

# Conflict and Food Security in Sudan

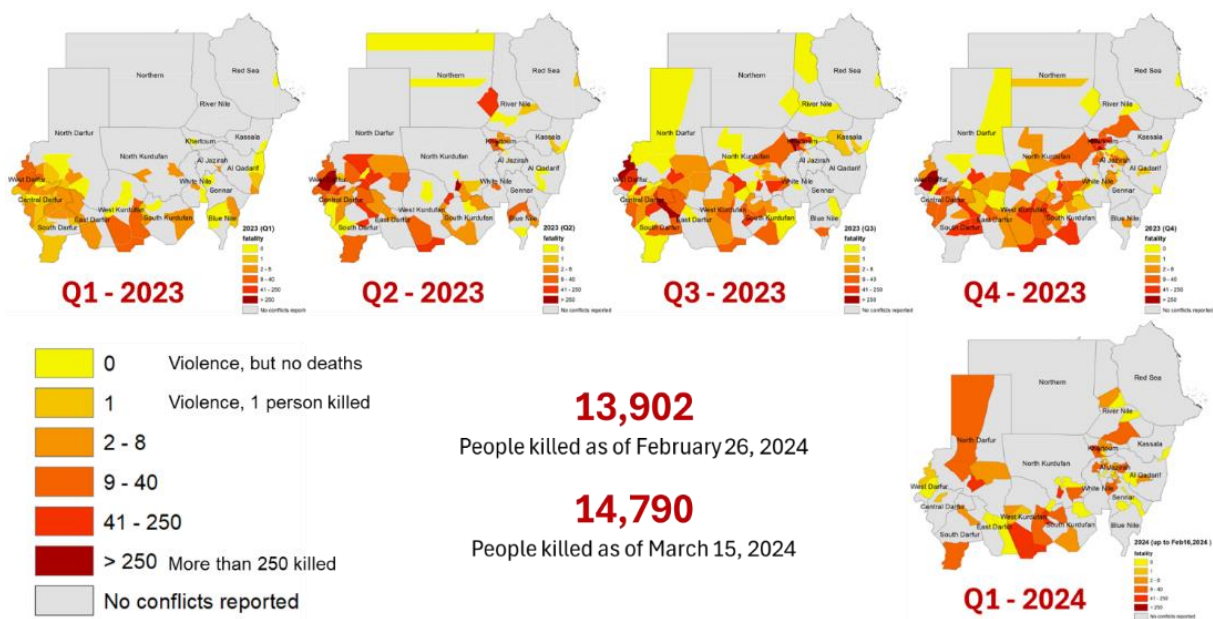
## Policy Insights and Recommendations

Oliver K. Kirui, Khalid Siddig, Mosab Ahmed, Hala Abushama, Paul Dorosh, and Alemayehu Seyoum Taffesse

### Background

The conflict in Sudan erupted on April 15, 2023. Originating from competition over resources and political power, it emerged as direct warfare between the Sudanese Armed Forces and the Rapid Support Forces. It has escalated into a crisis with profound impacts on the nation’s socio-economic fabric. More specifically, the conflict has led to a severe humanitarian crisis, disrupted agrifood systems across the country, restricted economic activity, and curtailed the livelihoods of millions. The conflict continues to impede access to essential services and markets, resulting in significant scarcity of life-saving goods and services. As of March 2024, 14,790 Sudanese have been killed (Figure 1), and 8.4 million have been displaced, of which 1.7 million have sought refuge in other countries.<sup>1</sup>

**Figure 1: Conflict hotspots—fatalities by administrative zone over time, 2023-2024**



Source: ACLED.<sup>2</sup>

Drawing on recent studies conducted by IFPRI’s Sudan Strategy Support Program, this policy note seeks to inform policy decisions and stakeholder actions, focusing on the conflict’s impact on economic activity, agrifood systems, and poverty. It outlines actionable policy insights and recommendations for stakeholders, aiming to mitigate the adverse effects of the conflict on livelihoods and food security and to guide resilient recovery efforts.

