern Bahr el Ghazal, 40% in Rumbek North, Lakes State, and 28% in Tonj East, Warrap State, where KIs reported reliance on cash and market-based modalities to access food, compared to findings from November 2022. A similar upward trend in reliance on foraging to access food was reported by KIs in 14% more assessed settlements in Aweil West in Northern Bahr el Ghazal, 42% in Rumbek North in Lakes, and 43% in Tonj North in Warrap, in March 2023 compared to November 2022.

These findings echoed FEWS Net reports that food stocks may have depleted early causing communities to rely on other sources of food in the post-harvest period between January and March 2023 in parts of GBeG.⁴⁸

Crop Production

Secondary reports indicate that in conflict-and flood-affected counties in Northern Bahr el Ghazal and Warrap states, harvests were estimated to be significantly below average.⁴⁹ FEWS Net reported that households in Warrap and Lakes States had exhausted their own food stocks and were relying heavily on wild foods, markets, and food assistance.⁵⁰

FEWS Net updates projected that the atypically prolonged presence of floodwaters and high soil-moisture content, displacement and conflict, were likely to disrupt NGO

delivery of farm inputs to vulnerable households. According to food security projection updates from February 2023, these factors were likely to also affect clearance and preparation of land for planting in April/May, and eventually may affect planting of main season crops from May 2023 onwards.⁵¹ Across the region, expected high prices of inputs were likely to continue to negatively affect production capacity.⁵²

In November 2022, IPC analysis estimated that 62% of the population in Northern Bahr el Ghazal State faced Crisis (IPC Phase 3) or worse levels of acute food insecurity. This made Northern Bahr el Ghazal the third most food-insecure state in South Sudan.⁵³ Annual decrease in estimated crop yield was also most notable in Northern Bahr el Ghazal (-4.6 percent), mainly due to floods, resulting in an estimated crop production deficit of 63,411 tonnes. Within Northern Bahr el Ghazal, the highest deficit was estimated in Aweil East (deficit of 39,483 tonnes of crop).⁵⁴

While increases in production compared to 2021 were estimated in Lakes (+25 percent), Warrap (+25.7 percent) and Western Bahr el Ghazal (+9.9 percent) States,⁵⁵ crop deficit estimates still remained high across the region. Estimated deficits were particularly notable in Tonj North (14,022 tonnes), Twic (11,302 tonnes), and Tonj East counties (8,199 tonnes) in Warrap State, and Rumbek Centre (16,055 tonnes) in Lakes State.⁵⁶

Figure 3: Crop production deficit estimates from South Sudan 2022 Crop and Food Security Assessment Mission (CFSAM) Summary of findings

	Northern Bahr el Ghazal	Warrap	Western Bahr el Ghazal	Lakes
2023 Estimated crop production deficits in tonnes	-39,483	-28,805	-7146	-5114

For households that depended on daily labour for income, a day's wage in February 2023 could purchase 22%, 45%, and 65% less sorghum than the same time last year in Juba, Wau, and Aweil markets, respectively, potentially reflecting significant deterioration in the terms of trade of labour to cereal,⁵⁷ and possibly in the purchasing power of households.⁵⁸

Livestock Production

In Northern Bahr el Ghazal and Warrap, where floodwaters had reportedly partially receded by March 2023, both field monitoring reports and satellite imagery indicated that pasture conditions had improved, resulting in fair to good livestock body conditions and improved household access to and consumption of livestock products.⁵⁹ In addition, the incidence of livestock diseases, notably water-borne diseases, were lower compared to reported incidence in September-November 2022 in Tonj East, Tonj

North and Gogrial East of Warrap, and Aweil West and Aweil North of Northern Bahr el Ghazal.⁶⁰ However, in parts of Tonj North, pasture conditions reportedly remained poor due to persistent floodwaters. Despite overall positive conditions for this time of year, access to livestock products and income reportedly remained limited in areas where there has been a significant loss of livestock assets over the years and where conflict and cattle-raiding had occurred, notably in parts of Warrap.⁶¹

According to reports in March 2023, while most livestock had reportedly migrated seasonally to more distant grazing areas, migrations were limited in Greater Tonj County, and Twic–Abyei, in Warrap State, reportedly due to fears of cattle raiding.⁶²

