

Evolution of Food Insecurity in Sudan During the Ongoing Conflict

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Introduction

Sudan's food security landscape has been dramatically impacted by the ongoing conflict between the Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF), which began in April 2023. The conflict has exacerbated an already precarious situation for the country, characterized by macroeconomic instability, climate shocks, and persistent discord and tension. This policy note analyzes the evolution of food insecurity in Sudan during the conflict, drawing from analysis of four nationwide surveys conducted before and during the conflict, namely the 2022 Sudan Labor Market Panel Survey (SLMPS),¹ the 2023/24 Sudan Rural Household Survey,² the 2024 Sudan Urban Survey,³ and the recently completed 2024 Rural Household Survey. The findings highlight significant deterioration in food security across rural and urban areas of Sudan. Based on insights from these surveys, policy recommendations are offered to address food insecurity in the context of the conflict in Sudan.

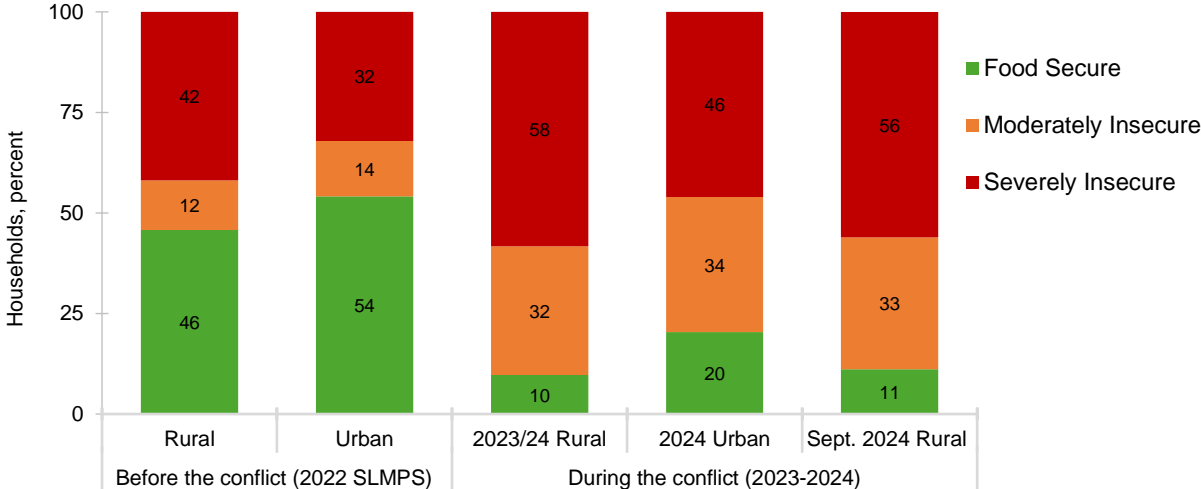
Before the outbreak of the conflict in 2023, Sudan was already facing significant food insecurity challenges. The 2022 SLMPS, a nationwide survey conducted in person, revealed that approximately 49 percent of Sudanese households were food secure. Factors such as high inflation, climate-related shocks, and underinvestment in agriculture have led to many households facing problems accessing sufficient healthy food, adversely affecting their food consumption. The reliance of Sudan on imports for a significant share of food consumption, coupled with a devaluating Sudanese Pound and rising inflation, strained household purchasing power, further limiting access to essential foodstuffs. Food insecurity was uneven across the country. Rural areas, where consumption of own agricultural production is essential for household food security, had higher food insecurity than urban areas. Some regions were particularly vulnerable to food insecurity, including the Darfur and Kordofan regions and Blue Nile states. Localized conflicts in these areas disrupted agricultural activities and displaced communities even before broader-scale fighting between SAF and RSF began.

Increasing Food Insecurity During the Conflict

The onset of the conflict in April 2023 triggered mass displacement, with more than 11.3 million people forcibly displaced by October 2024, of which 2.3 million have sought refuge in

neighboring countries.⁴ Between April 2023 and October 2024, over 27,000 deaths across Sudan have been attributed to the conflict.⁵ The fighting has disrupted agricultural activities, destroyed infrastructure, and cut off supply routes, severely limiting food availability and access according to a joint IFPRI/UNDP report.⁶ The analysis of food insecurity during the conflict, based on analysis of data from household surveys conducted in 2023 and 2024, shows a sharp decline in the share of households that are food secure. The proportion of food-secure households plummeted from approximately 49 percent pre-conflict to between 10 percent and 20 percent during the conflict (Figure 1). Food Insecurity Experience Scale (FIES) scores for households indicate that between 80 and 90 percent of households now experience moderate or severe food insecurity, with rural households being disproportionately affected.