## Synthesis of Research Findings

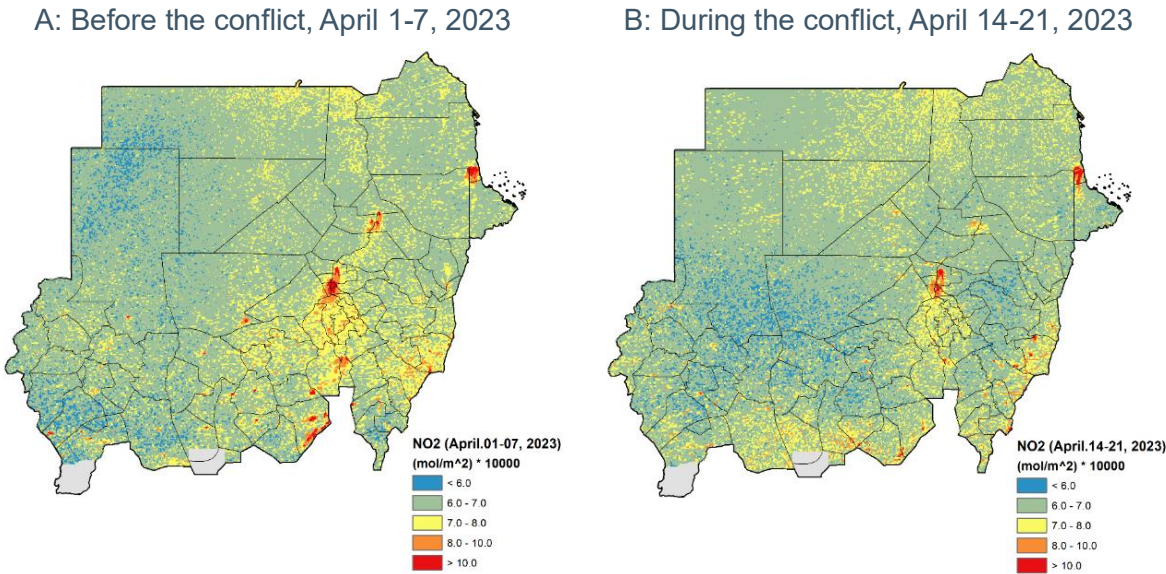
### Drivers of the conflict

Sudan’s current conflict has its roots in the competition over resources and political power between the Sudanese Armed Forces and the Rapid Support Forces, as evidenced by the warring factions’ active involvement in Sudan’s economy, including but not limited to the agrifood system.<sup>3</sup> Analysis of the political economy of food systems in Sudan suggests that achieving a sustainable peace and economic recovery will require a holistic approach that addresses the political and economic drivers of the conflict, including policies that address the distribution of economic rents, dismantle monopolies, promote private sector competition, and ensure transparency in the distribution of resources.

### Satellite data and remote sensing assessments

Innovative use of satellite data has highlighted the dramatic reduction in economic activities at the onset of the conflict in early 2023, particularly in conflict zones. Analysis of remotely sensed data on nitrogen dioxide emissions and nighttime light intensity reveals a stark contrast between pre-conflict and during-conflict economic activities—the reduction in the reddish color in the map patterns in Figure 2. These data underscore the conflict’s devastating impact on Sudan’s economy and the livelihoods and food security of its citizens. Moreover, such findings underscore the potential of innovative approaches, including using remote sensing data methods, to guide policy and humanitarian efforts during and in recovery from such crises.

