FACTSHEET

Food Security, Livelihoods and Nutrition (FSLN) Assessment:

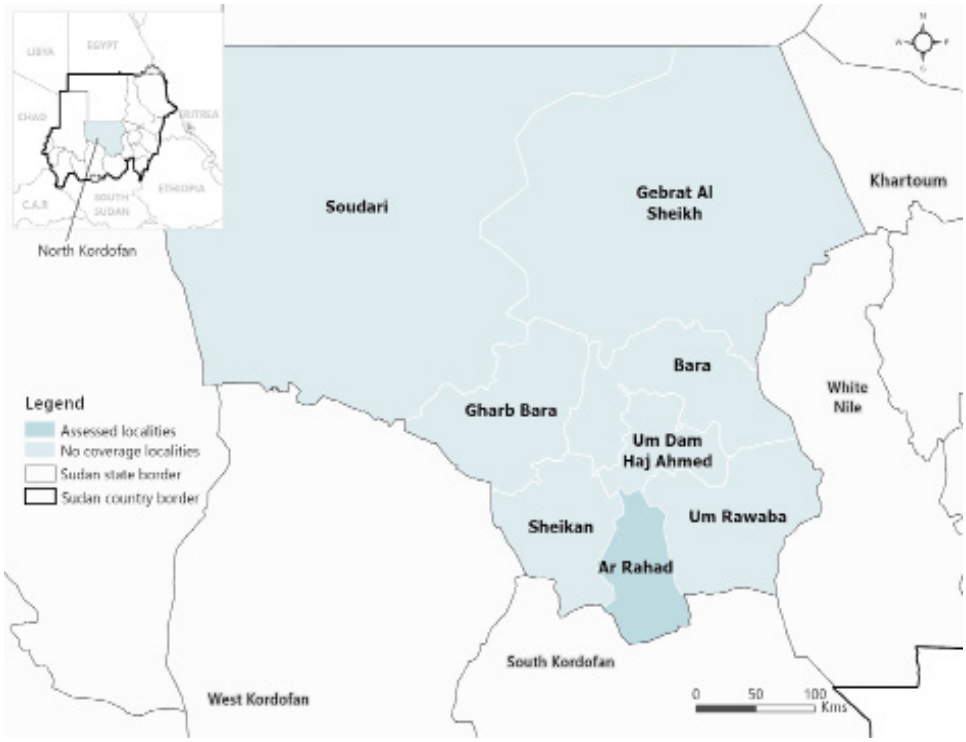
Ar Rahad locality, North Kordofan state

June 2026 | Sudan

Key Messages

- **Food insecurity is primarily driven by affordability constraints rather than food availability.** Most households reported poor or borderline food consumption and had already adopted stress- to emergency-level coping strategies. With the lean season approaching, the increasing reliance on asset-depleting coping mechanisms **signals a heightened risk of further deterioration**.
- **Healthcare access remains constrained by affordability, insecurity and physical barriers.** While most households requiring care were able to obtain it, these constraints continue to limit access and may contribute to rising unmet health needs as disease risks increase during the rainy season.
- **Hygiene and protection risks are closely linked**. Limited access to hand-washing facilities and soap constrains effective hygiene practices, while water points are among the locations women and girls most frequently avoid due to safety concerns, **increasing public health risks as the rainy season approaches**.[4]

Map 1: Assessment Coverage



Context & Rationale

Since April 2023, armed clashes broke out across multiple cities in Sudan. The conflict triggered mass displacement, insecurity, and the destruction of critical infrastructures, significantly worsening an already severe humanitarian crisis, leaving more than 33.7 million people, including 17.3 million children in need of humanitarian assistance nationwide.[1]

In North Kordofan, the situation and humanitarian access remain severely constrained by active fighting, widespread insecurity and the growing threat of drone attacks across parts of Kordofan. As a result, thousands of people, including communities in and around El Obeid, were displaced and remain beyond the reach of life-saving assistance.[2] As of early 2026, the situation in North Kordofan has further deteriorated amid ongoing hostilities. According to a food security analysis by FEWS NET, acute food insecurity remains at Emergency levels, with some populations facing Catastrophe stages during the lean season. The cumulative effects of conflict, movement restrictions, and market disruptions have significantly heightened vulnerabilities among both displaced and non-displaced populations. The scale of hunger, acute malnutrition, and mortality is still expected to remain high.[3]

In this context, the FSLN assessment was conducted between 10 - 17 May 2026 to better understand the humanitarian needs of the affected populations in Ar Rahad, with a focus on Food Security and Livelihoods (FSL), Water, Sanitation and Hygiene (WASH), Health, Nutrition and Protection, to support coordinated response planning. Findings are representative at the locality level for the general population.

