November 2024

The Socioeconomic Impact of Armed Conflict on Sudanese Urban Households

Evidence from a National Urban Household Survey

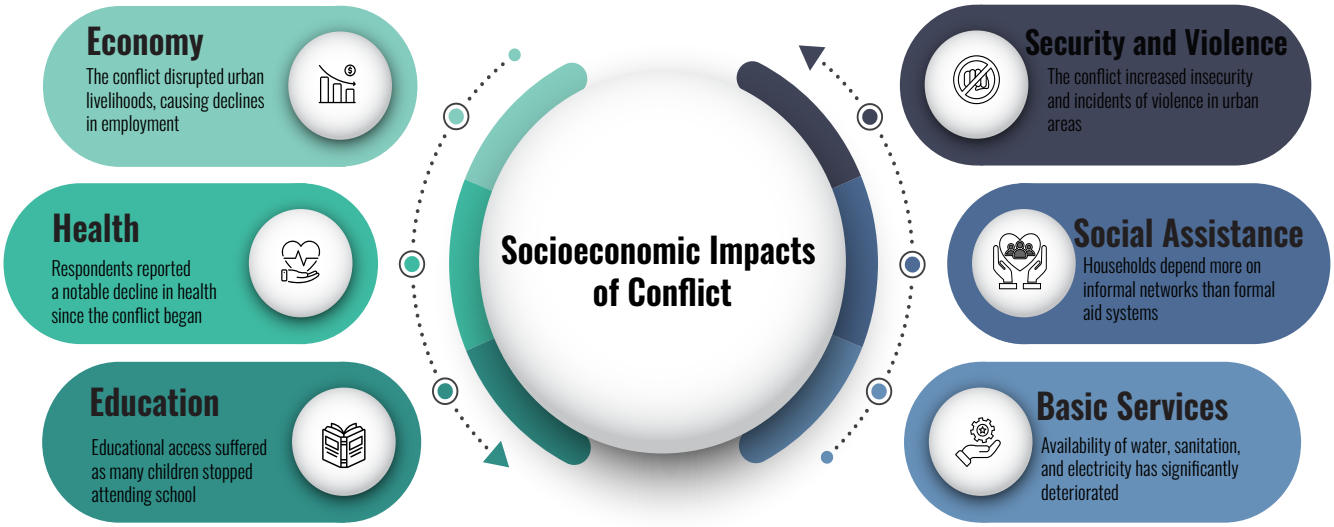
A joint report by

The International Food Policy Research Institute (IFPRI) and

The United Nations Development Programme (UNDP)

Executive Summary

The 2024 Sudan Urban Household Survey, conducted by the United Nations Development Programme (**UNDP**) and the International Food Policy Research Institute (**IFPRI**), provides a comprehensive assessment of the socioeconomic impacts of the ongoing conflict on urban households across Sudan. The survey, carried out between May and July 2024, highlights the far-reaching consequences of the conflict on key aspects of daily life and livelihoods, including income, employment, health, education, access to other critical services, and overall household vulnerability. The profound effects of the conflict on urban households are shown, emphasizing the need for urgent and targeted policy and programmatic interventions.



The survey found that the conflict has caused significant demographic shifts. Around 31 percent of urban households now reside in states different from their pre-conflict locations. This shift has implications for the social fabric of urban areas, especially considering the heightened vulnerability of displaced populations. Displaced households face challenges in securing housing, healthcare services, and employment opportunities, all of which are crucial for their long-term stability and wellbeing.

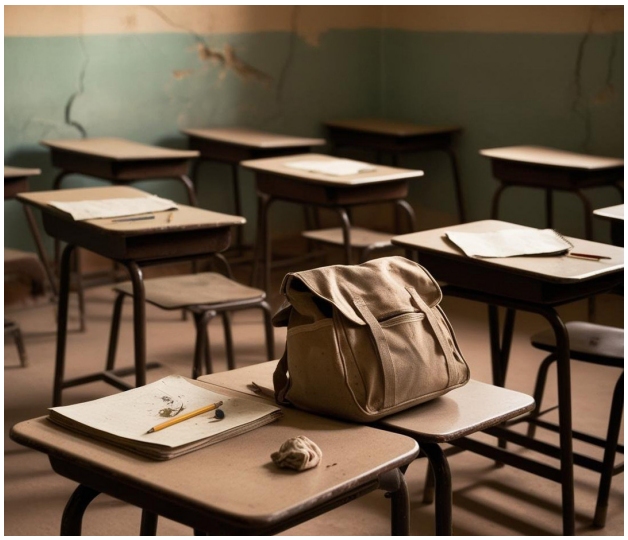
Economically, the conflict has severely disrupted the livelihoods of urban residents. There has been a stark decline in employment, with the proportion of urban households with full-time wage earners cut in half. Many households have shifted to self-employment, a means of income generation that is often less stable and more vulnerable to market fluctuations. While only 1.6 percent of heads of urban households reported having no employment or income before the conflict, alarmingly, this figure has risen to 18 percent during the conflict, indicating deepening economic distress in urban areas. Economic recovery, self-reliance, and resiliency-building programs are urgently needed to support both wage earners and self-employed individuals in obtaining sustainable livelihoods.

Urban Displacement Challenges

- 31% **of urban households displaced.**
- Female-headed: **higher education;** Male-headed: **majority.**
- **Vulnerability impacts:** *housing, healthcare, employment* **stability**.

The conflict has adversely affected the health status of urban households. Over half of the respondents reported a decline in the health condition of their household since the onset of the conflict. This has been exacerbated by significantly more limited access to healthcare services. The affordability of health services has deteriorated, with healthcare costs becoming a major burden for many families. Out-of-pocket payments for healthcare have risen dramatically, further straining household finances already weakened by the conflict. Addressing these healthcare challenges will require both immediate humanitarian support and longer-term investments in sustaining, financing, and rebuilding the healthcare system.

Education has not been spared from the effects of the conflict. Nearly 70 percent of urban households with school-aged children reported that one or more of their children had stopped attending school, primarily due to the closure of educational institutions and the household's inability to afford school fees. This threatens to undermine human capital development for a generation of Sudanese children, putting millions of children at increased risk of premature mortality over their life course, with long-term consequences for the country's recovery and growth. Restoring access to education, particularly through innovative solutions, such as remote and mobile learning, is essential to prevent long-term educational setbacks.



The access of urban households to basic services, including water, sanitation, and electricity, has deteriorated significantly since the conflict began. Access to piped water dropped by over 20 percentage points, while electricity reliability has worsened for nearly 90 percent of households that had access to electricity before the conflict. These disruptions in essential services compound the vulnerabilities faced by urban populations. There is an urgent need for infrastructure rehabilitation. Restoring these services will be critical to improving living conditions and building the economic resilience of urban households.

Assistance has increased in response to the conflict, but most households still rely on informal support networks rather than formal aid systems. Family and friends remain the primary source of assistance, with formal government or international aid reaching only a small portion of the urban population. This gap in formal social protection underscores the need to strengthen the national social protection system and ensure that aid is more widely and equitably distributed. Expanding formal assistance mechanisms is particularly important for vulnerable groups, such as female-headed households and those with no employment or income.

The conflict has also led to heightened insecurity and violence, with over 28 percent of households reporting having suffered from theft, robbery, or other direct impacts from the conflict on their security. Persistent insecurity further exacerbates the hardship faced by urban residents, making it even more difficult for them to recover and rebuild. Addressing the immediate security concerns and the underlying factors contributing to conflict-related violence will be a key element in creating a safer and more stable living environment for urban households.

In conclusion, the findings from the analysis of data from the 2024 Sudan Urban Household Survey reveal a range of adverse socioeconomic impacts of the ongoing conflict. The disruption to household livelihoods and the decline in access to essential services, particularly healthcare and education, point to the urgent need for coordinated and sustained interventions. Upon a ceasefire and immediate cessation of violence, addressing these challenges will require an integrated nexus approach to restore livelihoods, rebuild infrastructure, and strengthen social protection systems with targeted efforts by the government, international organizations, and civil society to support displaced populations. Only through such comprehensive efforts can the urban population of Sudan begin to recover and build a more resilient future.

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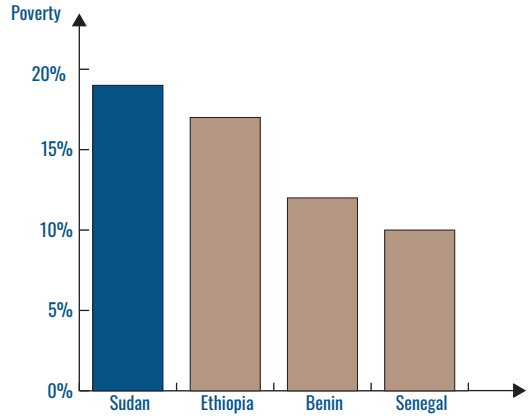
1. INTRODUCTION

On 15 April 2023, an armed conflict erupted in Sudan between the Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF), creating a complex socio-economic and political situation. The conflict started in Khartoum but rapidly extended to the Darfur and Kordofan regions before impacting every state in the nation to varying degrees. As of August 2024, the conflict had resulted in over 9,323 incidents and 20,013 fatalities. 50.6 percent of the incidents occurred in Khartoum State, the largest urban center in the country, followed by 11.07 percent in Aj Jazirah and 8.04 percent in North Darfur states (ACLED 2024a). Between the start of the conflict and 1 October 2024, 10.5 million Sudanese are estimated to have been displaced, of which 2.4 million have fled to neighboring countries (IOM 2024). It is the worst displacement crisis in the world. Prior to the conflict, Sudan already had an estimated 2.8 million IDPs.

Prior to the conflict, Sudan's socioeconomic indicators showed low development level compared to those of its peer countries. According to the World Poverty Clock, in 2022, 19 percent of the Sudanese were below the $ 2. 15 poverty line, this is high compared to Ethiopia (17 percent), Benin (12 percent) and Senegal (10 percent) (World Poverty Clock 2024). In 2022, Sudan ranked 170 out of 193 countries on the Human Development Index (HDI), one of the lowest globally (UNDP, 2022).



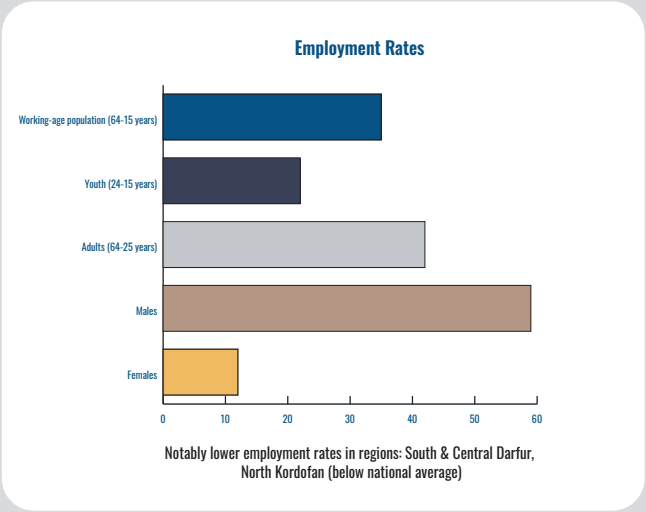
Sudan ranks 170 out of 193 on the Human Development Index (HDI)".

Based on the Sudan Labor Market Panel Survey (SLMPS) 2022 [4] that was conducted just before the start of the current crisis, Sudan's population was predominantly rural (69 percent), with Khartoum being the most populous state, containing 18 percent of the population. The country had a young demographic profile, with 44 percent of the population aged 14 or younger.

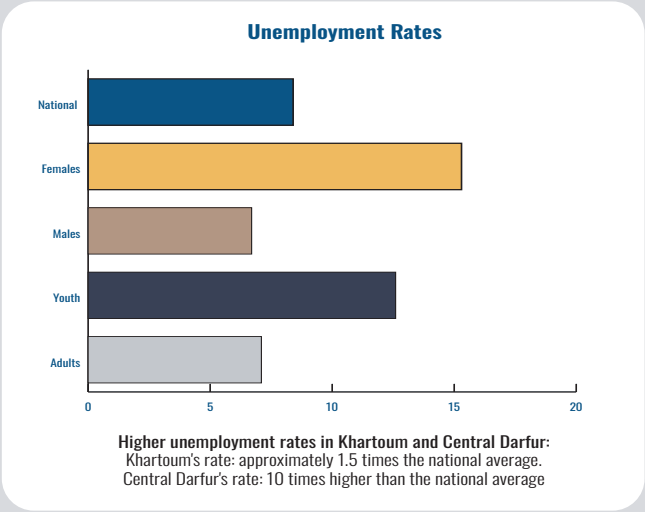
Employment rates showed significant disparities across age groups, gender, and regions. The overall employment rate for the working-age population (15-64 years) was 35 percent, dropping to 22 percent for youth (15-24 years) and rising to 42 percent for adults (25-64 years). Gender disparities were stark, with a 59 percent employment rate for males compared to only 12 percent for females. South & Central Darfur and North Kordofan had notably lower employment rates than the national average.

The national unemployment rate was 8.4 percent, with higher rates for women (15.3 percent) compared to men (6.7 percent), and youth (12.6 percent) compared to adults (7.1 percent). Khartoum and Central Darfur experienced particularly high unemployment rates, with Khartoum's rate approximately 1.5 times the national average and Central Darfur's ten times higher.

[4] Conditions in 2022 based on Sudan Labor Market Panel Survey (SLMPS) 2022Source: Author's analysis based on Sudan Labor Market Panel Survey OAMDI, 2023. Labor Market Panel Surveys (LMPS), http://erf.org.eg/data-portal/. Version 2.2 of Licensed Data Files; SLMPS 2022- Central Bureau of Statistics, Sudan (CBS). Egypt: Economic Research Forum (ERF).



Notably lower employment rates in regions: South & Central Darfur, North Kordofan (below national average)



Higher unemployment rates in Khartoum and Central Darfur:
Khartoum's rate: approximately 1.5 times the national average.
Central Darfur's rate: 10 times higher than the national average

Sudan's labor market was already facing multifaceted challenges even before the current conflict, including low rates of employment overall and concentration of workers in the most vulnerable types of employment, significant gender disparities, regional inequalities, and a large informal sector. Given the current crisis, these existing disparities and multiple challenges are likely to be exacerbated, potentially leading to higher joblessness, increased informality, and further deterioration of working conditions, especially for the most affected groups and regions.

At the macro level, the conflict has led to a significant deterioration in economic activity. The World Bank estimates the Sudanese economy contracted by 20 percent in 2023 and 15 percent in 2024, while the African Development Bank projects a GDP contraction of 5.9 percent in 2024 and estimated an economic output loss of USD 125 billion in the first year of the conflict (World Bank 2024; AfDB 2024). Other estimates suggested that Sudan's GDP could have plummeted by over 40 percent in 2023 (Ahmed et al. 2024; Siddig and Basheer 2024; Siddig et al. 2023). Reinforcing these assessments, Sudan's Minister of Finance reported in November 2023 that the war had resulted in economic losses exceeding USD 26 billion, or more than half of the nation's total GDP in 2022 (Sudan Akhbar 2023).

The conflict in Sudan has caused a severe economic downturn:

Economic Contraction:

- **World Bank:** Sudan's economy contracted by 20% in 2023 and 15% in 2024.
- **African Development Bank:** Projects a 5.9% GDP decline in 2024, with an estimated economic output loss of $125 billion during the conflict's first year.
- **Other Estimates:** GDP may have dropped by over 40% in 2023.

Financial Losses:

Minister of Finance (November 2023): Reported over $26 billion in losses due to the war, representing more than half of Sudan's GDP in 2022.

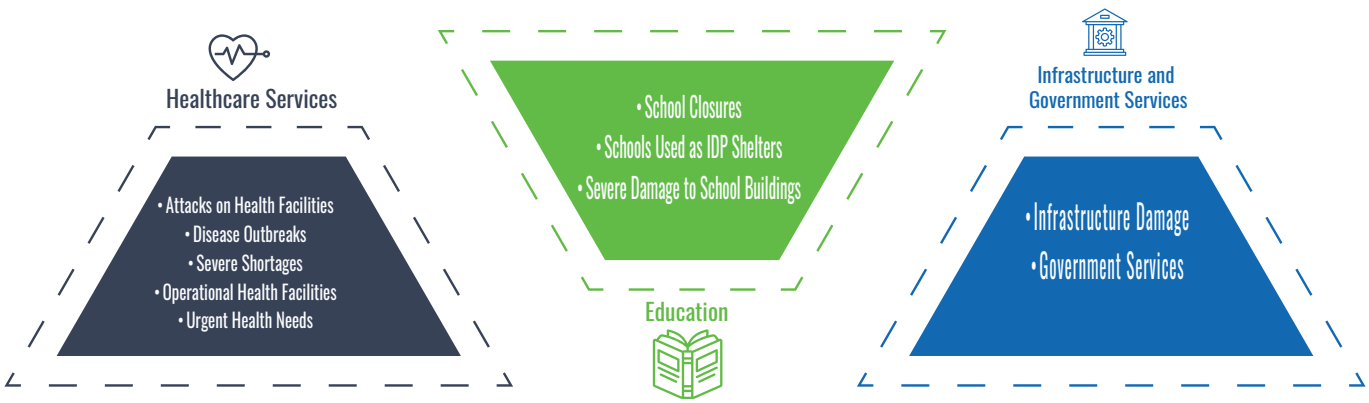
The cost of living has increased substantially since the war began. According to Sudan's Central Bureau of Statistics, the year-on-year inflation rate increased from 67 percent in 2023 to 137 percent in the first half of 2024 (Sudan Tribune 2024). The World Bank predicted Sudan's inflation rate to be 66 percent in 2023 and 180 percent in 2024, while the estimates of the International Monetary Fund stood at 171 percent and 145 percent in the same periods (World Bank 2024; IMF 2024). As of August 2024, the Sudanese currency has depreciated by more than 300 percent since the start of the conflict in April 2023. The number of Sudanese who are poor is estimated to have increased by 1.8 million in 2023 (Siddig et al. 2023).

At the micro level, the ongoing conflict has hit Sudan's economic centers hard, causing huge damage to the country's infrastructure and its industrial base, as well as substantial losses to both public and private properties (EREM 2023). All types of economic entities—public and private firms of all sizes and structures, including oil industry facilities, large conglomerates, bank branches, and telecommunication, located in urban centers like Khartoum, Nyala, Wad Madani, Sennar, and other cities—were looted, burned, destroyed, or forced to close.

The conflict has severely impacted basic service delivery in Sudan. Since April 2023, 88 attacks on healthcare facilities have been verified. These attacks are in addition to disease outbreaks—including cholera, malaria, dengue fever, measles, and rubella—and severe shortages of medical supplies and cash to run healthcare operations and pay salaries. Less than one-quarter of health facilities are functional in the Sudanese states hardest hit by the war, and only 45 percent of such facilities are fully functional in other states. Currently, around 15 million people require urgent health assistance for their survival (WHO 2024), and an estimated 3.4 million children under five years of age are considered at high risk of epidemic diseases.

Sudanese schools have been closed all over the country. As of May 2024, at least 2,500 schools, 13 percent of all schools, were being used as IDP shelters, affecting the education of around 2 million children in the host communities. Many school buildings have been severely damaged and will need to be rehabilitated (UNICEF 2024). Substantial damage to water and sanitation systems, electricity and energy infrastructure, roads, and transportation facilities has also occurred. The provision of many types of government services in most areas has also been adversely impacted.

Impact of the Conflict on Basic Services in Sudan (Since April 2023)



The urban centers of Sudan since April 2023 have often been battlefields between the SAF and RSF. They were home to a large segment of the country's population. The complex political, social, and environmental dynamics of Sudan since the 1950s have caused the country to rapidly urbanize, growing annually at 5.5 percent on average during the period 1956 to 2008, while the total population grew at 2.6 percent. The urban population as a share of the total population increased from 11 percent in 1960 to 36 percent in 2023 (World Bank 2023).

Conflict often forces people to flee rural areas and seek refuge in cities. This sudden influx can lead to rapid unplanned urbanization, straining existing infrastructure and services. For instance, in Cabo Delgado, Mozambique, conflict-induced displacement has significantly accelerated urbanization in cities like Pemba (Agostinho do Amaral 2024). Urban areas can suffer significant damage during conflicts, including the destruction of housing, roads, and utilities. This can hinder urban development and require extensive reconstruction efforts. Research shows that conflict in urban areas often leads to long-term economic and infrastructural challenges. Conflicts disrupt local economies, leading to job losses and reduced economic activity (Mueller and Tobias 2016). This can slow down urban growth and development. While urbanization does not necessarily increase the risk of conflict, economic hardship coinciding with urbanization can exacerbate the effects of conflict (Elfversson and Höglund 2023). The displacement of people into cities can create competition for resources and services, leading to increased social tensions and potential conflicts within urban areas. This is particularly evident in African urban areas where population pressure and urban unrest are closely linked (Gizelis, Pickering, and Urdal 2021).

Post-conflict urban planning must address the needs of both long-term residents and new arrivals. Effective planning can help rebuild communities and promote social cohesion. In Sudan, for example, the influx of displaced people into cities like Khartoum has led to overcrowded conditions and inadequate housing, highlighting the need for comprehensive urban planning (UN-Habitat 2020).

The ongoing conflict in Sudan bears striking similarities to protracted and large-scale conflicts elsewhere in the world, particularly in its profound impacts on human development, economic stability, and social infrastructure in urban areas. In Syria, for instance, Al-Dardari and Bchir (2014) highlighted how the early years of the current crisis affected fiscal stability and poverty, employment, and production. The conflict led to a severe economic contraction marked by the destruction of capital, significant drops in tax revenues, and an expanded public sector deficit. At the same time, the emergence of a war-driven economy led to rampant inflation, reduced investment, declining productivity, and a sharp increase in unemployment, which grew disproportionately to the economic downturn.

The political turmoil and clashes in Myanmar offer further insights into the broader impacts of conflict on human development. According to UNDP Myanmar (2021), the crisis resulting from the military takeover in February 2021 has severely impacted economic activity and livelihoods, particularly for the urban poor. The rising levels of poverty and insecurity observed are expected to have lasting effects on access to nutrition, health, and education, thereby undermining the human capital of future generations in Myanmar. The hardest hit populations in the country were found to be in urban centers, with the worst effects experienced by female-headed households. Conflict results in sharp increases in urban poverty and food insecurity, exacerbating pre-existing vulnerabilities. In addition, it is particularly through the disruption of the operations of small non-farm businesses, which are vital for urban livelihoods, that such conflicts detrimentally impact the urban economy.

In Ukraine, the ongoing conflict with Russia, which intensified in February 2022, has led to widespread destruction of infrastructure, severely disrupting essential services, including healthcare and education. UNDP Ukraine (2022) emphasizes the critical need to maintain governance systems and service delivery to prevent further deterioration. This underscores the importance of sustaining basic services to mitigate the long-term impacts of such conflicts.

These examples all underscore the broader economic and social costs of warfare, as highlighted by Collier and Sambanis (2002). In Sudan, the conflict that started in April 2023 has been concentrated in densely populated urban centers, with two-thirds of the fighting between SAF and RSF taking place in cities of over 100,000 people. Like in other conflict-affected regions, the long-term economic impacts of the conflict are likely to be severe, with a persistent decline in productive capacity and increased public debt, as evidenced by studies from elsewhere in sub-Saharan Africa (Fang et al. 2020). The impacts of urban-rural conflict dynamics in Sudan also reflect the findings of Elfversson and Höglund (2023), who explored patterns of armed conflict in urban and rural areas. While their research found no direct link between urbanization and an increase in conflict-related fatalities, their results show the severe consequences of conflicts when they do impact urban areas. Their work confirmed the findings of Beall et al. (2013), who found that conflict has differential impacts between cities and rural areas.

This report, based on the 2024 Sudan Urban Household Survey, is the second of its type to be produced jointly by the International Food Policy Research Institute (IFPRI) and the United Nations Development Programme (UNDP). The results of the analysis of the 2023/24 Sudan Rural Household Survey were published in a report entitled "Livelihoods in Sudan Amid Armed Conflict: Evidence from a National Rural Household Survey," which was published in April 2024. In contrast to that earlier report, this report assesses the socioeconomic impact of the conflict on urban Sudanese households across multiple dimensions, including their location, income and employment status, poverty and food security, health, housing and education, market access, and vulnerability to shocks. The report also presents policy and programmatic recommendations to guide efforts targeted towards supporting urban communities in Sudan adversely affected by the ongoing conflict.

The report is structured as follows. Chapter 2 describes the methodology, including the survey design, sampling, and implementation, as well as the challenges faced in data collection and analysis. Chapter 3 provides a demographic profile of urban households in Sudan and how their makeup has changed with the conflict. Chapter 4 analyses household economic resilience, focusing on employment, income sources, and social insurance. Chapter 5 describes the food security challenges that urban households in Sudan are facing due to the conflict and the coping strategies that they are employing to ensure their members are sufficiently well fed. Chapter 6 covers the health and education services used by urban households and the quality of their housing, both before and during the conflict. Chapter 7 delves into the access that urban households have to markets and the disruptions that they are facing in both selling and buying goods and services. Chapter 8 addresses the shocks urban households have experienced, the assistance they have received to manage those shocks, and how they engage with financial institutions. Finally, Chapter 9 provides a synthesis of the report, ending with recommendations to enable the urban population of Sudan to recover from the shocks and dislocations caused by the current conflict and build a more resilient future.

2. METHODOLOGY

This chapter describes elements of the design and implementation of the 2024 Sudan Urban Household Survey.

2.1. Survey design and sample size determination

The 2024 Sudan Urban Household Survey, conducted during a period of national conflict, utilized computer-assisted telephone interviewing (CATI) to navigate the challenges of data collection in such an environment. This method enabled continuous research in conflict zones by introducing flexible approaches to overcome barriers to gaining physical access to respondents. The CATI system's adaptability was vital for producing timely insights from the survey that will be essential for effective planning and response in what are likely to be often volatile situations.

The survey targeted 3,000 households, ensuring state-level and national representation by distributing the sample by state based on population share. This enables for reliable inferences to be drawn from the survey data at the state level, including the ability to detect statistically significant changes in key indicators like food security.

2.2. Sampling strategy

The survey employed a strategic sampling method, utilizing telephone number databases from prior assessments conducted by the World Food Programme (WFP), IFPRI, and GeoPoll. These databases contained 11,740, 14,517, and 23,418 contacts, respectively, for households resident in urban areas of Sudan. A random, stratified sampling approach was used in selecting urban households, ensuring equal representation within each state based on population distribution. This method was chosen for its ability to enable comparisons with pre-conflict data, especially from previous surveys conducted by WFP. All three telephone number datasets were combined to form a master telephone database of urban households. From this overall database, a random sample of 3,000 numbers was drawn and distributed to the survey enumerators. The enumerators called the telephone numbers selected until the target sample for each state was reached.

Phone household surveys, while valuable for rapid data collection during crises, have significant limitations in reaching the most vulnerable households, particularly in the context of the ongoing crisis in Sudan. These limitations can lead to biased assessments of socioeconomic impacts on poverty, employment, health, education, and food security. In Sudan, where mobile phone penetration is not universal, phone surveys inherently exclude households without access to cell phones, which are often the poorest and most marginalized. This exclusion is likely exacerbated during the current crisis, as infrastructure damage and economic instability may further limit access to functioning mobile networks and charged devices.

This potential sampling bias [4] significantly affects the generalizability of findings, particularly for indicators that are closely tied to socioeconomic status. For instance, estimates of impacts on employment may be artificially low if jobless individuals are less likely to own phones. Similarly, food insecurity levels might be underestimated if those most affected lack the means to participate in phone surveys. Health indicators, such

(4) An additional source of bias may arise due to the lack of a recent census or comprehensive survey providing an up-to-date population distribution. This challenge is compounded by the fact that, by the time survey fieldwork began, Sudan already had large numbers of internally displaced persons (IDPs) and refugees fleeing the country. As a result, it was difficult to maintain a sample proportional to the population distribution before the start of the conflict. This may have skewed the state-level distribution of the sample, as some areas experienced significant population shifts that may not be accurately captured.

as access to medical care or prevalence of certain conditions, could be skewed towards more affluent populations with better phone access. Educational outcomes might appear more positive than reality if families without phones, who may face greater barriers to education, are not represented.

Additionally, vulnerable groups such as displaced persons, and those in conflict-affected areas may be underrepresented due to limited connectivity. The crisis may also lead to frequent changes in phone ownership or numbers, making it difficult to maintain a representative sample over time. Furthermore, the complex nature of topics like food security, health, and education may be challenging to assess accurately through brief phone interviews, potentially leading to incomplete or superficial data.

These limitations underscore the need for caution when interpreting phone survey results. Researchers should explicitly acknowledge these biases and, where possible, attempt to correct for them through statistical methods or by triangulating data with other sources. It's crucial to view the findings within the scope of these limitations, recognizing that they may represent a best-case scenario rather than a comprehensive picture of the situation, especially for the most vulnerable populations. This context is essential for policymakers and aid organizations to ensure that interventions are not misguided by potentially skewed data.

2.3. Enumerator training and data collection

A team of 35 experienced enumerators and three supervisors received comprehensive refresher training to prepare for implementing the survey. This team had been contracted previously to collect similar data in rural household surveys. The refresher training focused on the principles of interviewing, professional and ethical standards, and a detailed review of the survey instrument. Conducted virtually, the training emphasized the use of Sudanese Arabic in interviewing to align with respondent demographics.

Data collection commenced on 24 May 2024. The CATI application was used, which facilitated efficient and accurate data entry. The application enabled a seamless survey flow, real-time data monitoring, and built-in quality checks, ensuring the integrity of the data collected. The CATI-enabled process included mechanisms for respondent opt-in, scheduling callbacks, and respectful engagement throughout the administration of the survey. Data collection concluded successfully in the first week of July 2024.

2.4. Implementation challenges

The implementation of the 2024 Sudan Urban Household Survey faced several challenges, primarily due to network outages in certain areas, such as West Darfur. These interruptions impacted initial data collection efforts. However, once network stability improved, the team maximized their efforts to reach the targeted quotas in each state. Additionally, the high rate of non-responses and refusals required enumerators to employ strategies, such as multiple call attempts, to ensure sufficient participation. These efforts underscored the complex realities of conducting survey research in conflict-affected areas and the importance of flexibility and innovation in overcoming these obstacles to successfully administer the survey questionnaire to all sample households.

3. DEMOGRAPHIC CHARACTERISTICS AND MIGRATION DYNAMICS

Conflict profoundly impacts household demographics and migration patterns, reshaping family structures, displacing populations, and driving significant demographic shifts through both internal and external migration. These shifts occur within a complex web of socioeconomic, political, and environmental factors, all of which interact with the direct and indirect effects of violence. This chapter delves into the demographic characteristics of Sudan's urban households in the immediate aftermath of the onset of armed conflict in April 2023, comparing their current characteristics to those immediately before the conflict started and exploring how the context of war influences household characteristics and migration patterns.

Over time, conflict leads to significant demographic shifts, including changes in population growth, age structure, and gender ratios. These shifts are often driven by increased mortality rates, both directly from violence and indirectly due to worsened health conditions and poor access to services (Li and Wen 2005). As conflict continues or intensifies, these demographic changes can create new social and economic challenges, such as increased dependency ratios and altered labor markets. The research literature highlights how sex-specific mortality and morbidity during conflicts disproportionately affect men, resulting in an increase in the number of female-headed households (Buvinić et al. 2012). These changes in household composition often compel families to adjust marriage and fertility rates, as well as the distribution of labor among their members. For instance, women may assume greater economic responsibilities, altering traditional gender roles and dynamics within the household (Justino 2012). This reconfiguration of roles can have long-term implications for social cohesion and economic recovery in post-conflict settings.

Additionally, stress and separation caused by conflict can lead to a decline in fertility, further altering the social fabric of affected communities. As households cope with loss and uncertainty, they may delay or forego having children, leading to changes in population growth and age structure (Agadjanian and Prata 2002). In some cases, conflicts may lead to increased birth rates post-conflict as communities seek to rebuild and restore their populations.

Migration, both voluntary and forced, is a critical response to conflict, reflecting not only the immediate threats posed by violence but also broader economic and political instability. Displaced populations often face significant economic hardship, social fragmentation, and disruptions to education and healthcare access (Ibáñez and Moya 2010). Internal displacement typically involves populations moving from areas with high conflict intensity to safer zones, while international migration often leads to refugee flows that strain resources in host countries. The intensity and geographical spread of conflict-induced violence significantly correlate with surges in asylum applications, underscoring how perceived threats fuel migration (Conte and Migali 2019).

Conflict, poverty, and livelihood vulnerability interact to influence migration in developing countries. Conflicts often arise in areas where communities are dependent on natural resources, making them susceptible to both conflict and environmental changes. This nexus between conflict, economic uncertainty, and ecological instability points to the compounded risks faced by civilians, further complicating migration decisions and patterns (Bakewell 2011; Raleigh 2011).

However, migration decisions may not be purely reactive. Seven (2022) challenges the deterministic view of conflict-induced migration, arguing that individuals often

exert agency in their decision-making. Even amid violence, some may choose to stay due to aspirations for a better future or attachment to their homeland. Migration responses are shaped by personal choices and perceptions rather than being strictly driven by external threats.

The socioeconomic aftermath of conflict further complicates these dynamics. Birch, Carter, and Satti (2024) discuss the prolonged marginalization and exploitation of peripheral regions in Sudan, illustrating how entrenched political and economic disparities perpetuate instability and migration. The degradation of essential infrastructure, particularly in education and health, exacerbates the challenges faced by displaced populations, leading to further demographic shifts and migration pressures.

This chapter examines the demographic characteristics and migration dynamics observed in urban households during the armed conflict in Sudan. This examination of the intersections between conflict, household demographics, and migration provides some understanding of how these forces interact and shape the lived experiences of affected populations, offering insights into how conflict reshapes not only the physical landscape but also the social and familial structures that define communities.

3.1. Demographic characteristics of urban households

The demographic characteristics of urban households in Sudan are presented in Table 3.1. 94.2 percent are male-headed. The average size of urban households is 8.8 members, which is made up of 3.1 members under 14 years of age, 3.0 adult females aged 15 years and older, and 2.8 adult males. Examining the relationship of respondents to the household head, 37.4 percent of respondents identify themselves as the head of the household, 15.8 percent are spouses, and one-quarter are sons or daughters. Smaller proportions are parents or in-laws (9.6 percent), brothers or sisters (11.9 percent), and other relatives (0.5 percent).

The average age of the head of urban households is 45.3 years. The largest age group for the heads of urban households is that between 45 and 54 years (26.9 percent), followed closely by the 35 to 44 years (25.9 percent) and 55 to 64 years (19.4 percent) year age groups. Only 6 percent of household heads are aged 65 years or older, while only about 1 percent are younger than 24 years.

In terms of the educational attainment the heads of urban households, 13.6 percent have attained only a low education level. Much larger shares have medium or high education levels, reflecting generally higher educational levels in the urban population relative to the rural population of Sudan. Most male household heads are married, while there is greater variety in the marital status of female heads of household.

Regarding the employment status of household heads, self-employment, typically considered to be employment quite vulnerable to economic shocks, is the most prevalent form of employment. Far fewer heads have more stable wage employment or other salaried work, whether full-time or part-time. About one-fifth are employers. Reflecting in part the economic dislocations caused by the current conflict, a notable 18 percent of heads of urban households report having no income or employment.

Table 3.1 Characteristics of urban households, by sex of household head

	All urban households	Male-headed	Female-headed
Share of households,%	100.0	94.2	5.8
Household member demographics			
Children under 5 years, number, average	1.2	1.2	1.1
Children aged 5 to 14 years, number, average	1.8	1.8	1.9
Children aged 14 years and under, number, average	3.1	3.1	3.0
Females aged 15 years and over, number, average	3.0	3.0	3.3
Males aged 15 years and over, number, average	2.8	2.9	1.8
Household size, number, average	8.8	8.9	8.1
Respondent's relationship to household head, % of all respondents			
Head	37.4	35.4	69.9
Spouse	15.8	16.5	5.2
Son or daughter	24.5	24.8	19.7
Son-in-law or daughter-in-law	0.1	0.1	0.0
Parent or parent-in-law	9.6	10.0	2.3
Brother or sister	11.9	12.4	2.9
Grandparent	0.1	0.1	0.0
Adopted, foster, or stepchild	0.1	0.1	0.0
Other relative	0.5	0.5	0.0
Marital status of household head, %			
Single [never married]	12.2	11.8	19.1
Married	83.3	85.9	41.6
Widowed	2.3	1.1	22.5
Divorced/separated	2.1	1.2	16.8
Age of household head, years			
25th percentile	35.0	35.0	35.0
Mean	45.3	45.7	39.6
Median	45.0	45.0	39.0
75th percentile	55.0	55.0	45.0
Age group of household head, % in each group			
18-24 years	1.2	1.2	1.7
25-34 years	20.7	20.6	22.0

	All urban households	Male-headed	Female-headed
35-44 years	25.9	24.6	46.8
45-54 years	26.9	27.0	24.3
55-64 years	19.4	20.4	4.0
65 years and over	5.9	6.2	1.2
Education level of household heads, % in each group			
Low	13.6	13.8	11.0
Medium	47.3	48.5	27.2
High	39.1	37.7	61.8
Current employment status of household head,%			
Full-time wage worker	15.6	15.4	19.1
Part-time wage worker	8.2	8.0	10.4
Employer	18.8	19.7	5.2
Self-employed	39.3	40.0	28.9
No employment/ No income	18.1	16.9	36.4

Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

Note: Categories of educational attainment are based on the highest level of education reported completed by the head of household. "Low" refers to those with no formal education, who completed or partially completed primary education, or with only informal or religious education. "Medium" includes those who completed or partially completed vocational training or secondary school. "High" encompasses those with an undergraduate diploma, bachelor's degree, or other higher degree.