In April 2023, FEWS NET reported that increased seasonal in-migration of Sudanese pastoralists to Northern parts of Northern Bahr el Ghazal, had increased competition over limited grazing resources. In addition, conflict-related restrictions on movement in parts of Northern Bahr el Ghazal close to Sudan border, had reportedly limited access to pastures. According to FEWS NET reports this led to poor livestock body conditions.⁶³

Access to Nutrition and Healthcare

In January 2023, the impact of violence, conflict, and standing floodwaters, reportedly affected supply deliveries and monitoring activities for health and nutrition partners. Reportedly, such conditions also led to the temporary closure of some nutrition sites in Twic, and Gogrial East counties of Warrap State around the same time.⁶⁴

In the same month, 17,668 children with Severe Acute Malnutrition (SAM)⁶⁵ were admitted for treatment in outpatient and inpatient treatment programs across the country. The highest admissions of SAM cases were reported in Northern Bahr el Ghazal (19%) and Warrap State (12%).⁶⁶

SMART surveys in Aweil East, Aweil North and Aweil South of Northern Bahr el Ghazal, published between the months of September 2022 and April 2023, classified the malnutrition situation in all three counties as “very high” based on WHO/UNICEF standards for classification thresholds for emergency interventions.⁶⁷ This indicated an overall GAM prevalence above the threshold for emergency interventions in the three counties.

In September 2022, the Health Pooled Fund South Sudan, a multi-donor programme led by the UK government, that was providing funding to eight state hospitals to safeguard appropriate levels of timely payment of health workers’ salaries, and the provision of safe, effective, and quality medicines and supplies, announced a phased redirection of its funding. The funding changes have acted as a factor which may have impacted provision of healthcare programmes.⁶⁸

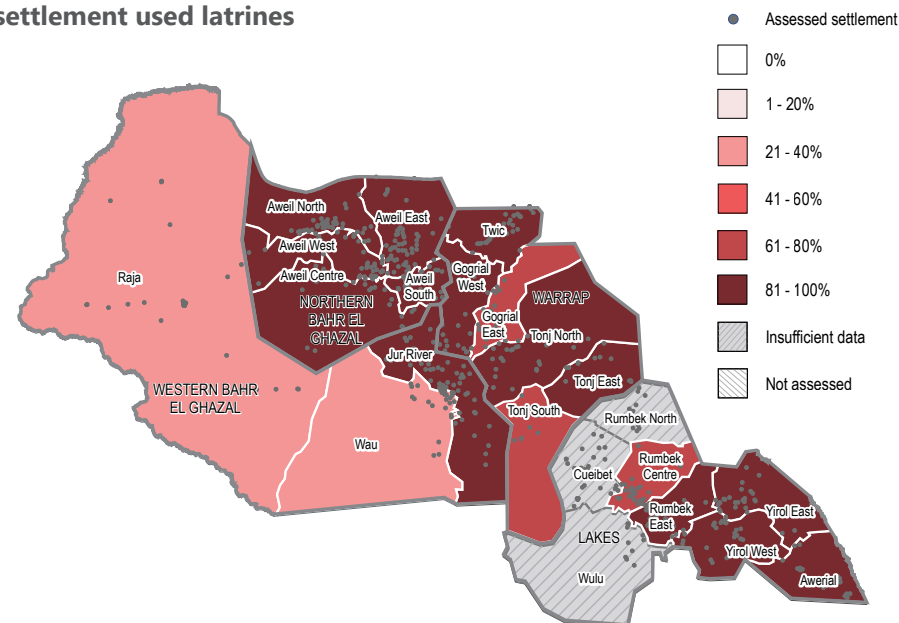
REACH AoK data from March 2023 indicated that KIs in 86% of assessed settlements across the region reportedly faced some sort of barrier in accessing healthcare. KIs in 68% of these settlements reported that lack of medicines was the main barrier. Furthermore, KIs in 41% of the assessed settlements in the region reported that they took between 1 hour to half a day to reach the nearest healthcare services by foot. In a region experiencing disease outbreaks and malnutrition, the absence of easily accessible health facilities could potentially exacerbate negative nutrition outcomes.

