

INTRODUCTION

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Sudan is experiencing one of the most severe humanitarian and economic crises in its modern history due to the ongoing conflict between the Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF). The war has devastated livelihoods, displaced millions, and significantly weakened the country's agrifood system and broader economic structure (Ahmed et al. 2026; Siddig et al. 2025). Since the conflict erupted in April 2023, it has escalated into the world's largest displacement crisis, with nearly 12 million people—nearly one-third of Sudan's population—forced to flee their homes, including 4.5 million refugees who have sought safety in neighboring countries, including Egypt, Chad, South Sudan, and Ethiopia (UNHCR 2026).¹

The death toll has been staggering: estimates from the Armed Conflict Location and Event Data (ACLED 2025) suggest that 44,873 people were killed between April 15, 2023, and September 19, 2025, but other estimates vary widely, with some indicating that as many as 150,000 people have been killed by direct violence, starvation, and disease (Sampson 2025). The situation is particularly dire for children, with 16 million in need of humanitarian assistance, and most school-age children—more than 17 million out of 19 million—out of school (UNICEF 2025). The conflict has also led to widespread destruction of infrastructure, including hospitals and schools, further exacerbating the humanitarian crisis.

The current conflict is only the most recent in a long series, however. Sudan's ongoing crisis is deeply rooted in structural political and economic dynamics that have shaped conflict across the region for decades. As Alex de Waal argues, Sudan developed one of the most complex versions of a "political marketplace"—a system in which political authority is transactional, militarized, and sustained through the buying and selling of loyalties rather than through institutionalized governance (de Waal 1989). Oil (and more recently

1 Data as of February 2026.

gold) revenues, commercialized conflict, and elite patronage networks created incentives for armed competition and fragmented authority, leaving the state vulnerable to repeated cycles of violent contestation. This longstanding political economy helps explain the persistence and destructiveness of contemporary conflicts, including those in Darfur, South Sudan, and now between the SAF and RSF. Conflict between northern Sudan (the present country of Sudan) and southern Sudan (now the country of South Sudan), as well as fighting in Darfur in western Sudan, has plagued the greater Sudanese region for decades.² Ending the current civil war is obviously crucial for improving the lives of Sudan's people, as the war is taking an enormous toll in lives lost, injuries, and displacement. If peace can be restored, there is substantial reason to hope for major improvements in people's lives. Other African countries, including Kenya, Mozambique, Rwanda, and Uganda, successfully stabilized after periods of internal conflict. Such an outcome is possible for Sudan as well.

Nonetheless, Sudan faces several major strategic development challenges, in addition to its ethnic and political divides. Perhaps most important for agriculture is the management of water resources, an issue that will likely become increasingly important with climate change. Rebuilding the country's transport and damaged or destroyed infrastructure is necessary to enable rapid economic growth. Major investments are also needed in education to increase the skill levels and productivity of Sudan's labor force. Strategic choices regarding sectors and locations of public investment will be crucial.

This book compiles much of the material presented and discussed at the *Sudan Conflict Conference: Navigating Recovery and Resilience*, held on April 14–15, 2025, in Nairobi, Kenya. Marking two years since the conflict's onset, the event brought together researchers, policymakers, and humanitarian actors to discuss emerging findings and recovery strategies. Much of the analysis draws on recent surveys of households, farmers, enterprises, and workers, with many of these designed by the chapter authors.

This book is not only about research findings, however. It also draws upon other countries' experiences from comparable conflicts to identify applicable recovery models. We discuss possible solutions to enhance resilience and facilitate sustainable recovery efforts.

2 Unless otherwise noted, in this book, "Sudan" is used to refer to the present-day (2026) country of Sudan, that is, it excludes the current country of South Sudan.

FIGURE 1.1 Map of Sudan

Source: HDX (2026).

Note: Dotted lines indicate disputed territories. Boundaries and names shown and designations used on this map do not imply official endorsement or acceptance by the International Food Policy Research Institute (IFPRI).

Key historical and geographic context

Prior to the independence of South Sudan in 2011, Sudan was the largest country in Africa by area, and it remains the third largest in the continent (Figure 1.1). Apart from relatively small mountain zones, the northern half of the country is desert or semi-desert, while the southern half of the country is mainly low rainfall savanna woodlands. Most of Sudan's agriculture is concentrated in the southern part of the country, where the Nile and its tributaries provide water to irrigate about 5 million hectares, approximately one-fourth of the country's total cropped area (Sudan, Ministry of Agriculture and Forestry 2015). The White Nile, which flows north from Uganda through South Sudan and into southern Sudan, and the Blue Nile, which flows northwest

from the highlands of Ethiopia, meet in Khartoum to form the Nile, which flows north to Egypt.³

Sorghum is the main cereal crop of Sudan and is cultivated on irrigated land in a semi-mechanized system that uses tractors for land preparation and on nonirrigated land in a traditional agropastoral rainfed system. Millet is a major crop in the traditional rainfed sector, while all wheat is cultivated on irrigated land. About 40 percent of the population raise livestock, which play a major role in the food system and serve as a store of wealth.