When broken down by the sex of the household head, some differences emerge between the two types of households (Table 3.1). The average number of children under 5 years of age is similar. However, the average number of children aged 5 to 14 years is slightly higher for male-headed households. As might be expected, female-headed households, on average, have a higher number of females aged 15 and older, while having significantly fewer males aged 15 years and older—only 1.8, compared to 2.9 in male-headed households. Male-headed households tend to be somewhat larger, with 8.9 members on average, compared to 8.1 in female-headed households.

Considering the relationship of respondents to the household head, in female-headed households, almost 70 percent of respondents identify as the head, compared to only 35 percent in male-headed households. As might be expected, the share of respondents identified as a spouse is much lower in female-headed households. There is little difference between male-headed and female-headed households in the share of respondents who identified as sons or daughters. Greater distinctions arise in other categories—for example, brothers or sisters of the head are more common as respondents in male-headed than female-headed urban households.

There are significant differences in marital status patterns among male and female heads of urban households. While most male heads are married, only about 40 percent of female heads fall into this category. Female heads of households are equally likely to be single (never married), widowed, or divorced/separated. Few male heads of household fall into the marital status category of not married. This reflects the higher likelihood of female household heads having lost a spouse or experienced separation.

On average, male heads of urban households are older than female heads—male heads have a median age of 45 years and female heads, 39 years. The 45 to 54 year age group is the most common for male heads, while female heads are more concentrated in the 35 to 44 year age group.

Educational attainment reveals substantial differences between male and female household heads. Female heads of urban households are likely to have received more education than male heads, overall. The percentage of heads with a low level of education is similar for both sexes. While nearly half (48.5 percent) of male heads have a medium level of education, that is the maximum education level for only just over one-quarter of female heads. In contrast, over 60 percent of female heads attained the high level of education category, a substantially higher share than is seen among male heads of urban households.

Employment patterns reveal further distinctions between male and female household heads. While self-employment is the most common category overall, it is more prevalent among male household heads. A larger share of female household heads than male household heads have full-time wage employment. However, female household heads are more likely than male household heads to report no income or employment, with 36.4 percent of female heads of urban household fall into this category, more than double the rate observed among male heads. This contrast points to the greater economic vulnerability of female-headed urban households in the context of conflict in Sudan.

Table 3.2 Distribution of urban households, by state of residence and intensity of conflict

State	Panel A, column totals, %			Panel B, row totals, %		
	All urban HHs	Male-headed	Female-headed	Male-headed	Female-headed	Total Proportion
Conflict Intensity level of Cuurent State of Residence						
Low intensity	41.5	41.2	45.7	93.7	6.3	100
High intensity	58.5	58.8	54.3	94.6	5.4	100
Total	100	100	100	94.2	5.8	100

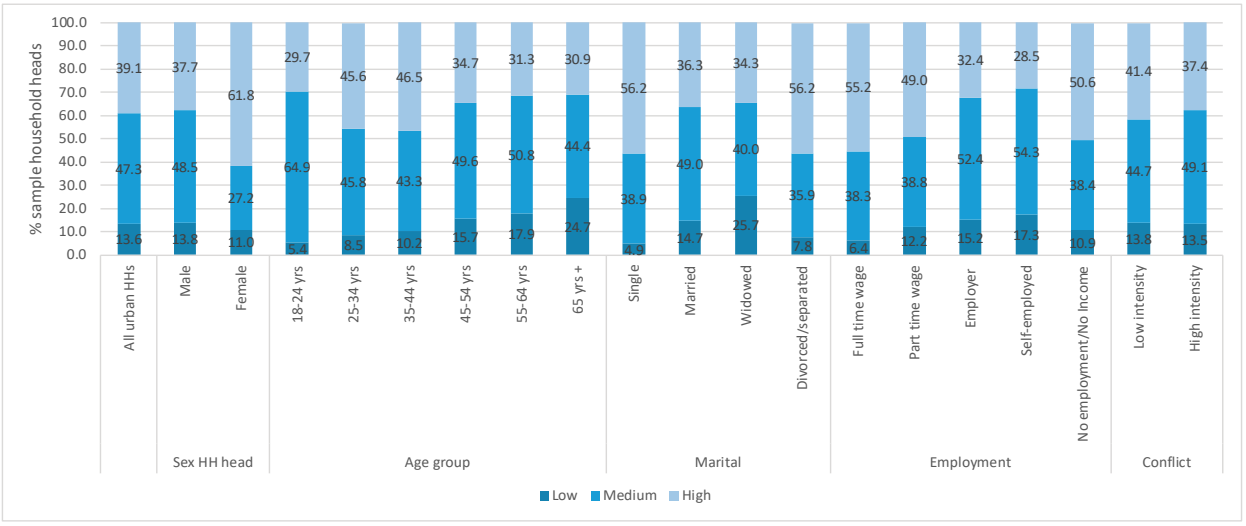
Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: States categorized as experiencing "high intensity" conflict are those that experienced more than six violent events per month on average over the previous six months..

Table 3.2 shows the region of residence of urban households by conflict intensity. We used data from the ACLED database (2024b) to define states as "high conflict intensity" if they experienced more than six violent events per month on average over the previous six months. Nine states are classified as high-intensity conflict areas: Khartoum, Aj Jazirah, North Darfur, Sennar, North Kordofan, South Kordofan, West Kordofan, White Nile, and South Darfur. Panel A shows the percentage breakdown of the conflict intensity level of current state of residence by the sex of the household head. A slight majority (58.5 percent) of the urban population of Sudan resides in high-intensity conflict states. This pattern holds for both male-headed and female-headed households. However, a slightly larger share of female-headed households (45.7 percent, compared to 41.2 percent for male-headed households) are found in low-intensity conflict areas. Looking at the distribution by sex of household head within the two conflict intensity categories in Panel B, no notable difference is seen. The distribution of female-headed households across high and low-intensity conflict areas is similar to that of the total urban population—female-headed households are not disproportionately concentrated in high-intensity conflict areas.

3.2. Educational attainment of the household head

The educational attainment of the heads of urban households in Sudan varies significantly across different demographic categories and aligns with patterns of sex, age, marital status, employment status, and conflict intensity (Figure 3.1). Examining the data by the sex of the household head, men are more likely to have medium or low educational attainment, while female heads are concentrated in the high attainment category, with smaller shares in the medium or low categories. Age-group analysis reveals that youngest heads (aged 18 to 24 years) have the lowest share among age groups of low educational attainment but the highest share in the medium educational attainment category. As the age of the household head increases, the proportion of household heads in the medium educational attainment category declines, while high educational attainment becomes more prevalent. However, household heads aged 65 years and over notably show a more balanced distribution between low, medium, and high educational attainment.

Figure 3.1 Educational attainment category of heads of urban households, by household characteristics



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

Marital status also shows distinctive patterns in educational attainment—widowed heads have the highest share in the low educational attainment category, while single (never married) and divorced or separated heads of household are more likely to have high attainment levels. Heads who are married are more evenly spread across medium and high levels.

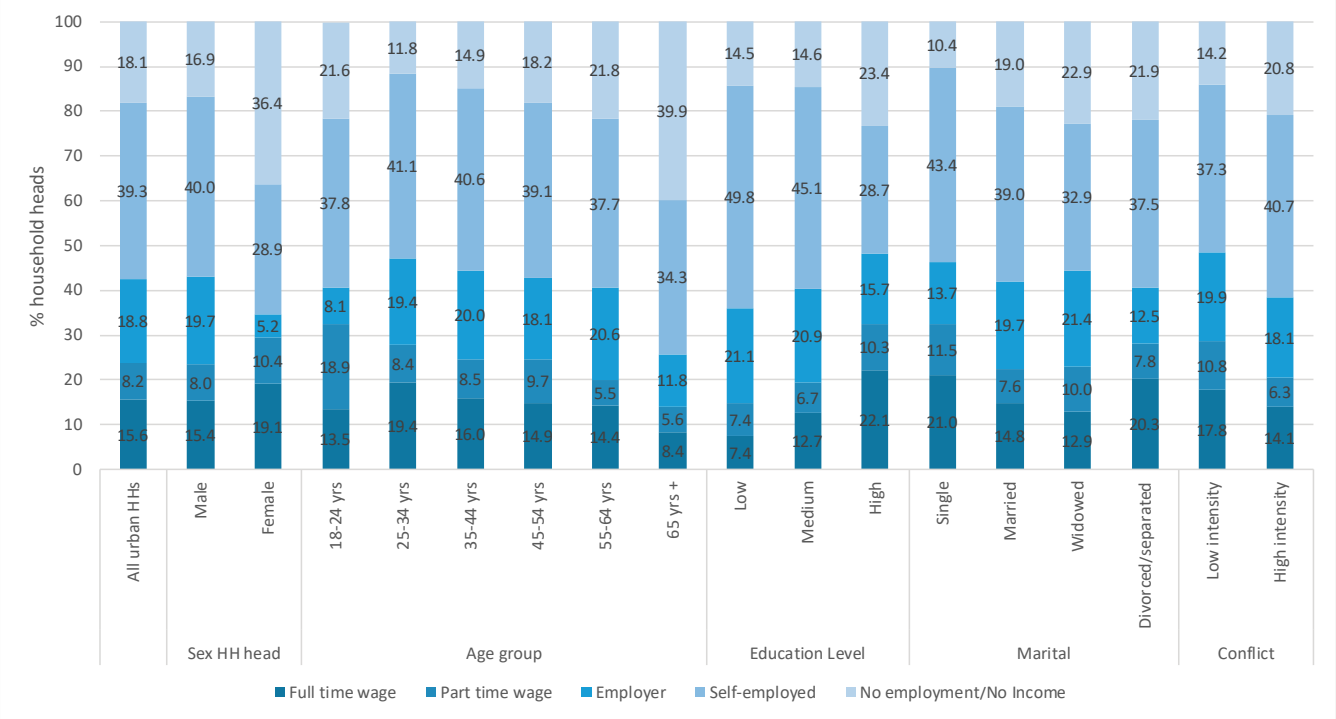
Employment status similarly correlates with educational attainment, as shown in Figure 3.1. Full-time and part-time wage workers, and those without income/employment are more likely to have high educational attainment. The latter may reflect their ability to live on existing savings or rely on other family resources. Conversely, employers and the self-employed are primarily in the medium attainment category. It is important to note that the correlation between current employment status and education, as shown in Figure 3.1, is influenced by how the conflict has disrupted employment opportunities. The next section explores the impact of the conflict on employment by comparing the situation before and after April 2023. The conflict intensity of the state of residence shows that high-intensity states have slightly more individuals with medium attainment compared to low-intensity states, similar to the overall national distribution.

3.3. Current Employment Status of the Household Head

3.3.1. Employment of the household head

The current employment status of heads of urban households reveals distinct patterns when analyzed by various demographic characteristics of the head (Figure 3.2). Male heads are more likely to be self-employed and employers, while female heads show a higher prevalence in the "no income/employment" category and are less likely to be engaged in self-employment or to be employers. Wage work, whether full-time or part-time, is more common among female heads than male heads.

Figure 3.2 Current employment status of heads of urban households during the conflict, by household characteristics



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

When examining employment status by the age group of the household head, younger heads (18 to 24 years of age) are less likely to be employers and more likely to work part-time or have no income/employment than the national average for heads of urban households. As the age of the household head increases, there is a shift towards the head being an employer. Notably, household heads aged 65 years and over have the highest percentage with no income/employment (39.9 percent).

Educational attainment also significantly influences the employment status of urban household heads in Sudan. Those with higher education are more likely to work full or part-time or have no income/employment but are less likely to be self-employed than the national average. By contrast, household heads with lower educational attainment are more concentrated in self-employment and the employer category.

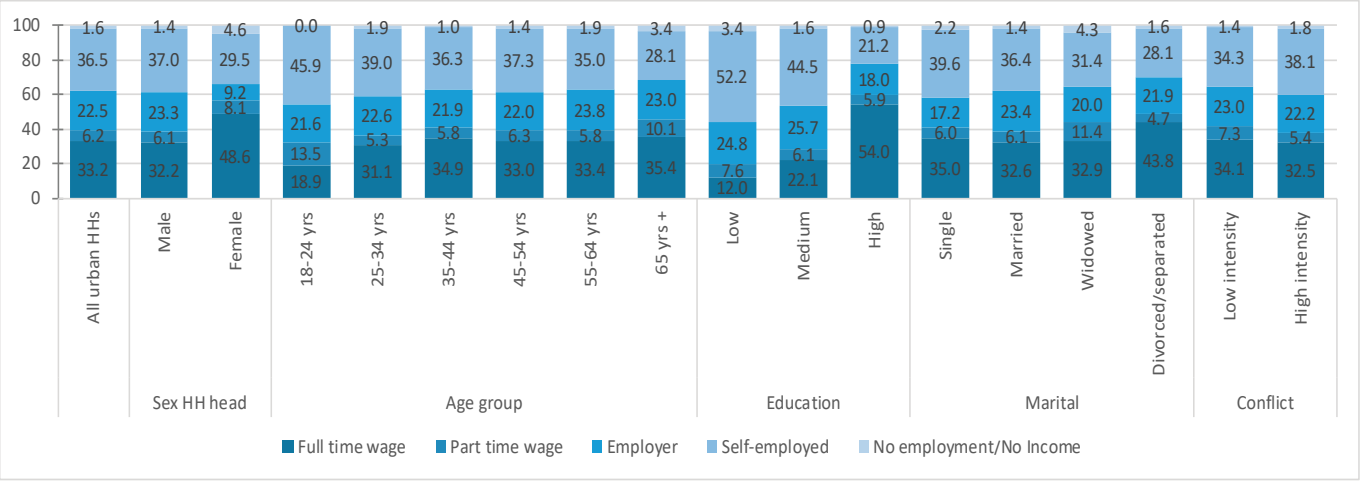
Across all groups, the heads of households resident in high-intensity conflict areas are more likely to be self-employed or have no income/employment. In low-intensity conflict areas, heads of household are somewhat more likely to have employment as full-time wage workers than is the case in high-intensity areas.

To examine employment changes in light of the conflict, Figure 3.3 shows the employment status reported by the heads of urban households before the start of the conflict in April 2023. Comparing these patterns to those for their current employment status during the conflict (Figure 3.2) reveals marked shifts, particularly among female heads [5]. Before the conflict, about one-third of all household heads were full-time wage workers. However, during the conflict, the share of full-time workers among heads of urban households dropped by half to 15.6 percent overall.

This decline was sharper among female heads than male heads, dropping by more than half. Additionally, self-employment became more common during the conflict, mainly among male heads. Notably, the proportion of heads without income or employment increased sharply after the conflict, from 1.6 percent to 18.1 percent, reflecting the significant economic impact of the conflict. More than one-third of female heads report now having no income/employment—an increase from about 5 percent reporting no income/employment before the conflict.

(5) Specifically, respondents were asked about the employment status of the main income earner in the household before the start of the conflict (15 April 2023, or the end of Ramadan 2023) and at the time of the survey (after the end of Ramadan 2024 (mid-April 2024).).

Figure 3.3 Pre-conflict employment status of heads of urban households, by household characteristics



Source: Authors weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

3.4. Migration patterns and characteristics of migrating households

3.4.1. Within household migration

The violence resulting from the conflict has driven households to seek refuge in safer locations, while also triggering significant demographic shifts within households. As individuals seek to best navigate the challenges to their security and wellbeing raised by the conflict, many households have experienced the departure of household members or the return of those who had previously lived elsewhere. In this section, we analyze these migration dynamics, examining both interhousehold movements and changes within households.

Table 3.3 shows that almost 29 percent of urban households had a member move back, while 24.4 percent experienced a member moving away. There are a few notable associations between demographic characteristics of the household and migration. For example, almost 40 percent of households headed by someone 65 years or older had a member return, a level significantly higher than for all urban households. This may reflect vulnerable family members joining the households of their parents or grandparents. As might be expected, a greater share of urban households in low-intensity conflict areas saw more members moving back than those in high-intensity areas, possibly due to relatively greater safety. Households headed by women and those with higher education levels had lower rates of return and higher rates of departure, suggesting they might have more options or resources to move away.

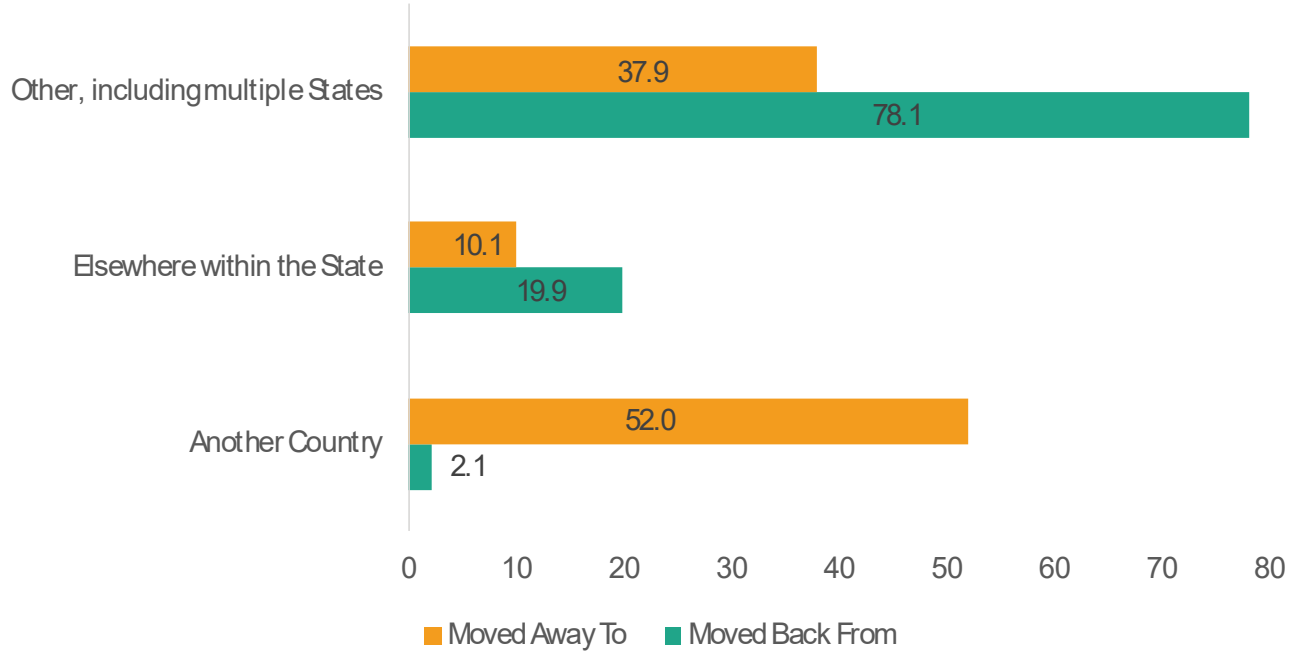
Table 3.3 Urban households with members that moved back to or moved away from household since onset of conflict, by household characteristics

	Member moved back	Member moved away
All urban HHs	28.9	24.4
Male-headed household	28.9	24.4
Female-headed household	27.7	23.7
Age group of household head		
18-24 years	27	27
25-34 years	25.8	22.9
35-44 years	27.3	24.4
45-54 years	29.7	23.4
55-64 years	30	24.4
65 years and over	39.3	33.1
Education level of household head		
Low	33.1	22.1
Medium	29.5	21.8
High	26.5	28.4
Marital status of household head		
Single [never married]	24.9	24.6
Married	29.5	24.4
Widowed	28.6	20
Divorced/separated	28.1	25
Current employment status of household head		
Full-time wage worker	25.4	19.4
Part-time wage worker	33.1	28.2
Employer	28.5	20
Self-employed	28.2	22
No employment/No income	31.7	36.5
Conflict intensity of current state of residence		
Low intensity	32.0	23.1
High intensity	26.6	25.2

Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

Figure 3.4 shows the origin of those individuals who moved back to their households and the destinations of those who moved away due to the conflict. Of those who moved back, 78 percent returned from another state or states within the country. Only about 2 percent returned from another country. In contrast, of those who moved away from the household, just over half went to another country, highlighting international migration as a significant trend in the current conflict. Additionally, 37.9 percent moved to another state within Sudan. Few relocated within the same state. Overall, most returnees relocated domestically within Sudan, while those moving away sought safety outside their state of origin or even outside the country.

Figure 3.4 Destination and origin of household members who moved due to conflict

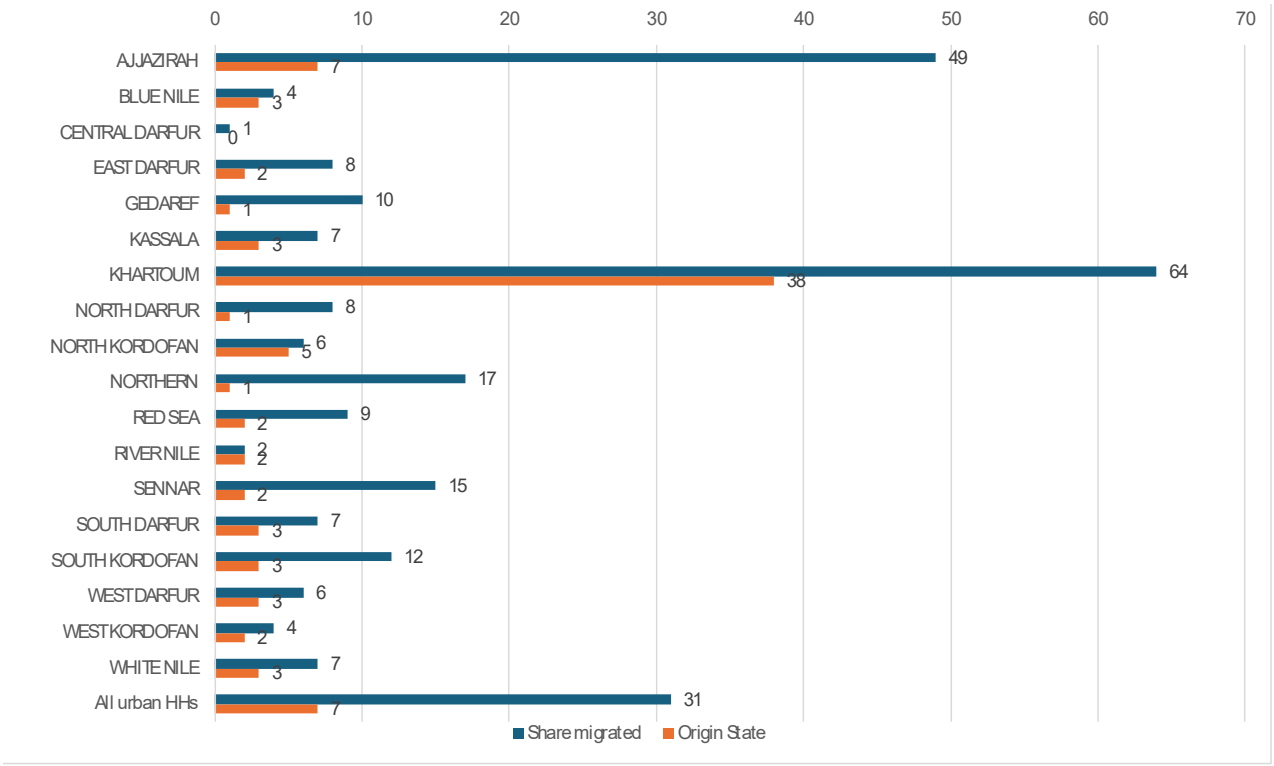


Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

3.4.2 Migration patterns across states

Overall, just over 30 percent of all urban households currently reside in a state that is different from the one in which they lived before 15 April 2023 (Figure 3.5). Before the conflict, Khartoum stands out as the state with the largest share of urban households initially, representing 37.7 percent of the total sample (1,130 households). During the conflict, 64 percent of these households (716 households) migrated out of the state. Almost half of urban households from Aj Jazirah reported migrating out of the state, suggesting severe impacts in that state as well. Additional analysis of the dataset shows that among all urban households that reported migrating, 79 percent were originally from Khartoum and 10 percent from Aj Jazirah—this pattern parallels state-specific migration levels observed in the IFPRI-UNDP 2023/24 Sudan Rural Household Survey (IFPRI and UNDP 2024). In contrast, states like Central Darfur, Gedaref, West Kordofan, or River Nile saw only a small share of their urban households migrate, reflecting either less intense conflict impacts or a greater ability for residents to remain in those states.

Figure 3.5 Share of households that reported migrating, by state



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

Of all the households that migrated, Gedaref state received the largest proportion (18.6 percent, followed by River Nile and North Kordofan (Table 3.4, column 1). However, the pattern is somewhat different for the migration patterns for households from Aj Jazira and Khartoum, the two states that are the largest source of migrants (Table 3.4, columns 2 and 3). The most important destinations for those from Aj Jazira were Gedaref, Kassala, and Sennar, while for Khartoum, the most important states to which migrants moved were Gedaref, River Nile, and North Kordofan.

Table 3.4 Share of migrants received by destination and from two largest origin states for migrants, percent

		Share of all migrants from	
Receiving state	Share of all migrants received	Aj Jazirah	Khartoum
Khartoum	0.8	6.3	0.0
Central Darfur	1.9	0.0	2.4
East Darfur	2.4	0.0	1.9
North Darfur	5.2	1.1	4.6
South Darfur	5.9	3.2	5.3
West Darfur	2.7	4.2	2.9
North Kordofan	7.5	3.2	7.3
South Kordofan	1.9	4.2	1.2
West Kordofan	5.4	4.2	5.0
Sennar	5.9	11.6	5.8

Receiving state	Share of all migrants received	Share of all migrants from	
		Aj Jazirah	Khartoum
Gedaref	18.6	25.3	18.5
Blue Nile	4.8	9.5	3.9
White Nile	6.6	4.2	7.2
Northern	6.0	3.2	7.2
River Nile	7.8	4.2	9.0
Aj Jazirah	5.8	0.0	7.2
Kassala	6.3	11.6	6.0
Red Sea	4.6	4.2	4.7

Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

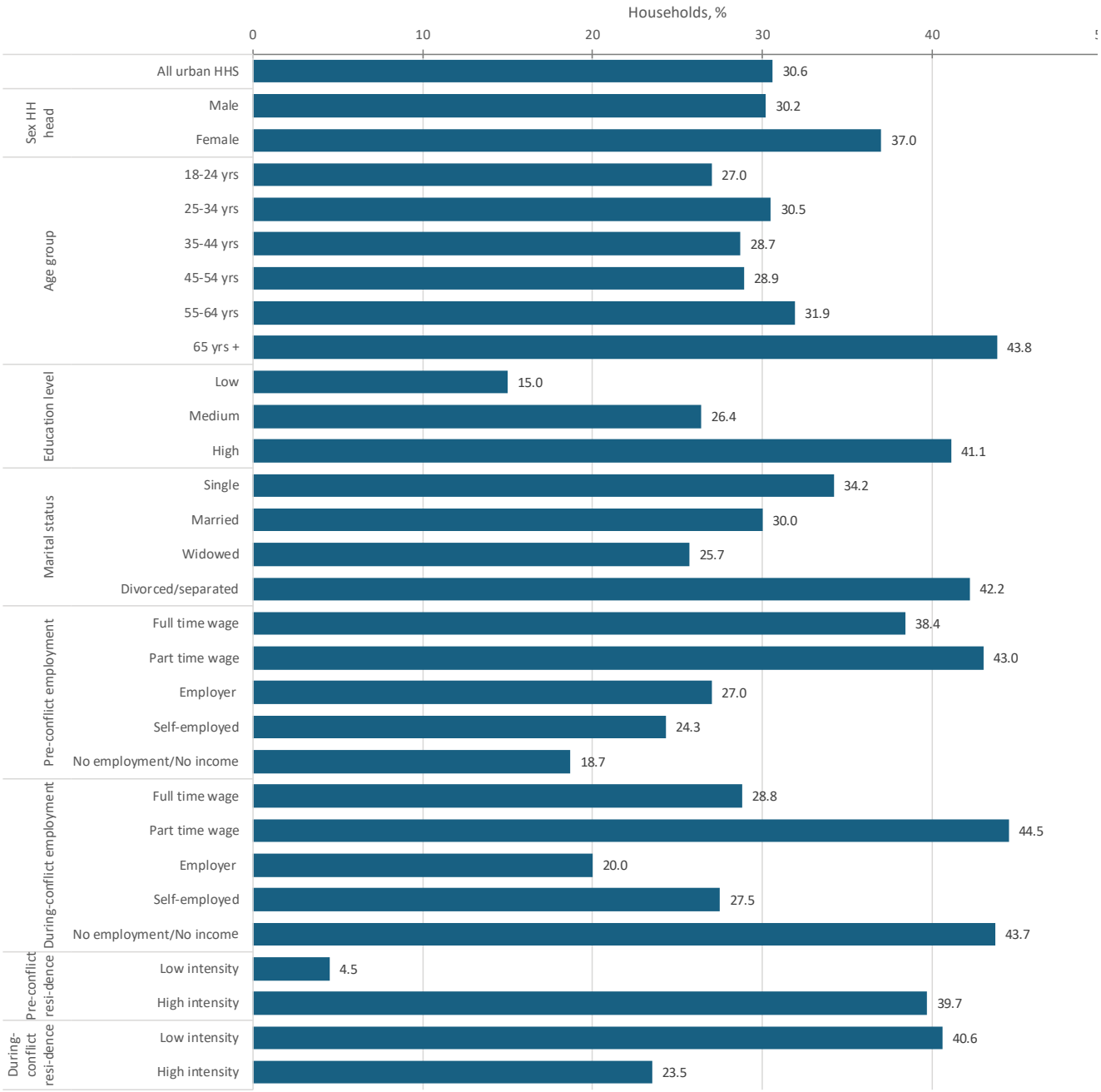
Note: NA = "Not applicable".

3.4.3 Characteristics of migrating households

The proportion of households migrating out of their state of origin since the conflict began varies significantly across different household characteristics (Figure 3.6). By sex of household head, households led by women have a higher migration rate. Considering the age of the household head, the highest migration rates are seen among households with heads aged 65 years and over. Household heads in younger age groups have lower migration rates. Households headed by individuals with high education levels show markedly higher migration rates than those headed by individuals with low education—this likely reflects different capacities to relocate or to access resources to do so.

Migration rates by marital status and employment status, both before and after the conflict, also reveal interesting trends. Divorced or separated household heads have the highest migration rate, followed by single heads. This may indicate that households headed by divorced or single individuals face more pressure to migrate, but alternatively may indicate that they have more resources or better prospects to facilitate such migration. Households led by full-time or part-time wage workers before the conflict had a migration rate considerably higher than households led by individuals who were employers, self-employed, or without income or employment. Post-conflict, part-time wage workers and households having heads without income/employment show the highest migration rates among employment categories. This pattern may signal that increasing economic distress drives migration.

Figure 3.6 Propensity to migrate out of state, by household characteristics



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

Finally, conflict intensity influences migration. Urban households residing (pre-conflict) in states that became high-intensity conflict areas showed much higher migration rates than households in low-intensity areas. The during conflict figures show that over 40.6 percent of households that reported migrating now reside in low-intensity conflict areas, compared to 23.5 percent in high-intensity areas, indicating a significant movement of urban households towards safer regions.

4. ECONOMIC RESILIENCE

The conflict in Sudan has severely degraded an already fragile economy, disrupting livelihoods across both rural and urban areas (IFPRI and UNDP 2024). Economic activities across the country, but especially in Khartoum state, have been significantly disrupted. Early assessments have highlighted a substantial decline in industrial and economic activity, particularly in Khartoum. This is evidenced by a notable reduction in nitrogen dioxide (NO_2) levels, a key indicator of industrial activity, across critical regions (Guo et al. 2023). Additionally, the agricultural sector has also been hit hard, with 40 percent of smallholder farmers reporting that they were unable or unwilling to plant crops for the 2023 summer season (Kirui et al. 2023a).

Agrifood processing companies, particularly near conflict zones, have faced severe disruptions. In the Khartoum North Industrial Area, a July 2023 survey revealed that 13 percent of agrifood firms had permanently shut down, 53 percent had closed temporarily, and 20 percent significantly reduced operations (Kirui et al. 2023b).

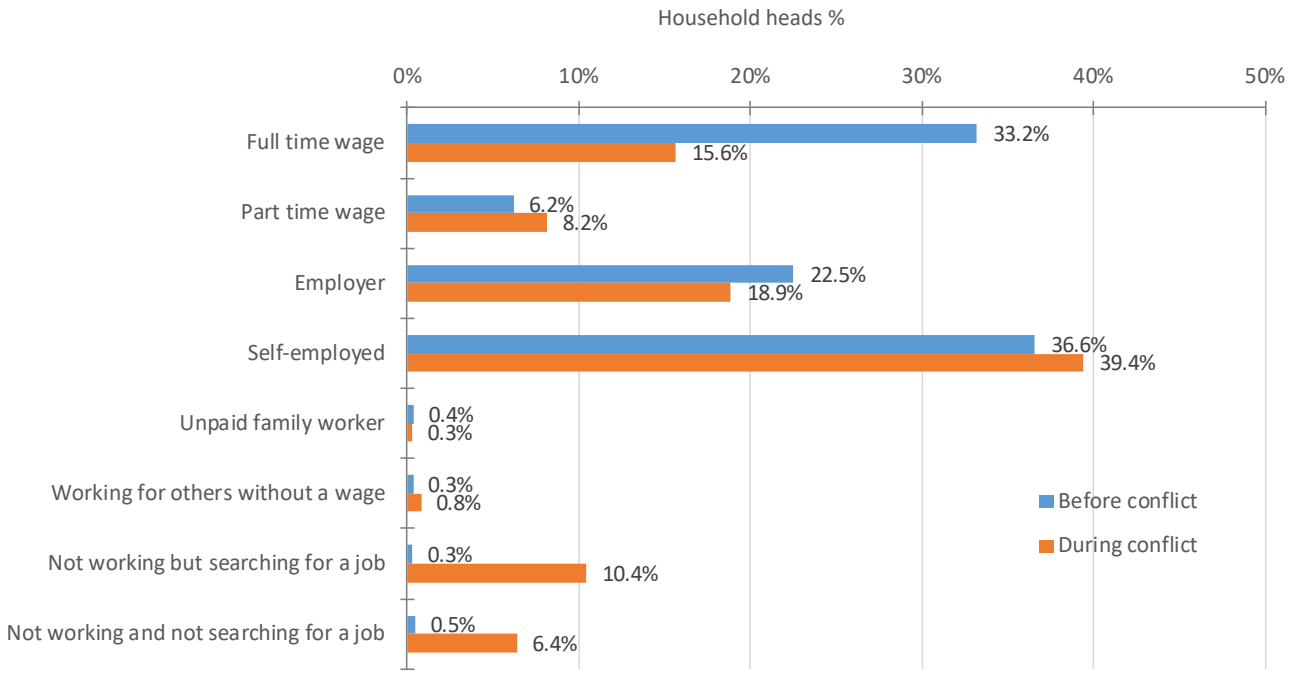
On a macroeconomic level, unemployment has sharply risen from 32 percent in 2022 to 46 percent in 2023, with projections of 47 percent in 2024 (IMF 2023). The World Bank forecasts sectoral declines in 2023, with agriculture, industry, and services shrinking by 7.9 percent, 11.6 percent, and 16.0 percent, respectively (Ezemenari et al. 2023).

This chapter provides an in-depth analysis of how the conflict has affected urban households, focusing on shifts in employment, income sources, and overall economic activity. It highlights the profound impact of the conflict on the economic resilience of urban households, forcing those households to adapt to a rapidly changing and increasingly unstable economic environment.

4.1. Employment dynamics

In the previous chapter, employment status before (Figure 3.3) and during (Figure 3.2) the conflict were presented, showing significant shifts, particularly among female heads of household. Figure 4.1 summarizes these patterns and extends some of the employment categories. It shows significant changes in the employment status of urban households. The most notable shift is the sharp decline in full-time wage employment, dropping by half from 33 percent pre-conflict to 16 percent during the conflict, reflecting a severe reduction in stable jobs due to business disruptions. In contrast, part-time wage employment rose slightly, signaling a shift towards less stable work as individuals and businesses adapt to new economic challenges brought about by the conflict. Self-employment also grew somewhat, suggesting that more people turned to self-employment as a way to sustain their livelihoods amidst shrinking full-time wage employment opportunities. Additionally, there was a significant rise in households where the main income earner was not working but actively job-seeking, highlighting a sharp drop in job availability. At the same time, the proportion of those not working and not seeking jobs increased to over 6 percent, as discouraged workers exited the labor force.

