



# Twic Rapid Assessment: Food Security and Livelihoods Brief

Twic County, Warrap State, South Sudan, November 2017

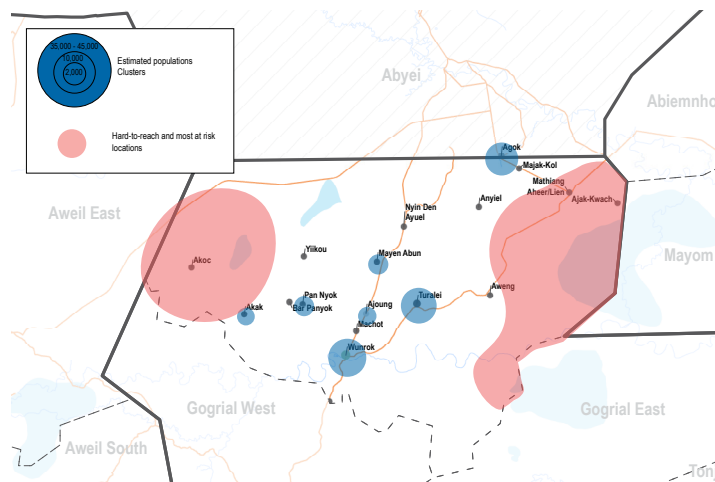
## Introduction

During the 2017 lean season when food availability is at its lowest, generally between April and July, a Standardized Monitoring and Assessment of Relief and Transitions (SMART) survey was conducted in Twic County, Warrap State.<sup>1</sup> According to the validated report<sup>2</sup> the prevalence of Global Acute Malnutrition (GAM) by weight-for-height z-score (WHZ) was 35.9%<sup>3</sup> (with a confidence interval of 31.6%-40.3%), including Severe Acute Malnutrition (SAM) prevalence of 11.6% (with a confidence interval of 8.7%-15.3%) by WHZ.<sup>4</sup> This is well above the World Health Organization's (WHO) thresholds for humanitarian emergency, and significantly higher than the prevalence of GAM by WHZ in Twic County in April 2016, 19.7%.<sup>5</sup> However, drivers of the high malnutrition rates were unclear. REACH deployed to Twic County, between 10 and 20 November, to fill key information gaps related to what could have caused the increased GAM rates, in addition to livelihood strategies used during the lean season in Twic County. In total, 5 Focus Group Discussions (FGDs) with 16 community members and 6 Key Informant (KI) interviews were conducted with nutrition teams from World Vision International and local authorities. This was supplemented with direct observation and informal discussions with community leaders and humanitarian actors. A total of seven locations were assessed, six locations in Twic County including Turalei Payam, Pan Nyok Payam, Akak town, Mayen Abun town, Wunrok Payam, Ajoung town, in addition to Agok in Abyei, a contested territory between Sudan and South Sudan.

## Key Findings

- Nearly all KIs from community health centres reported that during the 2017 lean season, an abnormal increase in malaria combined with poor household diets led to a spike in malnutrition.
- Akok Payam in western Twic County is considered to be one of the worst affected payams in the county, as a result of high food insecurity, relatively poor Water, Sanitation and Hygiene (WASH) conditions, and limited access to humanitarian aid due to flooding.
- Below average rainfall in central and eastern, and localised flooding in western Twic County severely reduced this year's harvest. KIs reported that food stocks will likely be diminished by January, **increasing the length of the lean season and exhausting available resources earlier than normal.**
- Due to a lack of available resources and insecurity near traditional dry season grazing areas, cattle migration has been restricted to a limited number of locations which are relatively further away than in previous years, raising concerns about the communities' ability to utilise cattle trade as a lean season coping strategy and increasing cattle mortality rates.
- Humanitarian actors, particularly health partners, have relatively high access to communities in central Twic County. However, the eastern and western portion of Twic County are inaccessible for months at a time due to flooding and insecurity.

## Map 1: Twic County, assessed locations, population estimates and inaccessible areas



## Background

Twic County is the most northern county in Warrap State. It shares a border with Unity State to the east, Northern Bahr el Ghazal State to the west, and Abyei, a disputed territory to the north. Twic County has six payams, Ajak-Kuac, Akoc, Aweng, Panyok, Turalei and Wunrok with a total estimated population of approximately 265,000, primarily located in central Twic County near Wunrok and Turalei towns.<sup>6</sup> According to KIs approximately one-third of the population reside in high risk areas, Akoc Payam in the west and Ajak-Kuac Payam in the east.