After centuries of shifting rule by outside forces, in 1899, Egypt and Britain established joint rule of northern and southern Sudan—the two regions now known as Sudan and South Sudan. Under this arrangement, the two regions were considered separate provinces and beginning in the 1920s, passports were required for travel between them. When Sudan declared its independence in December 1955, both regions were included under the new central government.

Civilian government lasted only until 1958, however, and military governments ruled Sudan from 1958 to 1964, and then again from 1969 to 1985 under Gaafar Nimeiry (Table 1.1). Another coup d'état in 1989 brought Omar Al-Bashir to power, initially as part of a military junta. Al-Bashir ruled until he was overthrown in April 2019 and eventually replaced by Abadallah Hamdok as prime minister in August of that year.

Hamdok's government successfully negotiated debt relief and the lifting of economic sanctions on Sudan in March 2021, but it was overthrown in a military coup led by General Abdel Fattah Al-Burhan in October 2021. Hamdok was reinstated briefly as prime minister from November 2021 until early January 2022. After January 2022, Sudan effectively had no civilian prime minister, with power consolidated under military leadership until the army chief appointed Kamil Al-Taib Idris as prime minister in May 2025 (Reuters 2025). Civil war broke out in April 2023 between the SAF, led by General Abdel Fattah Al-Burhan, and the RSF, led by Mohamed Hamdan Dagalo (known as "Hemedti").

3 Construction and subsequent filling of the Grand Ethiopian Renaissance Dam on the Blue Nile in northwest Ethiopia led to intense debates between Egypt, Sudan, and Ethiopia regarding water rights in the greater Nile River Basin.

TABLE 1.1 Major historical events in Sudan, 1956–2025

Time frame	Event
1956	Sudan gains independence from the United Kingdom and Egypt
1969–1985	Gaafar Nimeiri leads military governments following a coup in May 1969, ruling until his overthrow in April 1985
1989	Omar Al-Bashir seizes power in a military coup, with support from the National Islamic Front
1997	The United States imposes comprehensive economic sanctions on Sudan, citing support for terrorism and human rights abuses
1999	Sudan begins exporting oil, marking a turning point in its economic trajectory, and reducing dependence on agriculture
2003	Conflict begins in Darfur between Sudanese government forces and rebel groups, leading to humanitarian and political crises
2005	The Comprehensive Peace Agreement is signed between the Sudanese government and Sudan People's Liberation Movement, ending the Second Sudanese Civil War
2011	South Sudan declares independence after a referendum in January, formally becoming a new nation on July 9, 2011. Sudan loses about three-quarters of its oil reserves, triggering a sharp economic and fiscal crisis.
April 2019	Omar Al-Bashir is overthrown by the military following months of mass protests; the Transitional Military Council takes control
August 2019	A transitional government formed; Abdallah Hamdok is appointed prime minister under a power-sharing agreement between civilians and the military
December 2020	The United States officially removes Sudan from its list of State Sponsors of Terrorism
June 2021	Sudan reaches the decision point under the IMF/World Bank Heavily Indebted Poor Countries Initiative, qualifying for debt relief of more than US\$50 billion
October 2021	A military coup led by General Abdel Fattah Al-Burhan dissolves the transitional government
November 2021	Abdallah Hamdok is reinstated under a political agreement with the military, though the move is widely rejected by pro-democracy groups
January 2022	Abdallah Hamdok resigns
2022–2023	The economic reform program stalls following political instability and the October 2021 coup; inflation remains among the highest globally
April 2023	Civil war begins between the SAF, led by army commander Abdel Fattah Al-Burhan, and the RSF, led by Mohamed Hamdan Dagalo (also known as “Hemedti”)
April 2025	The SAF regains control over Khartoum State; the RSF declares the formation of an alternative government (the Government of Peace and Unity) to govern areas under its control, including parts of Darfur and Kordofan
May 2025	Sudan's army chief appoints Kamil Al-Taib Idris as prime minister in a move to reestablish a transitional civilian government
September 2025	The Quad (the United States, Saudi Arabia, Egypt, and the United Arab Emirates) launch a new peace initiative, which proposes a phased roadmap for Sudan, starting with a three-month humanitarian ceasefire to enable expanded relief operations and better protection for civilians in conflict areas
October 2025	The RSF reportedly regains control over El-Fashir, the capital city of Northern Darfur State

Economic reforms and outcomes since 1990

Al-Bashir's government implemented a series of economic reforms in the 1990s, reducing subsidies and ending various monopolies held by public parastatals. Despite a series of devaluations, however, controls on foreign exchange remained, contributing to substantial implicit taxation of agriculture for most of this period. Average price distortions in agriculture, as measured by nominal rates of assistance, were consistently negative over the 1955–2004 period, though their magnitude was substantially less in the 1999–2004 period (Faki and Ahmed 2007). Wheat production on irrigated land in the Jazirah irrigation scheme in central Sudan was promoted in an effort to achieve food self-sufficiency, even though cotton cultivation would have been more profitable (Hassan et al. 2000).