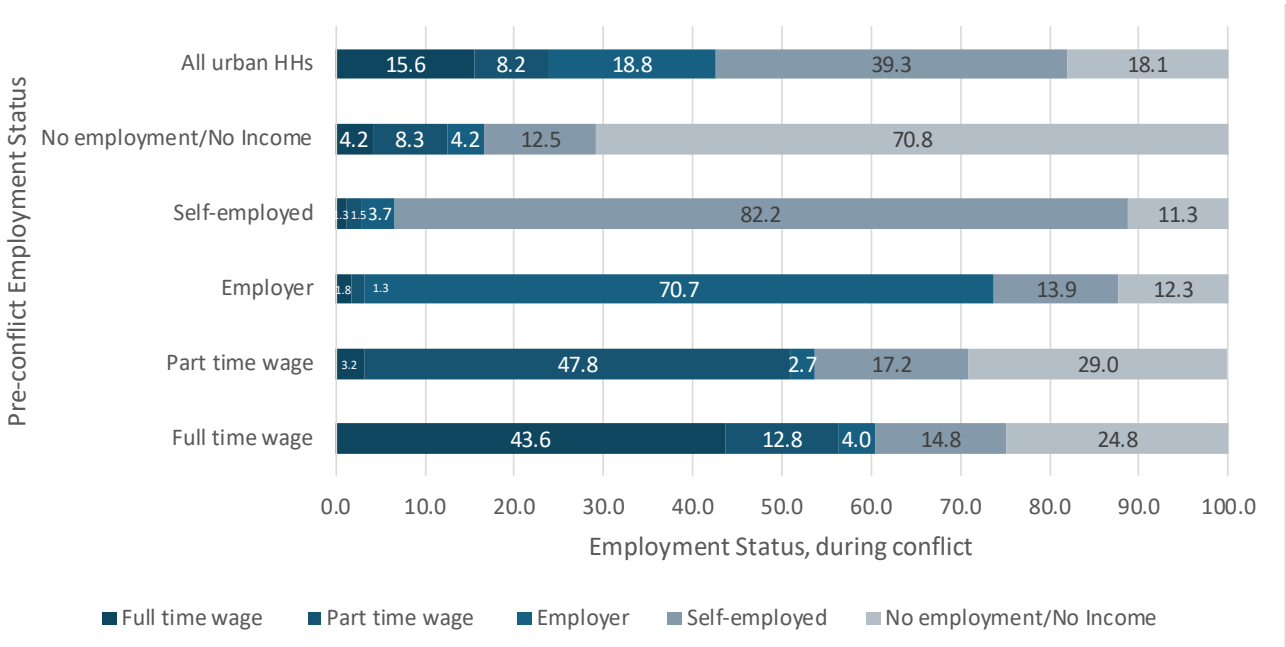
Figure 4.1 Employment status of heads of urban households before and during the conflict



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

To analyze these changes in employment further, a transition matrix was constructed showing the current employment status of household heads based on their pre-conflict employment (Figure 4.2). Among those who were full-time wage workers before the conflict, 44 percent retained their full-time positions, while 24.8 percent ended up without income/employment during the conflict. A smaller proportion transitioned to part-time wage work or self-employment. Similarly, almost half of those with part-time wage work before the conflict maintained their status during the conflict, while 29 percent became unemployed and 17 percent shifted to self-employment.

Figure 4.2 Employment status of heads of urban households during the conflict relative to their employment before the conflict

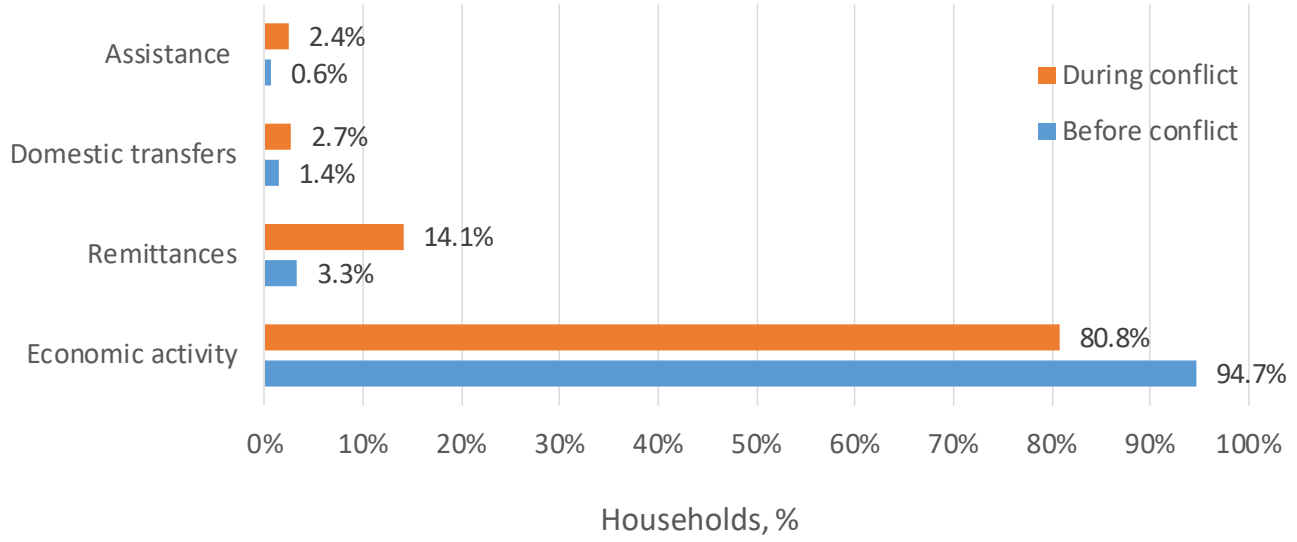


Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

For those who were employers before the conflict, a large majority (70.7 percent) remained employers, with smaller shares moving into self-employment or becoming unemployed. Most of those who were self-employed before the conflict stayed self-employed during the conflict with only small shifts to other employment statuses. Finally, individuals without income or employment before the conflict had little mobility in their employment status with most remaining in this category, with a small share becoming self-employed.

The conflict in Sudan has not only disrupted employment but also significantly altered the main sources of income for urban households. Figure 4.3 shows that before the conflict, 95 percent of households relied on economic activity as their primary income source, but this dropped to 81 percent during the conflict. This decline reflects income losses due to business closures, reduced operations, and job losses. In contrast, the reliance of urban households on remittances has grown substantially during the conflict, indicating that many urban households turned to financial support from family members abroad. Dependence on remittances increased more sharply in urban households than in rural ones (IFPRI and UNDP 2024), consistent with the urban concentration of the conflict.

Figure 4.3 Main source of income before and during the conflict



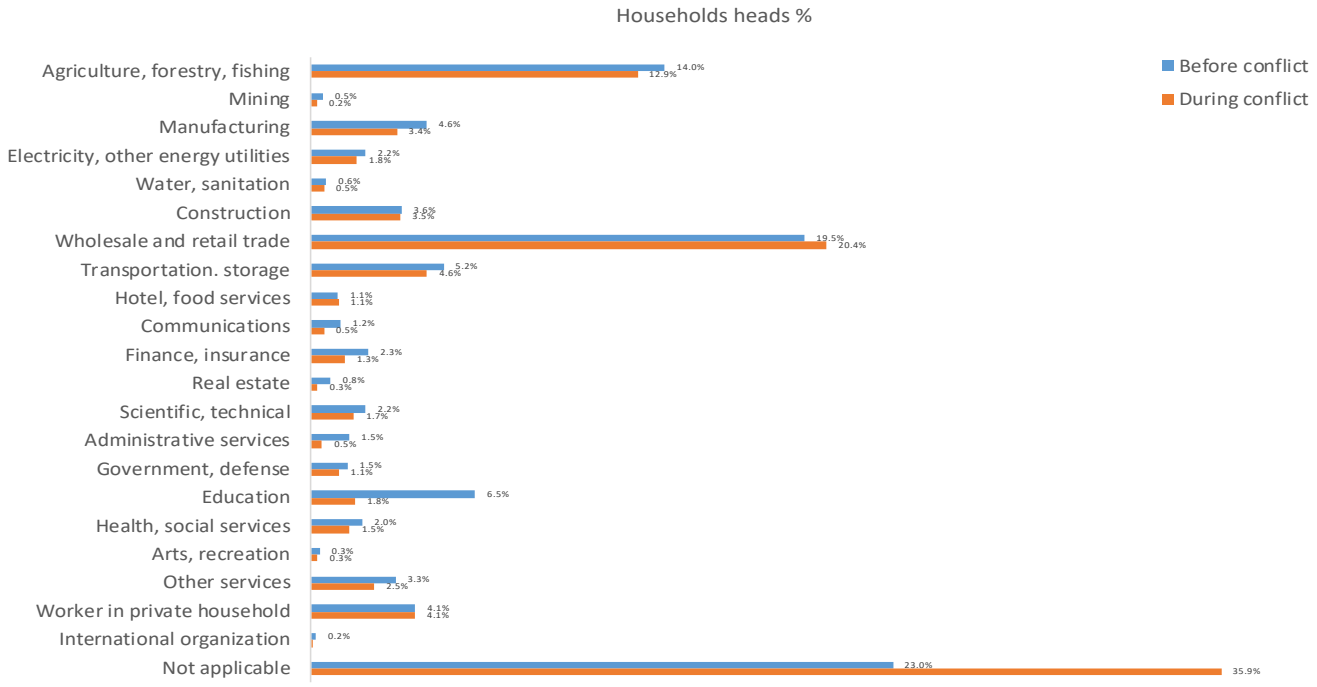
Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

Domestic transfers, though still a small part of total income sources, have also increased during the conflict. However, the reach and the amount of such forms of financial assistance are still very low. Increasing such forms of financial support will enable households to more successfully address the economic challenges caused by the conflict that they face.

Figure 4.4 shows that the conflict has resulted in significant changes in the types of urban employment in Sudan. Education, manufacturing, and financial services all have experienced notable declines in employment during the conflict. The decline of the education sector, heavily impacted by school closures, leaves millions of children without access to formal education. Similarly, the manufacturing sector suffered extensive damage, with a large portion reportedly destroyed by the end of 2023 (Siddig, Raouf, and Ahmed 2023). Financial and insurance services also faced disruptions, particularly in Khartoum, which contributed to reduced employment in the city.

Urban employment in the agricultural sector shows a small decline due to the effects of violence, displacement, and limited access of urban households to agricultural resources. In contrast, rural areas saw a shift toward agricultural employment as households there increasingly relied on agricultural livelihoods during the conflict (IFPRI and UNDP 2024). The wholesale and retail trade sectors, however, have shown some resilience, with a slight increase in employment. However, these shifts in urban employment by category have occurred within a context of surging unemployment. This is reflected in Figure 4.4 by a notable rise in the "Not applicable" category of employment.

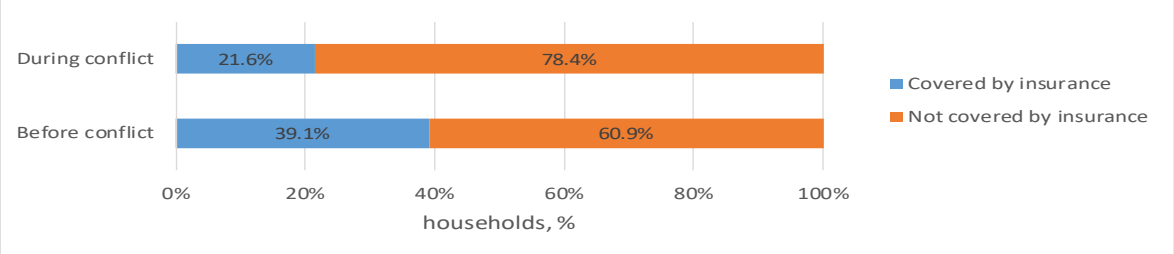
Figure 4.4 Economic activity of the enterprise for which the main income earner in the household works, before and during the conflict



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

Figure 4.5 highlights growing economic insecurity for urban households. During the conflict, there has been a sharp decline in social insurance coverage. Many households lost insurance access during the conflict, leaving them more vulnerable to financial hardships. This reduced coverage points to increasing difficulties for urban households in affording or maintaining insurance, increasing their exposure to economic risks.

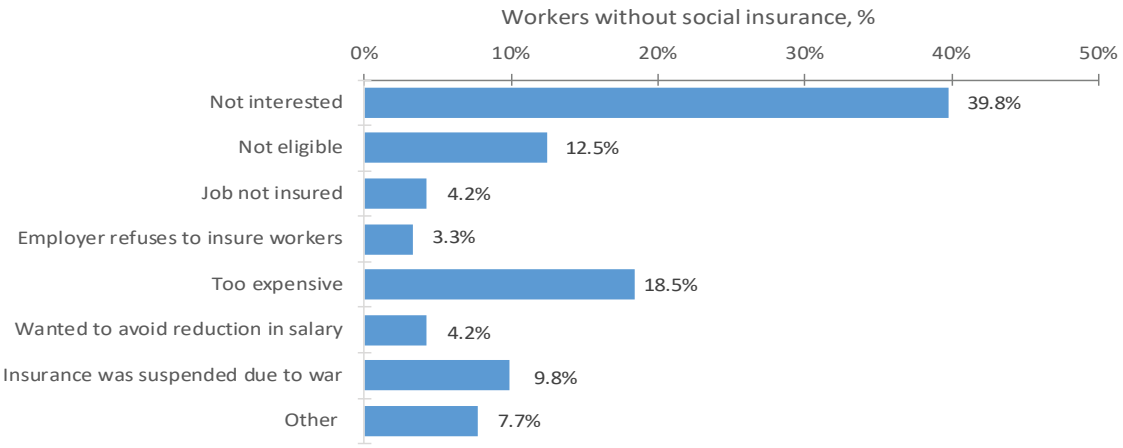
Figure 4.5 Social insurance coverage for households



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

Figure 4.6 highlights the main reasons reported for why workers from urban households lack social insurance. The combination of these barriers reflects the difficulties urban households face in securing insurance during periods of conflict and instability. That disinterest should feature strongly in the reasons workers give for not seeking insurance may also reflect their having little faith that they will ever benefit from their payments into such schemes due to instability and the weak governance regulating social insurance schemes in Sudan.

Figure 4.6 Reasons for workers from urban households not being socially insured

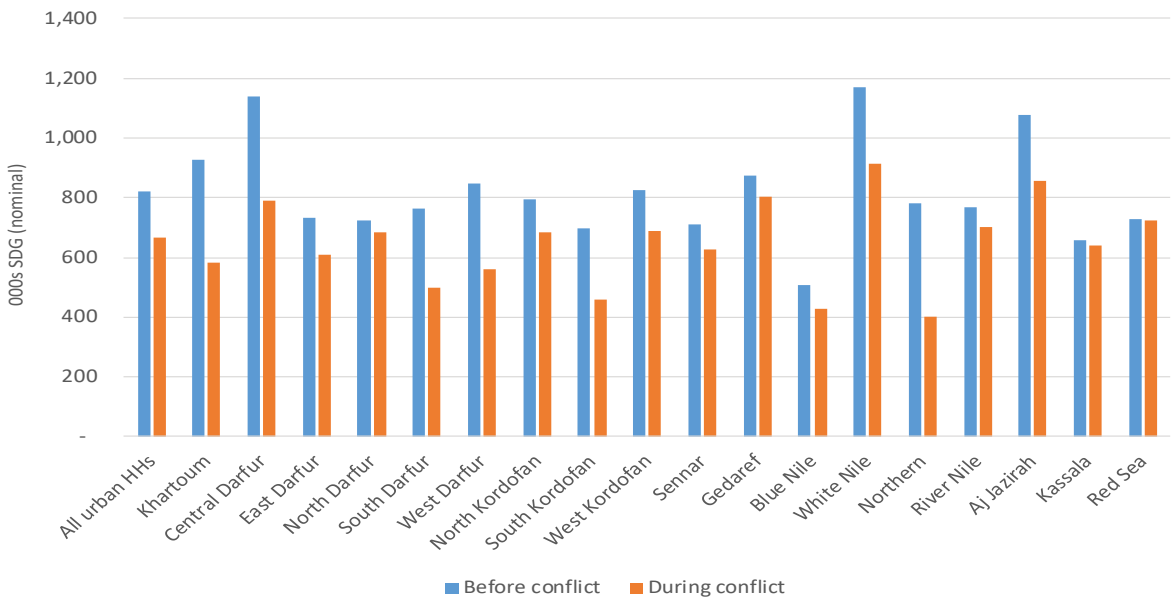


Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

4.2. Income earned and income changes before and during the conflict

Figure 4.7 shows a significant drop in annual per capita income across the states during the conflict, affecting both conflict-affected and safer regions [(4)]. Incomes fell in all urban areas, often sharply, illustrating the widespread economic toll of the conflict. Urban households in Khartoum, the center of the conflict, saw among the steepest declines in income. Aj Jazirah also saw a notable decrease, reflecting the conflict's broader impact on areas of central Sudan. The Darfur and Kordofan regions were also hard hit.

Figure 4.7 Annual per capita household income, before and during the conflict, thousand SDGs (nominal), by state



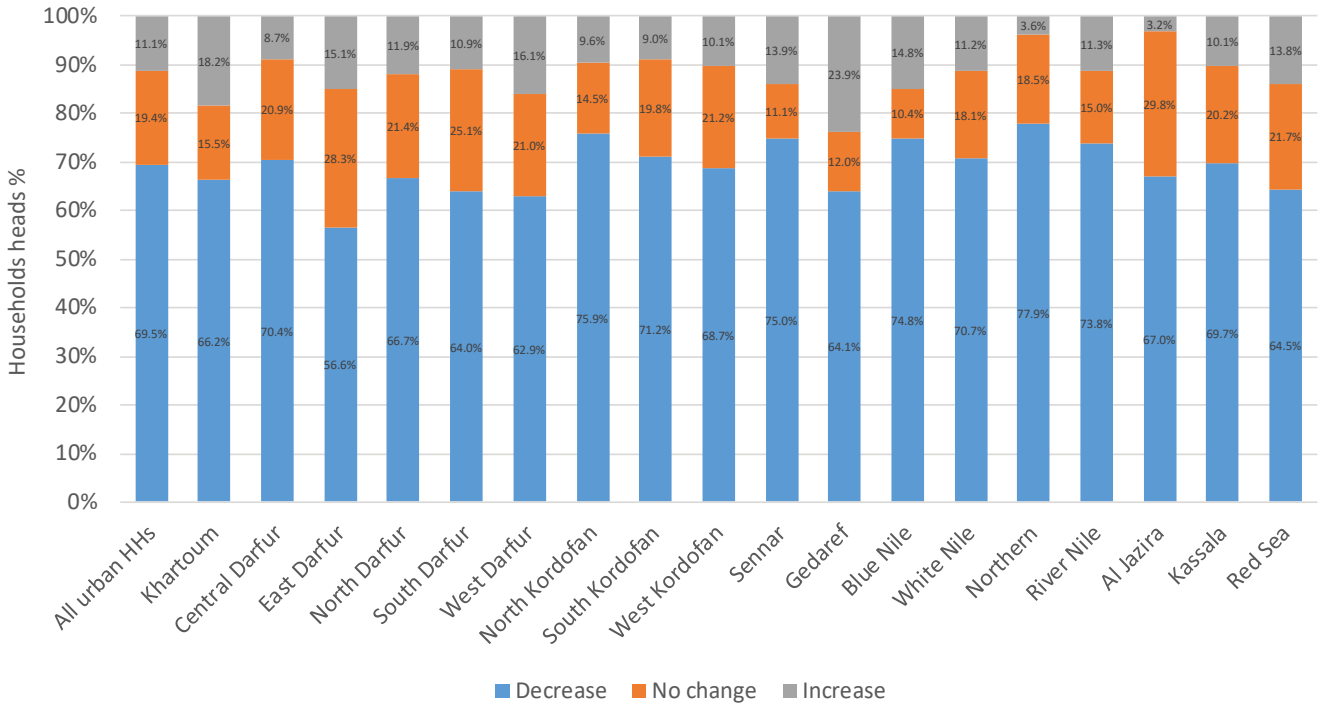
Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

(4) Annual values were obtained by multiplying the average mean monthly income by twelve

In contrast, urban households in other states like Kassala and Red Sea, which have been less affected by the conflict, experienced smaller declines in income, showing the far-reaching but also uneven impact of the conflict on the country's economy.

Figure 4.8 highlights a widespread decline in income across Sudan during the conflict. Over three-quarters of households in Khartoum reported income reductions. A similar share of urban households in South Darfur reported a drop in income, reflecting the conflict's severe economic toll in this region. Even in relatively safe states like River Nile and Northern, about three-quarters of respondents reported income declines, indicating that the economic impact has extended beyond conflict zones. Overall, the data emphasizes the broad economic hardship felt by urban households across Sudan, with most respondents in nearly all states perceiving significant income losses during the conflict.

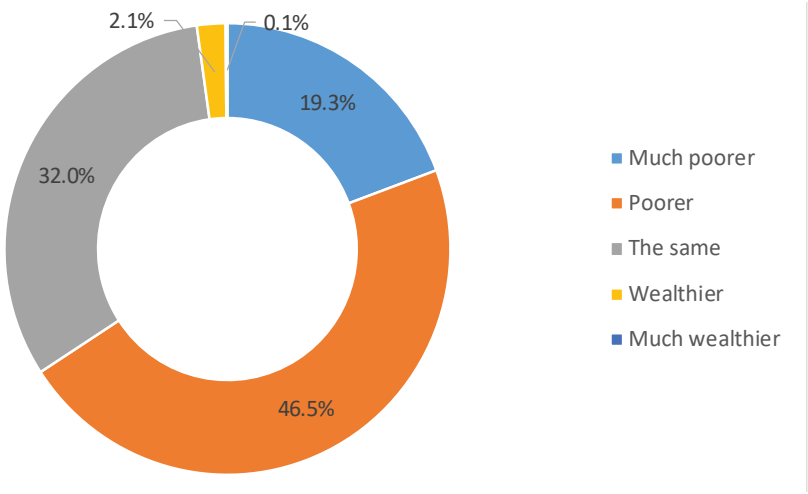
Figure 4.8 Urban households, perceived change in income, pre-conflict to during the conflict, by state



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

There has been a significant increase in perceived changes in welfare levels among urban households when comparing their current situation to their situation in the pre-conflict period (Figure 4.9). Almost half reported feeling "poorer," with an additional 19 percent describing themselves as "much poorer"—that is, nearly two-thirds of urban households perceive a significant worsening in their own economic conditions due to the conflict. In contrast, only a handful consider themselves "wealthier" or "much wealthier" now compared to before the conflict began. About one-third of urban households report that their economic situation has remained "the same" despite the conflict.

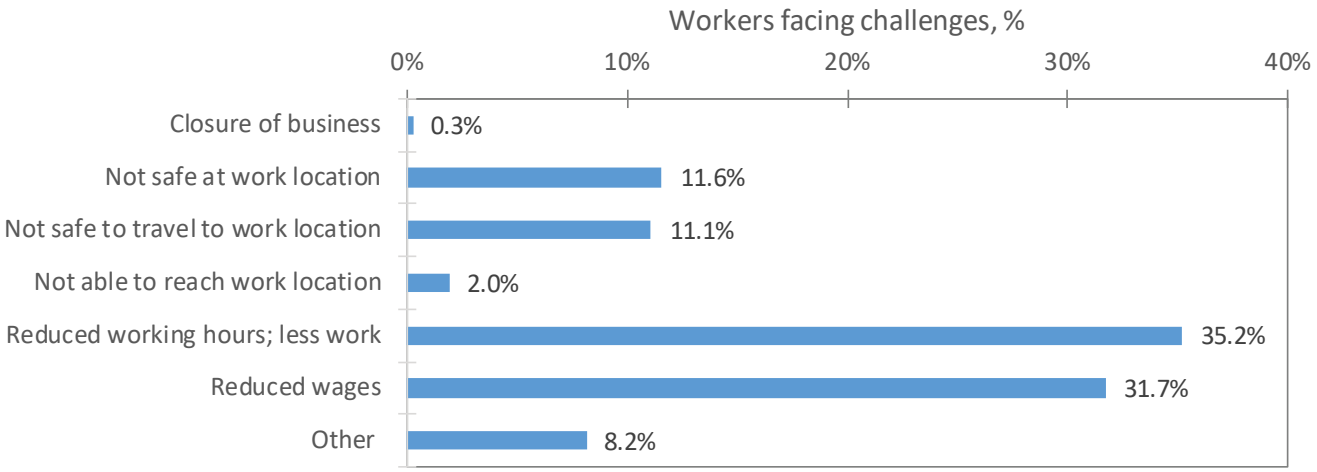
Figure 4.9 Urban households, perceived change in welfare of own household, pre-conflict to during the conflict



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

Figure 4.10 highlights the key challenges faced by workers from urban households in earning employment income during the conflict. The most significant issue was "reduced working hours or less work," indicating widespread disruption of business operations. A slightly smaller share of workers reported "reduced wages," reflecting financial strain on businesses resulting in pay cuts. Safety concerns were also noted, with over 10 percent of respondents stating their workplace was "not safe," and a similar share reporting that it was "not safe to travel to work," underscoring the conflict's direct impact on employment security. Collectively, these challenges reveal the multiple ways in which the conflict has severely impacted wage-earning potential, contributing to widespread economic difficulties.

Figure 4.10 Challenges reported faced by urban households in earning employment incomes

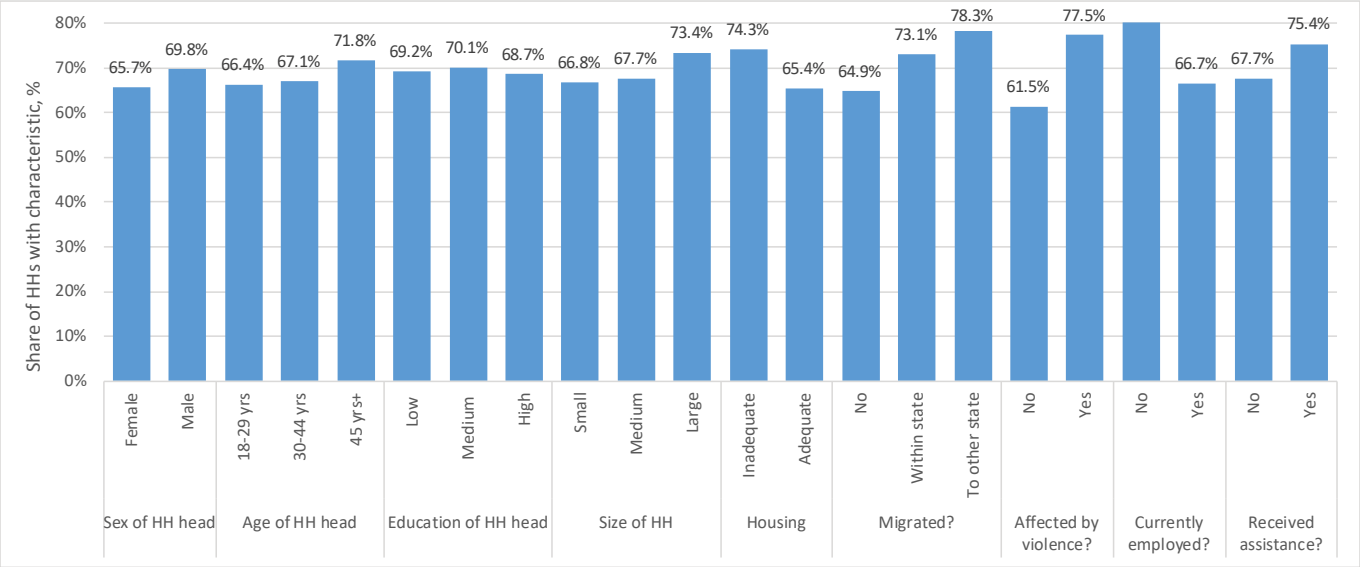


Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

4.3 Household characteristics and economic conditions

Figure 4.11 highlights the connections between the characteristics of households and their perception of a decline in their household income during the conflict.

Figure 4.11 Households that reported income decline during the conflict, by household characteristics



Source: Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

Male-headed households were slightly more likely to report income drops compared to female-headed ones. Older household heads, particularly those over 45 years of age, were more likely to report that their household experienced income declines, indicating greater economic vulnerability among households headed by older individuals. Income losses affected all households irrespective of the educational attainment of their head. There also were no marked differences in the share of households reporting a drop in income and their housing conditions. However, in contrast, larger households were more likely to report an income decline than medium or smaller-sized households. This likely reflects the greater financial strain associated with supporting more members in the household.

Migration also impacted income. Households that migrated across state boundaries were most likely to report income declines, followed by those migrating within states. Non-migrants fared better. This pattern highlights the additional economic challenges displacement brings to households.

Exposure to violence is strongly correlated with households perceiving that they experienced a decline in income since the conflict began. Employment status also is important in this regard—households with unemployed heads were far more likely to report having experienced income declines than those with employed heads, underscoring the importance of stable employment. Somewhat encouragingly, households receiving assistance reported higher income declines than those not receiving aid, suggesting that assistance was reaching the most vulnerable populations, even if that assistance was not fully compensating for the income losses of the households.

5. FOOD SECURITY AND COPING MECHANISMS

Armed conflicts have severe, long-lasting effects on food systems, leading to widespread food insecurity. Conflicts disrupt agricultural activities by reducing farming populations, destroying infrastructure, and limiting market access, resulting in higher food prices and scarcity of essential goods (Weldegiargis et al. 2023). On the supply side, the destruction of agricultural resources and supportive infrastructure hampers food production, while on the demand side, reduced incomes and restricted market access prevent households from obtaining adequate food. This forces many conflict-affected households to rely on lower-quality food, worsening nutritional challenges in conflict zones (Shemyakina 2022; Martin-Shields and Stojetz 2019).

Sudan is currently experiencing unprecedented levels of acute food insecurity. According to the Integrated Food Security Phase Classification (IPC) report from June 2024, more than half of its population is in crisis or worse conditions (IPC 3 or above) (IPC 2024). The ongoing conflict has caused massive displacement, severely disrupted agricultural production, and led to significant market failures, driving food prices up and limiting access to humanitarian aid. Particularly concerning is the risk of famine in 14 areas across five states, including in greater Darfur, greater Kordofan, Aj Jazirah, and parts of Khartoum (IPC 2024).

This chapter provides a comprehensive analysis of food security in urban Sudan, using the Food Insecurity Experience Score (FIES) and Food Consumption Scores (FCS) to assess food insecurity severity. It also explores the coping strategies households use to manage food scarcity and their role in shaping food security outcomes. Additionally, the relationship between household characteristics—such as the sex, age, and education of the household head and the migration status of the household—and severe food insecurity are examined to assist in identifying the most vulnerable groups and offering insights to inform targeted interventions to improve food security in Sudan.

5.1. Food security situation

The extent of food insecurity among urban households in Sudan was evaluated using the raw scores of Food Insecurity Experiences (FIES) and the probabilistic Rasch Model, which is based on the Food Insecurity Experience Scale (FIES) (Boone 2016; IFPRI and UNDP 2024). The latest statistical approaches classify households' food security status based on probabilities, drawing from item response theory, a technique commonly utilized in fields such as education and psychology (IFPRI and UNDP 2024). By aligning food insecurity rates with a global standard, the model enables comparisons between different countries.

The overall food insecurity situation among urban households in Sudan is alarming, with approximately 46 percent of households experiencing moderate to severe levels of food insecurity during the ongoing conflict and about 8 percent experiencing severe food insecurity based on the Rasch model (Table 5.1). A significant portion of urban households are struggling to meet their basic food needs.

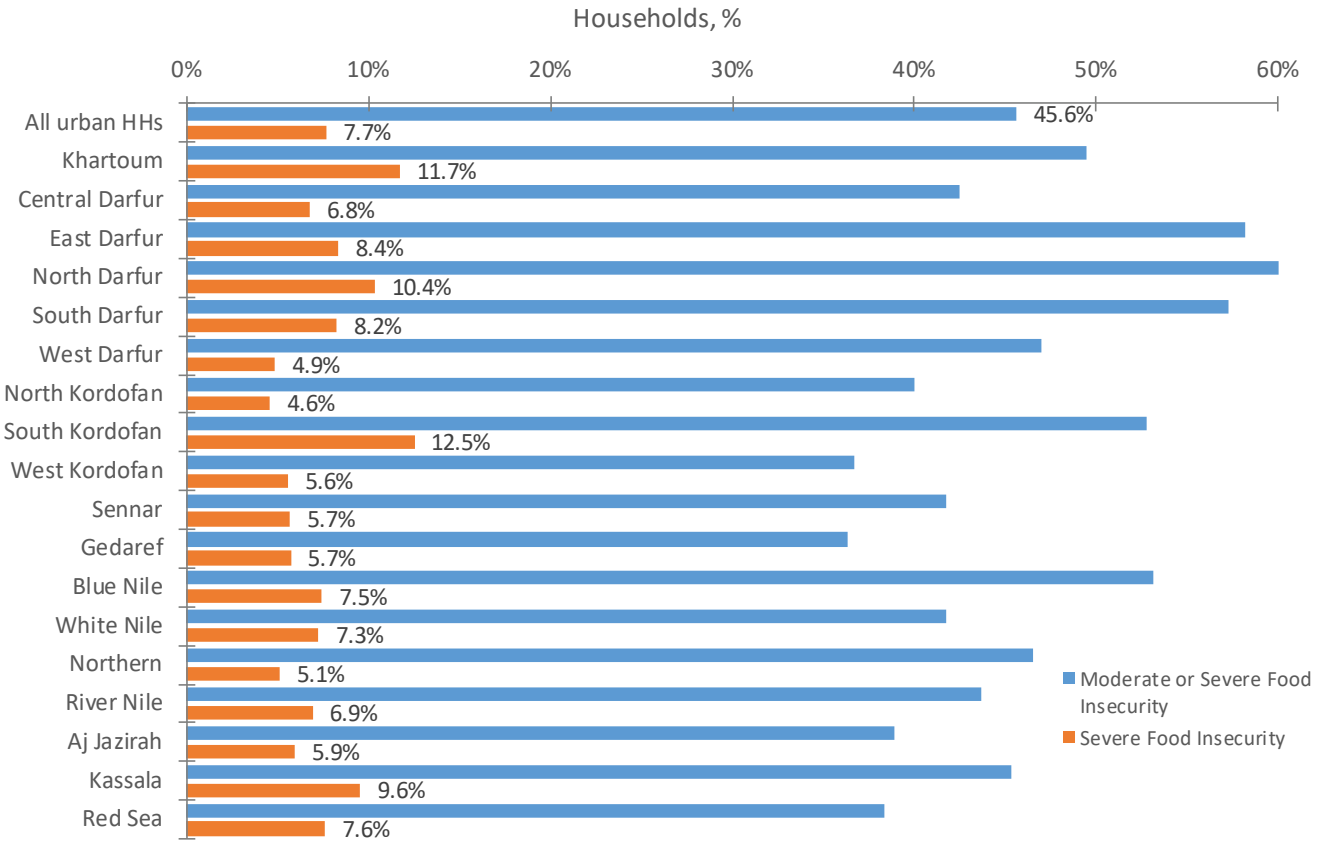
Table 5.1 Urban household food security status based on raw Food Insecurity Experience Score (FIES) and Rasch Model estimates, by state

State	Raw Scores		Rasch Model			
	Food Insecurity Experience Score (FIES)		Probability of Moderate or Severe Food Insecurity		Probability of Severe Food Insecurity	
	Score	Rank	Probability	Rank	Probability	Rank
All urban HHs	3.242	N/A	0.456	N/A	0.077	N/A
Khartoum	3.543	6	0.495	6	0.117	2
Central Darfur	2.907	14	0.425	11	0.068	11
East Darfur	3.856	3	0.582	2	0.084	5
North Darfur	4.158	1	0.603	1	0.104	3
South Darfur	3.934	2	0.572	3	0.082	6
West Darfur	3.333	7	0.470	7	0.049	17
North Kordofan	2.925	13	0.400	14	0.046	18
South Kordofan	3.774	4	0.528	5	0.125	1
West Kordofan	2.811	15	0.367	17	0.056	15
Sennar	2.991	11	0.418	13	0.057	14
Gedaref	2.665	18	0.363	18	0.057	13
Blue Nile	3.624	5	0.531	4	0.075	8
White Nile	2.949	12	0.418	12	0.073	9
Northern	3.160	9	0.465	8	0.051	16
River Nile	3.125	10	0.437	10	0.069	10
Aj Jazirah	2.784	16	0.389	15	0.059	12
Kassala	3.233	8	0.453	9	0.096	4
Red Sea	2.774	17	0.384	16	0.076	7

Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).
Note: NA = "Not applicable".