**Figure 2:** Trends in nitrogen dioxide emissions in Sudan, pre- and post-conflict onset



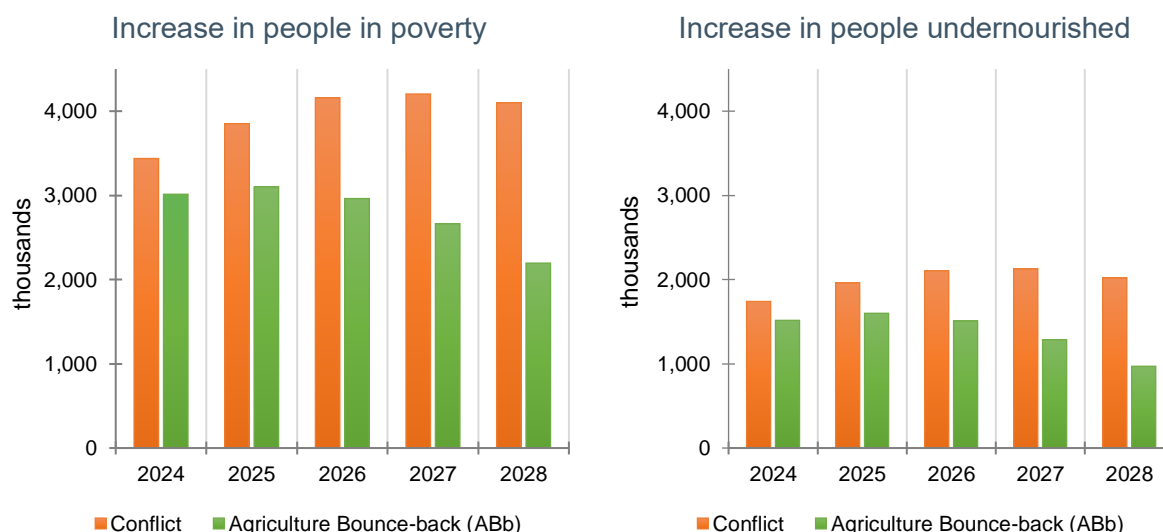
Source: Guo et al. (2023).<sup>4</sup>

## Macro-level assessments of economic activities and agrifood systems

Economy-wide studies present a grim picture of Sudan's economy. Initial modeling analysis by IFPRI's Sudan Strategy Support Program concluded that the economy could shrink to nearly half its pre-war size and more than half of employees could lose their jobs.<sup>5</sup> The economic downturn resulting from the persistence of the conflict into 2024 would lead to household income losses of up to 40 percent and severe disruptions to Sudan's agrifood system. The cessation of agrifood processing activities and the blockage of trade routes are exacerbating food insecurity.

A more recent analysis of war impact scenarios shows that up to 4 million people could fall into poverty, and another 2 million people could face undernourishment by 2028 if no measures to safeguard their livelihoods and food security are put into place. The same analysis suggests that these numbers could potentially be reduced by half, however, if effective measures are quickly taken to restore agricultural productivity to pre-conflict levels (Figure 3).

**Figure 3:** Sudan's conflict and potential recovery impact on numbers of people in poverty or undernourished relative to pre-conflict conditions, model results