Access to WASH

According to the Water Sanitation and Hygiene (WASH) cluster more than 75% of all counties in GBEG region in March 2023 were classified as “critical” in terms of WASH severity, classification four out of five.⁶⁹

In March, AoK data indicated that KIs in 40% of assessed settlements in Warrap and 38% of assessed settlements in Western Bahr el Ghazal reported that people relied on an unimproved water source. KIs in more than half of assessed (57%) settlements across the region reported not using latrines in the same month. This was most commonly reported by KIs in assessed settlements within the counties of Rumbek North (100%), Wulu (91%), Yirol East (88%), and Aweil Centre (87%).

Map 5: Proportion of assessed settlements where KIs reported that no one in their settlement used latrines



Lack of access to appropriate handwashing facilities was also commonly reported across the region with KIs in 40% of assessed settlements reporting they only used water to wash hands.

Additionally, in many assessed settlements in Tonj East (54%) in Warrap State, and Gogrial West(38%), Gogrial East (37%), Yirol East(23%) and Yirol West(21%) in Northern Bahr el Ghazal State, KIs reported that people were unable to access the water point of their preference due to fear of safety.

Against the background of Hepatitis E and Measles outbreaks in many counties across the region, the absence of WASH facilities that meet basic standards could potentially aggravate such outbreaks and exacerbate the long-term effects of these outbreaks on affected populations.

COPING & ADAPTATION

Access to Nutrition and Healthcare

Figure 4: Most commonly reported consumption strategies by states, March 2023

	WARRAP	WESTERN BAHR EL GHAZAL	N. BAHR EL GHAZAL	LAKES
Rely on less preferred, less expensive food	40%	22%	31%	42%
Limit portion sizes at mealtimes	42%	36%	64%	48%
Reduce number of meals eaten in a day	57%	27%	84%	40%
Collecting wild food	31%	3%	21%	21%
Skip entire days without eating	8%	9%	0%	7%
Adults do not eat so children can eat	9%	18%	12%	13%

Food rationing strategies were the most commonly reported consumption strategies across the region in March 2023.⁷⁰ In those assessed settlements where KIs reported that most people did not have access to enough food in the previous month, food rationing strategies like limiting portion sizes (48%), and reducing the number of meals (51%) were the most commonly reported consumption coping strategies. This was followed by dietary change strategies. In settlements where KIs reported that most people did not have access to sufficient food in the previous month (71%), KIs in 34% of assessed settlements reported relying on less expensive food, and in 19% of assessed settlement reported relying on wild foods.

Within settlements where KIs reported that most people did not have access to sufficient food, KIs in 63% of assessed settlements in Rumbek North County in Lakes State, reported that people went entire days without eating in order to make their food stocks last longer.

Access to Humanitarian Assistance

In March 2023, KIs in 44% of assessed settlements across the region reported that they had received no humanitarian assistance in the past 3 months. This was reported by KIs in more than half of assessed settlements in Northern Bahr el Ghazal (51%) and Warrap (50%), and 45% of assessed settlements in Lakes State.

Across South Sudan, changes in funding likely affected the level of humanitarian assistance delivered to people in need.⁷¹ A reduction in the level of humanitarian assistance along with rise in cost of production and market prices of staples, could potentially have affected the purchasing power of communities and their access to food. Changes in people targeted for programming were reportedly most pronounced in the state of Warrap where the PiN increased from 0.9 to 1 million between 2021 to 2022 and yet the number of people targeted decreased from 0.8 million to 0.7 million.⁷²

CONCLUSION

Findings suggested that a series of **shocks and stressors in the form of flooding, subnational violence and cattle raiding, rising prices, changes in humanitarian assistance, and disease outbreaks potentially deteriorated the capacity of communities in the Greater Bahr el Ghazal region to access food and livelihoods opportunities.** While most of these factors had been accounted for as assumptions driving IPC phase classification projections during the period of December 2022 to March 2023 and then April to July 2023, **it is possible that food security outcomes during these periods may be more severe than those projected.**

Violence in some pockets of Warrap State expanded beyond anticipated levels. This was buttressed by the fact that **flood waters in some parts of Warrap and Lakes State took longer to recede, food stocks depleted earlier than projected in parts of Northern Bahr el Ghazal, Warrap and Lake states, and rainfall in some parts of Lakes and Warrap states came early restricting mobility for communities. This led to restrictions in accessing alternate sources of food. Disease outbreaks in most states of the region potentially adversely affected health and nutrition levels to cope with food shortages.**

This was combined with a **decrease in estimated crop production levels in Northern Bahr el Ghazal, limited mobility, and limited access to livestock in Warrap State, and decline in access to nutrition services and medicines in all states.**

AoK and secondary data suggests that these **shocks and stressors may have caused communities to employ adverse coping mechanisms to meet their consumption needs**, namely skipping meals, reducing portion sizes, eating less preferable foods, and consuming wild foods that made them sick.