Urban households in North, South, and East Darfur states show the highest levels of food insecurity. These states also have the highest probabilities of both moderate and severe food insecurity. For example, households in North Darfur have a 60 percent probability of facing moderate to severe food insecurity and a 10 percent probability of facing severe food insecurity (Figure 5.1). In contrast, Gedaref, West Kordofan, and Red Sea states show comparatively lower FIES scores and probabilities of moderate or severe food insecurity. These patterns highlight the regional disparities in food insecurity across Sudan during the ongoing conflict.

Figure 5.1 Estimates of household food insecurity prevalence based on Rasch Model estimates of Food Insecurity Experience Score (FIES), by state



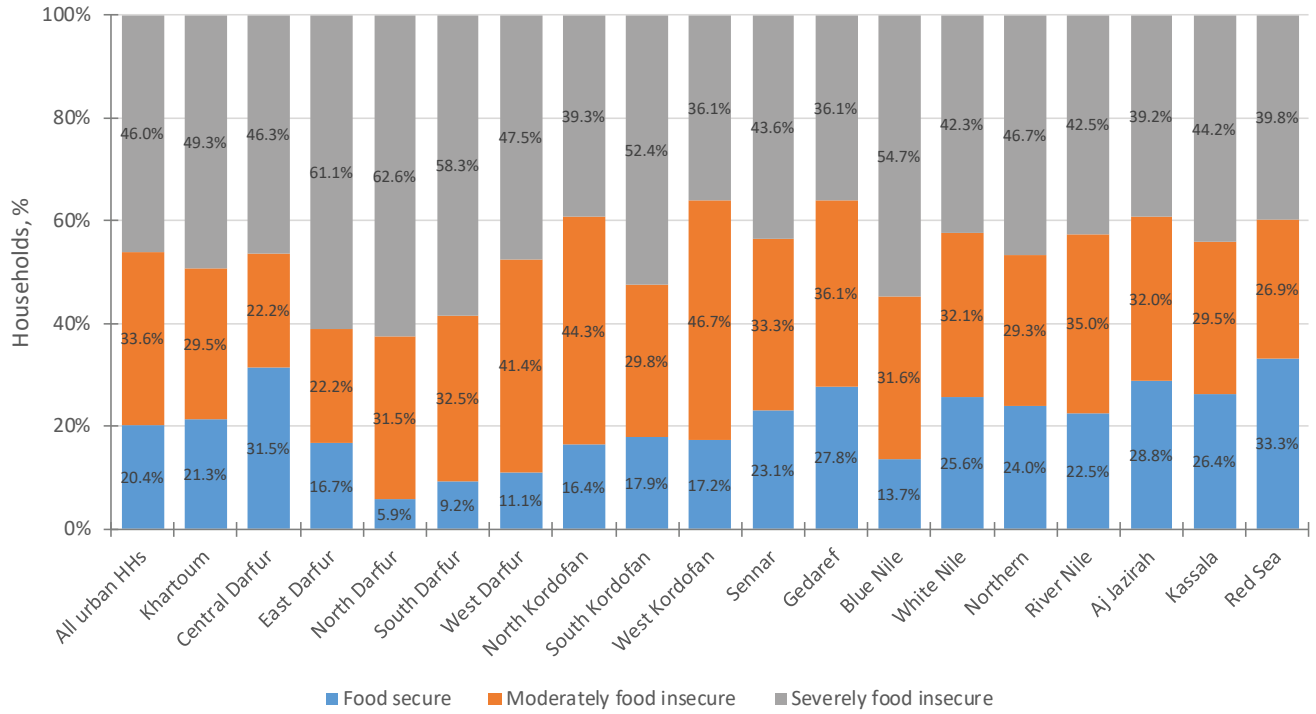
Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

Figure 5.2 offers a detailed view of the food security crisis across urban Sudan, revealing a severe national situation. Nearly half of the urban population of Sudan is grappling with significant food access challenges. North Darfur is the worst-affected region, with the majority of households facing severe food insecurity, followed closely by East and South Darfur. Even in Khartoum, a substantial portion of households are severely food insecure.

These findings align with IPC projections for April 2024 to February 2025, which project that greater Darfur (all five states), South Kordofan, Blue Nile, and Khartoum will be the areas of Sudan facing the most severe food insecurity (IPC Phase 5) over the period (IPC 2024). While North Kordofan and Aj Jazirah also face food insecurity challenges, the urban household survey data shows they are less severely affected compared to the areas highlighted in the IPC projections. In contrast, states like Red Sea and Gedaref are in relatively better condition and can be considered reasonably food secure overall. However, portions of their populations still experience moderate or severe food insecurity, underscoring the widespread challenges of food insecurity at household level across Sudan.

Overall, the data indicates widespread food insecurity across Sudan, with the Darfur and Khartoum being especially impacted. There is a critical need for targeted interventions to address the severe food access challenges facing both urban and rural households in these hardest-hit areas.

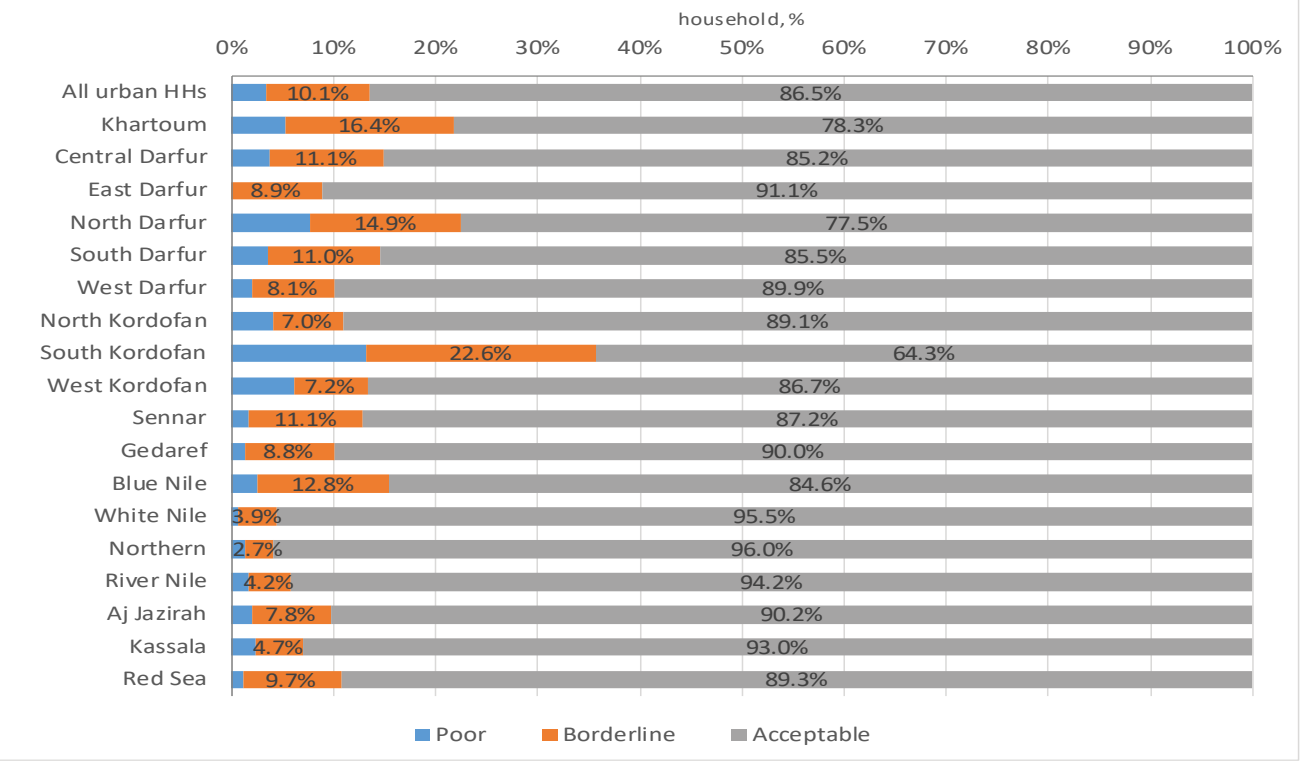
Figure 5.2 Households experiencing moderate or severe food insecurity based on raw scores of Food Insecurity Experience Scores (FIES), by state



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

The results on average Food Consumption Scores (FCS) in Figure 5.3 show that 13 percent of urban households in Sudan fall into the "Poor" or "Borderline" FCS categories. This result confirms those found with the FIES analysis—a significant portion of the urban population of Sudan is experiencing inadequate food intake.

Figure 5.3 Households in each Food Consumption Score (FCS) category, by state



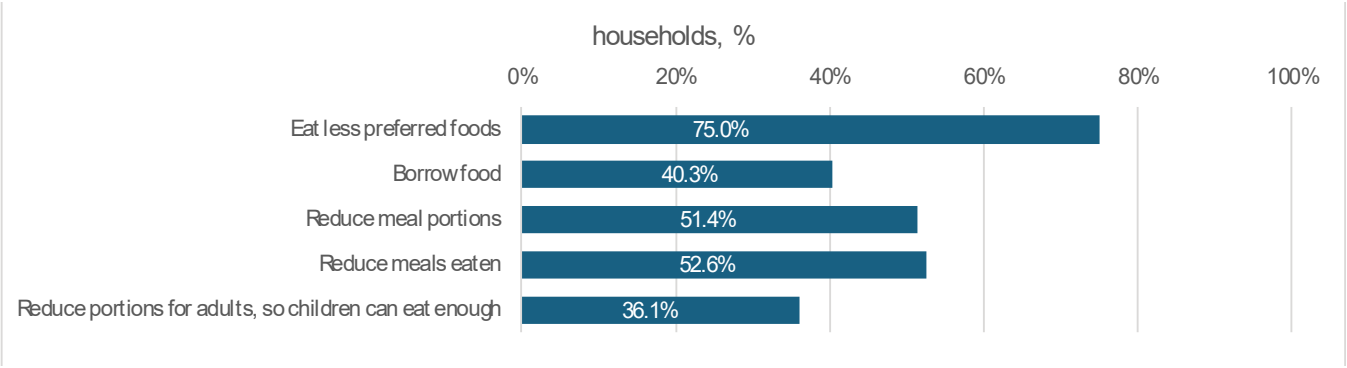
Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

Based on the FCS analysis, South Kordofan is found to be particularly vulnerable. North Darfur also presents concerns. In Khartoum, 5 percent of households are in the "Poor" category and 16 percent are "Borderline," signaling substantial food consumption challenges even in the largest urban area of Sudan. In contrast, states like Northern and River Nile have relatively better food consumption levels. These areas, while still affected by the conflict, are facing less severe food consumption issues than other parts of the country.

5.2. Coping strategies and mechanisms

Coping strategies have played a crucial role in maintaining basic food intake for many urban households across Sudan, despite the challenging conditions caused by widespread food insecurity (Figure 5.4). The most common food-focused strategy, employed by three-quarters of households, is the consumption of less preferred or cheaper foods, which may result in a decline in the nutritional quality of household diets. 53 percent of the households have reduced the number of meals per day or decreased meal portion sizes, 51 percent, highlighting the need to stretch limited resources. Additionally, 40 percent of households reported borrowing food, meeting their basic need for sufficient food by relying on their social networks or external aid. More than one-third of households have restricted adult food consumption to prioritize children's intake, ensuring younger household members receive sufficient food.

Figure 5.4 Share of households implementing specific coping strategies to navigate limited food and resources to buy food

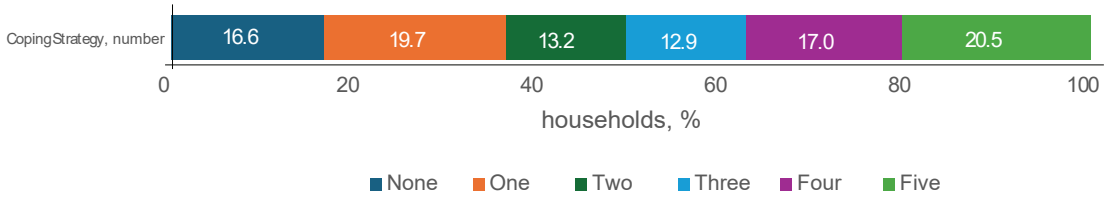


Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

These coping mechanisms illustrate how deeply rooted food insecurity now is for urban households in Sudan. Households are making significant compromises to maintain the food intake of their members. The widespread use of these strategies underscores the severity of the food crisis as families rely on often unsustainable practices to manage their food needs.

Figure 5.5 shows the number of the five specific food-related coping strategies considered in Figure 5.4 that urban households reported employing. The pattern reflects the varying degrees of food security challenges faced by urban households in Sudan and that they employ a diverse range of strategies to deal with food insecurity. While almost 17 percent of households reported not using any coping strategies, 20 percent reported implementing all five food-focused coping strategies, signaling that a significant portion of urban households face severe food insecurity. Half of urban households nationally are implementing three to five strategies to ensure their food consumption levels when they have limited food stocks or resources to buy food.

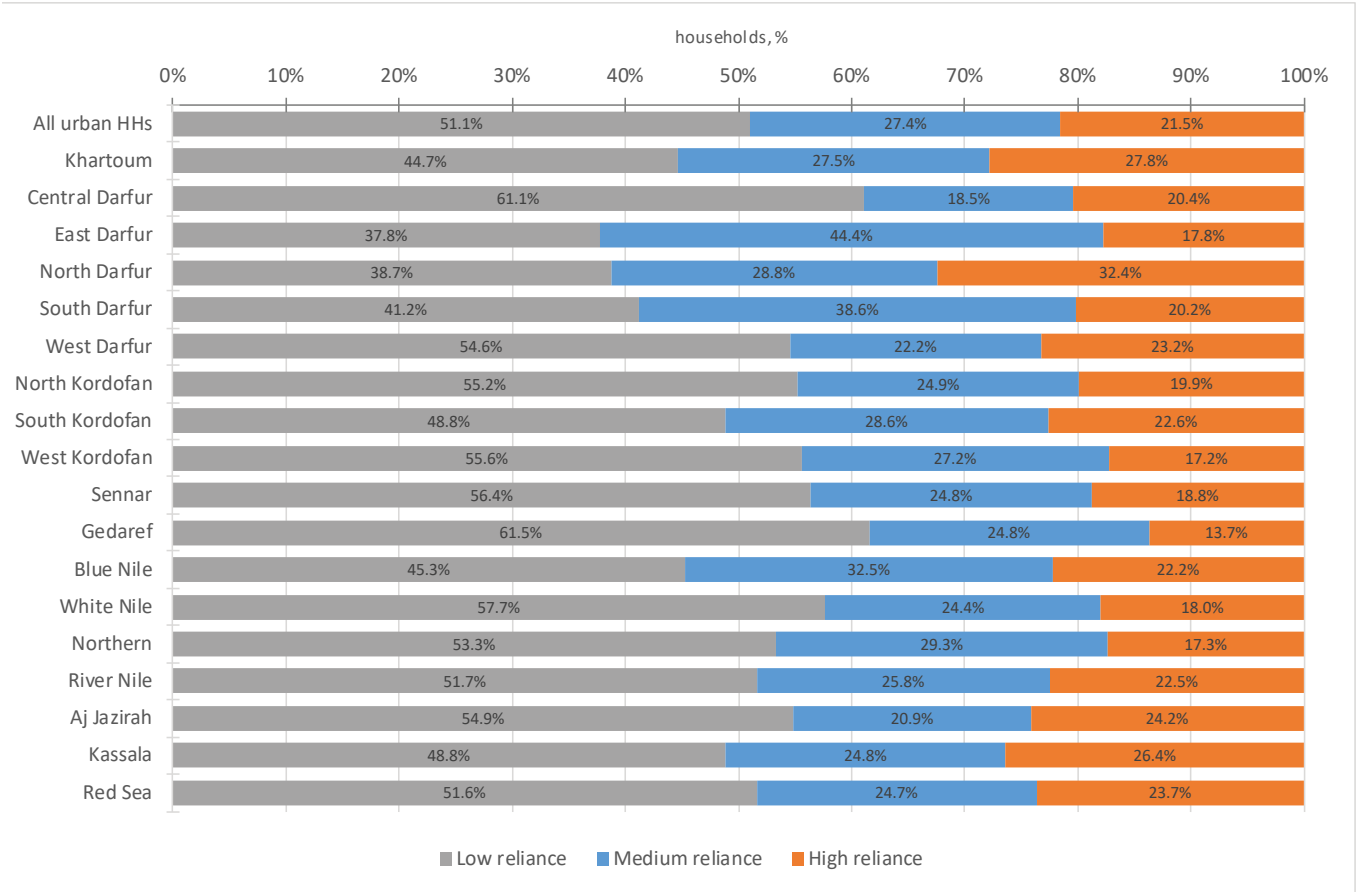
Figure 5.5 Number of coping strategies reported implemented by households to navigate limited food and resources to buy food



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

Figure 5.6 shows the degree to which urban households are reliant on food-related coping strategies. The three categories—low, medium, and high—are based on the reduced Coping Strategies Index (rCSI), which measures household food security by assessing how often households resort to the five coping strategies considered earlier: eating less preferred or cheaper food, borrowing food, reducing the number of meals, reducing portion sizes, and prioritizing food for children. Each strategy is scored based on frequency, with higher scores indicating more severe food insecurity. The rCSI provides insight into how households adapt to food scarcity, with higher scores reflecting greater food insecurity. Low rCSI scores indicate fewer coping strategies are being employed and suggest better food security. In contrast, high rCSI scores suggest more frequent use of severe coping strategies, indicating greater food insecurity. The three groups are defined based on the rCSI scores.

Figure 5.6 Reliance of urban households on food-related coping strategies, based on categories defined by the reduced coping strategies index (rCSI), by state



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

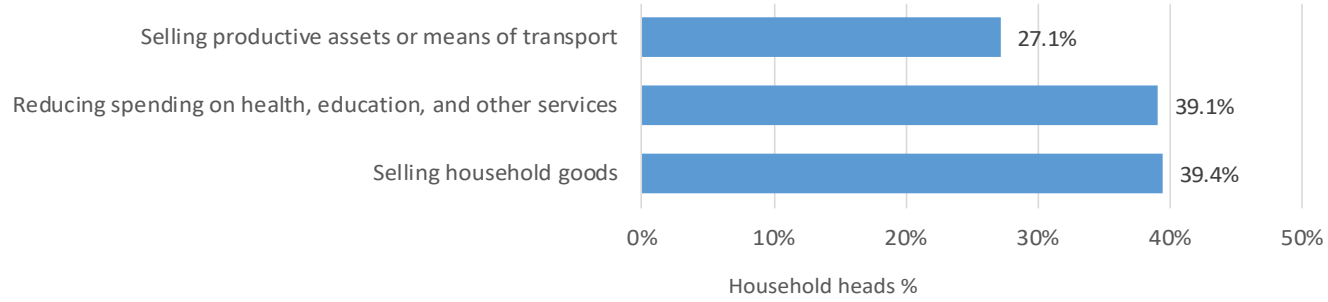
The results at state level show a spectrum of responses to food insecurity. East Darfur stands out, with 44 percent of urban households there in the medium or high reliance categories. North Darfur has the highest proportion of households in the high reliance category, suggesting acute food insecurity among urban households may be more widespread there than in other states. In Khartoum, over 55 percent of households fall in the medium or high reliance categories, highlighting the widespread impact of food insecurity there.

The correlation between the rCSI and FCS provides further insight into food security across states. States like North Darfur and South Darfur, where a significant proportion of households are highly reliant on coping strategies, also report poor FCS outcomes, with many households in the "Poor" or "Borderline" FCS-based categories. This suggests that, despite extensive use of food-related coping strategies, households in these areas still struggle to adequately meet their dietary needs, reflecting severe and ongoing food insecurity. Conversely, in states like Red Sea and White Nile, where fewer households are highly reliant on food-related coping strategies, the FCS results indicate relatively better food security, with fewer households classified as "Poor." This relationship demonstrates that less reliance on multiple food security coping strategies correlates with better food security conditions.

Livelihood coping strategies differ significantly from food security related coping strategies in their focus, severity, and long-term consequences. While food security coping strategies—such as consuming less preferred foods, borrowing food, reducing meals, reducing portion sizes, and restricting meals—are short-term measures aimed at managing immediate food scarcity, livelihood coping strategies involve more severe actions that could potentially jeopardize a household's long-term economic stability. These strategies include selling household goods, selling productive assets, like livestock or agricultural tools, and cutting spending on essential services, like health and education. Unlike food security coping strategies, livelihood strategies can have lasting adverse economic impacts for the household by reducing its ability to generate future income. For example, selling critical assets weakens future productivity, while cutting healthcare and education costs can undermine the long-term wellbeing and development of its members, compounding the challenges faced by households in the long run.

Figure 5.7 highlights the significant measures urban households reported having taken to cope with the economic pressures brought on by the conflict. The most common strategies include selling household goods and reducing spending on essential services, such as health, education, and other basic needs. The use of these strategies by the households reflects their immediate need for cash to purchase food or to meet other household necessities, indicating that the households are in severe financial distress. Additionally, over one-quarter of urban households reported selling productive assets or means of transport, such as agricultural tools or livestock, which is a more drastic step that could undermine their future economic potential and stability. Together, these livelihood coping strategies underscore the depth of the economic challenges faced by urban households and the potential long-term impacts of the conflict on their livelihoods.

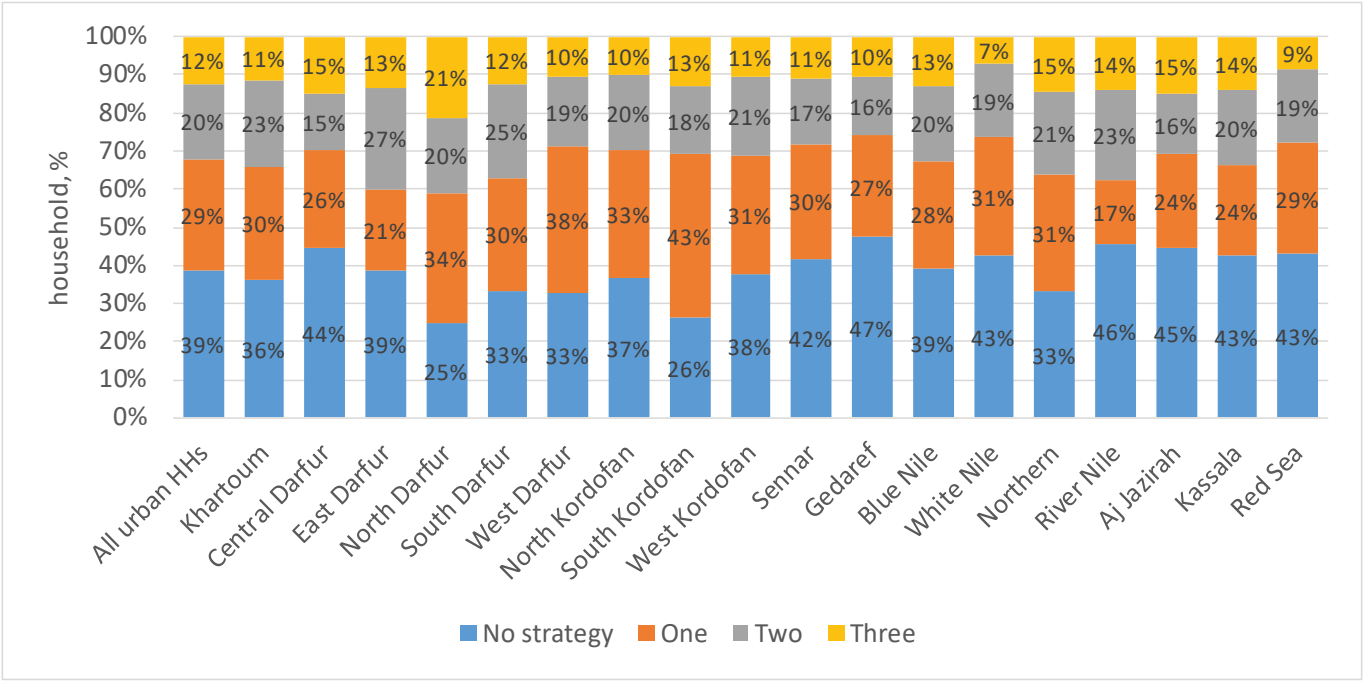
Figure 5.7 Share of households implementing specific livelihood-related coping strategies



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

Figure 5.8 shows significant variation in the use of livelihood coping strategies across the states of Sudan. North Darfur, as well as Central Darfur, Northern and Aj Jazirah exhibit the highest levels of economic distress, with the largest share of urban households in these states resorting to all three livelihood-related coping strategies. This reflects the severe toll the conflict has taken on household economic stability in these states. In contrast, urban households in Gedaref and River Nile demonstrate greater resilience, with 46 percent of urban households not needing to employ any of these coping strategies. This suggests a comparatively less severe economic impact in these areas.

Figure 5.8 Number of livelihood-related coping strategies implemented by households, by state



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

Overall, the data on the reliance of urban households on both food-related and livelihood-related coping strategies highlights stark contrasts between the states. In conflict-affected regions, economic challenges are forcing households to adopt multiple coping mechanisms for both food security and to assure household livelihoods. In contrast, urban households in more stable regions show better resilience in the face of more limited economic pressures arising from the conflict.

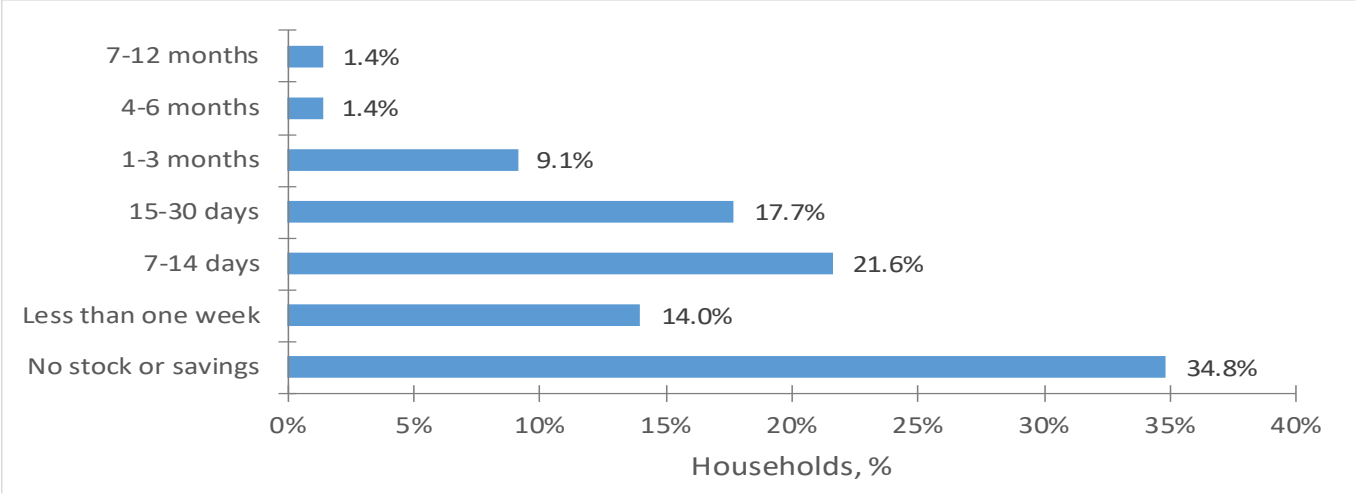
5.3. Household food expenditure, savings, and duration of food security amid conflict

The ongoing conflict in Sudan has drastically impacted households' ability to meet their food needs, both in terms of financial resources and the duration over which they can meet their food needs. This section explores three critical

aspects: the duration households can rely on savings or food stocks to meet their food needs, changes in monthly per capita expenditure levels, and variations in food expenditure across different states.

Figure 5.9 highlights the precarious situation many urban households face, with a significant portion having no food stocks or savings to meet their food needs and many others able to sustain themselves for less than a week. These results underscore the lack of financial resilience among most urban households in Sudan, leaving them vulnerable to prolonged economic instability. Only a very small number of households reported being able to meet their food needs for several months through sufficient stocks or savings, indicating that few have the capacity to withstand the ongoing crisis associated with the conflict for an extended period.

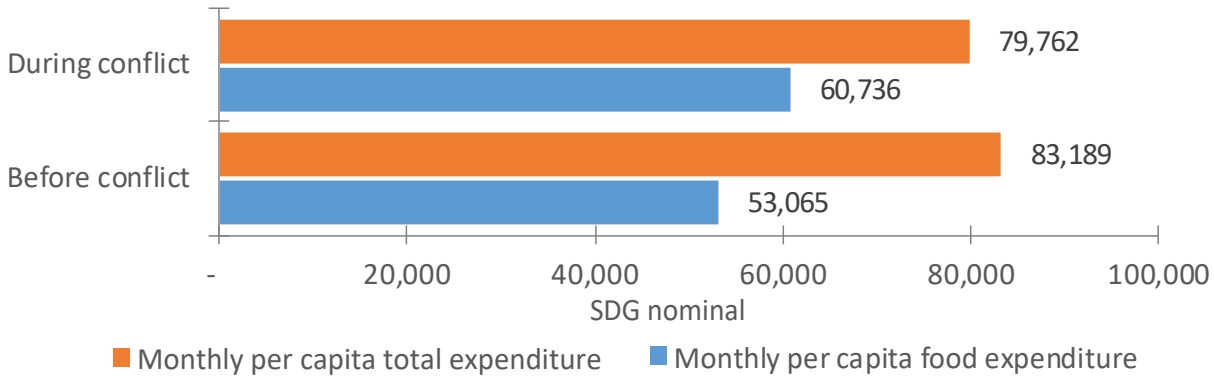
Figure 5.9 Duration household expects it could sustainably meet its food needs from cash savings and food stocks, by time period



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

Figure 5.10 illustrates the shift in spending patterns for urban households during the conflict. While overall monthly per capita expenditures decreased on average from SDG 83,189 to SDG 79,762, average per capita monthly food expenditures increased significantly from SDG 53,065 to SDG 60,736. Food expenditures as a share of total expenditures rose from 64 percent before the outbreak of the conflict to 76 percent during the conflict. The increase in food spending, despite a decrease in overall expenditures, reflects the growing financial strain on urban households as they grapple with the escalating costs of living associated with the conflict.

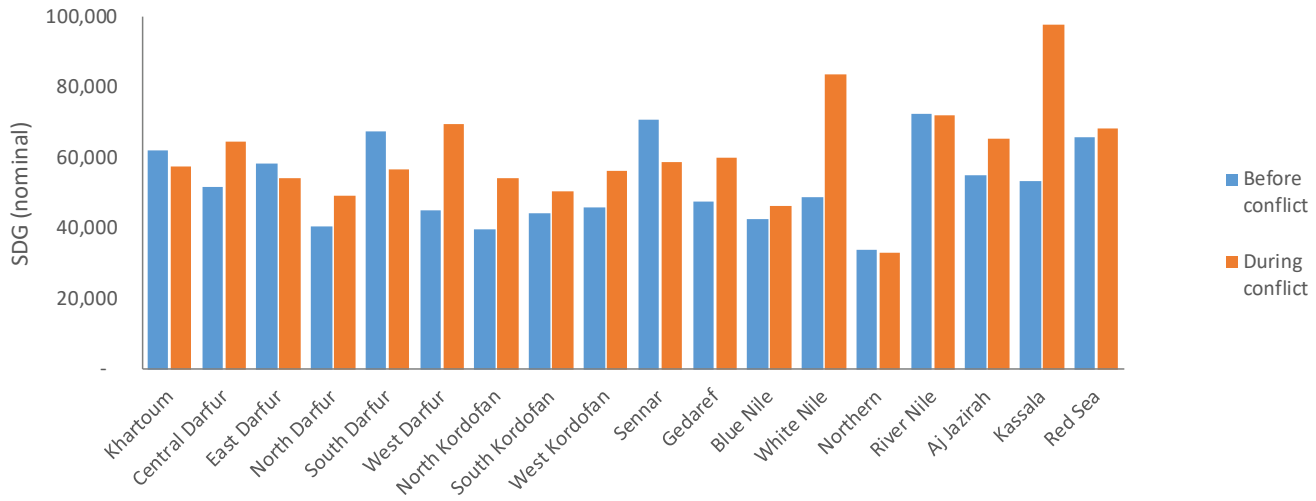
Figure 5.10 Average monthly per capita household total and food expenditure, SDG (nominal)



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

Figure 5.11 shows notable differences in monthly per capita household food expenditures across Sudan's states before and during the conflict. Urban households in the most conflict-affected states have seen substantial rises in food costs, largely due to inflation and limited market access. Kassala experienced the most dramatic increase, indicating severe inflation or food shortages. Similarly, West Darfur and White Nile saw significant jumps in food expenditures, reflecting the growing economic pressures on households in these conflict zones. Disrupted supply chains and inflated prices are forcing families to devote more of their limited resources to securing food.

Figure 5.11 Average monthly per capita household food expenditure, by state, SDG (nominal)



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

5.4. Household characteristics and food insecurity

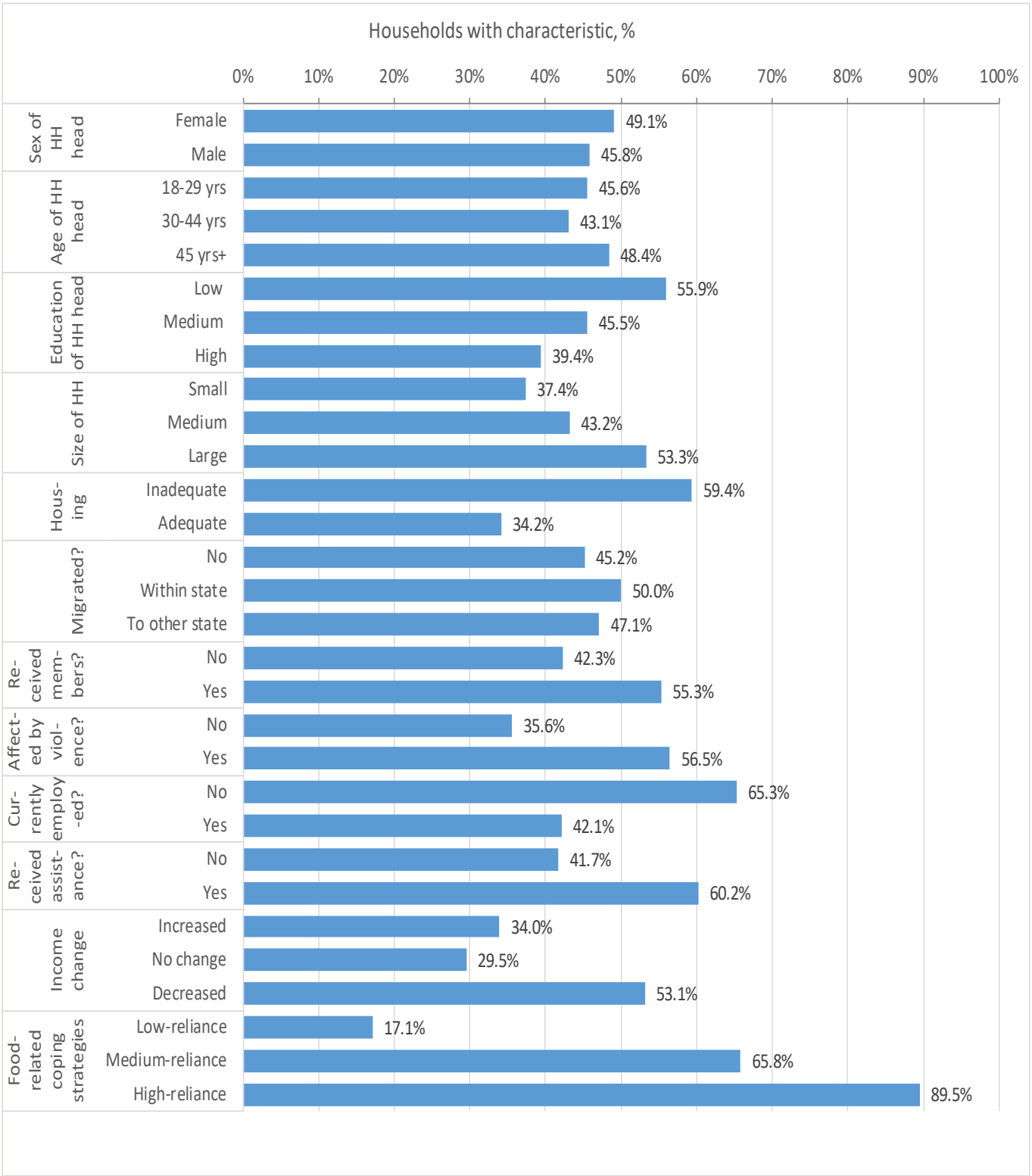
Figure 5.12 presents details on the factors associated with an urban household being characterized as severely food insecure based on Food Insecurity Experience Scores. The graph highlights several household characteristics that contribute to the vulnerability of severely food-insecure urban households in Sudan. A potentially important factor is the sex of the household head. Female-headed households experience slightly higher rates of severe food insecurity compared to male-headed households, possibly due to their facing higher or additional barriers in accessing economic resources than male-headed households, which exacerbates their food insecurity.