Figure 1 Deteriorating household food security during the armed conflict in Sudan



Source: Authors' analysis of the 2022 SLMPS, 2023/24 Rural, 2024 Urban, and (Sept.) 2024 Rural household survey datasets.

Geographic Disparities in Food Insecurity

A state-level analysis reveals significant disparities in food insecurity across Sudan. Figure 2 depicts highlights from two distinct periods for the 18 states of Sudan: pre-conflict conditions, represented by rural and urban households in 2022, and during the conflict conditions, spanning from early 2023 to September 2024, represented by wave 1 of the Sudan Rural Household Survey conducted from November 2023 to January 2024, wave 1 of the Sudan Urban Household Survey conducted from May to July 2024, and wave 2 of the Sudan Rural Household Survey completed in September 2024. A substantial deterioration in food security is seen across both rural and urban households in the wake of the conflict, with rural populations being most seriously impacted.

Before the conflict (2022): In 2022, a considerable portion of Sudanese households were relatively food secure—more than 70 percent of rural households in West Darfur were food secure, while the estimate from the 2022 SLMPS was that all rural households in River Nile were food secure. Even in more vulnerable states, many households were food secure in 2022—in Blue Nile, over one-third of rural households were food secure. Urban households showed somewhat higher levels of food security than did rural households—54 percent were food secure in 2022, compared to 46 percent of rural households. However, even before the start of the conflict, some states faced substantial challenges—severe food insecurity affected over 70 percent of rural households in West Kordofan and 59 percent in Gedaref in 2020.

Figure 2 Household food security status pre-conflict in 2022 and during the conflict in 2023–24, based on Rasch Model estimates, by state



Source: Authors' analysis of the 2022 SLMPS, 2023/24 Rural, 2024 Urban, and (Sept.) 2024 Rural household survey datasets.

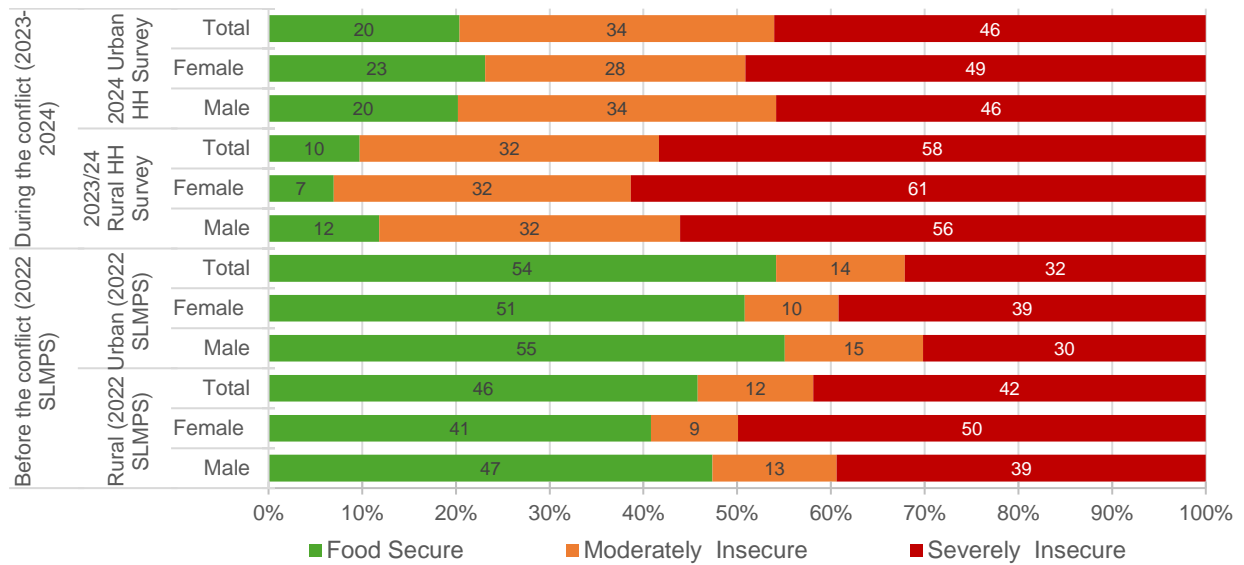
During the conflict (2023 through late 2024): Following the conflict's outbreak, there was a significant adverse shift in food security dynamics. By September 2024, many states had experienced drastic increases in the percentage of severely food-insecure households. For instance, the share of rural households in East Darfur that were experiencing severe food insecurity rose from 14.9 percent in 2022 to 72.4 percent by September 2024, a more than fivefold increase. Similarly, River Nile saw the proportion of severely food insecure rural households soar from zero in 2022 to 54.7 percent in September 2024. The impact was also severe in urban areas. For example, in Northern state, the share of urban households that were food secure plummeted from 63.9 percent in 2022 to 24.0 percent in September 2024, with the share of households that were severely food insecure surged from 18.6 percent to 47.5 percent during the same period.