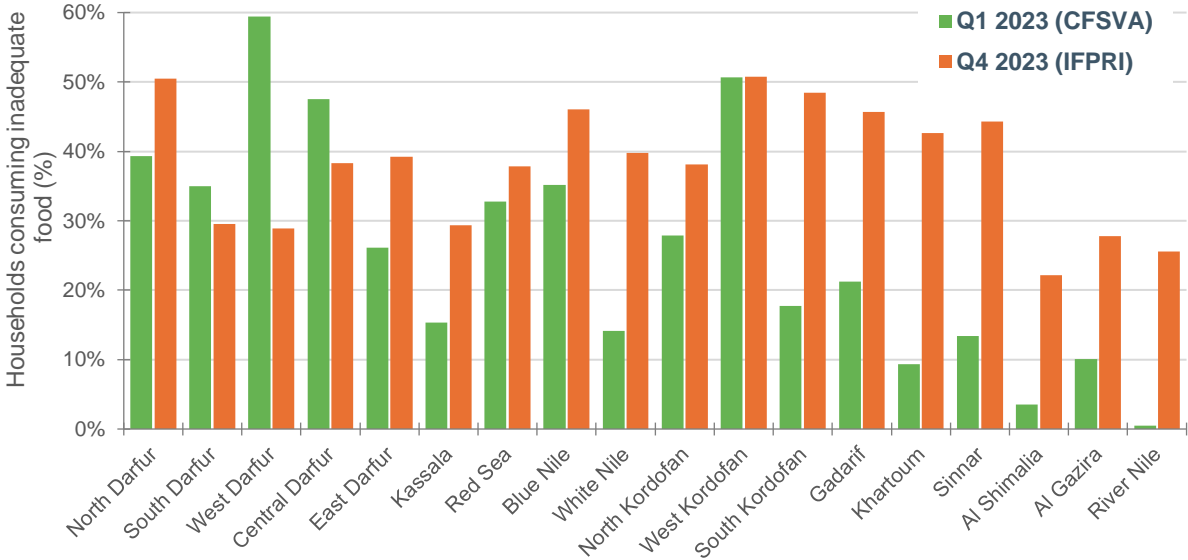


Source: Siddig (2024).<sup>6</sup>

## Micro-level studies and survey data

**Food security situation and coping and livelihood strategies:** The ongoing conflict in Sudan has significantly destabilized the agrifood system and compromised food security—nearly 40 percent of rural households are estimated to be now consuming inadequate diets. Households in regions of active conflict, including West Kordofan, South Kordofan, North Darfur, and East Darfur, have been especially affected (Figure 4). Survey data shows that diets are now heavily reliant on cereals and oil, with insufficient intake of foods rich in micronutrients and vitamins. Based on the Food Insecurity Experience Scale, 60 percent of rural households are severely food insecure, while only 10 percent are food secure.

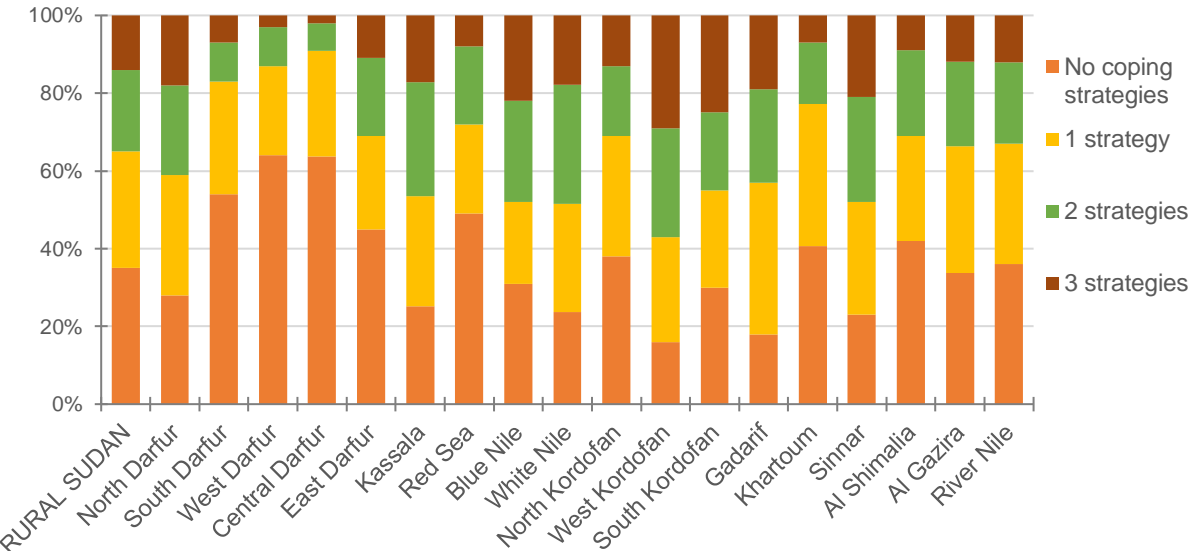
**Figure 4: Food security situation before and during the conflict in Sudan, by state**



**Source:** Svensson (2024), based on data from the Comprehensive Food Security and Vulnerability Assessment (CFSVA) of the World Food Programme (2023) and IFPRI’s Sudan Rural Household Survey (2024).<sup>7</sup>

Calculations of the reduced Coping Strategy Index (rCSI) show that most households across the country are now employing several coping strategies to manage food insecurity (Figure 5). Households in the Darfur states and Khartoum employ the fewest number of coping strategies, on average. Resources for most households are alarmingly low, sufficient for less than a week’s food needs, especially households in the Darfur states and South Kordofan.