The age of the head of household may be another crucial factor. Households led by individuals aged 45 years and older are more likely to experience severe food insecurity than those headed by younger individuals. This suggests that older household heads struggle more with adapting to the economic disruptions of the conflict, possibly due to reduced mobility or fewer opportunities for economic recovery, further increasing their vulnerability during the crisis.

The educational attainment of the household head emerges as a key determinant of food security. Households headed by individuals with lower education levels report the highest rates of severe food insecurity, while those with higher education levels show a significantly lower rate. Education not only provides better economic opportunities but also offers a buffer against the food-related impacts of the conflict, helping households to better navigate challenging circumstances that may undermine their food security.

Household size is also correlated with household food security. Larger households are more vulnerable to severe food insecurity due to the greater burden of providing for the food needs of more members amid rising food costs and limited income. Poor housing conditions are also relatively strongly correlated with food insecurity. Poverty, poor living environments, and food insecurity are all characteristics of vulnerable urban households.

Figure 5.12 Households that are in the severely food insecure category (FIES), by household characteristics



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

Migration status also impacts food security. Households that have migrated—whether within or across states—experience higher levels of food insecurity. Displacement disrupts livelihoods and access to resources, making these households particularly susceptible to food shortages. Exposure to violence further deepens household food insecurity. Unemployed households are far more likely to experience severe food insecurity than those with stable employment. This underscores the critical role of income in maintaining food security, as it enables households to better meet their members' food needs. Interestingly, households receiving assistance during the conflict report higher levels of food insecurity, suggesting that, while aid is reaching the most vulnerable populations, the food aid they receive may not be sufficient.

Finally, changes in household income play a pivotal role in food security. Households that saw a decrease in income are more likely to face severe food insecurity compared to those with stable or increased income. This highlights the importance of income stability in sustaining food security, particularly amid rising food prices and economic instability. These findings reveal the complex interplay of economic, social, and conflict-related factors driving food insecurity for urban households during the current conflict in Sudan.

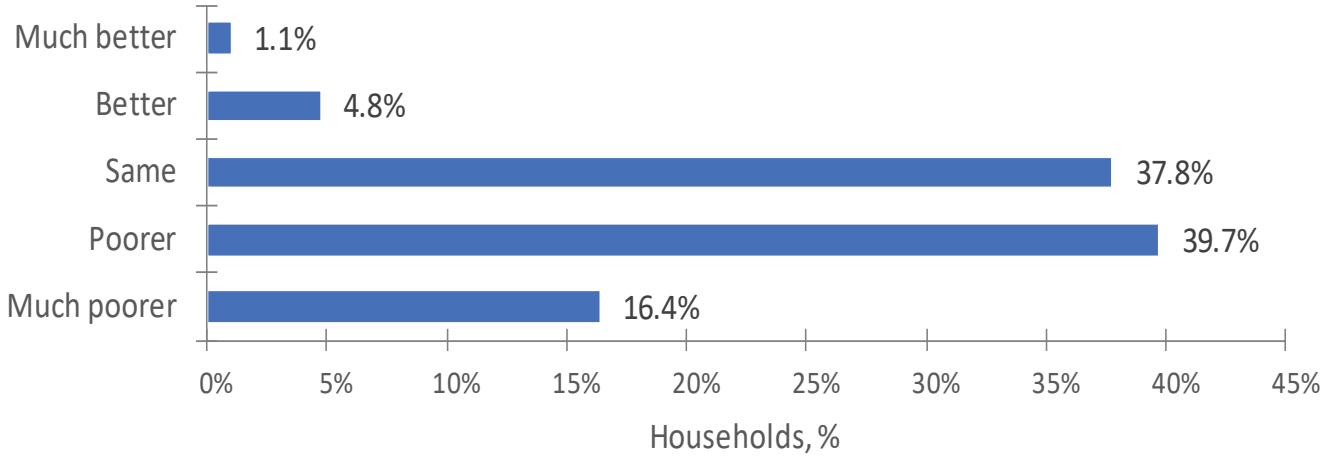
6. Health, Education, and Housing

6.1. Health

6.1.1. Health status

Respondents were asked to evaluate the general health status of their household at the time of the survey compared to their health before the conflict started on 15 April 2023. 56 percent of the respondents reported that their health situation is much poorer or poorer now than before the conflict, while 37.8 percent indicated that their health status is the same as it was before. Few felt it was better (Figure 6.1).

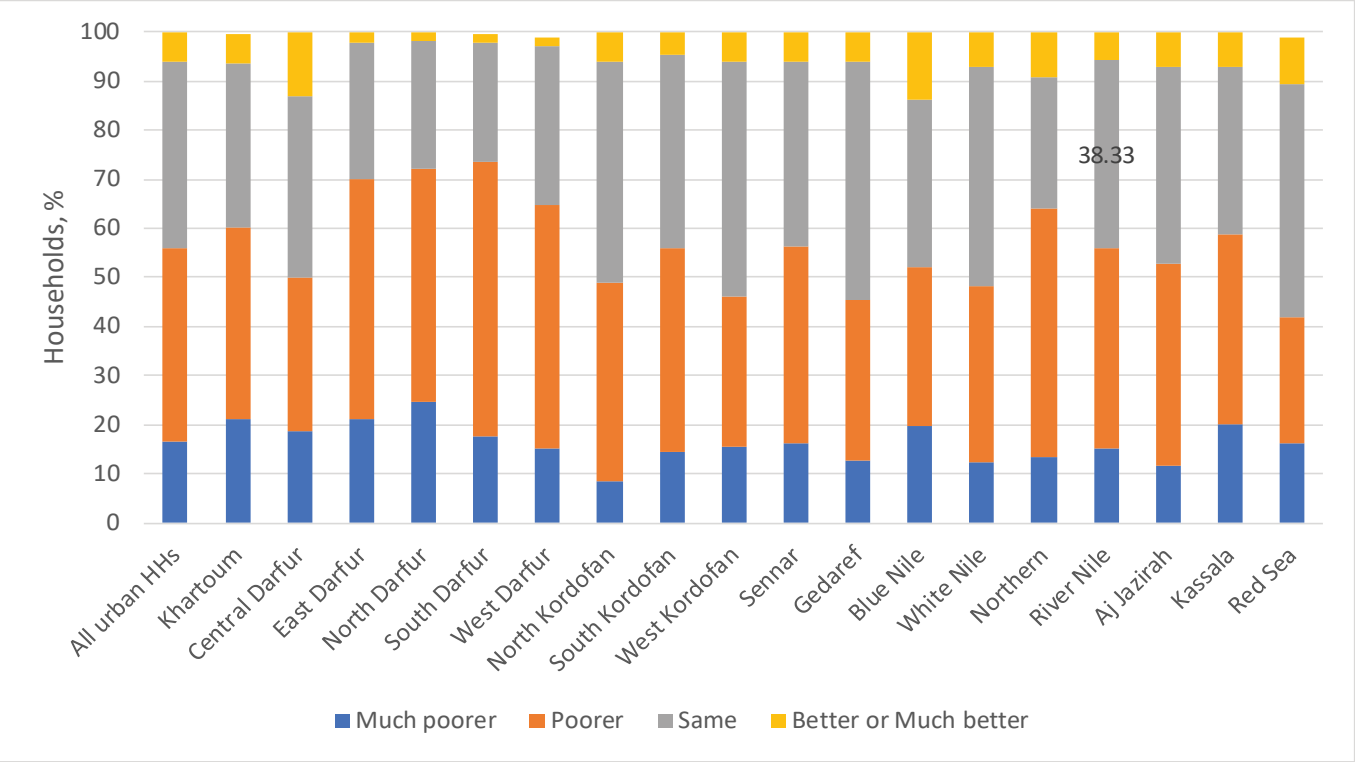
Figure 6.1 Urban household's own rating of current health status relative to before the conflict



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

More than half of respondents from all states except Gedaref, North Kordofan, Red Sea, West Kordofan, and White Nile evaluated their health status as poorer or much poorer than before the conflict (Figure 6.2). The states with the highest share of urban households perceiving that their general health status was poorer or much poorer are South, North, and East Darfur.

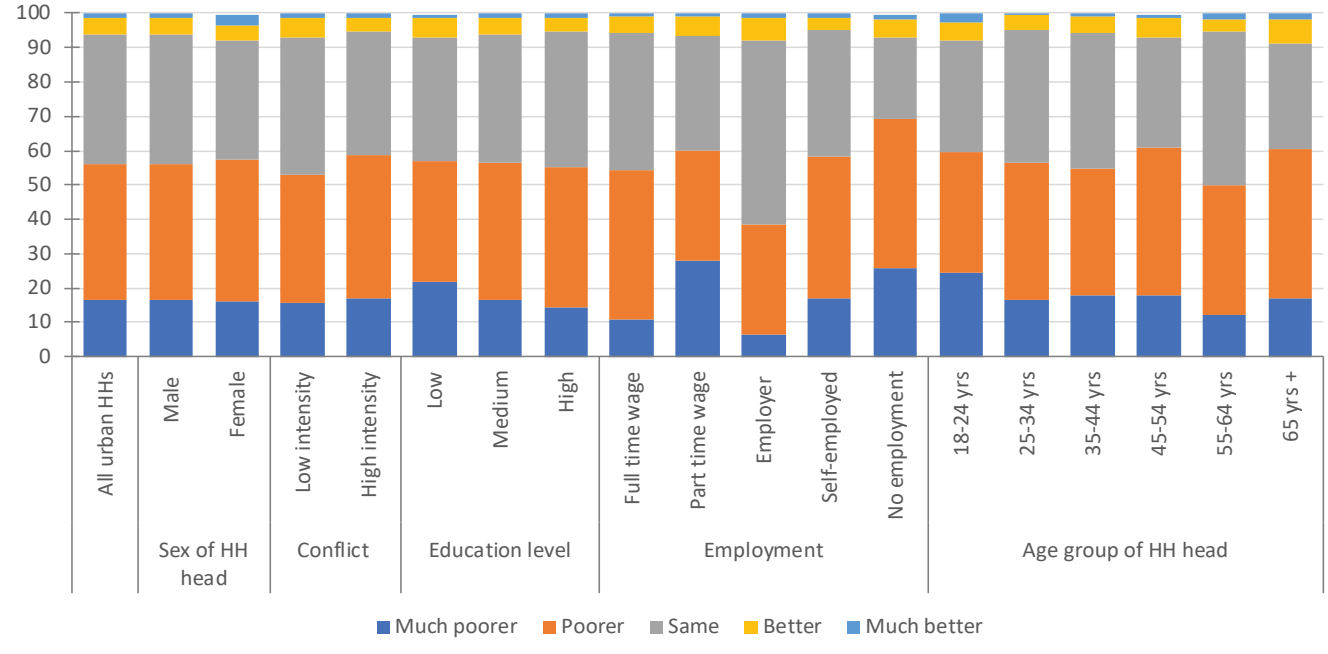
Figure 6.2 Urban household's own rating of current health status relative to before the conflict, by state



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

The magnitude of decline in perceived health status is slightly higher among households headed by females, those with heads with low levels of education, and those headed by part-time wage workers (Figure 6.3). Households living in states with high conflict intensity also are more likely to report their health status as poorer or much poorer. Urban households with heads aged between 18 and 24 years, between 45 and 54 years, and 65 years and above were more likely than other households to perceive their health status as worse or much worse now than it was before the conflict began.

Figure 6.3 Urban household's own rating of current health status relative to before the conflict, by household characteristics

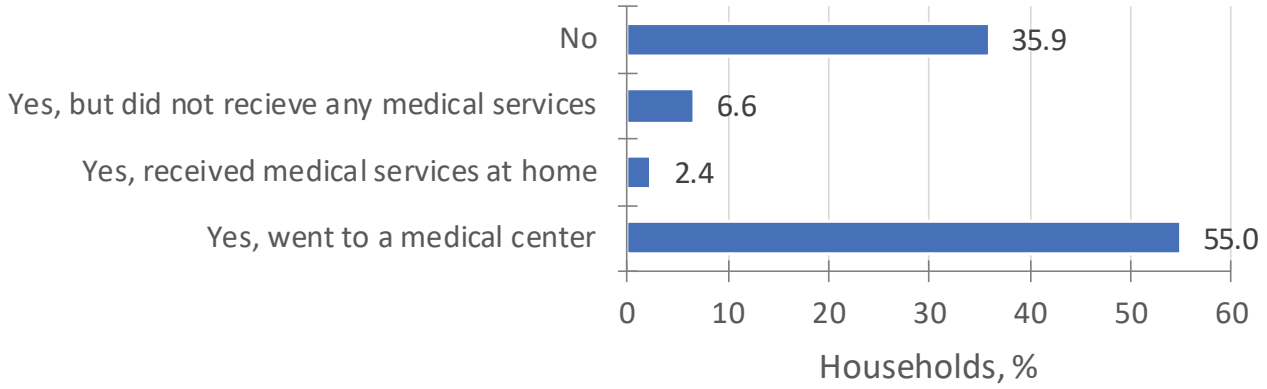


Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

6.1.2. Access to health services

Respondents were asked if during the conflict, after the end of Ramadan (mid-April) 2023, they or any member of their household required a medical service, whether they visited health center, and, if they needed health services but did not visit a health center, why they did not do so. About 35.9 percent indicated that they did not need any health service, while 57.4 percent indicated that they needed health services and obtained health services at home or at a medical center (Figure 6.4). A small share of households indicated that they needed health services, but were not able to obtain them.

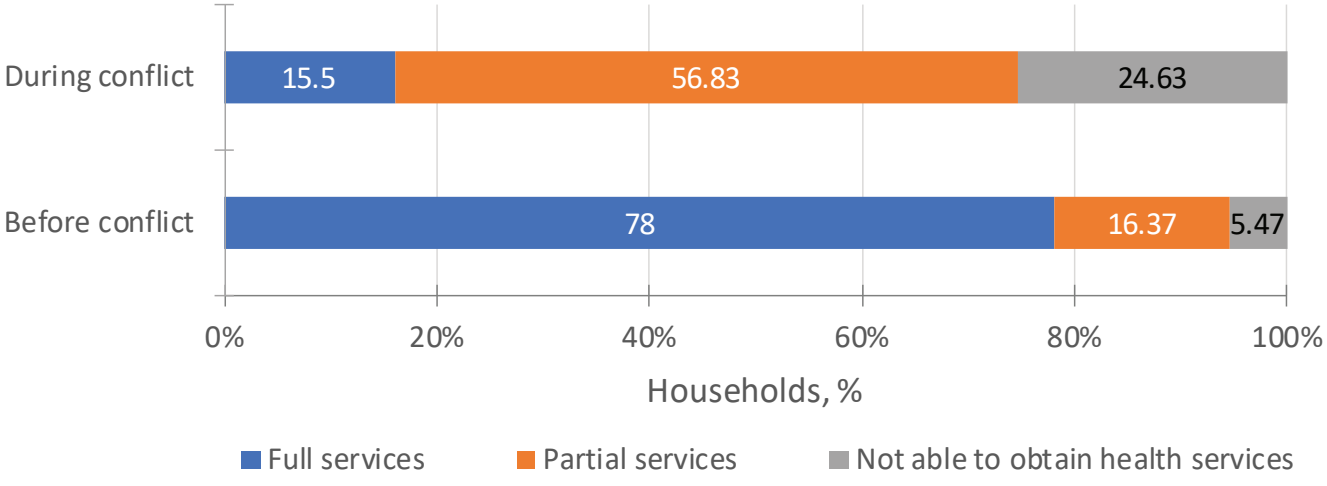
Figure 6.4 Household reporting requiring specific medical services recently



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

While the fact that most households that required health services were able to get them is important, another important aspect is whether they were able to obtain all of the services they needed. Respondents were asked the extent to which they or their household members were able to obtain needed health services before and after the conflict. Over three-quarters reported that they were able to obtain all needed health services before the conflict, while less than 16 percent indicated that they were able to get full services after the conflict (Figure 6.5). In contrast, partial access to health services became much more common after the conflict began.

Figure 6.5 Household's reported ability to obtain health services before and after the start of the conflict

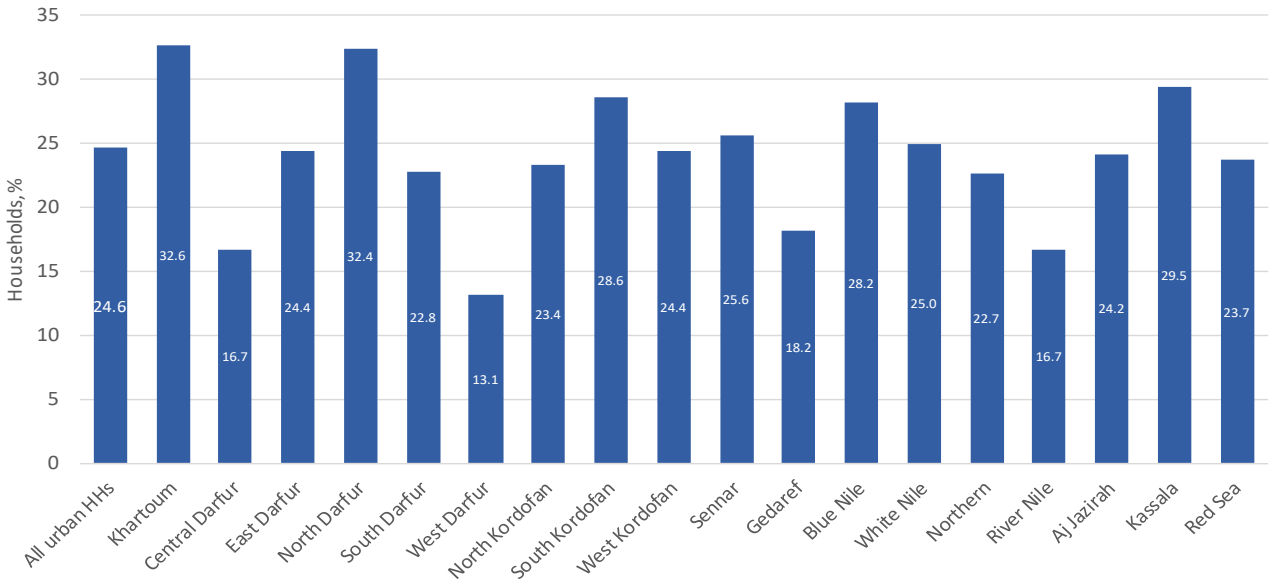


Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

For urban households that indicated that they needed medical services but were unable to obtain them, the main reason reported for being unable to do so was an absence of medical services. This reason was reported by almost 55 percent of these households. A lack of finances was the second most reported reason, noted by 43 percent.

North Darfur and Khartoum were the states with the highest share of urban households reporting that they had no access to health services (Figure 6.6). The states in which urban households had the best access to health services were West Darfur and River Nile.

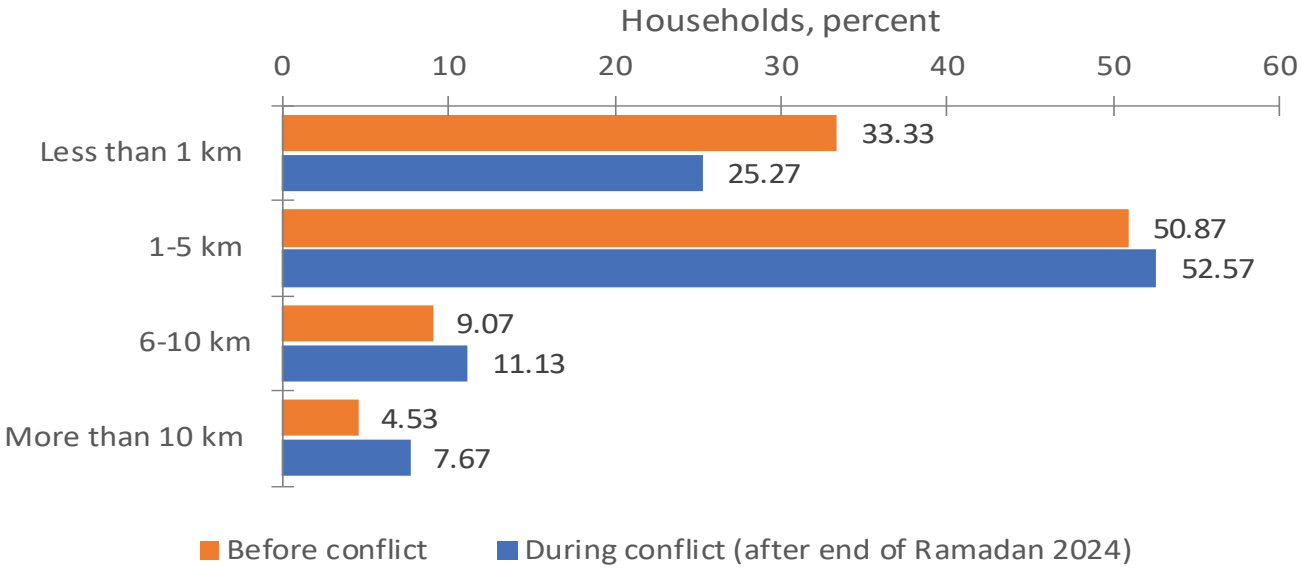
Figure 6.6 Urban households reporting no access to health services, by state



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

The proportion of urban households reporting that they were able to access health services within a 5 km radius of their residence declined from 84 percent before the conflict to 78 percent during the conflict (Figure 6.7). Meanwhile, those households that had to travel more than 6 km increased from 14 percent to 19 percent.

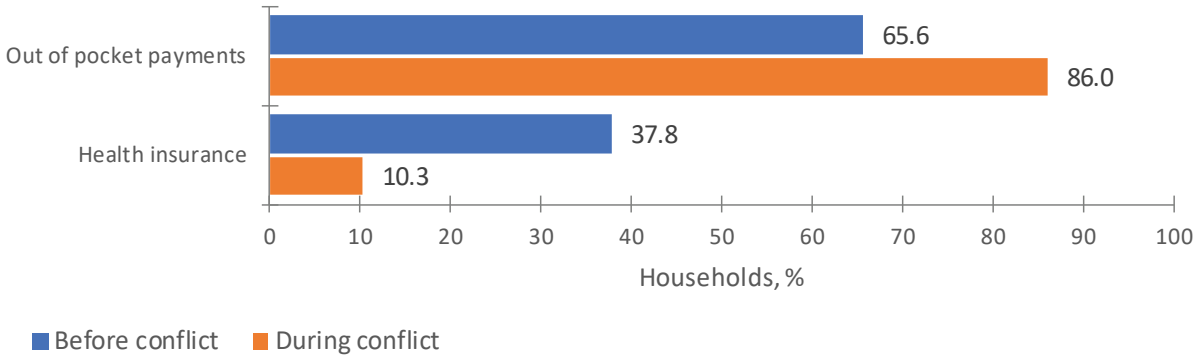
Figure 6.7 Distance reported traveled by urban households to the nearest health facility before and during the conflict



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

Prior to the conflict, the proportion of households that reported paying for the health services they accessed through health insurance exceeded those paying for such services out-of-pocket. However, during the conflict after Ramadan 2023 (mid-April 2023), the proportion of respondents reporting that they relied on out-of-pocket payments for health services exceeded those that reported payment through health insurance (Figure 6.8).

Figure 6.8 How payments were made for health services percent received by urban households before and during the conflict



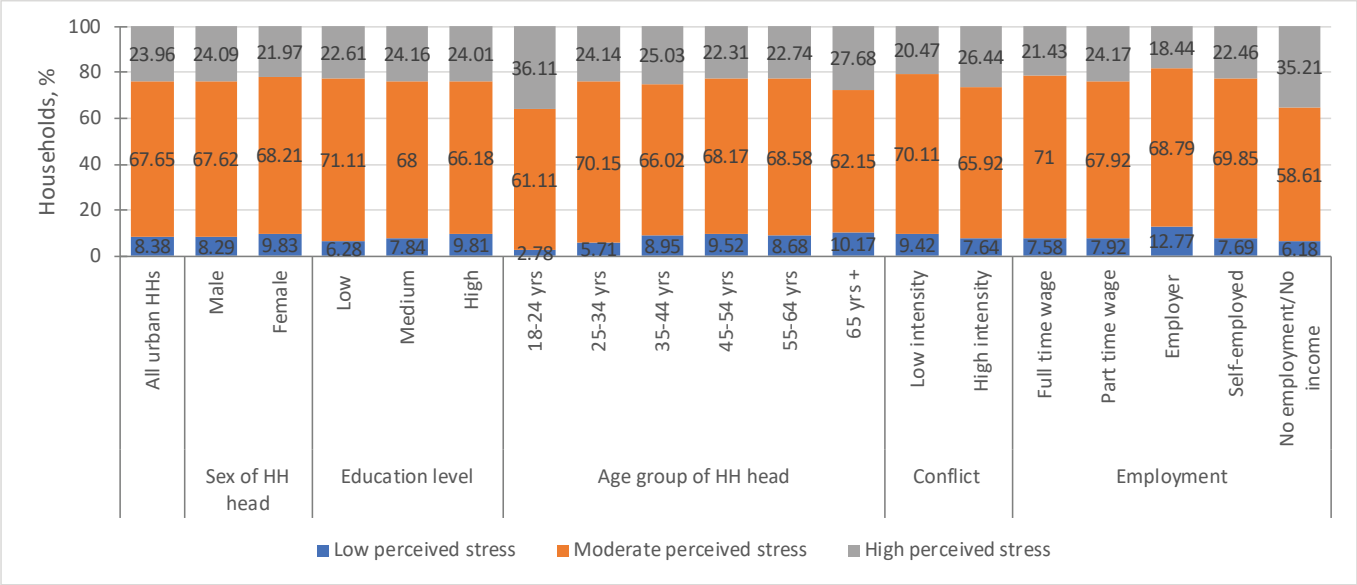
Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

6.1.3. Mental health

To assess psychological stress in urban households in Sudan, the study employed one of the most widely used methods to do so, the Perceived Stress Scale (PSS-10) (Cohen, Kamarck, and Mermelstein 1983; Harris et al. 2023). To understand their perceptions of stress, respondents were asked a set of ten questions about how often they felt or thought a certain way (never, almost never, sometimes, fairly often, very often) during the 30 days preceding the survey. Each response was scored on a scale of zero to four (0 = never … 4 = very often). Responses to positive questions were reversed (0 = very often … never = 4). Each respondent's responses to the 10 questions were aggregated and categorized—low stress (score of 0–13), moderate stress (14–26), and high stress (27–40). Just under one-quarter of respondents were categorized as having a high perceived stress status, while 67.7 percent had moderate perceived stress (Figure 6.9).

Perceptions of stress vary by socioeconomic, demographic, and spatial factors. The perceived level of stress is more common in households headed by younger heads aged 18 to 24 years, followed by households headed by those aged 65 years and above. There does not seem to be much difference in the level of stress by the sex, educational attainment level, or employment status of household heads (Figure 6.9). However, respondents with no unemployment have notably higher levels of stress.

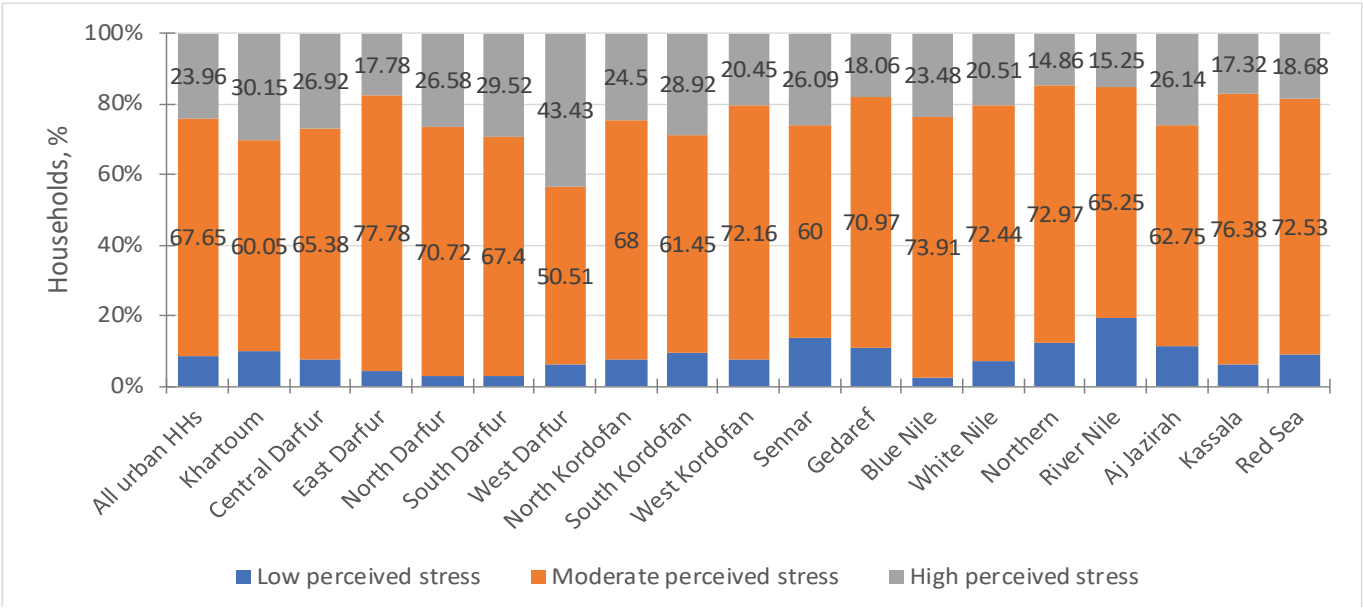
Figure 6.9 Perceived Stress Scale categories, by household characteristics



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

By state, stress levels are moderate to high in all states. However, West Darfur and Khartoum are notable for having more than 30 percent of respondents categorized as having a high perceived stress level (Figure 6.10). River Nile state has the lowest share of respondents with moderate or high perceived stress—almost 20 percent of respondents in River Nile are categorized as having low stress.

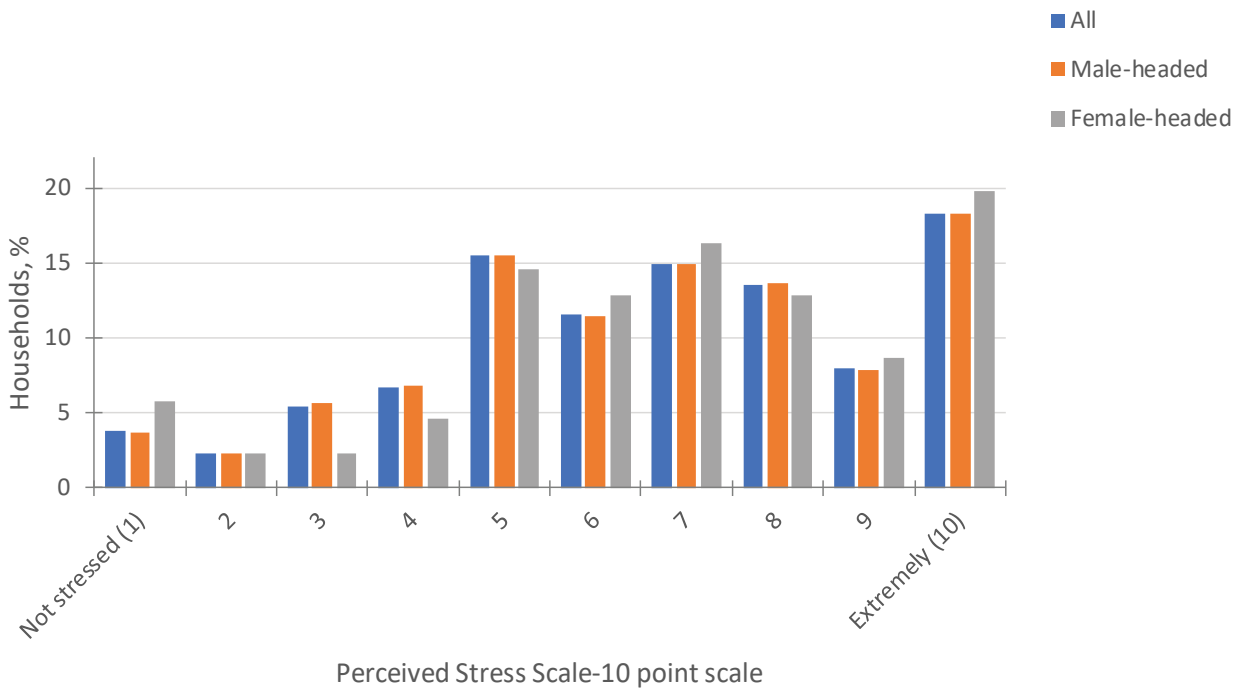
Figure 6.10 Perceived Stress Scale categories, by state



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

In addition to the PSS-10 questions, respondents were asked to rate their stress level at the time of the survey related to everything in their life, such as work, family, and health on a scale of one (not stressed at all) to ten (extremely stressed). About 20 percent of female-headed households and 18 percent of male-headed households reported feeling 'extremely stressed'—10 on the ten-point scale (Figure 6.11).

Figure 6.11 Self-reported level of stress by household head, 10-point scale, by sex of household head



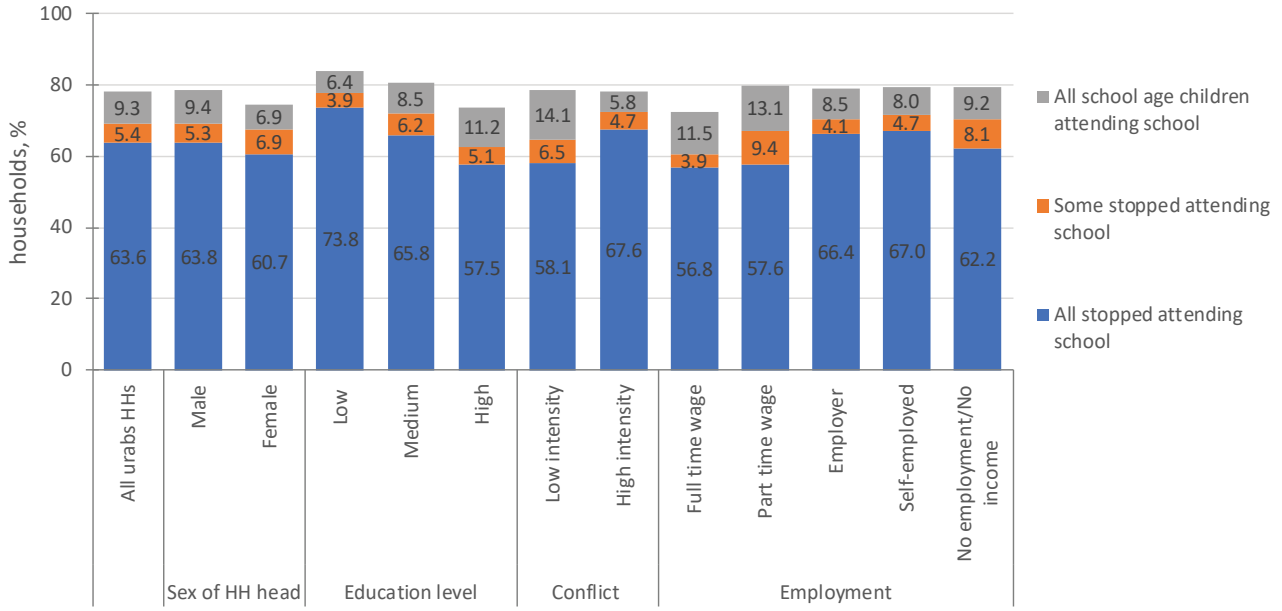
Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

The association between the Perceived Stress Score (PSS-10) and this self-reported level of stress was examined statistically. The correlation between the two measures is weak (0.20) but positive and statistically significant.

6.2. Education

Just under 80 percent of urban households have members that are school-aged children (Figure 6.12). Of these households, over 88 percent reported that at least one school-aged child in their household had stopped going to school since the conflict began. For 63.6 percent, all school-aged children in their household have stopped going to school.