The **reliance on cash purchases was reportedly highest in Lakes State, whereas in Warrap and Northern Bahr el Ghazal findings suggested that deteriorating purchasing power resulted in communities relying on other means to fulfill their energy needs.**

SMART Surveys in Northern Bahr el Ghazal indicated that repopulation of the area due to returnees since the 2000s increased pressure on local markets and resources to such an extent that markets and cash became an important means of survival. Additionally periodic closures of the border shared with Sudan, had increased indebtedness, exploitation of agricultural labour, and food insecurity (due to historically integrated market linkages with the country).⁷³ **In May 2023, as returnees and refugees from Sudan continued to arrive in the Northern Bahr el Ghazal state and food supplies from across the border were hampered due to road closures and insecurity from the Sudan war, these conditions could likely occur once again.**⁷⁴

ABOUT REACH

REACH Initiative facilitates the development of information tools and products that enhance the capacity of aid actors to make evidence-based decisions in emergency, recovery and development contexts. The methodologies used by REACH include primary data collection and in-depth analysis, and all activities are conducted through inter-agency aid coordination mechanisms. REACH is a joint initiative of IMPACT Initiatives, ACTED and the United Nations Institute for Training and Research - Operational Satellite Applications Programme (UNITAR-UNOSAT).

ENDNOTES

PAGE 1

- 1 Western plains groundnuts, sesame, sorghum; Western floodplain sorghum and cattle; Ironstone plateau agro-pastoral; Nile Basin Fishing and Agro-Pastoral. The seasonal tables (fig1.1) approximately comprise these zones
- 2 A unimodal rainfall pattern is defined by only one rainfall peak when there is no alternation of humid and dry months within the wet season taken from: Stefanie M. Herrmann and Karen I. Mohr. "[A Continental-Scale Classification of Rainfall Seasonality Regimes in Africa Based on Gridded Precipitation and Land Surface Temperature Products](#)." December 2011
- 3 OCHA. "[Humanitarian Needs Overview South Sudan: 2022](#)." February 2022; OCHA. "[Humanitarian Needs Overview South Sudan: 2023](#)." November 2022.
- 4 IPC. "[South Sudan: Acute Food Insecurity Situation October-November 2022 and Projections for December 2022-March 2023 and April-July 2023](#)." 3 November 2022
- 5 REACH. "[Rapid Needs Assessment: Twic County](#)." March 2023; REACH. "[Conflict shocks and underlying vulnerability: Regulation of mobility and disruption of livelihoods in Tonj East, 2018-2022](#)." April 2023; FEWS Net. "[Food Security Outlook Update April 2023](#)." May 2023; FEWS NET. "[Food Security Outlook Update](#)." April 2023
- 6 Ibid.
- 7 FEWS Net. "[South Sudan Key Message Update: Food assistance will remain critical in preventing Emergency \(IPC Phase 4\) in several areas](#)." March 2023.
- 8 CLIMIS. "[South Sudan 2022 Crop and Food Security Assessment Mission \(CFSAM\) Summary of findings](#)". November 2022; FAO. "[GIEWS Country Brief South Sudan](#)." March 2023
- 9 FEWS NET. "[South Sudan Key Message Update: Food assistance will remain critical in preventing Emergency \(IPC Phase 4\) in several areas](#)." March 2023.
- 10 UNOSAT. Satellite detected water extents over South Sudan. November 2022 to March 2023
- 11 FEWS Net. "[Food Security Outlook Update April 2023](#)." May 2023; FEWS NET. "[Food Security Outlook Update](#)." April 2023; Analysis of [WFP VAM rainfall and Vegetation data](#)
- 12 FEWS NET. "[Food Security Outlook Update](#)." April 2023.
- 13 FEWS NET. "[South Sudan Key Message Update: Food assistance will remain critical in preventing Emergency \(IPC Phase 4\) in several areas](#)." March 2023.