These findings underscore the sharp declines in food security for households across Sudan following the April 2023 conflict. Severe household food insecurity became the dominant condition across most states. The data suggests that the conflict has not only reversed previous gains in food security but has also exposed both rural and urban households to heightened vulnerabilities. The persistent rise in moderate and severe food insecurity, especially in conflict-affected states like West Kordofan and South Darfur, signals an urgent need for targeted interventions to stabilize food availability and build household resilience. Addressing this worsening situation requires both immediate humanitarian aid and longer-term investments in agricultural and economic recovery to prevent further deterioration in food security across Sudan.

Gender and Household Dynamics

The conflict has disproportionately affected food security among rural households, with female-headed households experiencing a greater decline compared to their male-headed counterparts. In rural areas, food security among female-headed households has decreased by 82.93%, compared to a 74.47% reduction for male-headed households, highlighting their heightened vulnerability. In urban areas, however, the trend reverses, with male-headed households seeing a larger decline in food security (63.64%) compared to female-headed households (54.90%), likely reflecting differing access to support networks or resources in urban settings (Figure 3).

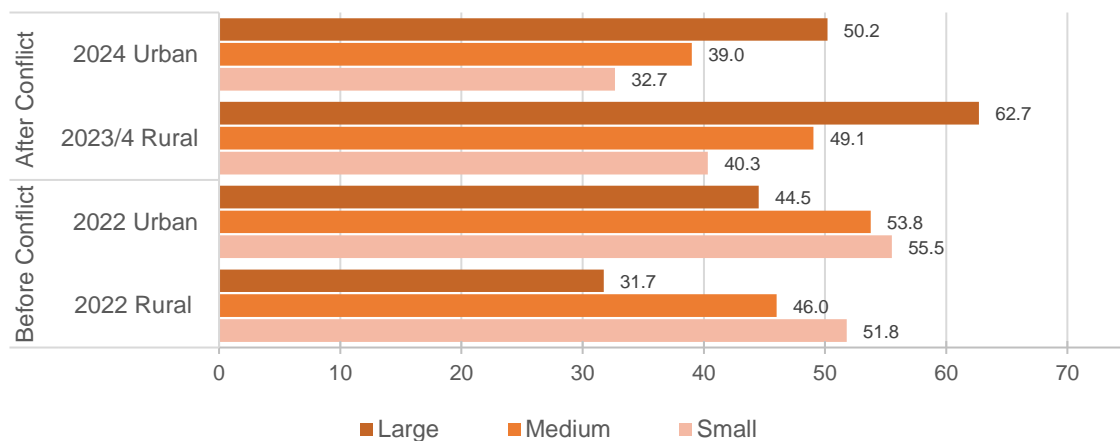
Figure 3 Food security and gender, percentage share of households in each food security category, by sex of household head



Source: Authors' analysis of the 2022 SLMPS, 2023/24 Rural, 2024 Urban, and (Sept.) 2024 Rural household survey datasets.

Similarly, larger households have struggled to meet their food needs compared to households with fewer members (Figure 4). Household resources, including food, are stretched across more members. These findings are consistent with global trends, where conflicts tend to exacerbate existing inequalities, particularly for women and large families.