**Figure 5: Number of livelihood coping mechanisms employed by households, percent of households by state**



**Source:** Kirui (2024), based on the Sudan Rural Household Survey (2024).<sup>8</sup> Note that the data cover only rural Sudan.

**Farmer capacities and intentions:** Smallholder farmers, a critical backbone of Sudan’s economy, face displacement, lack of access to agricultural inputs, and market disruptions as

a result of the conflict. A national rapid survey of over 3,200 smallholder farmers in late 2023 found that approximately a third had been displaced and 40 percent unable to prepare for the planting season due to financial constraints and lack of access to agricultural inputs.<sup>9</sup> This disruption in agricultural activities suggests a looming decline in food production, exacerbating current high levels of food insecurity. This situation calls for targeted support to smallholder farmers to safeguard the food security of all vulnerable households.

### *Private sector operations amid conflict*

Analysis of agrifood processing firms indicates that the conflict has caused closures of many factories, damage to infrastructure, and a spike in input prices, leading to employment losses and operational disruptions.<sup>10</sup> The scarcity of raw materials and the spike in prices exacerbate the negative effects of these challenges, highlighting the conflict's broad negative impact on livelihoods and food security. Because the resilience of the private sector is crucial for food security and economic stability, supporting these enterprises through financial aid and ensuring the availability of raw materials is critical for Sudan's economic recovery.

## **Conclusions and Recommendations**

In response to the profound impacts of the conflict on Sudan's agrifood system and overall economy, it is imperative to implement targeted interventions, increase humanitarian aid, and devise a comprehensive strategy for recovery. Such efforts will not only alleviate the immediate adverse humanitarian effects of the conflict but also pave the way for long-term, sustainable post-conflict reconstruction. The following policy recommendations are tailored to address the immediate, medium, and long-term needs of Sudan.

### *Immediate Interventions*

- **Immediate Humanitarian and Financial Support:** It is critical to initiate rapid intervention programs that provide targeted financial aid and essential agricultural inputs to affected farmers. This support will help mitigate the immediate risks to food security and assist in preparations for the forthcoming planting season.
- **Conflict Resolution and Peacebuilding:** Active engagement in dialogue and peacebuilding efforts by all relevant stakeholders to tackle the root causes of the conflict is vital. Establishing a stable political environment is foundational for facilitating social and economic recovery and sustainable development.

### *Medium-term Measures*

Once the conflict has ceased and a semblance of security is restored, key economic policy measures should include:

- **Enhanced Agricultural Support:** Ensuring the timely delivery of crucial inputs, such as seeds and fertilizers, and providing accessible credit facilities to smallholder farmers are essential to boosting food production and better securing household livelihoods.
- **Safety Net Programs:** Implementing targeted safety net initiatives is essential for stabilizing the food security of the most severely conflict-affected households.
- **Revitalization of Private Sector Operations:** Agrifood processing firms must be supported by facilitating their access to finance and raw materials. Encouraging financial

innovation to provide credit to small and medium enterprises will catalyze working capital, promote investment, and stimulate economic recovery.

### ***Long-term Strategy***

For sustainable recovery and growth, a comprehensive approach is required that encompasses:

- **Comprehensive Agrifood System Strategy:** A holistic plan addressing the combined challenges of conflict, climate change, and market disruptions is essential for revitalizing the agricultural sector and ensuring sustainable food security.
- **Resilience and Adaptation:** Developing farming practices that are resilient and adaptable to climate variability is paramount. Effective efforts to do so will mitigate the repercussions of both future conflicts and intensifying climatic challenges.
- **Infrastructure Rehabilitation:** Significant investment in rebuilding and securing critical infrastructure is also necessary. Restoring the integrity of supply chains and revitalizing economic activities are crucial steps towards recovery and growth.