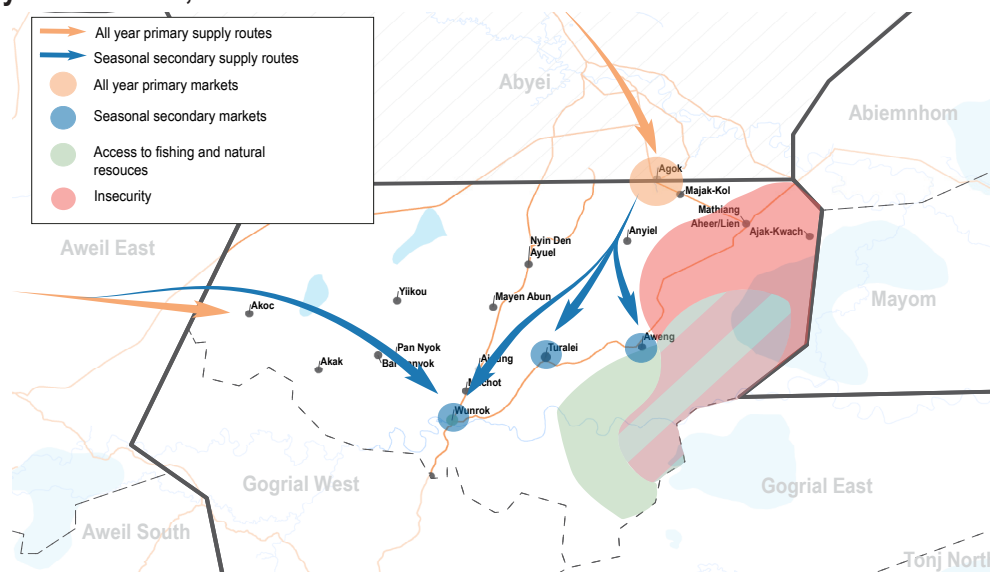
Though no inter-communal fighting has occurred recently, KIs reported an increase in cross-border cattle raiding in recent years, particularly from Mayom County in Unity State. Furthermore, the county experiences annual flooding due to a high water table. As a result, it is common for both crops to be destroyed by natural disasters and for entire payams to become inaccessible for months at a time, predominantly in the western portion of Twic County.

### Traditional livelihoods

The majority of households (HHs) in Twic are agro-pastoralist, cultivating small fields with traditional tools and relying heavily on livestock, particularly cattle, as a means for storing wealth and accessing food. According to KIs, most HHs in Twic cultivate less than one feddan of land, primarily sorghum and maize, with harvest season in mid-August.<sup>7</sup> Vegetables, including pumpkins and okra, are planted in December along rivers south of Turalei and Wunrok towns to supplement reductions in staple foods during the lean season. HHs with access to cattle tend to keep the herd near the settlement from May through December, and from January through June the herds will migrate to the toich; a large portion of land utilised for dry season grazing and resource gathering located south-east of Turalei and Aweng towns.

Due to Twic County's proximity to Abyei and Sudan, which supply the majority of the goods in north-central and western South Sudan, HHs in Twic have relatively high access to markets. FGD participants reported three major markets and three secondary markets that HHs access for trade and labour. The primary markets include Aneet which is on the boarder with Abyei and Twic County, Ameit in northern Abyei, and Warawar in Aweil East county. Throughout the year HHs can access these markets to purchase food and Non-Food Items (NFIs), and HHs typically increase cattle trade at these markets to

**Map 2: Key trade routes, markets and resources**



compensate for food consumption gaps in June and July. Secondary markets include Turalei and Wunrok towns, both in central Twic, and Aweng town in eastern Twic County. However, supplies are reportedly inconsistent, due to the seasonality of the roads, and many shops run out of stock during the height of the lean season.

Due to high levels of market access, many HHs also engage in casual labour or sell natural goods, such as firewood and charcoal to purchase food, usually in Aneet Market or Ameit Market in Abyei. Usually, male household members migrate for casual and manual labour for a month at a time to generate income needed to purchase cereals at the market before returning back to the community. However, if there are no food stocks in the HH, KIs reported the whole HH will move to the market to seek work.

Fishing is another key livelihood source, particularly for HHs without access to livestock. In January male HH members travel to Wunrok, Turalei and Aweng towns to access rivers for fishing; typically moving between locations based on the resources available. Fish is traded at nearby markets for grain or brought back to the HH for consumption. According to KIs, it is common for HH members to utilise this strategy from January until the start the cultivation season in May.