Figure 6.12 Households with school-age members and status of enrollment of those children, by household characteristics



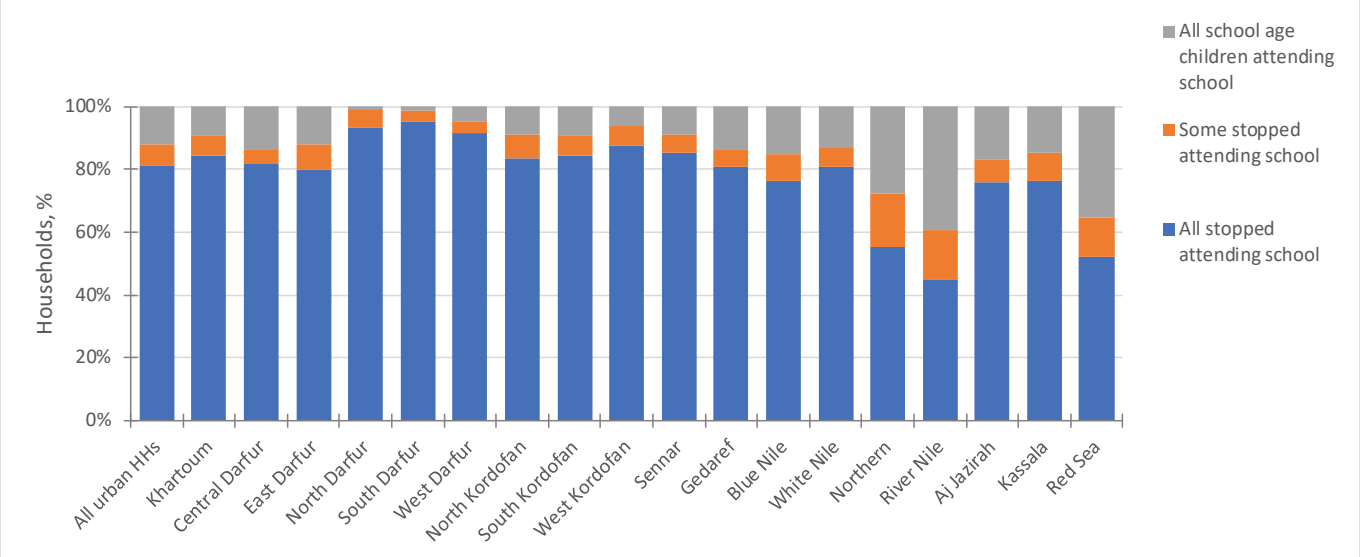
Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

Of the children in the household who dropped out of school, respondents reported that about 15 percent of those were boys only, while 6 percent indicated that they were girls only. Most respondents indicated that the children who dropped out of school from their household were both boys and girls.

The likelihood of members that are school age dropping out of school varies by the socioeconomic characteristics of urban households, but this variability is not high (Figure 6.12). Female-headed households reported lower incidences of dropout than male-headed households. Households whose heads have a low level of education are more likely to report having school-age children who dropped out of school than are households headed by someone with a higher level of education. Households resident in areas with low conflict intensity also reported lower incidence of dropout than those in areas with high conflict intensity. The observed incidence for households with different employment characteristics presents a counter-intuitive pattern and needs further analysis—the analysis shows that the incidence of reported dropout is lower in households headed by full-time and part-time wage workers than in households headed by someone who is an employer or self-employed.

Although magnitudes differ, all states have been affected by school-age children dropping out of school (Figure 6.13). The highest rates of dropout for children from urban households were recorded in North Darfur, followed by South Darfur and West Darfur. The lowest rates were recorded in Red Sea, followed by Northern and River Nile.

Figure 6.13 Households with school-age members and status of enrollment of those children, by state



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

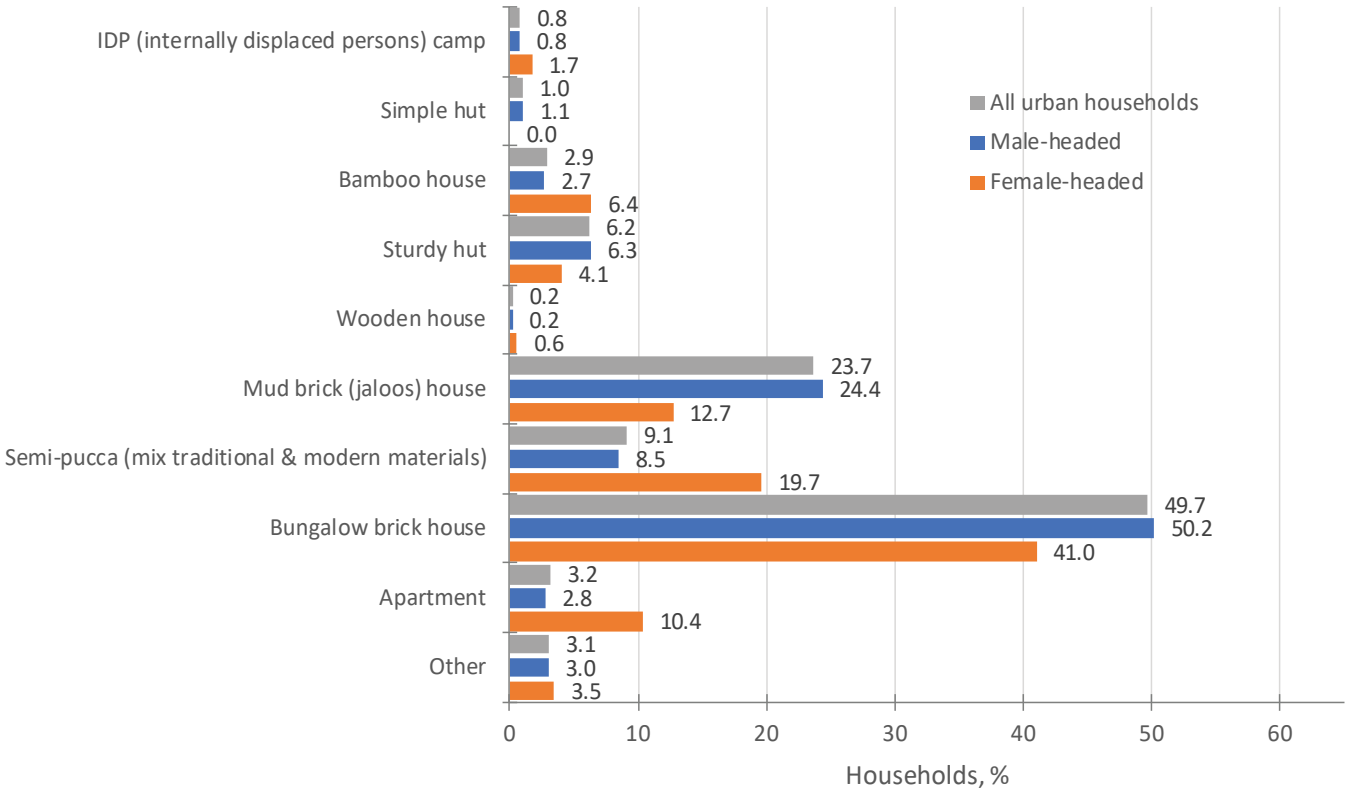
The major reasons given by respondents for school-age children not attending school are the absence of educational services in their current location of residence—over two-thirds of households reporting their school-age children were not attending school reported this reason. Other reasons mentioned for why their children were not attending school included the household's inability to pay, that local schools were damaged and not functioning, and that the teachers assigned to the local schools had left the area.

6.3. Housing

This section presents results from analyses of the survey on dimensions of the living conditions of Sudan's urban population, particularly on how these conditions vary by household characteristics.

Figure 6.14 shows that the majority of urban households (49.7 percent) in Sudan reside in brick bungalow dwellings. However, when disaggregated by sex, male-headed households are more likely to live in these higher-quality homes (50.2 percent) than female-headed households (41.0 percent). In contrast, semi-pucca houses are more likely to be the dwellings of female-headed than male-headed households. A similar pattern is seen for apartments.

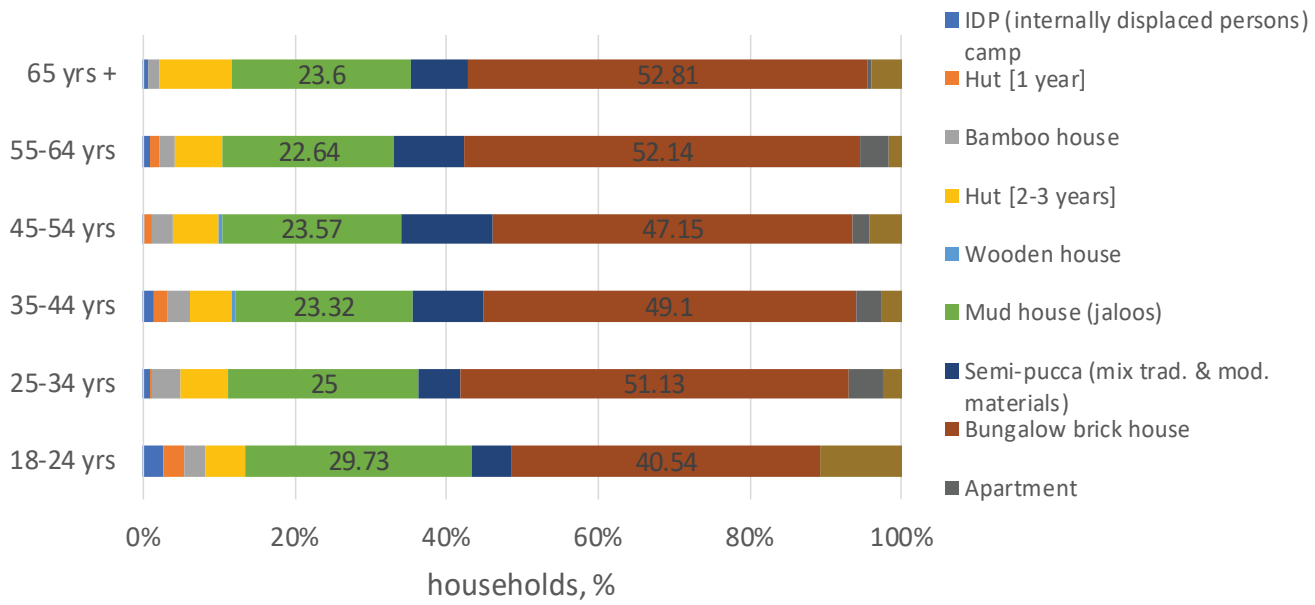
Figure 6.14 Household dwelling type, by sex of household head



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

Figure 6.15 shows that the proportion of households living in bungalow brick houses increases slightly across older age groups. Households with younger heads (aged 18 to 24 years) are more likely than households with older heads to live in less durable mud brick (jaloos) houses.

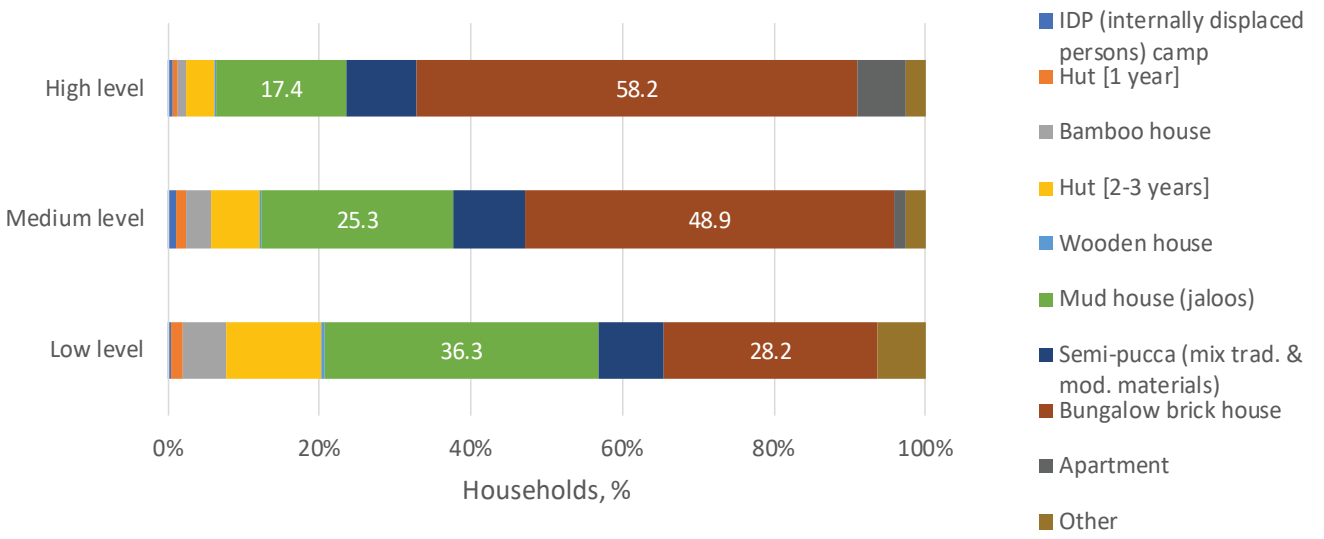
Figure 6.15 Type of dwelling, by age category of household head



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

Figure 6.16 shows that households with heads with higher education are more likely to reside in better-quality housing—notably in bungalow brick houses (58.2 percent) and apartments/condominiums (6.5 percent). Households headed by those with low education are more likely to live in mud brick houses or sturdy huts. Households headed by those with a medium level of education show a mix, with nearly half (48.9 percent) residing in bungalow brick houses but with a significant portion residing in less durable housing.

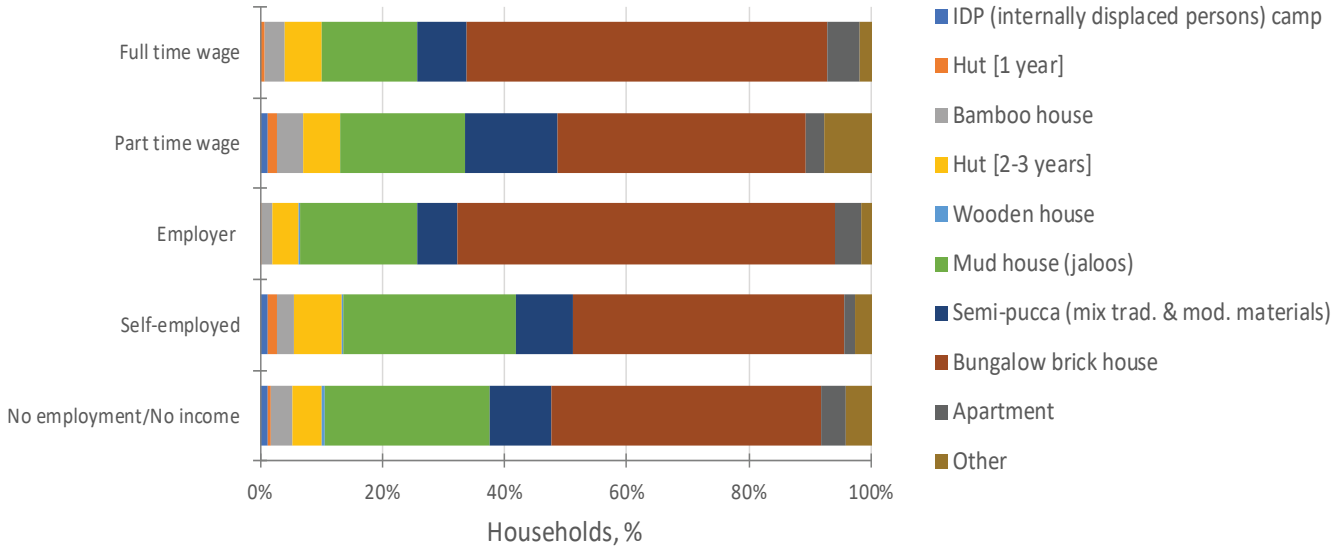
Figure 6.16 Type of dwelling, by level of education of household head



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

Figure 6.17 reveals a potential correlation between employment status and the quality of housing. Residence in bungalow brick houses is most common among employers (61.8 percent) and full-time employees (59.0 percent), indicating that stable, higher-income employment is linked to better housing. Conversely, households with heads that are self-employed and with no income or employment are more likely to reside in mud brick houses huts. Part-time employees and those without stable employment are more often found in lower-quality housing, with higher percentages in semi-pucca and mud brick houses, reflecting the vulnerability associated with these employment categories.

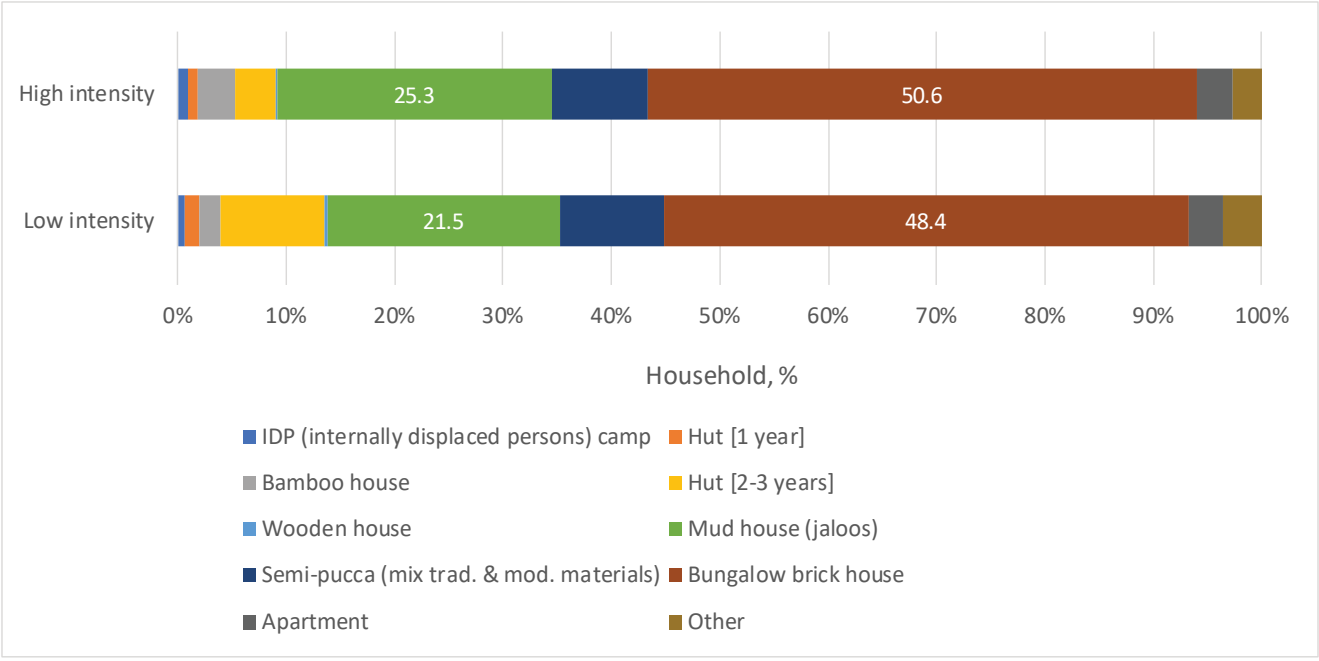
Figure 6.17 Type of dwelling, by employment status of household head



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

Figure 6.18 shows that while bungalow brick houses are the most common type of dwelling in both low and high-conflict areas, housing quality does not clearly correlate with conflict intensity. While mud brick houses, for example, are slightly more prevalent in areas with high-intensity conflict, the differences are not sufficiently large to establish a clear pattern between conflict intensity and housing quality.

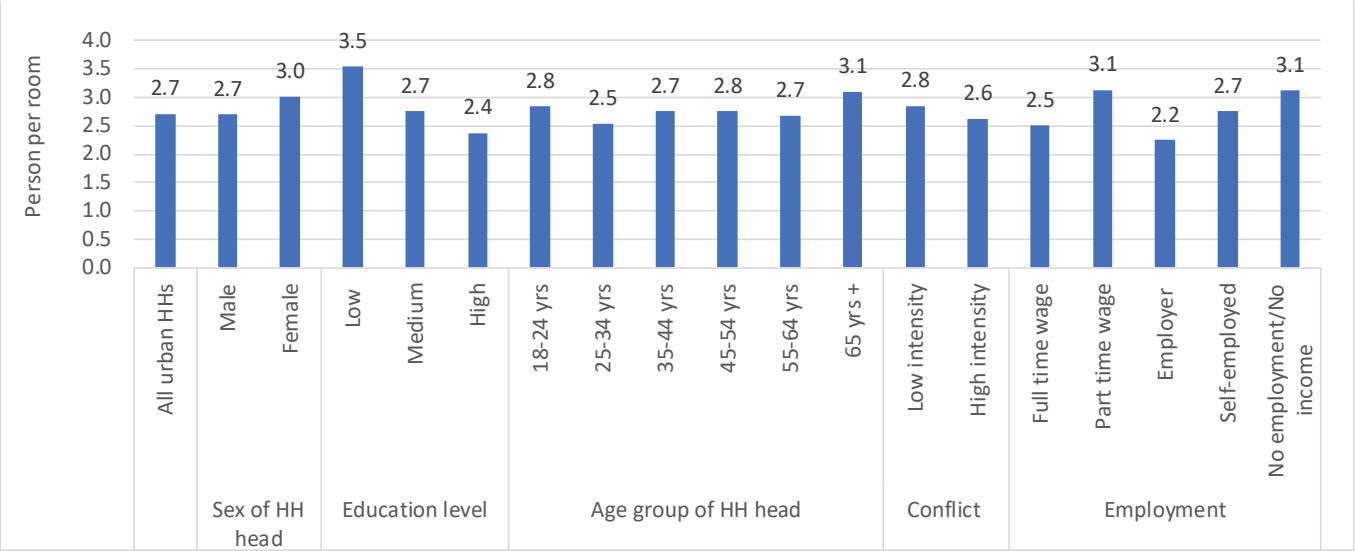
Figure 6.18 Type of dwelling, by conflict intensity in the area of urban household residence



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

Crowding in household residences can be measured by the number of people per sleeping room (Figure 6.19). On average, urban households in Sudan have 2.7 persons per room. However, there are differences across several sociodemographic variables. Female-headed households generally experience higher crowding than male-headed households. Age-wise, those with household heads aged 65 years and over have notably high crowding, while households with heads in the other age groups show relatively consistent figures. Education level is a significant factor—those households with heads having low education have the most crowding, while households with heads with high education have the least. Considering employment status, those households with heads who have no income or employment or who are part-time employees face higher crowding than other households. Finally, high-intensity conflict areas show marginally lower crowding than households in low-intensity areas.

Figure 6.19 Persons per room, average, by household characteristics

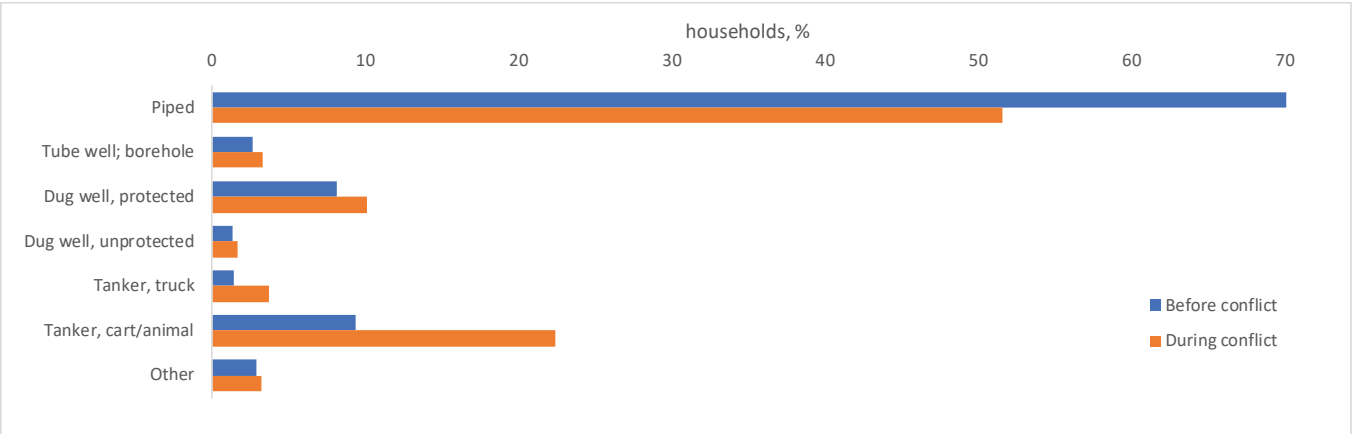


Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

Regarding the water sources used by urban households before and after the onset of the conflict, the analysis reveals a worrying deterioration in access to safe drinking water sources (Figure 6.20). The most striking change is in the reliance of households on piped water. At the same time, there was an increase in the use of tanker trucks, carts, and animals to obtain water, indicating an increased reliance on alternative and potentially less reliable methods.

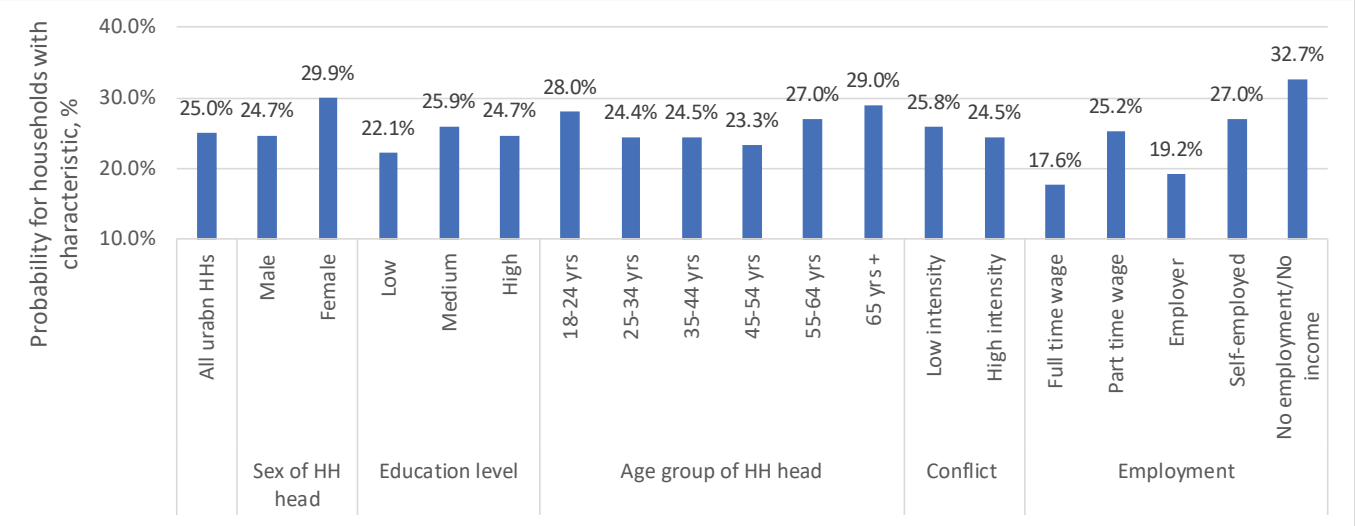
Figure 6.20 Source of drinking water for urban households before and during the conflict



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

To extend the analysis on changes in sources of drinking water, we create a 0/1 variable indicating that the household has an adequate source of drinking water, taking a value of 1 if the source is either piped water or a protected dug well. This variable is applied to both pre- and post-conflict periods. We then estimate the probability of an urban household transitioning from an adequate to an inadequate source of drinking water by dividing the number of households with an adequate source of water before the conflict but an inadequate source after the conflict over the total number of households with an adequate source before the conflict. The results, disaggregated by sociodemographic groups, are presented in Figure 6.21.

Figure 6.21 Probability for urban households of transitioning from an adequate to an inadequate source of water during the conflict, by household characteristics



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

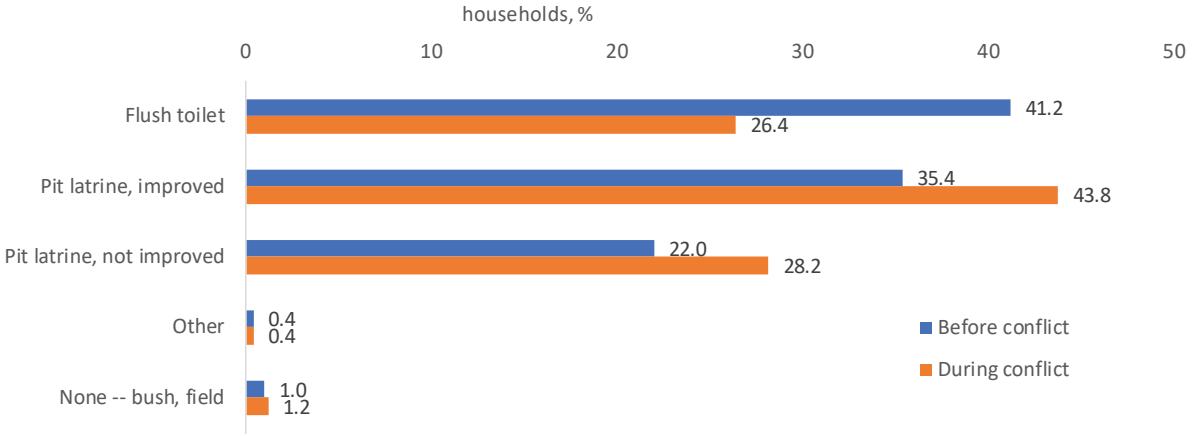
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

Nationally, one in four urban households lost access to an adequate source of drinking water during the conflict. Across various sociodemographic groups, female-headed households are more likely than male-headed households to have lost access to such a water source. The age category of the household head also shows variation in this regard—households with younger heads aged 18 to 24 years and those with heads aged 65 years and over are more likely to have lost access to an adequate source of water. Households with a head aged 45 to 54 years had the lowest probability. Educational attainment appears to influence access to safe water—households with a head with low education were unexpectedly found to have the lowest risk of losing access to an adequate source of water. Employment status is correlated with loss of access to an adequate source. Households with a head who is a full-time wage employee are least likely to lose access to a safe water source, whereas those with heads with no income / employment face the highest risk. Surprisingly, households in low-intensity conflict areas have a slightly higher risk than those in high-intensity areas of losing access to an adequate water source, suggesting that other factors than the conflict might influence loss of access.

Turning to the quality of toilet facilities used by urban households in Sudan, a relatively large shift has occurred during the conflict. Prior to the conflict, of 40 percent of the urban population had access to flush toilets, but this share dropped to 26.4 percent during the conflict. Conversely, the use of pit latrines with concrete floors or slabs (improved) increased, becoming the most common facility used by urban households.

Additionally, reliance on pit latrines with open pits or dirt floors (unimproved) rose. These changes suggest a deterioration in sanitation conditions, with a noticeable move away from more adequate facilities, like flush toilets, toward less sanitary options, highlighting the conflict's adverse impact of the conflict on the basic living conditions of urban households across Sudan.

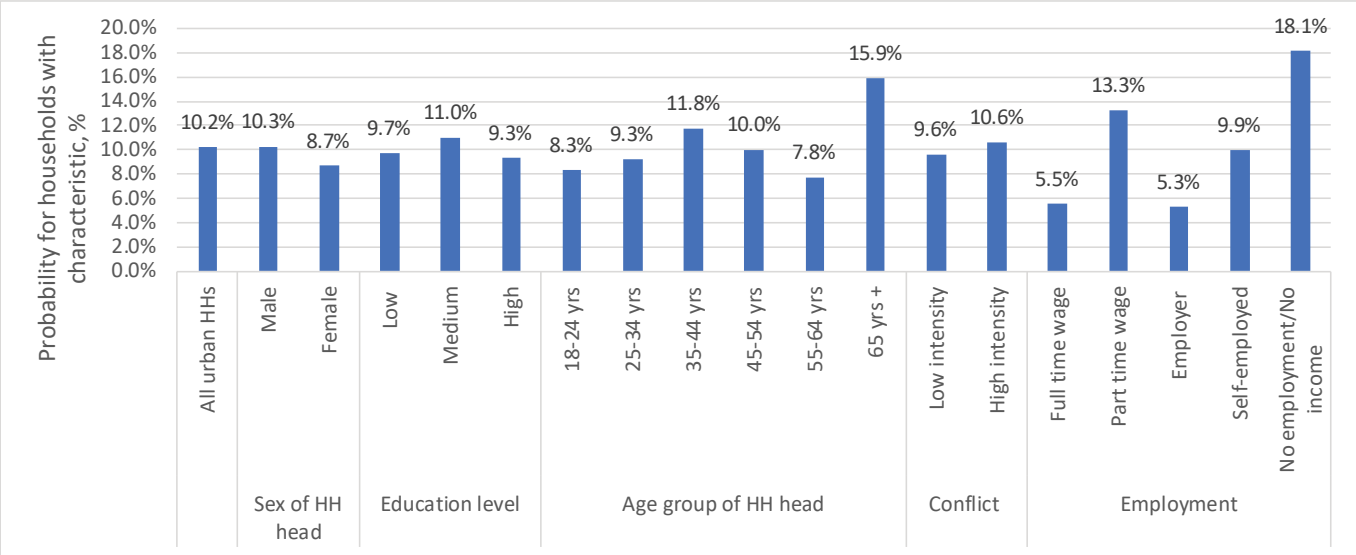
Figure 6.22 Type of toilet used by urban households before and during the conflict



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

As with the analysis of drinking water sources, to extend the analysis on changes in the types of toilet facilities urban households use, we create a 0/1 variable indicating that the household has an adequate toilet, taking a value of 1 if the toilet is a flush toilet or a pit latrine with a concrete floor (improved). This variable is applied to both pre- and post-conflict periods. The results show that while 77 percent of urban households had access to adequate toilet facilities before the conflict, this number decreased to 70 percent after the conflict. To identify the most affected households, we calculated the probability of transitioning from an adequate to an inadequate toilet facility for each sociodemographic group in the same manner as was done for the analysis of changes in drinking water sources. The results are presented in Figure 6.23.

Figure 6.23 Probability for urban households of transition from adequate to inadequate toilet facilities during the conflict, by household characteristics



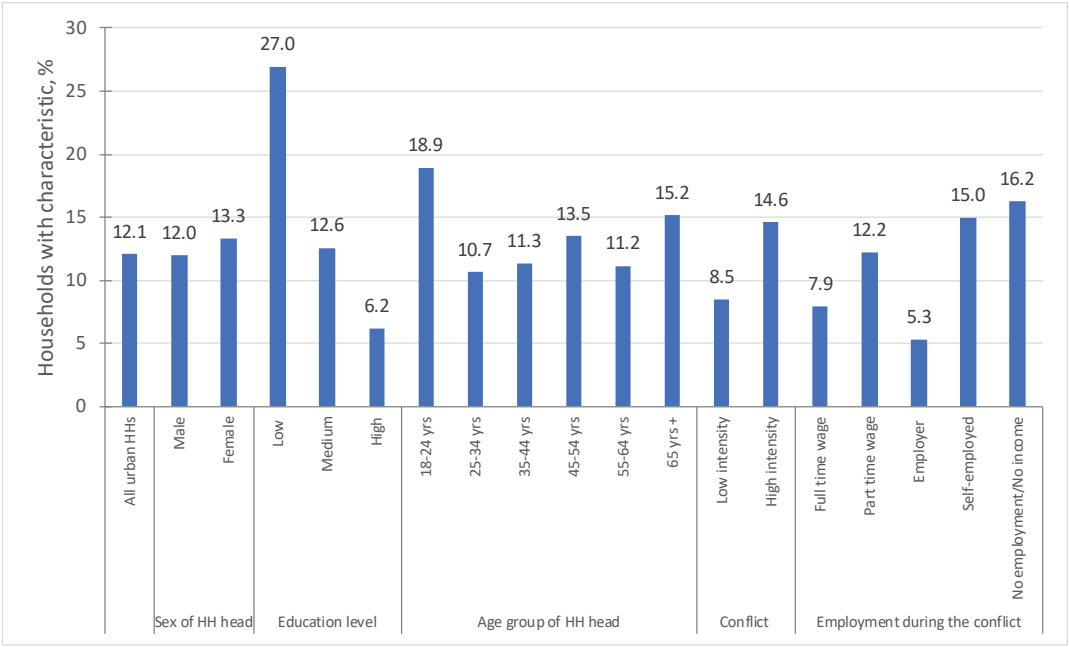
Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

Nationally, the probability of an urban household transitioning from an adequate to an inadequate toilet facility is 10 percent. However, male-headed households have a higher probability of losing access to adequate toilet facilities than female-headed households. By age group of the household head, households with heads aged 18 to 24 years and those aged 55 to 64 years have the lowest probability of losing access to adequate toilet facilities. Household with the oldest heads (aged 65 years and older) had the highest probability. Households with heads that attained a medium educational level have a slightly higher probability of losing access to adequate toilet facilities than other households. Considering employment, households with a head that is a full-time wage employee or an employer were least likely to have lost access to an adequate toilet. Households with heads that are part-time employees or with no income or employment are at higher risk. The impact of conflict intensity shows only a slight difference.

Regarding urban households' access to electricity, over 12 percent of households that had such access before the conflict began no longer had such access at the time of the survey. The distribution of electricity access across different sociodemographic groups of household heads is presented in Figure 6.24.

A greater share of female-headed than male-headed households reported losing access to electricity. Households with a head in the youngest age group (18 to 24 years) or the oldest group (65 years and over) were more likely than households with heads in the other age groups to have lost access to electricity. Differences in the share of households that lost access to electricity are sharpest between households categorized by the educational attainment of the head. A much greater share of households headed by individuals with low education experienced loss of access to electricity than households in the other educational attainment categories. Households with heads with no employment or income saw the highest rate of loss of access to electricity access across the employment categories, while households with heads who are full-time employees or employers were the least affected. Finally, households residing in high-intensity conflict areas were more likely to have lost their access to electricity than households in low-intensity areas.