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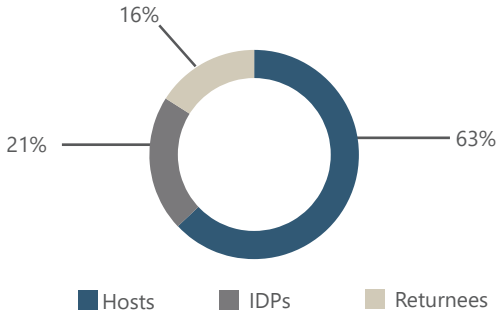
Ar Rahad locality findings

Demographic profiles

The 131 households (988 individuals) assessed in Ar Rahad were majorly a rural-based population living in inadequate housing: **57% lived in rural areas, 42% in urban settings, while 1% lived in informal camp settings**. **67% lived in inadequate (emergency, makeshift, tent, or transitional) housing**. Of the respondents, 58% were female and 42% male, with an overall average age of 41 and a median household size of 7 members.

Figure 1: % of assessed households by displacement status

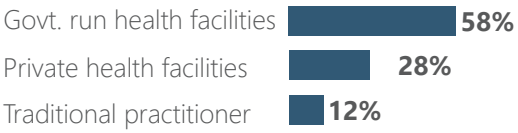


Health

Healthcare needs were high in Ar Rahad in the two weeks preceding the data collection. **Over half the assessed households (69%) reported at least one member in need of healthcare assistance.** Among these households, a majority were able to access the healthcare they felt needed (76%), leaving 24% with unmet healthcare needs.

The most frequently reported symptoms were fever (54%), followed by cough, malaria and stomach-ache (each 23%) and urinary infection (18%).

Figure 2: % of households in need of healthcare assistance, by type of consulted health facility (two weeks prior to data collection) (select multiple; n=69)



Lack of financial access, more than the care itself, is what stands between most households in Ar Rahad. Four in five households (**72%)** of households reported at least one barrier to seeking healthcare in the two weeks before data collection, most commonly the cost of medication, with a lack of functional health facilities a secondary factor.

In addition, 42% of households reported that reaching the nearest functioning health facility takes more than 30 minutes, and 20% need more than an hour, suggesting that **physical access remains a challenge for a substantial share of the population**.

These access barriers echo what households report under protection, where healthcare is the most commonly avoided service due to insecurity, meaning affordability and physical distance are only part of the picture — fear of insecurity is a third, compounding constraint on care-seeking in Ar Rahad.

Figure 3: Top 5 reported healthcare access barriers per % of assessed households (select multiple; n=131)

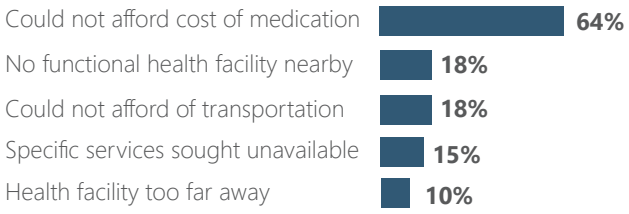
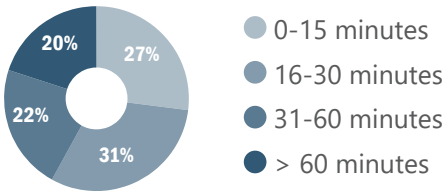


Figure 4: % of households by travel time to reach the nearest health facility by foot



Physical access challenges may be compounded for individuals with disabilities or functional limitations. 11% of households cited a member's disability as a barrier to healthcare in its own right, separate from distance and wait times — consistent with the meaningful dependency levels found locally, where 4% of households rely on another person to carry out day-to-day activities.