### ***Way Forward and Next Steps for IFPRI's Sudan Strategy Support Program***

The plans of IFPRI's Sudan Strategy Support Program for further work include collaboration with various partners in:

- Continued monitoring of economic activities using timely data collection and assessments that leverage advanced quantitative and qualitative approaches;
- In-depth studies on the socio-economic impacts of conflict on rural and urban households and enterprises; and
- Policy dialogue and stakeholder engagement to translate research findings into actionable strategies, focusing on rebuilding Sudan's agrifood system and ensuring and strengthening the economic resilience of Sudanese households and enterprises.

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<sup>1</sup> UNHCR (United Nations High Commissioner for Refugees). 2024. UNHCR's Operational Data Portal (ODP) for the Sudan Situation, March 21, 2024. <https://data.unhcr.org/en/situations/sudansituation>.

<sup>2</sup> ACLED (Armed Conflict Location & Event Data Project). 2024. *Sudan: Escalating Conflict in Khartoum and Attacks on Civilians in al-Jazirah and South Kordofan*. ACLED Situation Update, March 15, 2024. <https://acleddata.com/africa/horn-of-africa/sudan/>.

<sup>3</sup> Abushama, H., D. Resnick, K. Siddig, and O.K. Kirui. 2023. *Political and Economic Drivers of Sudan's Armed Conflict: Implications for the Agri-food System*. Sudan Strategy Support Program Working Paper 15. Khartoum, Sudan: International Food Policy Research Institute (IFPRI). <https://doi.org/10.2499/p15738coll2.136946>.

<sup>4</sup> Guo, Z., H. Abushama, K. Siddig, O.K. Kirui, K. Abay, and L. You. 2023. "Monitoring Indicators of Economic Activities in Sudan Amidst Ongoing Conflict Using Satellite Data." *Defence and Peace Economics*. <https://doi.org/10.1080/10242694.2023.2290474>.

<sup>5</sup> Siddig, K., M. Raouf, and M.O. Ahmed. 2023. *The Economy-wide Impact of Sudan's Ongoing Conflict: Implications on Economic Activity, Agrifood System and Poverty*. Sudan Strategy Support Program Working Paper 12. Khartoum, Sudan: International Food Policy Research Institute (IFPRI). <https://doi.org/10.2499/p15738coll2.136843>.

<sup>6</sup> Siddig, K. 2024. *Impact of Conflict and Pathways to Recovery in Sudan*. Presentation at conference "Navigating Sudan's Conflict—Research Insights and Policy Implications", Nairobi, March 5, 2024. <https://cgspace.cgiar.org/server/api/core/bitstreams/9da81dd5-379c-4ed4-b310-c6db6e3053a9/content>.

<sup>7</sup> Svensson, F. 2024. *Food Security Situation before and during the Conflict: Findings from Household Surveys*. Presentation at conference "Navigating Sudan's Conflict—Research Insights and Policy Implications", Nairobi, March 5, 2024.

<sup>8</sup> Kirui, O.K. 2024. *Shocks, Coping and Livelihood Strategies*. Presentation at conference "Navigating Sudan's Conflict—Research Insights and Policy Implications", Nairobi, March 5, 2024.

<sup>9</sup> Kirui, O.K., K. Siddig, M. Ahmed, H. Abushama, and A.S. Taffesse. 2023. *Impact of the Ongoing Conflict on Smallholder Farmers in Sudan: Evidence from a Nationwide Survey*. Sudan Strategy Support Program Working Paper 17. Khartoum, Sudan: International Food Policy Research Institute (IFPRI). <https://doi.org/10.2499/p15738coll2.137064>.

<sup>10</sup> Kirui, O.K., K. Siddig, H. Abushama, and A.S. Taffesse. 2023. *Armed Conflict and Business Operations in Sudan: Survey Evidence from Agri-Food Processing Firms*. Sudan Strategy Support Program Working Paper 11. Khartoum, Sudan: International Food Policy Research Institute (IFPRI). <https://doi.org/10.2499/p15738coll2.136835>.

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