Figure 4 Food security and household size, percentage share of households in the severely food insecure category, by household size category



Source: Authors' analysis of the 2022 SLMPS, 2023/24 Rural, 2024 Urban, and (Sept.) 2024 Rural household survey datasets.

Conclusions and Implications

The ongoing conflict in Sudan has driven food insecurity to unprecedented levels, with rural households and vulnerable populations, such as female-headed rural households and large families, bearing the brunt of the crisis. Immediate and well-targeted interventions are crucial to addressing both short-term emergency food needs and the underlying structural issues that

exacerbate household food insecurity. Coordinated efforts from policymakers and humanitarian actors are essential to support the recovery of affected communities and build resilience within Sudan's food systems.

Urgent and collective action is required to mitigate the worsening food security situation. Based on the analysis in this note, the following policy recommendations are proposed:

- **Emergency food assistance and strengthening coordination of humanitarian assistance:** Humanitarian actors must scale up emergency food assistance, focusing on conflict-affected regions, including Darfur and Kordofan regions and Blue Nile, Khartoum, Aj Jazirah, and Sennar states, all areas where food insecurity is most acute. Ensuring food access for displaced populations and those in hard-to-reach areas should be a top priority. To tackle the food security crisis at the appropriate scale, greater coordination among international donors, local governments, and humanitarian organizations is needed. Securing adequate funding to meet the requirements of the humanitarian response plan that has been developed for Sudan is particularly urgent, as it remains significantly underfunded despite escalating needs.
- **Support for agricultural production:** The disruption of agricultural activities due to the conflict calls for urgent support for farmers. Providing inputs such as seeds, fertilizers, and tools is critical. Where possible, secure access agricultural corridors should be established to enable farmers to cultivate their land and resume production safely.
- **Improving market access:** Restoring supply chains and enhancing market access will be essential to stabilizing food availability. Investing in infrastructure, such as roads and storage facilities, will strengthen food systems' resilience and facilitate food distribution in areas where the conflict has disrupted access.
- **Targeted support for vulnerable groups:** Specific support should be directed toward female-headed rural households and larger families, whom the crisis has disproportionately impacted. Cash transfers, social safety nets, and livelihood programs should be tailored to meet the unique needs of these and other vulnerable groups.

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¹ Economic Research Forum. 2023. "Sudan Labor Market Panel Survey, SLMPS 2022." Giza, Egypt: Economic Research Forum. <https://www.erfdataportal.com/index.php/catalog/265/data-dictionary>.

² International Food Policy Research Institute and United Nations Development Programme (IFPRI and UNDP). 2024a. *Livelihoods in Sudan amid Armed Conflict: Evidence from a National Rural Household Survey*. Washington, DC and New York: IFPRI and UNDP. <https://hdl.handle.net/10568/140797>.

³ International Food Policy Research Institute and United Nations Development Programme (IFPRI and UNDP). 2024b. *The Socio-economic Impact of Armed Conflict on Sudanese Urban Households*. Washington, DC and New York: IFPRI and UNDP. <https://www.undp.org/sudan/publications/socioeconomic-impact-armed-conflict-sudanese-urban-households>

⁴ UNHCR (United Nations High Commissioner for Refugees). 2024. "Operational Data Portal (ODP), Sudan Situation." 16 October 2024. Geneva: UNHCR. <https://data.unhcr.org/es/situations/sudansituation>.

⁵ ACLED (Armed Conflict Location & Event Data Project). 2024. "Sudan: ACLED Explorer." November 2024 (query on fatality counts for Sudan from 10 April 2023 to 31 October 2024). <https://acleddata.com/explorer/>.

⁶ Kirui, O.K., M. Ahmed, K. Siddig, A.S. Taffesse, H. Abushama, P.A. Dorosh, S. Krishnaswamy, C. Monetta, A. Clough, A. Gualteri, and A. Leaduma. 2024. *Food Security and Social Assistance in Sudan During Armed Conflict: Evidence from the First Round of the Sudan Rural Household Survey (November 2023–January 2024)*. A joint report by the International Food Policy Research Institute (IFPRI) and the World Food Programme (WFP). Washington, DC: IFPRI. <https://hdl.handle.net/10568/145388>.

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