A smaller share face barriers to using services at all: 4% require information in accessible formats such as sign language, easy-to-read materials, or large print, and 3% use assistive devices daily. Together, these findings indicate that the physical and logistical barriers already facing the general population fall harder on persons with disabilities, **reinforcing the need to build equitable accessibility into healthcare and humanitarian assistance.**

Child morbidity and vaccination

Survey findings indicate that child morbidity is a serious concern in Ar Rahad. **Among the 89 assessed children under five years of age, 46% were reported to have been ill** during the two weeks prior to data collection.

Fever was the most commonly reported symptom, affecting 49% of sick children, while respiratory, diarrhoea and malaria symptoms were also frequently reported.

These findings point to a substantial burden of illness among young children, particularly given that these types of conditions are among the most common contributors to poor child health outcomes worldwide,[5] and highlight the importance of continued monitoring of public health risks.

Table 1: % of children aged 6-59 months in need of healthcare, by type of reported illness (two weeks prior to data collection) (select multiple; n=41).

Type of illness	Frequency	Percentage
Fever	20	49%
Cough	15	37%
Malaria	2	20%
Eye infection	2	20%
Diarrhoea	7	17%

When seeking treatment, caregivers largely turned to government health centres (54%), followed by traditional practitioners (10%) and private health facilities (7%). These findings suggest that formal health facilities remain the primary source of care for sick children, although a notable proportion of caregivers did not seek any treatment (20%).

Meanwhile, preventive care has not kept pace with this illness burden. Coverage of key child health interventions remained below the 90% target, potentially increasing children's vulnerability to infectious diseases and nutrition-related health risks.[6] Measles vaccination had the highest reported coverage (97%: 93% based on maternal call and 4% on vaccination card/record), followed by vitamin A supplementation (60%: 59% based on maternal call and 1% on vaccination card/record) and deworming (37%).

Infant and Young Child Feeding (IYCF) in Emergencies

Breastfeeding practices were generally positive among the assessed households. The majority (79%, n=11) of assessed children aged under six months were reportedly exclusively breastfed during the 24 hours preceding data collection, in line with recommended feeding practices for this age group. All the nine (9) assessed children aged 12–23 months, were reportedly breastfed during the previous 24 hours.

Despite adequate early breastfeeding practices reported, **complementary feeding practices appeared limited** among the 29 children under five for whom dietary recall data were available. Most children (28 out of 29) consumed breast milk, while complementary foods were largely restricted to a narrow range of items, primarily pulses, grains, roots, tubers, and dairy products. Consumption of animal-source foods and micronutrient-rich foods was rare or absent.

This limited dietary diversity was reflected in the Minimum Dietary Diversity (MDD) outcomes, where **all 17 children (100%) failed to meet the threshold** of consuming at least five of the eight food groups in the previous 24 hour.

Caregivers most commonly identified economic barriers to complementary feeding, particularly a lack of financial resources to purchase food and high food prices.

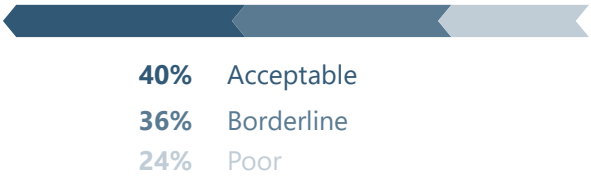
In addition to the knowledge gap, where only 34% reported receiving counseling or support on child feeding practices since the onset of the emergency. These findings suggest that affordability constraints and knowledge gaps continue to limit dietary diversity among young children. Given the small sample size, these results should be interpreted with caution.

Food Security and Livelihoods (FSL)

Food security outcomes in Ar Rahad point to a population in acute near-universal crisis. **Food consumption outcomes place a third of households (33%) in Phase 3 or worse** with most others in Phase 2 (56%) and only 11% in Phase 1.* With this little of the population left with any buffer, there is almost no room to absorb further shocks before conditions deteriorate further..