PAGE 2

- 14 FEWS Net. "[South Sudan Key Message Update: Food assistance will remain critical in preventing Emergency \(IPC Phase 4\) in several areas](#)." March 2023; CLIMIS South Sudan. "[Market Prices](#)".
- 15 Govt. of South Sudan and WHO. "[Republic of South Sudan - Measles Outbreak and Response Weekly Situation Update #9](#)." March 2023.
- 16 WHO. "[Acute hepatitis E – South Sudan](#)." May 2023.

17 Ibid.

18 To calculate the percentage of AoK coverage, the total number of settlements per county is based on OCHA settlement lists in addition to new settlements mapped by KIs each month.

19 In South Sudan, a number of settlements together make up a "Boma" which is the lowest level of administrative division in the country; A "Payam" is the second lowest level of administrative division, consisting of many Bomas; The third lowest level of division is "County," followed by "State".

PAGE 3

20 Philip Kleinfeld, Okech Francis. ["Interlocking crises: Why humanitarian needs keep increasing in South Sudan."](#) The New Humanitarian. October 2022.

21 FEWS Net. ["South Sudan Key Message Update: Food assistance will remain critical in preventing Emergency \(IPC Phase 4\) in several areas."](#) March 2023.

22 FEWS Net. ["South Sudan Key Message Update: Food assistance will remain critical in preventing Emergency \(IPC Phase 4\) in several areas."](#) March 2023.

23 FEWS Net. ["Food Security Outlook Update April 2023."](#) May 2023; UNISFA. ["UNISFA welcomes outcome of the Ngok and Twic Peace Conference in Wau."](#) April 2023

24 REACH. ["Rapid Needs Assessment: Twic County."](#) March 2023.

25 FEWS Net. ["South Sudan Key Message Update: Food assistance will remain critical in preventing Emergency \(IPC Phase 4\) in several areas."](#) March 2023.

26 Protection Cluster South Sudan ["February 2023, PROMO PMS analysis-In the Spot-light!"](#). February 2023.

27 REACH. ["Conflict shocks and underlying vulnerability: Regulation of mobility and disruption of livelihoods in Tonj East, 2018-2022."](#) April 2023.

28 Ibid.

29 FEWS NET. ["Sustained delivery of food assistance needed to prevent widespread Emergency \(IPC Phase 4\)"](#) February 2023.

30 The projection analysis tries to determine the most likely evolution of acute food security based on "a sound understanding of the current situation, historical trends and assumptions on the evolution of the situation". Assumptions are clearly documented by the analyst team and consider both aggravating and mitigating factors, including events that have already occurred, planned humanitarian assistance, and other factors. For more details refer to [IPC Technical Manual 3](#).

31 IPC Projections Data October 2022 to July 2023; REACH. ["Rapid Needs Assessment: Twic County."](#) March 2023.

32 IPC Projections Data October 2022 to July 2023.

PAGE 4

33 Relief and Rehabilitation Commission of South Sudan and UNDP. ["Flood Assessment in South Sudan."](#) November 2022.

34 UNOSAT. Satellite detected water extents over South Sudan. November 2022 to March 2023

35 FEWS NET. ["Sustained delivery of food assistance needed to prevent widespread Emergency \(IPC Phase 4\)"](#) February 2023.

36 WFP VAM Rainfall and Vegetation Data.

37 FEWS Net. ["South Sudan Key Message Update: Food assistance will remain critical in preventing Emergency \(IPC Phase 4\) in several areas."](#) March 2023.

38 IPC Projections Data October 2022 to July 2023. [WFP VAM Rainfall and Vegetation Data](#).

39 FEWS NET. ["Sustained delivery of food assistance needed to prevent widespread Emergency \(IPC Phase 4\)"](#) February 2023.; CLIMIS South Sudan. ["Market Prices"](#).

40 WHO. ["UNICEF and WHO warn of perfect storm of conditions for measles outbreaks affecting children"](#) April 2022

41 Govt. of South Sudan and WHO. ["Republic of South Sudan - Measles Outbreak and Response Weekly Situation Update #9."](#) March 2023.