Traditionally, HHs in Twic have comparatively low crop yields, high risk of cattle raiding and exposure to annual floods. However, due to the relatively high level of access to markets and natural resources HHs can utilize a number of strategies during the lean season to offset food consumption gaps, including fishing, and trading cattle and labour for food.

## Key Drivers for Increased Malnutrition in Twic

### Increased malaria and pneumonia case-loads

According to KIs in Twic County, one of the leading causes of the spike in malnutrition rates was an increase in the number of malaria and pneumonia cases during the rainy season, May through August, coupled with consumption gaps in the lean season. FGD participants across all six locations assessed in Twic County emphasised a lack of adequate shelter and NFIs, particularly mosquito net. When combined with already low food consumption, which weakened many people's immune systems and made them more susceptible to disease, the lack of adequate nets led to elevated case-loads of pneumonia and malaria. The case-loads were particularly important in Akoc Payam,

where annual flooding and stagnant water is common.

### Poor Food Utilization

KIs also emphasized poor food utilization as a core contributor to the severe GAM rates. According to FGD participants, **HHs typically eat one meal a day**, primarily sorghum, suggesting overall poor household diet diversity. Additionally, KIs and FGD participants emphasized that most caretakers do not practise exclusive breastfeeding, resulting in children receiving breast milk only one to two times a day. Between May and October, children have sufficient access to milk from cattle. However, when cattle migrate for dry season grazing, access to milk is severely reduced.

In addition to poor diets, access to clean water for drinking and cooking was reportedly minimal and open defecation was practised widely by all communities. Although there were no reported cases of cholera by health partners, cases of acute diarrhoea were reported, reducing the absorption of key nutrients.

## Upcoming lean season concerns

### Minimal crop yields

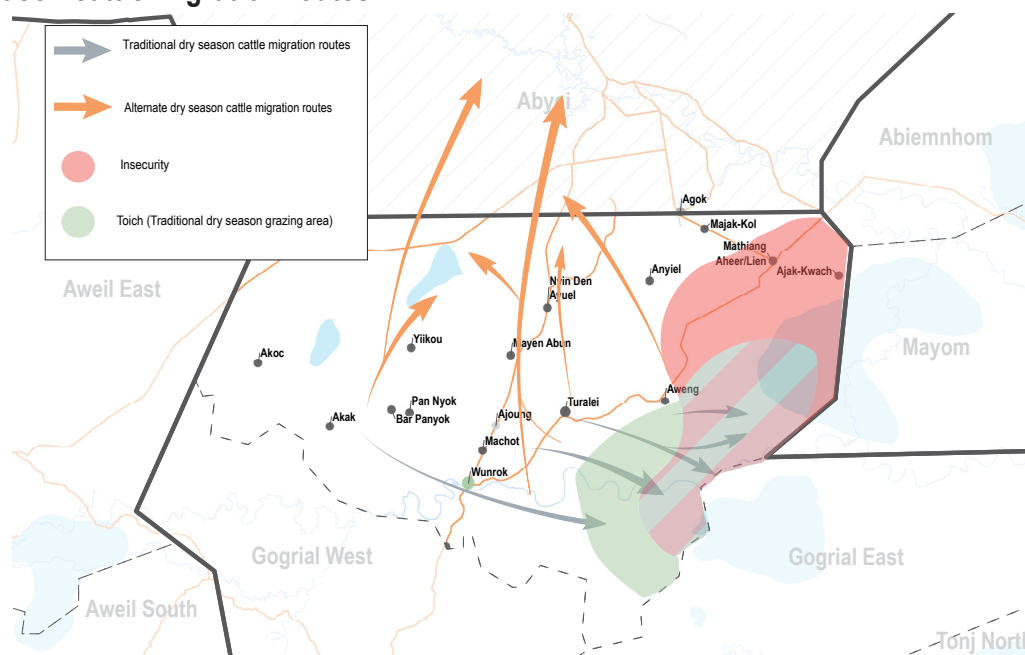
Dependent on access to cattle and proximity of markets HHs use a combination of lean season livelihood strategies, typically including rationing food stocks, selling livestock, migrating for labour in Abyei or fishing in nearby rivers. According to FGD participants, most HHs in Twic County cultivated this season. However, due to the limited land available, inadequate access to tools and below average rainfall, crop production was minimal. KIs reported that food stocks would likely be depleted by January 2018, prolonging the normal lean season. As a result, it is probable HHs will engage in severe coping strategies, such as collecting wild foods, skipping meals or selling an above average number of cattle to compensate for food consumption gaps.