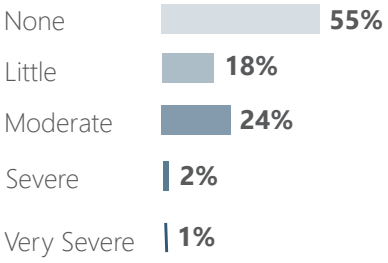
The **Food Consumption Score** (FCS) based on the seven-day recall period indicates that 40% of the households were classified as **acceptable**, 36% as **borderline** and 24% as **poor**. The median FCS was recorded at 39, which falls within the acceptable category (>35).

Figure 5: % of households by Food Consumption Score (FCS) (7 days prior to data collection)



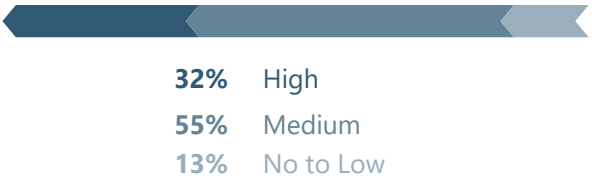
The Household Hunger Scale score findings indicate that 55% of assessed households reported no hunger in the 30 days preceding data collection, while 24% experienced moderate hunger and a further 3% severe or very severe hunger. This flags persistent food access challenges, with **more than a quarter of households facing significant levels of hunger**.

Figure 6: % of households by Household Hunger Scale (HHS) score (4 weeks prior to data collection)



Households cope with food shortfalls mainly through low-cost adjustments — cheaper food (3.7 days/week), smaller portions (3 days/week) and fewer meals (2.3 days/week). More telling is that the most severe behaviour, borrowing (1.5 days/week) and adults restricting their own intake for children (1 day/week), are already present — an early sign some households have exhausted milder options.

Figure 7: % of households by reduced Coping Strategy Index (rCSI) score (7 days prior to data collection)



This is confirmed by the **Livelihood Coping Strategies Index (LCSI)**, where **reliance on crisis-emergency-level strategies was already widespread** over the 30 days preceding data collection. The findings shows households employing a range of coping strategies, including stress level measures such as borrowing (65%) and spending savings (62%). At the same time, **reliance on crisis- and emergency level strategies was substantial**, with 60% consuming next season's seed stock, 56% reducing health expenditures, and 35% selling a last productive animal. Unlike short-term consumption adjustments, these strategies deplete productive assets and livelihood resources, **compromising households' capacity to recover once conditions improve and increasing the risk of prolonged food insecurity**.[7]

This depletion is severe among the rural population (57%, n=75) where over a third (36%) reported having exhausted these coping options, with the sale of a last productive animal being the most commonly exhausted strategy (22%). Although affecting a limited share of households, this depletion of livelihood coping strategies is a concerning indicator of vulnerability, as it reflects a loss of buffers households can draw on in times of crisis — pointing **to particularly acute coping pressures ahead for rural households, as the lean season progresses**.

Table 2: % of households by Livelihood Coping Strategy Index (LCSI) (4 weeks prior to data collection)

LCSI	Frequency	Percentage
None	11	9%
Stress	12	9%
Crisis	53	68%
Emergency	37	29%

Households' main food sources over the past week were markedly diversified. Purchase with cash was reported the primary source of food for nearly three-quarters of assessed households (71%), significantly exceeding gifts from family or friends (47%), own production (46%), borrowing (22%) and purchase on credit (6%).

Food assistance plays only a minor role (6% in-kind), indicating that **most households meet their food needs mainly through markets, their own production, and other informal sources**.

Figure 8: Top 4 reported food sources access barriers per % of assessed households (select multiple; n=131)

Household income in Ar Rahad is heavily dominated by casual or daily labour (83%), followed by other sources: support from family members abroad through remittances (32%), income from own business (24%), income from agricultural products (24%), salaried work and loans each at (9%). **This near-total dependence on casual labour leaves household income highly volatile and exposed to shocks**.

At the same time, registration for and receipt of food assistance was limited: only 11% of assessed households reported being registered for or receiving general food distribution, cash or voucher support, while 89% were not, consistent with the limited role of assistance among food sources noted above.