PAGE 5

42 World Health Organisation. ["Acute hepatitis E – South Sudan."](#) May 2023.

43 Food Security and Livelihood Cluster, South Sudan. ["Monthly Bulletin."](#) April 2023

44 Action Against Hunger and USAID. "SMART+ Survey Preliminary report- Aweil East county, Northern Bahr el Ghazal State." September 2022.

45 Food Security and Livelihood Cluster. ["Food Security and Nutrition South Sudan"](#). July 2021

46 CLiMIS, South Sudan. ["Cost of Minimum Expenditure Basket"](#). March 2023

PAGE 6

47 KIs were asked to report up to 3 main food sources

48 FEWS Net. ["South Sudan Key Message Update: Food assistance will remain critical in preventing Emergency \(IPC Phase 4\) in several areas."](#) March 2023.

49 FEWS NET. ["Sustained delivery of food assistance needed to prevent widespread Emergency \(IPC Phase 4\)"](#) February 2023.

50 FEWS NET. ["South Sudan: Food Security Outlook Update, April 2023"](#). May 2023

51 FEWS NET. ["Sustained delivery of food assistance needed to prevent widespread Emergency \(IPC Phase 4\)"](#) February 2023.

52 FEWS NET. ["South Sudan: Food Security Outlook Update, April 2023"](#). May 2023

53 IPC. ["South Sudan's acute food insecurity remains high due to the economic crisis, flooding, low production, conflict and insecurity; about 1.4 million children are acutely malnourished."](#) October 2022.

54 FEWS NET. ["Sustained delivery of food assistance needed to prevent widespread Emergency \(IPC Phase 4\)"](#) February 2023.

55 CLiMIS. ["South Sudan 2022 Crop and Food Security Assessment Mission \(CFSAM\) Summary of findings"](#). November 2022.

56 FEWS NET. ["South Sudan: Food Security Outlook Update, April 2023"](#). May 2023; CLiMIS. ["South Sudan 2022 Crop and Food Security Assessment Mission \(CFSAM\) Sum-](#)

[mary of findings](#)". November 2022.

57 Wage to cereal terms of trade is a standard indicator for purchasing power.

58 FEWS NET. "[South Sudan Key Message Update: Food assistance will remain critical in preventing Emergency \(IPC Phase 4\) in several areas](#)." March 2023.

59 FEWS NET. "[Sustained delivery of food assistance needed to prevent widespread Emergency \(IPC Phase 4\)](#)" February 2023.

PAGE 7

60 Ibid.

61 Ibid.

62 FEWS NET. "[South Sudan Key Message Update: Food assistance will remain critical in preventing Emergency \(IPC Phase 4\) in several areas](#)." March 2023.

63 FEWS NET. "[Food Security Outlook Update](#)." April 2023

64 UNICEF. "UNICEF South Sudan Humanitarian Situation Report No. 1: 1 - 31 January 2023." March 2023.

65 Data collected through Middle Upper Arm Circumference measure and existence of edema. SAM classification is applied to children aged 6 to 59 months who have a mid-upper arm circumference (MUAC) less than 115 mm or who show signs of the presence of bilateral pitting edema.

66 Ibid.

67 WHO/UNICEF Cut Off Points using Z-Score (-2 Z scores in populations: <2.5% - Very low; 2.5-<5% - Low; 5-<10% - Medium; 10-<15% - High; ≥15% - Very High)

68 REACH. "[South Sudan Service Provider Mapping: Rumbek East \(November 2022\)](#)." M 2023

69 WASH Cluster South Sudan. "Field Mission Report and sub-national cluster meeting minutes". March 2023.

PAGE 8

70 KIs were asked to report up to 3 main consumption coping strategies

71 SIDA "[Humanitarian Crisis Analysis- South Sudan Crisis 2022](#)." June 2022

72 OCHA. "[Humanitarian Response Plan South Sudan 2022](#).", March 2022.; OCHA. "[Humanitarian Response Plan South Sudan 2023](#)." December 2022.

PAGE 9

73 Action Against Hunger and USAID. "SMART+ Survey Preliminary report- Aweil East county, Northern Bahr el Ghazal State." September 2022.

74 Jubaecho. "[Sudan Conflict Impacts Prices Of Goods In Aweil Town](#)". May 2023.