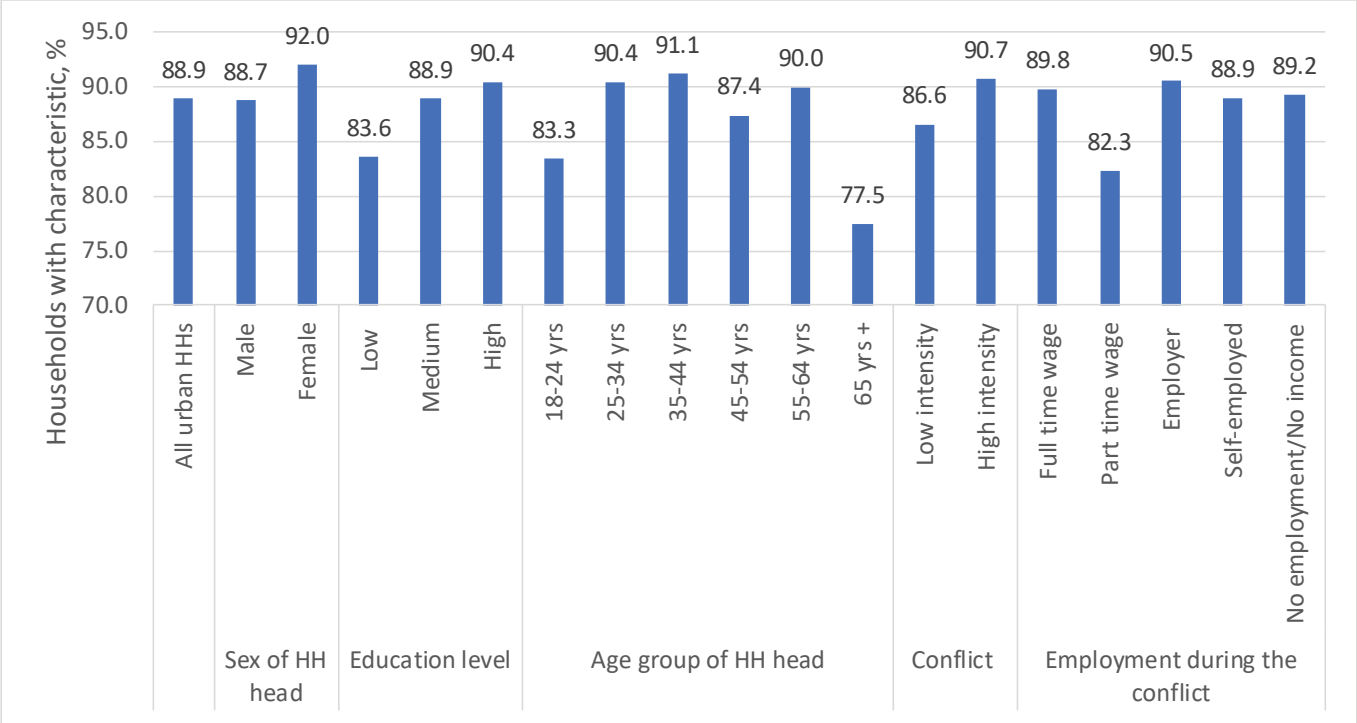
Figure 6.24 Urban households reporting not having access to electricity, by household characteristics



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

However, among those urban households that did not lose access to electricity, many reported a decline in its reliability—89 percent of such households reported that the reliability of electricity supply had worsened. Figure 6.25 shows the share of households reporting a decline in electricity supply by the socioeconomic status of the household head.

Figure 6.25 Urban households reporting worsened electricity supply during the conflict, by household characteristic, % of households with access to electricity



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

Female-headed households are slightly more likely that male-headed households to report unreliable electricity supply. When comparing households categorized by the level of education of the head, households with heads with low education are less likely than households in the other categories to report a decline in the quality of electricity supply. The impact of worsened electricity supply is relatively uniform across employment categories percent. Finally, households in high-intensity conflict areas were more likely to report a decline in electricity supply (90.7 percent) than those in low-intensity areas (86.6 percent).

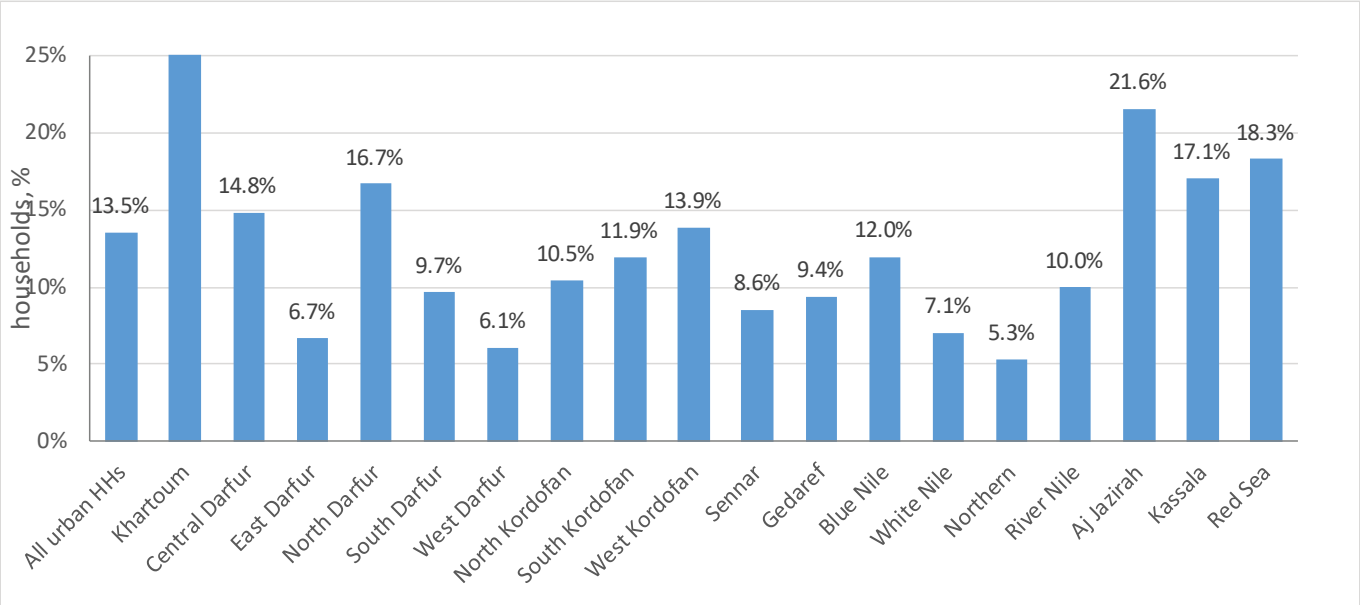
7. Market Access and Disruption

Market access plays a pivotal role in food security and economic stability, especially during conflict. In Sudan, the ongoing conflict has severely disrupted households' ability to engage in market activities, hindering both the purchase and sale of essential goods. This chapter delves into the factors influencing market accessibility, including geographic, economic, and social determinants. The goal is to uncover the broader impacts of the conflict on economic activities and food security, as well as to identify the most vulnerable groups among urban households that need targeted support to maintain access to essential resources during the conflict. Understanding the groups most affected by these disruptions is essential for crafting effective interventions to address these challenges.

7.1. Market access

Figure 7.1 highlights the significant challenges urban households across Sudan face in accessing markets, underscoring the deep impact of the ongoing conflict on daily life. In Khartoum, over one-quarter of households reported being unable to visit markets, reflecting severe disruptions caused by insecurity and transportation issues. Similarly, in Aj Jazirah, many households experienced difficulties accessing markets, likely due to similar factors. These patterns point to how conflict-related challenges are affecting residents' ability to purchase essential goods. Even in relatively safer states, like Red Sea and Kassala, a notable number of households reported market access issues, illustrating broader logistical and infrastructural challenges across Sudan.

Figure 7.1 Urban households that reported not being able to visit the market during the past month, by state



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

In conflict-affected regions, such as Darfur and Kordofan, varying degrees of market inaccessibility were reported, with urban households in these regions also struggling to engage with markets. However, despite ongoing clashes, some areas of Darfur had lower percentages of households reporting difficulties, which highlights regional differences in market disruptions.

Overall, these data underscore the widespread disruptions to market access across Sudan that the conflict has caused, especially in conflict-affected regions like Khartoum, Aj Jazirah, and parts of Darfur and Kordofan. These barriers

exacerbate food insecurity as households face increasing difficulties in securing the food and other goods needed for their daily survival.

7.2. Main challenges related to selling or buying goods

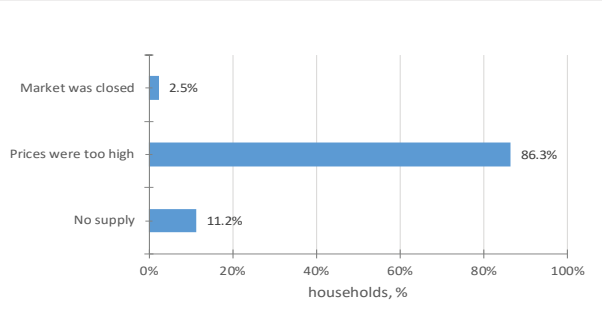
The survey data reveals that even for urban households able to visit the market, substantial barriers persist in both buying and selling goods. A significant portion of those who visited markets with the intention of selling were unable to do so, reflecting disruptions in market operations. Similarly, many who went to purchase essential items were also unable to complete their transactions.

These challenges underscore the deep impact of the conflict on market functionality, where mere physical access does not ensure that households will be able to engage in trade or obtain necessities. Factors such as the lack of buyers and sellers, high prices, and logistical hurdles were cited as reasons for these market failures. These barriers further compound the difficulties households face in securing food and meeting basic needs, intensifying the overall strain on daily life during the conflict.

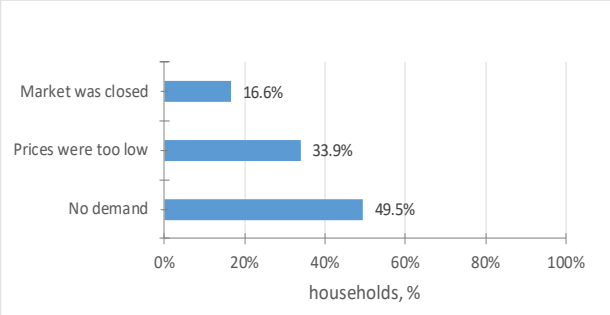
The challenges faced by households in buying and selling goods during the conflict are seen in Figure 7.2. Among those attempting to purchase goods (Panel A), the overwhelming majority cited prohibitively high prices as the primary obstacle, reflecting severe inflation or price gouging that made necessities unaffordable. Additionally, a significant portion of respondents reported that no supply of the goods they sought was available, indicating disruptions in supply chains and severe shortages of essential goods. A smaller percentage of households mentioned market closures, highlighting the instability and irregularity of market operations during the conflict.

Figure 7.2 Reasons for not being able to make purchases or sales

A: Reason for not being able to buy



B: Reason for not being able to sell



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

Households trying to sell goods faced similarly daunting challenges (Figure 7.2, Panel B). Nearly half of sellers noted a lack of demand for their goods, suggesting that reduced purchasing power or diminished consumer interest severely hampered their ability to generate income. One-third of sellers reported that the prices offered were too low, likely due to the high production costs they faced or weakened demand. Market closures also posed a major challenge for sellers, limiting their opportunities to trade and further contributing to economic hardship.

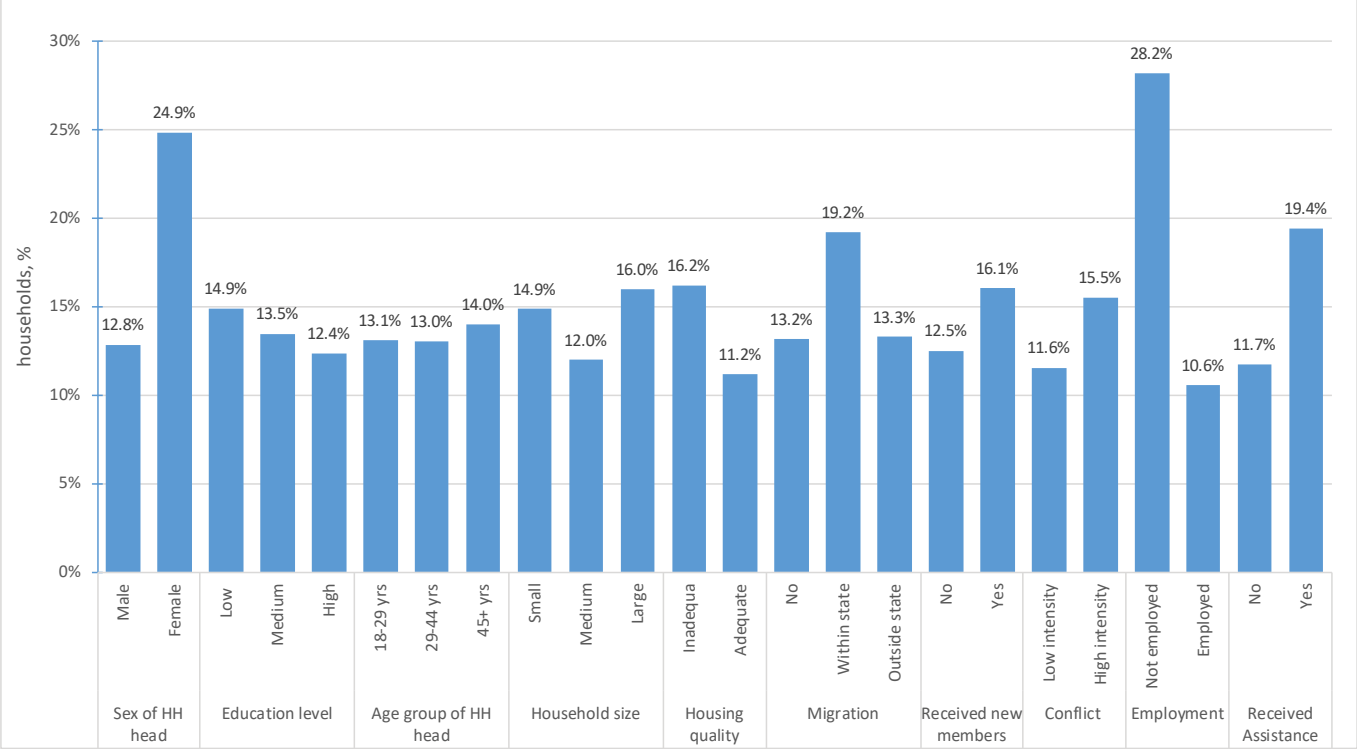
These factors combine to create a difficult market environment where both buyers and sellers from urban

households struggle to meet their needs, exacerbating food insecurity and economic instability in conflict-affected regions. The combination of high prices for buyers, low prices for sellers, supply shortages, and market closures reflects the severe disruptions to economic and market systems brought about by the conflict, further deepening the challenges faced by urban households in Sudan during this period.

7.3. Household characteristics and market inaccessibility

Figure 7.3 examines the relationship between household characteristics and the likelihood of being unable to visit the market, offering insights into which groups are most affected by market access challenges during the conflict.

Figure 7.3 Households that reported being unable to visit the market, by household characteristics



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

One notable finding is the impact of the sex of the household head on market access—female-headed households were significantly more likely to report being unable to visit the market compared to male-headed households. This disparity suggests that female-headed households may face additional barriers, such as safety concerns, limited financial resources, or transportation challenges, that further hinder their access to markets.

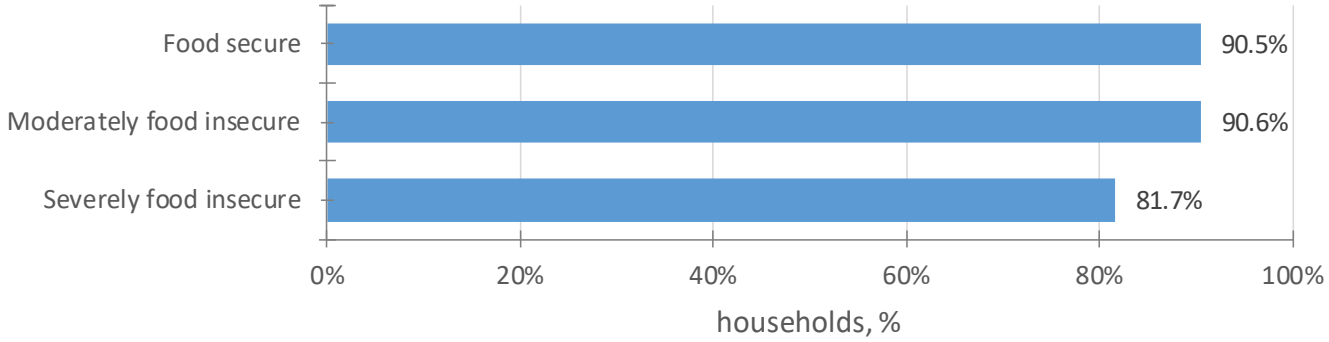
The employment status of the household head also plays a role. Households with an unemployed head face a much higher likelihood of being unable to visit the market compared to those where the head is employed. This highlights the economic constraints that limit market access, as unemployed households may lack the necessary income or means to justify or enable regular market visits.

Migration status and exposure to violence are additional factors impacting market access. Households that have migrated within the state and those affected by violence are more likely to face restrictions on their market access, indicating that displacement and security concerns are critical disruptors of regular economic activities.

Finally, receipt of assistance appears to be linked to greater difficulties in accessing markets. Households that received aid during the conflict were more likely to report being unable to visit the market than those not receiving assistance. This pattern suggests that the most vulnerable populations, who are reliant on aid, are already facing significant barriers that limit their ability to access essential goods and services.

Although food insecurity remains widespread, the results presented in Figure 7.4 indicate that urban households with market access are less likely to experience severe food insecurity compared to those without access. Among households that are food secure or moderately food insecure, 91 percent reported being able to visit the market, whereas only 82 percent of severely food insecure households had market access.

Figure 7.4 Share of urban households able to visit the market, by the severity of their food insecurity



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

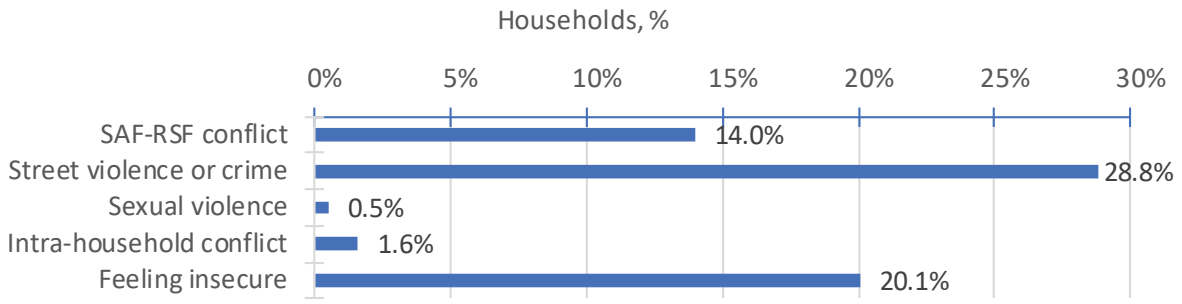
Market access may play a protective role for household food security and welfare. Those households that can regularly visit markets are more likely to obtain essential food and resources, which helps reduce the severity of food insecurity for the household. By having access to markets, households are better equipped to mitigate the worst impacts of the conflict on their food security, highlighting the importance of maintaining market functionality during times of crisis.

8. Shocks, Assistance, and Financial Inclusion

8.1. Shocks

The survey asked urban households about whether they have been impacted by several shocks since the start of the conflict (Figure 8.1). Just under half of the respondents reported that no household members had been affected by any of the listed shocks since the start of the conflict. However, of the other households, a significant proportion experienced various forms of distress, with street violence, theft, or robbery affecting almost 30 percent of urban households. Twenty percent reported feelings of insecurity, indicating the conflict has had a high level of psychological impact on the urban population. Additionally, 14 percent reported being directly affected by the ongoing SAF-RSF conflict. Smaller shares of households reported intra-household conflict and sexual violence.

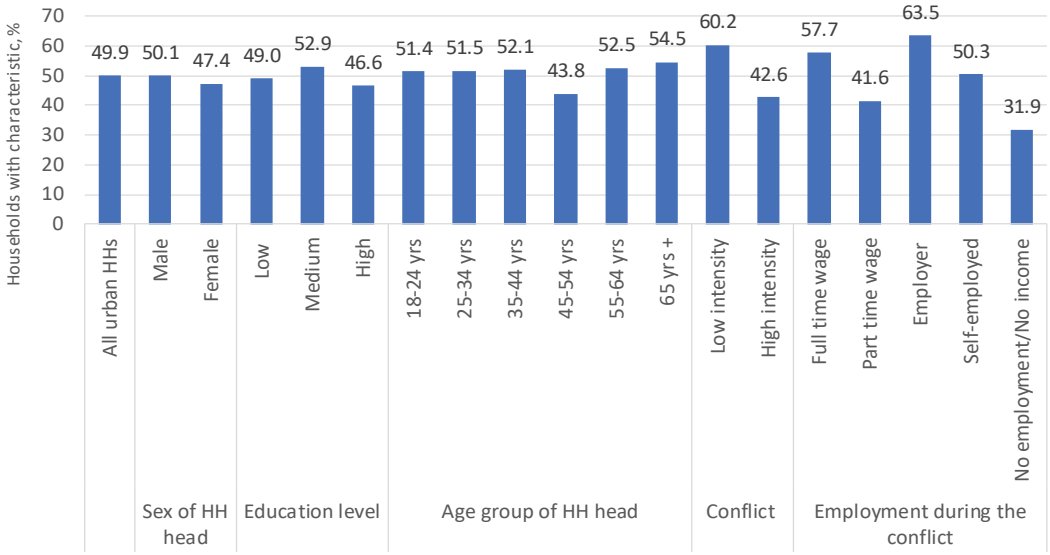
Figure 8.1 Shocks related to conflict that were reported experienced by household members during the conflict



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).
Note: SAF = "Sudanese Armed Forces"; RSF = "Rapid Support Forces".

To identify which groups are less likely to be affected by these shocks, we further analyzed those urban households that reported not having been affected by any of these shocks. The results, disaggregated by sociodemographic categories, are shown in Figure 8.2.

Figure 8.2 Urban households reporting that they were not affected by any shocks since the start of the conflict, by household characteristics



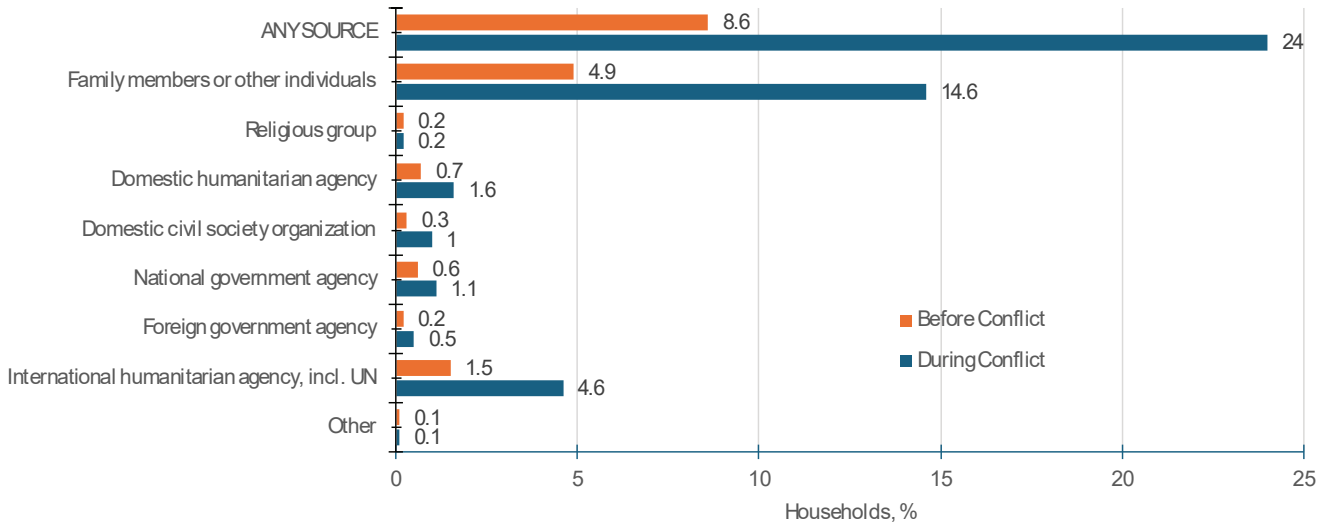
Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

As noted, just under half of urban households reported not being affected by any shocks. However, male-headed households were slightly more likely than female-headed households to be unaffected. The variation in the experience of shocks across the household groups defined by the age of the household head is relatively small with no clear pattern. Households with heads that attained a medium education level report were less likely to have been affected by these shocks than households in the other educational categories. Households with heads that are employers or full-time employees were more likely to report experiencing none of the shocks since the conflict began than households in the other employment categories. Households with heads with no employment or income were most likely to have reported being affected by one of the shocks. Regarding conflict intensity, as might be expected, urban households in low-intensity conflict areas report a higher rate of being unaffected by these shocks compared to those in high-intensity conflict areas.

8.2. Assistance

The survey inquired whether any urban household members received cash or in-kind assistance from any entity before or during the conflict. Only a small share of urban households received such assistance (Figure 8.3). Only about 9 percent of households reported receiving any assistance prior to the outbreak of the conflict. The share of the population receiving assistance increased after the conflict. However, recipient households remained a minority—only 24 percent reported receiving assistance during the conflict.

Figure 8.3 Household reporting having received any assistance in cash or in kind, before and during the conflict, by source

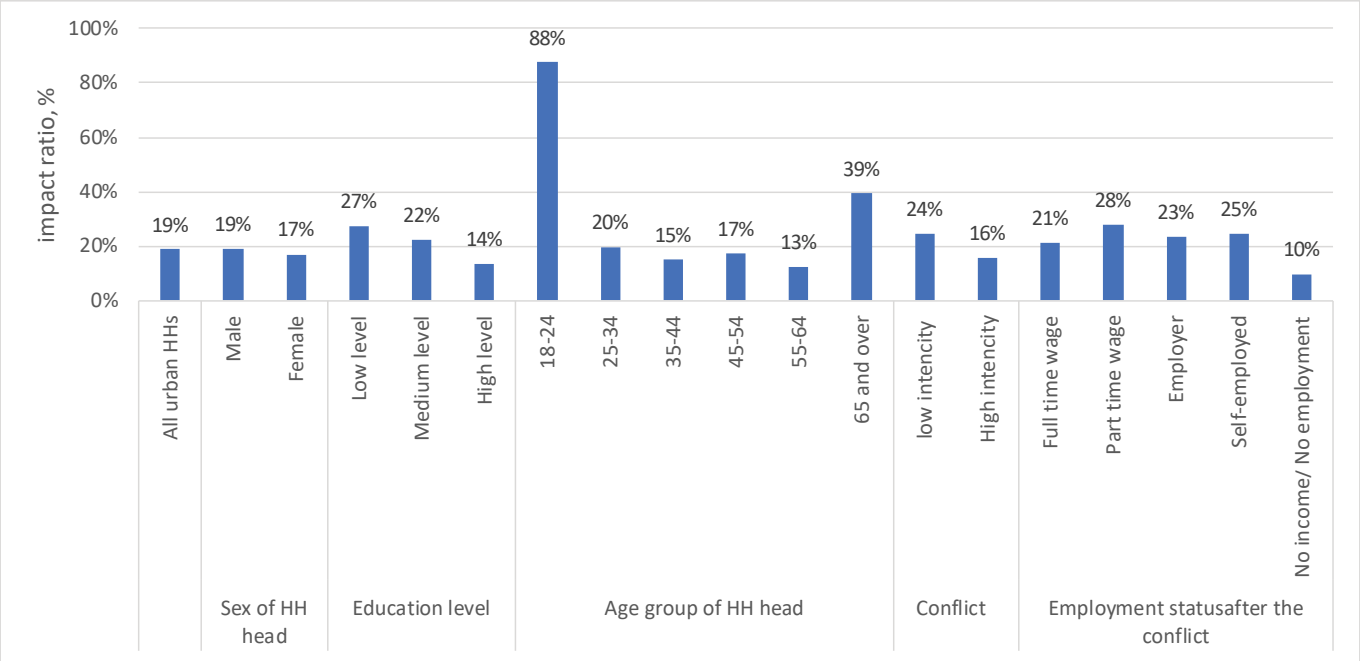


Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

Family members and friends were the largest source of such aid, not government agencies or NGOs. The share of household receiving assistance from family and friends rose by about 10 percentage points after the start of the conflict, indicating reliance on personal networks during difficult times. In contrast, support from international humanitarian agencies and domestic civil society organizations, while the share of households receiving such assistance increased after the conflict began, remained low. Government assistance benefited few households, reflecting the limited role of formal state institutions in providing aid during the conflict. Despite the increase in households receiving assistance after the conflict started, it should be emphasized that a substantial 76 percent of urban households reported receiving no assistance at all.

While the general assistance coverage has increased since the start of the conflict, this may mask underlying issues where some groups of urban households were left behind or experienced reduced support. We estimate an impact ratio of this assistance by dividing the number of households that received assistance before but did not receive it after the conflict (loss of assistance) over the number of households that did not receive assistance before but received it after the conflict (gain of assistance), expressed as a percentage. At the national level, this ratio is estimated at 19.0 percent. Being much less than 100 percent, this result indicates that more people gained assistance compared to those who lost it. The impact ratios computed for different groups of urban households are presented in Figure 8.4.

Figure 8.4 Assistance to urban households, impact ratio analysis, by household characteristics



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

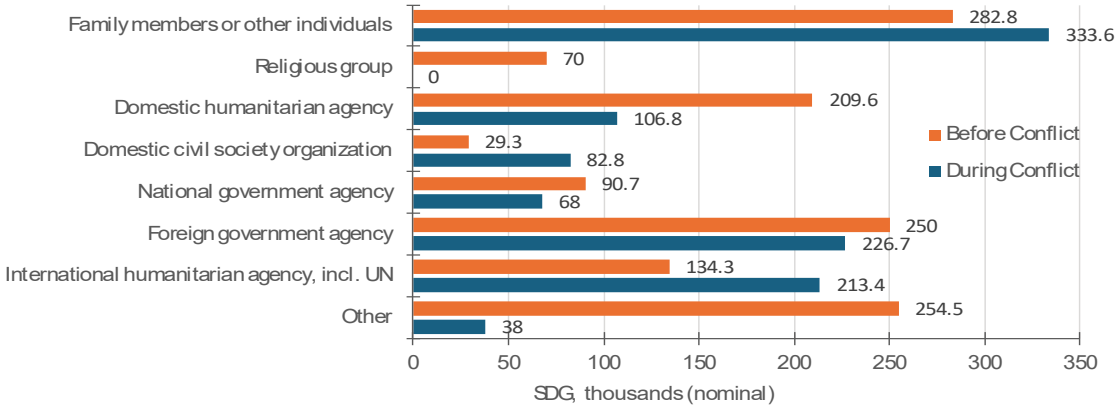
Note: The impact ratio is computed by dividing the number of households that received assistance before but did not receive it after the conflict (loss of assistance) over the number of households that did not receive assistance before but received it after the conflict (gain of assistance), expressed as a percentage. Indices less that 100 percent indicate that assistance levels increased after the start of the conflict.

For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

Figure 8.4 reveals some disparities across sociodemographic groups in terms of losing assistance due to the conflict. Overall, the findings suggest that specific groups, such as households with the youngest or the oldest heads, with less educated heads, and those in zones with less conflict were more likely to lose assistance compared to other urban household groups have. Households in these less-supported groups may require targeted assistance to enable them to better meet their needs.

Figure 8.5 shows the changes in the average amount of cash transfers received from various sources before and after the conflict. This chart does not take into account changes in the share of urban households receiving such assistance. Domestic humanitarian agencies and non-governmental organizations, along with national and foreign government agencies, saw a decrease in the average cash transfers they provided to urban households. Conversely, international humanitarian agencies increased their support, as did, notably, family members, friends, or other individuals. Domestic civil society organizations also considerably boosted their contributions post-conflict.

Figure 8.5 Average monthly assistance received by source, before and during the conflict, for households receiving from that source, SDG thousands

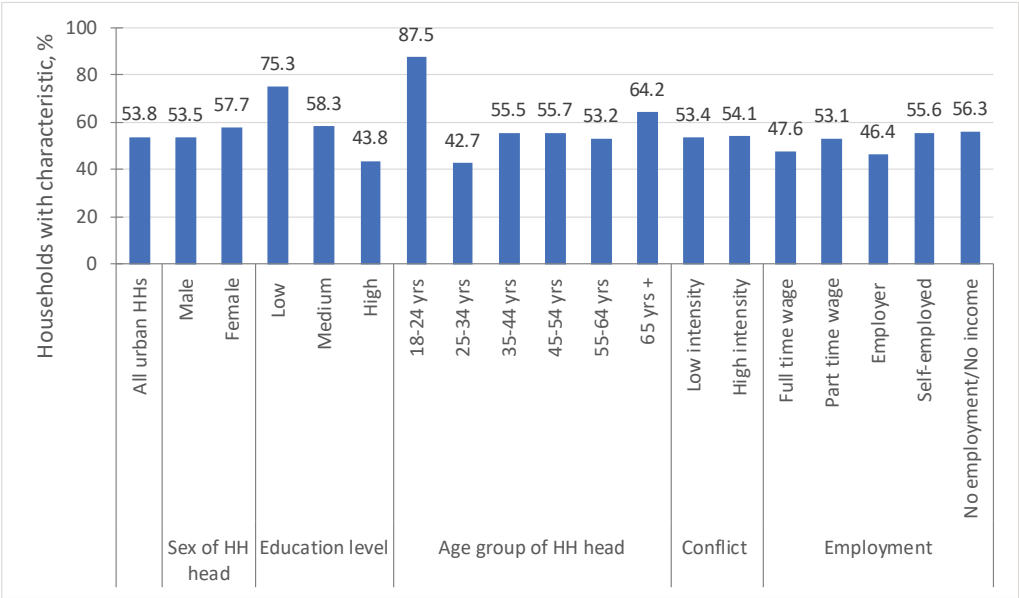


Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

For urban households that reported receiving assistance during the conflict, the respondent for the household was asked whether there had been any disruption to the flow of assistance. More than 53 percent of households that reported receiving assistance during the conflict reported that assistance had been stopped, reduced, or became more infrequent. About one-quarter of assistance-receiving households reported that assistance has increased, with the rest reporting that assistance modalities had not been disturbed.

Figure 8.6 examines the households that reported that the assistance they received had been stopped, reduced, or became more infrequent, by household characteristic. The chart shows differences in the likelihood of households reporting a reduction or disruption in assistance due to the conflict based on household head characteristics. Female-headed households were more likely than male-headed household to report such disruptions. Households headed by younger heads aged 18 to 24 years also were more likely to report disruptions than other households. Finally, households with heads with lower educational attainment levels also were more likely to report disruptions. The other groups of urban households considered in Figure 8.6 show little difference in the degree to which they reported disruptions to the assistance they were receiving, with rates close to the national average.

Figure 8.6 Urban households reporting disruption in assistance due to the conflict, by household characteristics

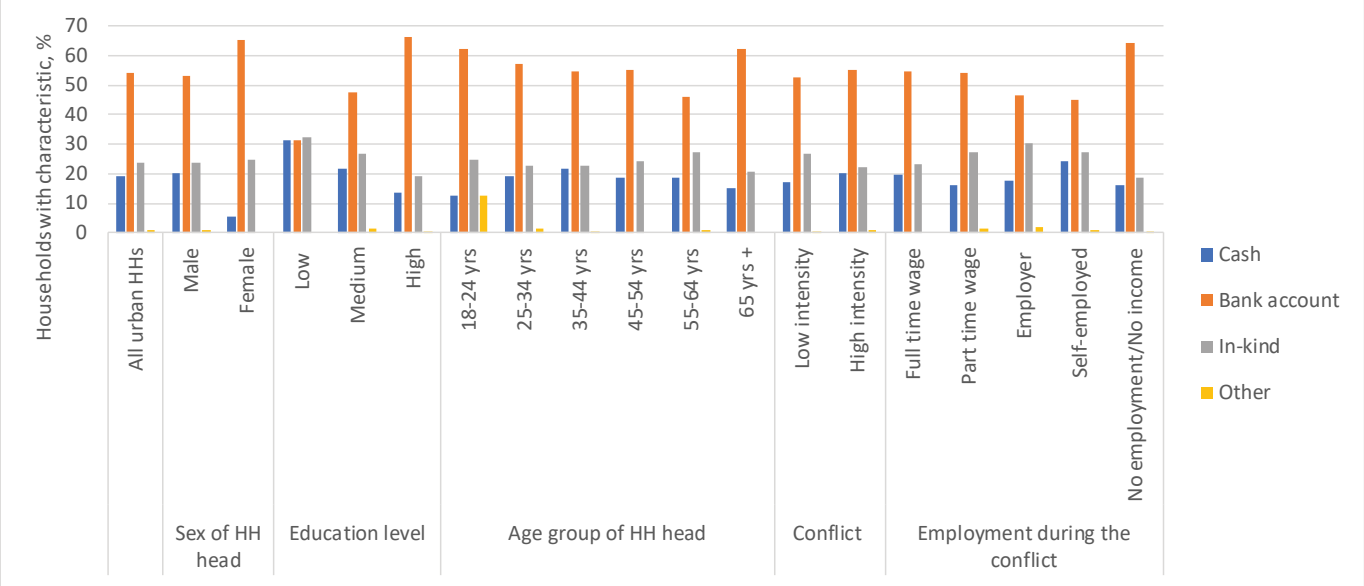


Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey

Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

Considering the mechanisms of assistance delivery, the survey included a question on the method by which assistance was received. A majority of respondents received their benefits through a bank account, followed by cash payments. The breakdown of these delivery mechanisms by household head characteristics is presented in Figure 8.7.