Table 3: % of top reported food assistance types received by households (select multiple; n=13)

Type of assistance	Frequency	Percentage
Food In-Kind	7	54%
Multi Purpose Cash Assistance	1	8%
Cash for food	1	8%

Water, Sanitation and Hygiene (WASH)

Most of the total households used households used improved water sources (87%) — mainly piped connections (34%), boreholes/tubewells (18%), cart with small tank (13%) tanker trucks (12%), and water kiosks (1%). The remaining 13% **relied on unimproved sources**, **mainly surface water (10%) and unprotected wells (3%).**

Although a majority of households relied on improved water sources, water treatment before consumption was limited to 10% of the households. However, limited water treatment remains a concern given the potential risk of faecal-oral disease transmission resulting from contamination during water collection, transport, storage, or handling.

Figure 9: % of HHs reporting insufficient drinking water in the 4 weeks prior to data collection

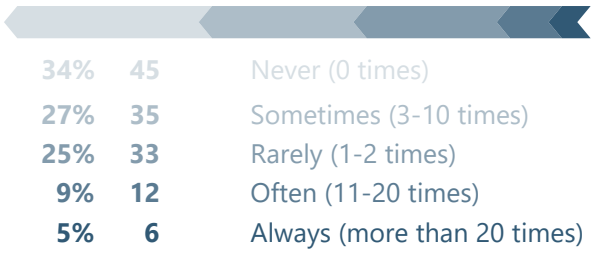


Figure 10: % of HHs reporting inability to wash hands due to water problems in the last 4 weeks prior to data collection

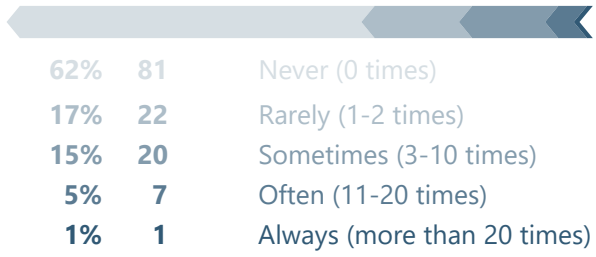


Figure 11: % of HHs reporting worry about having enough water in the last 4 weeks prior to data collection

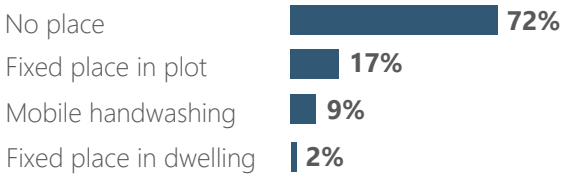
Figure 12: % of HHs reporting changes to daily activities due to water problems in the last 4 weeks

Most households used improved sanitation facilities, predominantly a flush or pour-flush to a pit latrine (59%) or flush to septic tank (12%). However, **19% reported having no facility and practising open defecation** in bushes or fields — a significant share that poses clear public-health and protection risks. Of these households, 18% shared their facility with other households, with a median of around 3 households per shared facility, raising concerns around hygiene, privacy and safety.

These concerns are borne out in practice, **as more than half of the assessed households (53%) cited at least one concern with their sanitation facilities**, most commonly a lack of privacy (30%) and a lack of segregation between men and women (14%), both carrying particular implications for the safety and dignity of women and girls, followed by unclean or unhygienic facilities (12%), and facilities that were too far or overcrowded/lacking (6% each).

Handwashing practices reflected limited access to sanitation facilities. Only 19% had a fixed facility (in the dwelling or yard) and **nearly three quarters (72%) had no handwashing place at all**. Where a facility existed, water was usually available (89%), but soap or detergent was present in only 50% of households — indicating that **half of the assessed households lacked the means for effective handwashing**, a basic barrier to disease transmission in a context already marked by limited water treatment and widespread illness.

Figure 13: % of HHs by type of handwashing facility most commonly used



Protection

Insecurity is actively restricting how households in Ar Rahad meet their basic needs. Overall, 76% of assessed households reported reduced access to at least one public service, most commonly schools and educational centers (72%), healthcare facilities (65%), government facilities (36%), and therapeutic centres (31%). Fear of insecurity was the primary reason cited for avoiding these services.

This tracks with a broader pattern of restriction: 79% of households report experiencing protection risks in the three months preceding data collection, which limited household members' ability to access resources, carry out activities, or make decisions to meet their basic needs, including working, farming, or fetching water.