### Implications of changing cattle migration routes

When food consumption gaps are high or cash is needed for household expenses during the lean season, HHs will traditionally sell cattle in major markets, including Ameit Market in Abyei or Warawar Market in Aweil East County. Trading cattle is often viewed as the primary method to access food during the lean season. KIs strongly emphasised that cattle were traded, rather than slaughtered for their own consumption as a coping strategy.

In the past, the liquidity of cattle, or the ability to easily trade cattle

**Map 3: Dry season cattle migration routes**



for cash, was relatively high. However, an increase in cattle raiding in recent years from nearby communities in Unity State has forced HHS to seek alternative grazing lands. As a result, KIs emphasised that more cattle are being taken to an area known as Alel in northern Twic County and the Kiir river in Abyei. As map 3 depicts, cattle migration has drastically shifted over the previous year. Due to below average rainfall and the disruption of traditional cattle migration routes, traditional grazing areas are limited and cattle migration routes are relatively further away. According to KIs, in previous dry seasons, when cattle migrated away from settlements, HHs could access their herd and trade it for food within a week. However, KIs noted that due to the new migration routes the time required to trade cattle during this dry season is likely to increase by two to three weeks. As a result, the liquidity of cattle will be severely reduced during the lean season. Consequently, this will decrease most HH's ability to utilize trade to maintain adequate access to food during a period of already low food availability.

## Access to Humanitarian Services

Overall, access to humanitarian services in Twic County is relatively low. World Vision International maintains health clinics and nutritional programmes in Twic County. However, according to KI interviews, minimal infrastructure and annual flooding in western Twic County severely limit access to humanitarian aid between July and January, reportedly leading to increasing rates of malnutrition due to diseases and food shortages. The Norwegian Refugee Council (NRC) distributes livelihood kits throughout Twic County. However, these programmes are mainly targeting Internally Displaced Persons (IDPs). The World Food Programme (WFP) conducts food assistances for assets schemes in the area. However, according to KIs, the programme also targets IDPs, and the distributions are reportedly inconsistent.

## Conclusion

Overall, the severe level of malnutrition in the 2017 lean season was reportedly attributed to poor food utilization and WASH conditions across most of Twic County. According to KIs, breastfeeding is not regularly practised and most HHS eat one meal per day. Additionally, in the 2017 rainy season the lack of NFIs and access to clean water led to an increase number of malaria and pneumonia cases. As a

result, poor diet quality coupled with an abnormally high malaria case-load led to GAM rates far above the WHO thresholds for humanitarian catastrophe.<sup>8</sup> According to KIs, the overall situation has slightly improved since mid-September. However, below-average harvest and restricted cattle migration throughout the 2017 rainy season has highlighted potentially severe food consumption gaps that need to be closely monitored during the 2018 lean season.

Key elements for humanitarian actors to monitor include a prolonged lean season due to a poor harvest, a sudden decrease in market access, or continued inaccessibility to areas that are already known to be facing severe levels of humanitarian needs, mainly in Akoc Payam in the west and Aweng Payam in the east. Furthermore, abnormally high losses of cattle as a result of cattle raiding or reports of any increases in the rate of cattle slaughtering within towns - a strong proxy for severe consumption gaps due to the cultural taboo of slaughtering cattle for HH's own consumption - should also be monitored. Overall, if access to lean season coping strategies and humanitarian services continue to be severely limited in 2018, Twic County could experience GAM rates and food consumption gaps similar or higher to the 2017 lean season.

### Endnotes:

1. World Vision International, South Sudan: Nutrition & Retrospective Mortality Pre-Harvest Survey, 2017.
2. The nutrition information working group, chaired by UNICEF, statistically validated the report.
3. According to the World Health Organization the threshold for humanitarian emergency is 15% by WHZ.
4. Additionally, 17.6% of the population was classified by the Integrated Food Security Phase Classification (IPC) as phase 3 or 4, and high levels of mortality were registered, with a non-trauma crude death rate of 1.29, between IPC phases 3-4.
5. World Vision International, South Sudan: Nutrition & Retrospective Mortality Pre-Harvest Survey, 2017.
6. The IOM 2013 population estimate was 227,343 which was then multiplied by a 5% growth rate and cross referenced with KIs.
7. A feddan is approximately one acre.
8. World Vision International, South Sudan: Nutrition & Retrospective Mortality Pre-Harvest Survey, 2017, reported GAM rates above the WHO threshold for humanitarian catastrophe, 15%.