Figure 8.7 Delivery mechanism for assistance, by characteristics of households that received assistance



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

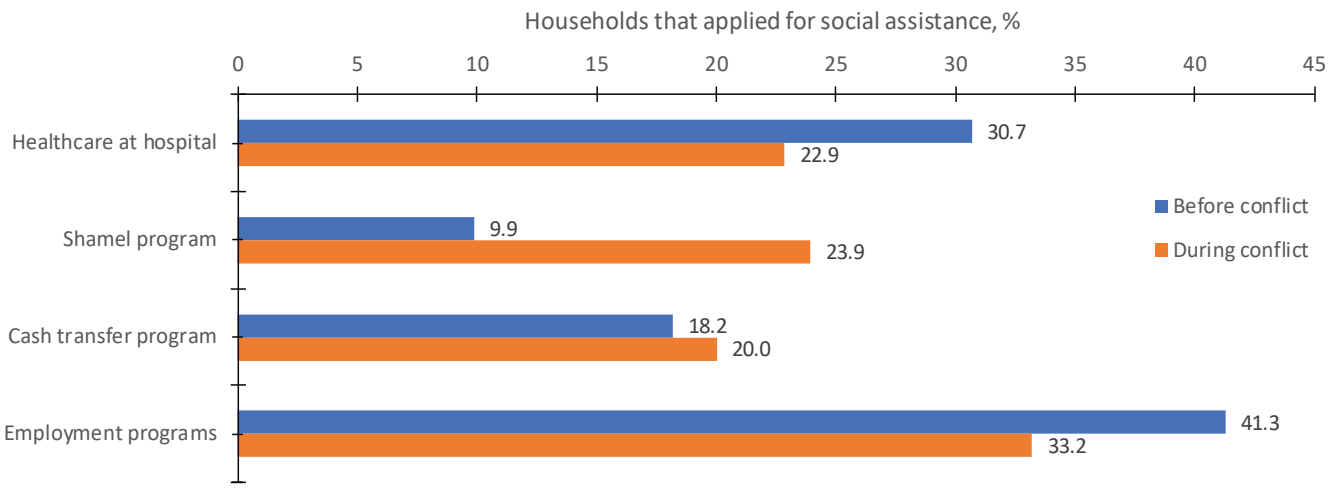
Overall, bank accounts were the most common method of receiving assistance, followed by in-kind support and cash. There are some differences in assistance delivery mechanisms across urban household groups. Male-headed households were more likely to receive assistance in cash than were female-headed households, who predominantly received assistance through their bank account. Households with younger heads (aged 18 to 24 years) had a notable preference for e-wallet payments (included in the "Other" category) and direct payments to their bank account. Households with heads with lower education levels were more inclined to receive assistance in cash or through in-kind support. In contrast, households with heads with higher education levels mainly used bank accounts to receive assistance.

Households with heads that are full-time employees and those in low-intensity conflict areas were most likely to receive assistance via bank accounts.

Figure 8.8 analyzes the share of urban households that applied for assistance but were denied before and during the conflict. The results show varying impacts of the conflict on the accessibility of different assistance programs. For healthcare at hospitals, the denial rate decreased during the conflict. Conversely, the Shamel Program saw a significant increase in denial rates after the conflict began (4). The denial rate for cash transfer programs showed a slight increase, while that for employment programs decreased after.

(4) Shamil is a multi-sector program that fosters asset creation and improves infrastructure through a graduation approach. The process starts by providing for basic consumption needs through a cash transfer program and then integrating asset creation and livelihoods support through the agricultural, health, education, and water sectors in all 18 states.

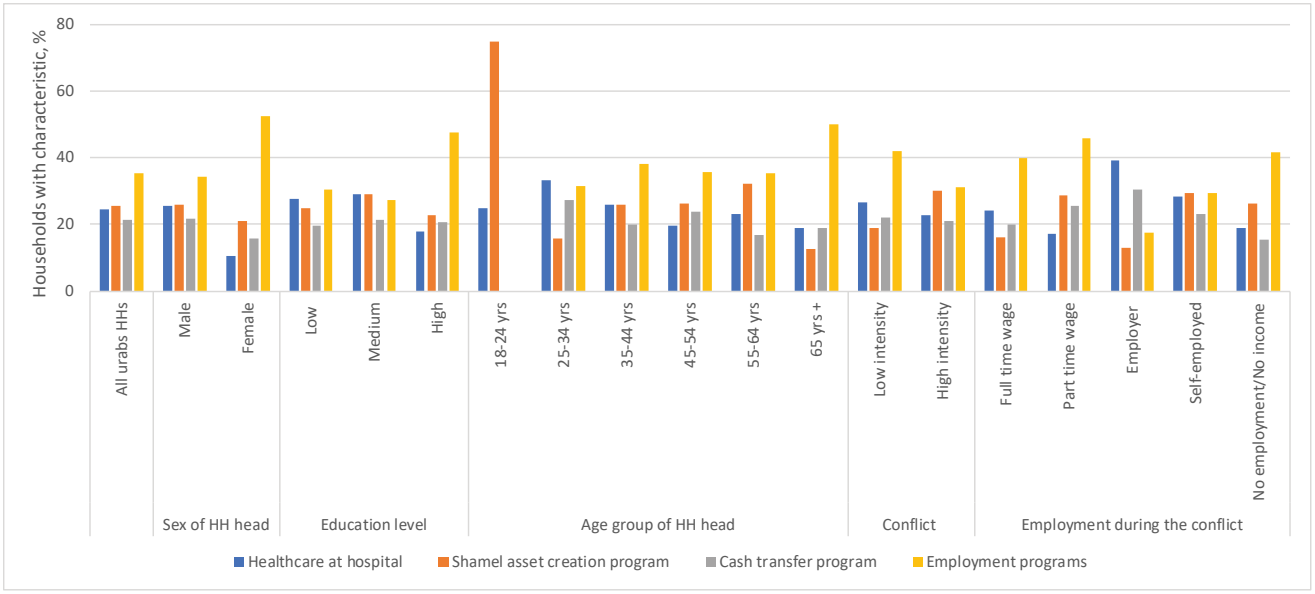
Figure 8.8 Urban households that applied for specific types of assistance but were denied, before and during the conflict



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

To explore who was more likely to be denied assistance after the conflict, we disaggregate these results by household head characteristics (Figure 8.9). Male-headed households were more likely to be denied healthcare assistance than female-headed households. Households with household heads aged 25 to 34 years and those with heads that are employers face higher rejection rates for healthcare assistance. For the Shamel program, households with younger heads (aged 25 to 34 years) had a significantly higher likelihood of denial, along with households in high-intensity conflict areas. The cash transfer program does not demonstrate any strong differences in rejection rates across the urban household groups, although male-headed households, those with household heads aged 25 to 34 years, and those headed by employers saw somewhat higher rejection rates. Employment programs exhibited higher rejection rates for female-headed households, households headed by older individuals (65 years and older), those headed by individuals with higher education levels, those headed by part-time employees, and households in low conflict intensity areas.

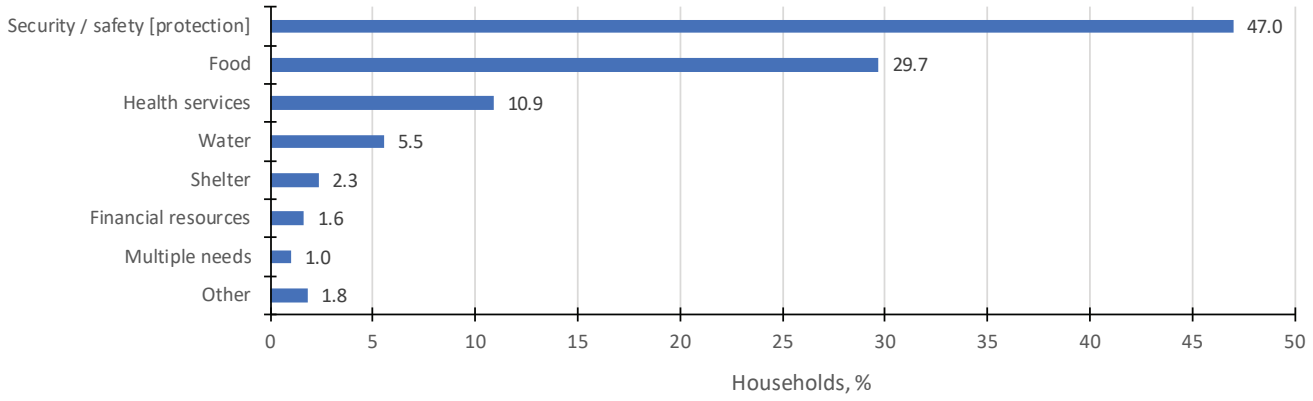
Figure 8.9 Urban households that applied for assistance but were denied, by household characteristics and program type



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

Figure 8.10 presents the most urgent needs urban households in Sudan reported at the time of the survey. Almost half of households identified security and safety as their top priority. This is followed by food, reflecting significant concerns over basic necessities. Health needs also feature prominently. Other needs, such as water and shelter, were mentioned by a smaller proportion of households. A few respondents identified issues like education, electricity, and money.

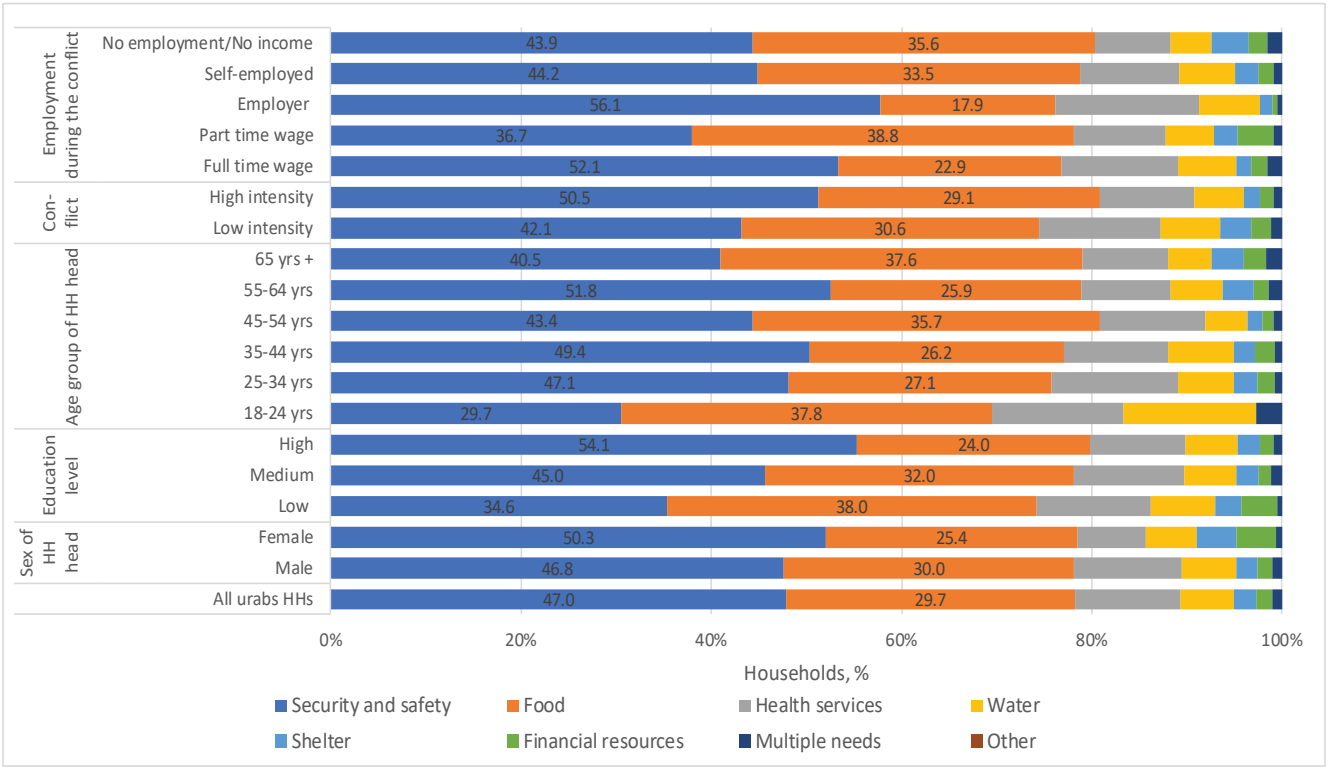
Figure 8.10 Current most important need reported by urban households



Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.

The principal needs reported are disaggregated by household characteristics in Figure 8.11. The need for security and safety was mentioned as most pressing particularly by households that are female-headed, headed by individuals aged 55 to 64 years, headed by individuals with high education, headed by those with full-time wage employment or employers, or in high-intensity conflict areas. Food, the second most commonly mentioned important need, was highlighted especially by households headed by those with low education, those with young heads (age 18 to 24 years) or the oldest heads (age 65 years or more), and those with either part-time wage employment or no employment or income. Health is another significant concern, particularly for households with young heads (age 18 to 24 years) or those headed by employers. Shelter, water, and access to financial resources were noted as important but to a much lesser extent, particularly compared to security and food.

Figure 8.11 Current most important need reported by urban households, by household characteristics

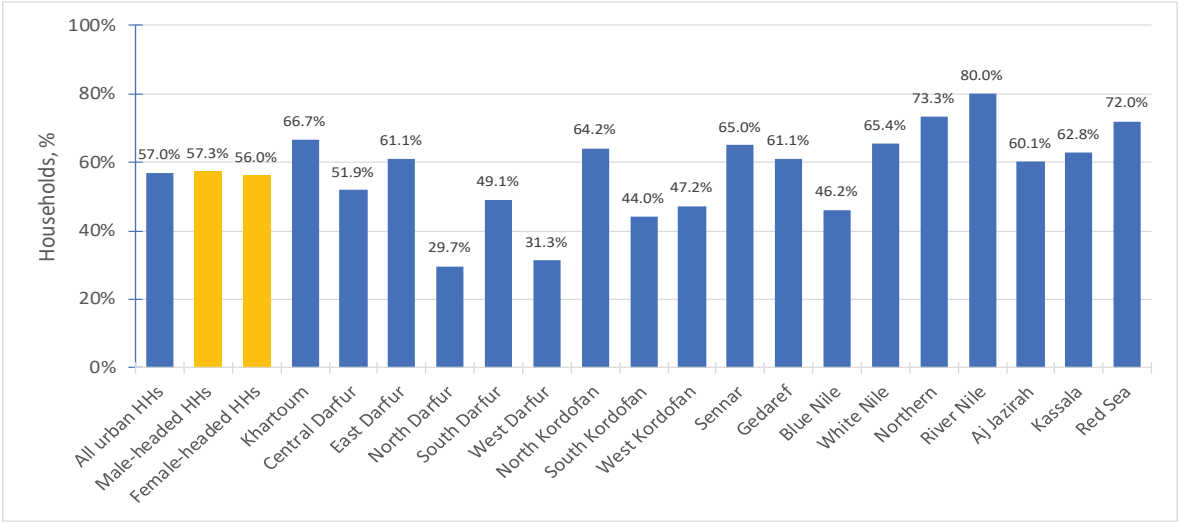


Source: Authors' weighted analysis of the IFPRI-UNDP 2024 Sudan Urban Household Survey.
Note: For definitions of educational attainment and conflict intensity categories, see table notes for Table 3.1 and Table 3.2.

8.3. Financial inclusion

When asked whether they own a bank account at the time of the survey, 57 percent of the urban households reported that they have a member with at least one bank account. There is little difference between male and female-headed households in terms of bank account ownership by a household member. By state, the highest share of urban households with a member with a bank account is in River Nile state, followed by Northern, Red Sea, and Khartoum, while the state with the lowest share of urban households having a member with a bank account is North Darfur (Figure 8.12). Banking networks in Sudan are concentrated in the central states of Khartoum, River Nile, Northern, and Red Sea, while large areas of the rest of the country lack banking branches altogether.

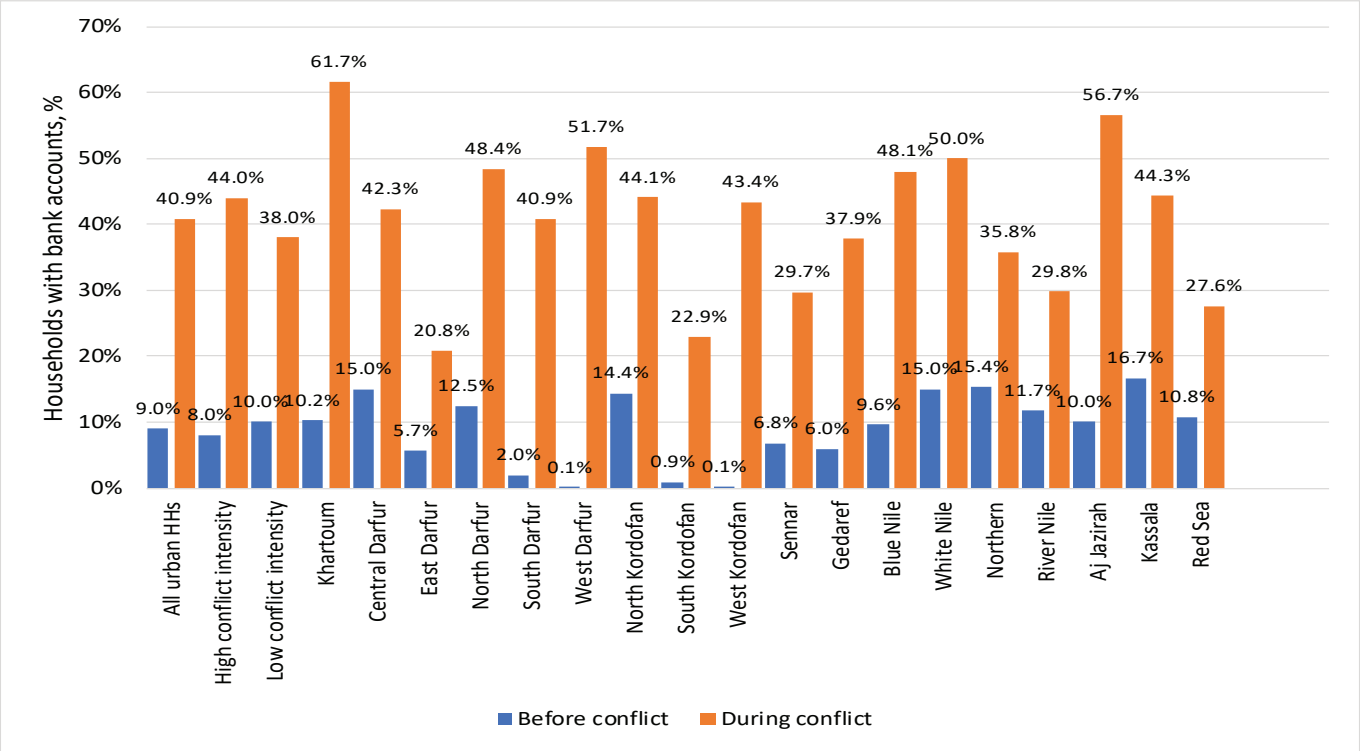
Figure 8.12 Urban households reporting a member with at least one bank account, by sex of household head and state



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

For urban households with a member with a bank account, when asked whether they had trouble making or receiving payments and withdrawing money using their bank account before and after the start of the conflict, less than 10 percent reported experiencing difficulties before the conflict. However, over 40 percent reported difficulties during the conflict. The conflict's impact on households' ability to use their bank account is higher in high conflict intensity states—44 percent of households with members with bank accounts living in high-conflict states reported difficulties in using their bank account compared to 38 percent of those living in low-conflict states. Khartoum, Aj Jazirah, and West Darfur are the states with the highest percentage of households reporting difficulties in making payments and withdrawing money, while the lowest percentages are in East Darfur, South Kordofan, and Red Sea.

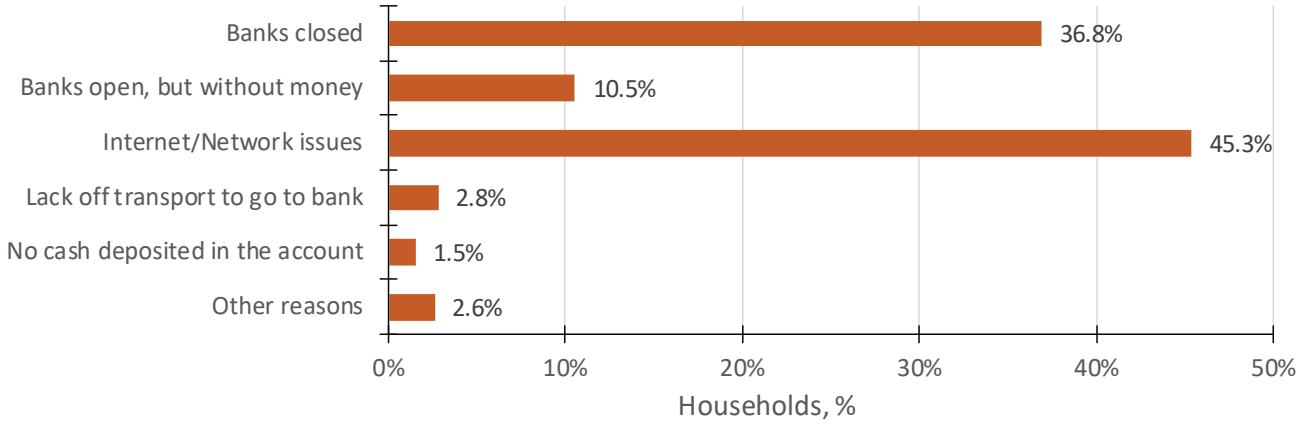
Figure 8.13 Urban households with bank accounts reporting difficulty in making payments and withdrawing money from account, before and during the conflict, by state



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

The urban households with bank accounts gave several reasons for why they experienced difficulties in making payments or withdrawing money from those accounts. The closure of banks was a principal reason for difficulties in using bank accounts, noted by more than one-third of those experiencing problems. The most common reason mentioned was internet and network issues affecting their ability to make bank transactions. Just under half of households with bank accounts mentioned this issue. Ten percent reported experiencing situations where, although open, the banks did not have any funds. Other reasons affecting the use of their bank accounts that were mentioned included transport challenges, electricity disruptions, and problems with the banking apps they needed to use.

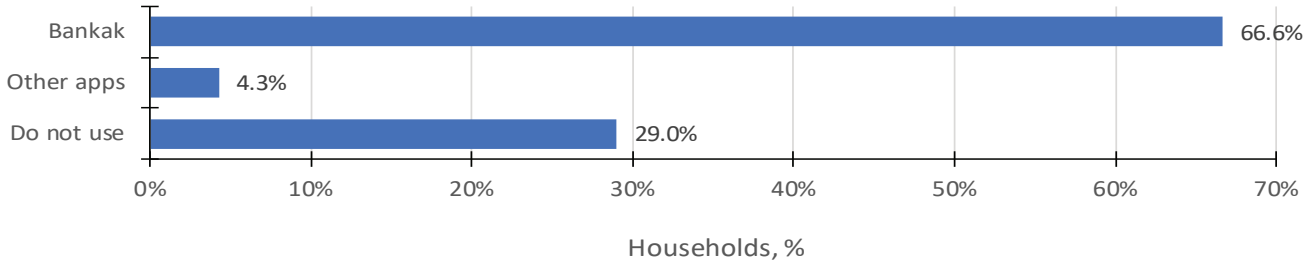
Figure 8.14 Types of difficulties reported by those urban households that experienced difficulty in using bank accounts during the conflict



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

When asked about which mobile phone application they had used to receive or make payments after the conflict, two-thirds reported they used the Bank of Khartoum mobile phone application, Bankak. However, a large share of those with bank accounts did not make use of any mobile phone application to make payments or conduct other activities on their bank account. Other mobile telephone payment applications, like Fawri and Cashi, were mentioned, but their use by households was relatively limited.

Figure 8.15 Use of mobile payment applications by urban households during the conflict



Source: Authors' calculation based on weighted data from the Sudan National Urban Survey (2024).

Effective and efficient payment systems are essential for building the economic resilience of those affected by the conflict, delivering humanitarian aid to them, and enabling them to access basic services. In Sudan, the impact of the war on the country's financial system included the closure of bank branches. This hindered households from using banks to make payments for basic goods and services. A shift to electronic payment systems is part of the solution. However, parallel efforts will be needed to restore damaged financial infrastructure, such as the national switch used by mobile payment applications, as well as the communications and electricity networks that support the financial infrastructure.

9. Conclusions and Implications

9.1. Conclusions

The ongoing conflict in Sudan has severely disrupted the socioeconomic fabric of urban areas, resulting in widespread displacement, collapsing livelihoods, and the breakdown of critical public services. These shocks have impacted household welfare across multiple dimensions, including food security, employment, healthcare, education, and access to essential services. The 2024 Sudan Urban Household Survey, produced jointly by IFPRI and UNDP, highlights the extent of these disruptions and underscores the urgent need for a coordinated, multi-layered response to prevent further deterioration of the welfare and livelihoods of urban households across the country and initiate recovery.

The urban economy of Sudan, once a pillar of employment and commercial activity, has been profoundly destabilized. Formal wage employment has sharply declined, pushing many households into precarious self-employment or informal labor, which offers little economic security. This shift not only weakens income stability but also strips households of access to workplace benefits and support systems, deepening their vulnerability. To revive the urban economy, interventions must prioritize small business support and sustainable job creation. Microfinance and business development services could help households transition from survival-based activities to more stable livelihoods, while vocational training, especially targeting women and youth, can reintegrate displaced workers into formal employment.

One of the conflict's most immediate effects has been large-scale displacement—approximately 31 percent of urban households now reside in states different from their pre-conflict locations. This displacement exacerbates challenges in accessing employment, healthcare, and education, and requires urgent interventions focused on building housing, expanding social services, and strengthening livelihoods. The conflict has also severely affected employment, with the number of full-time wage earners halved and unemployment projected to reach over 45 percent in 2024, further emphasizing the need for robust economic recovery programs.

Health and education systems have equally deteriorated. Over 56 percent of households reported declining health since the start of the conflict, compounded by growing restrictions on access to healthcare and rising costs of medical services. Meanwhile, nearly 70 percent of households reported that their school-age children were no longer attending school due to closures and unaffordable fees. Immediate solutions include deploying mobile health clinics to relieve pressure on traditional systems. In education, remote learning platforms and community-based centers can offer critical support to children excluded from formal education, ensuring Sudan's human capital is not irreversibly harmed.

Food insecurity remains one of the most alarming aspects of the crisis. Nearly half of the urban population faces moderate to severe food insecurity. Inflation, supply chain disruptions, and reliance on food imports drive their restricted access to food. Sudan is now among the four countries in the world with the highest prevalence of global acute malnutrition, estimated at 13.6 percent (Dabanga 2024). Households have resorted to unsustainable coping mechanisms such as reducing meals and selling assets. While food assistance is critical in the short term, long-term solutions require market stabilization and subsidies for essential foodstuffs. Urban agriculture initiatives can help diversify food sources and offer urban households more sustainable access to the components of nutritious diets.

The degradation of basic infrastructure—especially water, sanitation, and electricity—has compounded urban hardship and worsened the public health crisis. Restoring these services will require investment in decentralized systems like solar energy, rainwater harvesting, and local sanitation solutions, which can function even during political and economic turmoil. Public-private partnerships will be crucial in ensuring sustainable investments in these sectors, building resilience, and reducing pressure on government institutions.

As households confront these cascading crises, many rely on overstretched informal support networks, with formal social safety nets being quite limited. Expanding government-led and international assistance programs is essential to providing more reliable assistance to vulnerable urban households. Cash transfers, targeted food distribution, and unemployment benefits must be scaled up to ensure equitable support for displaced and marginalized households, especially those headed by women. Strengthening community-driven safety nets can further build local resilience and reduce dependence on external assistance.

9.2. Policy and programmatic implications

The long-term implications of the conflict in Sudan are profound, with enduring impacts on health and education, particularly for large households, many headed by women, those with lower levels of education, individuals in vulnerable employment (such as self-employed, part-time, or those with no employment/income), and those residing in high-conflict areas. The survey results indicate that these groups are disproportionately affected, facing greater challenges in accessing essential services, such as health and education. This dual deterioration in health and education not only lowers immediate quality of life but also has a generational impact, with children in affected households likely to experience restricted opportunities and reduced lifetime earnings.

The deterioration of health services, evidenced by reduced access to infrastructure, higher out-of-pocket expenses, and decreased social insurance coverage, is expected to result in worsening health outcomes, including increased child mortality rates, higher rates of wasting and stunting, and a decline in life expectancy—all key indicators within the Human Development Index (HDI) and Multidimensional Poverty Index (MPI). This strain on health services is further compounded by disruptions in education, as a significant share of children have stopped attending school, especially in areas with high conflict intensity. Such interruptions not only immediately lower Sudan's Human Capital Index and Human Development Index, given that education is a central component of these indices, but also have long-term effects by limiting children's access to formal employment opportunities, future earning potential, and ability to break the cycle of poverty. The educational setback also has generational repercussions, increasing the risk of poverty being perpetuated within households. In terms of the MPI, reduced school enrollment and attainment are likely to drive up poverty levels, as education is a core dimension of this index. These impacts are disproportionately felt by female-headed households, low-educated individuals, and those in vulnerable employment, who are expected to bear the burden of the conflict in the long term.

Last but not least, the heightened vulnerability of female-headed households exacerbates gender inequalities and gender development indices, as women face greater barriers to accessing health and educational services.

Stopping the war and achieving sustainable peace in Sudan is a necessary condition to reduce the human suffering resulting from the widespread destruction caused by the war, which has clearly affected the urban population. At the national level, efforts to achieve political reconciliation and protect civilians are critical. At

the local level, supporting community stabilization with a focus on locally driven peace initiatives that foster reconciliation, rebuild trust among diverse groups, and promote inclusive governance can contribute to sustainable peace in Sudan.

The challenges facing urban households in Sudan demand a holistic, multi-sectoral response. No single intervention can adequately address the deep-seated vulnerabilities of urban households outlined in this report. Short-term humanitarian aid must be coupled with long-term development assistance strategies that focus on building resilience and fostering sustainable growth. Integrated approaches that combine economic recovery, social protection, and infrastructure rehabilitation are essential to creating a cohesive response. Effective coordination among local, national, and international actors will be critical to ensure that interventions are complementary and mutually reinforcing.

The cornerstone of Sudan's urban recovery lies in resilience-building. While immediate relief is necessary, sustained investments in education, healthcare, and livelihoods are vital to enable households to not only survive but also recover and thrive. The capacity to withstand future shocks—whether political, economic, or environmental—must be a central objective in any recovery effort. By prioritizing resilience, Sudan can transition from crisis management to sustainable development, creating a more prosperous future for its urban population.

The conflict has underscored the urgent need for comprehensive and coordinated interventions to support urban households. Addressing these challenges through well-structured efforts will not only alleviate immediate suffering but also lay the groundwork for long-term recovery and resilience. Key actions required include:

Food Security: Coordinated interventions over the short, medium, and long-terms are essential to ensure access to food and support the food security of Sudanese households, especially in high-conflict areas. Interventions can range from food assistance in critically food insecure areas to supporting the agriculture sector through an array of efforts ranging from supplying inputs to facilitating access to markets, depending on local needs. Rehabilitating water yards and boreholes, constructing small irrigation dams, and building community agricultural warehouses are public works that would improve local access to food. These interventions could provide emergency employment through cash-for-work and cash-for-services initiatives, which help boost purchasing power and foster economic self-reliance for crisis-affected individuals and households.

Economic Resilience and Recovery: Building on existing and designing new economic recovery programs that support self-employment and small business growth are essential, alongside vocational training for displaced and unemployed workers. Programs should target both the supply and demand side of the labor market to ensure that businesses regain the capacity to absorb job seekers and that those seeking employment can obtain the new skills required by a revitalized and dynamic private sector in Sudan. Economic resilience and recovery can be supported by focusing on agricultural development. Such efforts will include diversifying, protecting, and strengthening agricultural assets and capacities, promoting climate-resilient agricultural practices, such as drought-resistant crops, improving and expanding irrigation systems, and fostering sustainable land management practices by all agricultural producers. More broadly, dedicated support to local economies will strengthen value chains in which small and medium-sized enterprises are engaged, better connect farmers to markets, improve and expand agricultural storage and processing facilities, and facilitate the access of both farmers and non-farmer businesses to

microfinance, particularly in stable areas of the country. The inclusion of women, youth, and vulnerable groups in these economic development activities, together with efforts to empower them with greater control over resources and income, will enhance their economic independence and resilience. In addition, vocational training, apprenticeships, and business development services will be critical to enhance the prospects for long-term (self-)employment and sustainable income generation for Sudan's youth as they enter the labor force.

Health Access: The government and international organizations must work together to restore and expand healthcare services, focusing on availability, accessibility, and affordability for the country's poor. Strengthening Sudan's healthcare systems can be achieved through rebuilding infrastructure so that it can withstand and adapt to challenges like disease outbreaks, extreme weather events, and man-made disasters. Efforts should be focused on enhancing availability, access, quality, and equity in healthcare, ensuring that the most vulnerable populations receive the care they need. This includes constructing, rehabilitating, and upgrading healthcare facilities, as well as supporting the supply of life-saving medicines and essential medical equipment. Special attention should be given to maternal and child health as the health of infants and their mothers are particularly at risk during crises such as the current conflict.

Restoration of Essential Services: Rehabilitating essential infrastructure, including water, sanitation, and electricity, should be prioritized to improve living conditions and resilience in urban areas. Deploying clean energy solutions, such as solar power for off-grid communities, and integrating renewable energy into healthcare facilities, water supply systems, and community infrastructure will improve the resilience of these services and better enable them to function effectively even in times of crises.

Social Protection: Expanding and strengthening formal social protection programs, including social insurance and assistance, is necessary to reduce reliance on informal networks and ensure that aid reaches all vulnerable groups. Expanding social protection coverage fosters greater economic resilience for Sudanese households and communities and provides a support system against potential future shocks.

Payment System Restoration: A significant share of urban households in Sudan have no access to bank accounts, while those with bank accounts reported experiencing difficulties in making payments using their bank during the current conflict. Moreover, the reliance of households on remittances and domestic transfers and assistance grew substantially during the conflict. In light of these changes in how Sudanese households both remit and obtain financial resources, payment systems within Sudan's financial sector must be rebuilt and strengthened, with digital payment processes being made available to all. Digital payment applications have proven critical for rendering assistance to vulnerable households during the current crisis. They will be an important component of future efforts in a post-conflict Sudan to build the economic resilience of all households and enable them to access basic goods and services efficiently.

Targeted Support for Vulnerable Groups: Urban planning and humanitarian efforts must prioritize the provision of adequate housing, healthcare, and livelihood opportunities for well-identified vulnerable groups, including displaced households, female-headed households, households headed by less educated persons, households trapped in conflict zones who are unable to move due to lack of resources, as well as those in host communities shouldering the burden of caring for displaced households. The protection of vulnerable women and girls during the conflict can be advanced by addressing gender-based violence (GBV) and providing

them with critical protection support. These efforts can include setting up safe spaces for women and girls, delivering psychosocial support services, and integrating GBV prevention and response mechanisms into all interventions. In addition, strengthening local institutions' capacity to protect human rights and provide services to survivors of GBV is critical.

Education Revival: Rebuilding Sudan's education system, with an emphasis on remote learning infrastructure and financial assistance for affected families, is crucial for long-term development. Addressing the problem of school closure requires consultation with the government and devoting sufficient financial resources—a lack of funds, including for paying teachers' salaries, has been the main reason for the closure of schools in many parts of the country. In addition, solving the housing problem for IDPs will enable the reopening of schools that are now being used by IDPs as shelters.

Planning for Post-War Urban Development: The massive disruptions caused by the war in the urban environment in Sudan have created a complex reality that requires early planning to address the effects of war and for reconstruction. Although intense conflict is now continuing, these planning efforts need to be underway in preparation for a resolution to the war.

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