This burden falls disproportionately on women and girls. Overall, 31% of respondents reported that **women and girls experienced situations where they felt unsafe moving within the community**. The locations most commonly avoided due to safety concerns were markets (85%), water points (44%), routes for collecting firewood (34%), on their way to the school (27%), on their way to health centers (20%), social gathering places (17%), in their homes (12%) and distribution points (10%).

Figure 14: % of assessed households reporting women and girls feeling unsafe walking in their communities in the 3 months prior to data collection

Methodology Overview

This assessment was conducted by IMPACT Initiatives in collaboration with LM International between 10 and 17 May 2026, as part of the broader Food Security, Livelihoods and Nutrition (FSLN) assessment of hotspot localities across the Kordofan region. This factsheet presents findings from Ar Rahad locality in North Kordofan, where a total of 131 household surveys were completed. Of these, the assessed population comprised host community, internally displaced, refugee and returnee households.

IMPACT provided technical support across sampling design, data collection tool design and coding, field team training, and data cleaning and analysis, while LM International led implementation, including field monitoring and data collection.

The sample was designed to achieve representation at the locality level for the general population, assuming a 95% confidence level, a ±10% margin of error, a design effect of 1.5, and a 5% buffer, with a minimum of five interviews per cluster, following a two-stage cluster sampling design. In the first stage, 1km^2 grid cells (hexagons) were selected using probability proportional to size (PPS) from a sampling frame based on WorldPop (2025) and IOM Displacement Tracking Matrix (DTM) population estimates. Grid cells between bordering localities and those containing fewer than five households were removed from the sampling frame prior to selection.

Findings are representative at the locality level for the general population. Any further breakdown within the locality (e.g., by displacement status) is indicative only. Results may not capture the full diversity of conditions, particularly among harder-to-reach populations.

Endnotes

[1] United Nations Office for the Coordination of Humanitarian Affairs (OCHA) summary, Sudan Humanitarian Needs and Response Plan, March 2026

[2] DTM Sudan Focused Flash Alert: Kordofan Region (Update 05) | Publication Date: 11 March 2026

[3] Famine Early Warning Systems Network (FEWSNET), Sudan Food Security Outlook (February - September 2026)

[4] FEWSNET: Sudan Key Message Update: Emergency and risk of Famine persist in North Darfur and South Kordofan, May - September 2026 | Publication Date: 8 June 2026

[5] World Health Organization, Child mortality and causes of death

[6] World Health Organization, Global Nutrition Targets 2030 to improve maternal, infant, and young child nutrition.

[7] World Food Program, Livelihood Coping Strategies for Food Security Guidance Note, March 2023

*Phases refer to the classification of Acute Food Insecurity:

- Phase 1: Minimal/None: Households can meet their basic food and non-food needs without relying on negative coping strategies.

- Phase 2: Stressed: Households have minimal adequate food consumption but cannot afford basic non-food needs without resorting to stressful coping strategies.

- Phase 3: Crisis: Households have significant food gaps with high or above-usual acute malnutrition, or they can only mitigate these food gaps by selling off essential livelihood assets.

- Phase 4: Emergency: Households face large food gaps that result in very high acute malnutrition and excess mortality. At this stage, immediate action is required to save lives.

- Phase 5: Catastrophe/Famine: Households have an extreme lack of food and face starvation and destitution.

ABOUT LM International

LM International, founded in 1958, is a Swedish humanitarian and development organization dedicated to saving lives and strengthening resilient communities in fragile and conflict-affected contexts. Through evidence-based programming, strategic partnerships, and a strong operational presence, LM International delivers integrated humanitarian assistance while promoting data-driven decision-making to enhance the quality, accountability, and impact of humanitarian response.

ABOUT IMPACT

Founded in 2010 and headquartered in Geneva, IMPACT Initiatives is a leading applied research organization and the largest independent provider of data in crisis-affected contexts.

Through our initiatives we enable humanitarian and other aid actors to make better, evidence-based decisions by delivering timely, relevant, and methodologically rigorous data and analysis. Our extensive presence across crisis-contexts allows us to collect data directly from crisis-affected people wherever needed, including among the most vulnerable and hard-to-reach.

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