The independence of South Sudan in July 2011 compounded these macroeconomic difficulties, as oil revenues had accounted for more than half of the Sudan government's revenue and 95 percent of its exports. Subsequent fiscal deficits led to high inflation, appreciation of the real exchange rate (a measure of the relative price of tradable goods relative to nontradables), and more severe price distortions. Macroeconomic distortions steadily increased over the 2013–2017 period, as domestic inflation exceeded the depreciation rate of the nominal exchange rate (286 percent versus 31 percent). Thus, the real exchange rate appreciated by 45 percent, spurring demand for imports, and ultimately required restrictions on imports in the form of import licenses to limit the balance of payments deficit (Dorosh 2021).

Real per capita growth in gross domestic product (GDP) slowed considerably over this period, from 6.2 percent between 1991 and 2001, to 3.6 percent in the next two decades, and to –3.3 percent from 2011 to 2023 (Table 1.2). Agricultural GDP growth also declined steeply from 6.6 percent to 1.6 percent in the first two periods, and then fell by 1.9 percent in the last period (2011–2023). Agriculture's share in GDP (36.6 percent) was higher in 2023 than in 1991 (32.4 percent), however, because oil revenue and GDP were also lower. Moreover, the shares of gross domestic savings, gross capital formation, and exports and imports in GDP all fell steeply between 2011 and 2023.

Despite the generally negative trends observed in major economic variables, some broad measures of development have improved over the past three decades. Access to electricity rose from 26.9 percent in 1991 to 66 percent in 2023. Over the same period, urbanization increased from 29.8 percent to 36.3 percent, and most importantly, life expectancy at birth rose for both women and men, increasing from 58.3 to 69.6 years for women and from 53 to 63.3 years for men (IMF 2025; World Bank 2025).

TABLE 1.2 Selected economic variables, Sudan, 1991–2023

	1991	2001	2011	2023	Annualized growth rate (%)		
					1991–2001	2001–2011	2011–2023
Population (millions)	22.5	28.5	36.1	50.0	2.4	2.4	2.7
GDP, PPP (constant 2021 international \$)	70.8	128.9	184.4	123.6	6.2	3.6	–3.3
GDP per capita, PPP (constant 2021 international \$)	2,591.9	3,701.5	4,467.6	2,469.2	3.6	1.9	–4.8
GDP constant 2015, billions	22.0	40.1	57.3	38.4	6.2	3.6	–3.3
Agricultural GDP (constant 2015 US\$, billions)	7.6	14.4	16.9	13.4	6.6	1.6	–1.9
Share of agriculture (% of GDP)	32.4	39.9	30.2	36.6	0.7	–1.0	0.6
Share of industry (% of GDP)	7.4	13.1	16.2	16.9	0.6	0.3	0.1
Share of services (% of GDP)	60.2	47.0	53.6	46.5	–1.3	0.7	–0.7
Other (% of GDP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross domestic savings (% of GDP)	12.9	30.0	33.6	1.9	8.8	1.1	–21.2
Gross capital formation (% of GDP)	10.5	20.5	23.3	2.2	6.9	1.3	–17.9
Exports of goods and services (% of GDP)	3.3	9.6	12.5	1.1	11.1	2.7	–18.3
Imports of goods and services (% of GDP)	11.7	10.7	15.0	1.4	–0.9	3.4	–18.1
Official exchange rate (SDG/US\$)	0.007	2.6	2.7	790 ^a	80.7	0.3	60.7
Consumer price index (2015=100)	0.42	37	118	203 ^b	56.3	12.4	4.6

Source: IMF (2025), World Bank (2025), and authors' calculations.

Note: ^a = end of period; ^b = end of period, using estimated annual percentage changes from 2022 to 2023. SDG = Sudanese pounds. The figures shown for 1991, 2001, and 2011 reflect data for northern Sudan (excluding the economy of the future South Sudan).

Regional comparisons

Sudan shares many characteristics with neighboring countries, but it also differs in various ways (Table 1.3). Sudan's population of 50 million people is similar to that of Kenya (55.3 million), but less than half that of Ethiopia (128.7 million) and Egypt (114.5 million). Its urbanization rate is similar to that of Kenya and Ethiopia, but far less than Egypt's. Sudan's GDP per capita of US\$767 (2015) per person is far lower than that of Egypt (\$4,111) and Kenya (\$1,808), but only slightly less than Ethiopia's (\$875). From 2020 to 2023, Sudan's GDP per capita growth rate was sharply negative (–10.1 percent per year), while the economies of Egypt, Ethiopia, and Kenya all grew by 2.9 to 4 percent per capita per year.

Sudan's economic structure is most similar to that of Chad and Ethiopia: agriculture's share of GDP is 31 to 39 percent for all three countries, but it is only 16.2 and 10.5 percent for Kenya and Egypt, respectively. The agriculture sector is expanding in these other countries, however, while in Sudan, it contracted by an average of 1.3 percent per year from 2010 to 2023. Sudan's

TABLE 1.3 Selected economic and social indicators, Sudan, 1991–2023

Indicator	1991	2001	2011	2023	Annualized growth rate (%)		
					1991–2001	2001–2011	2011–2023
Access to electricity (% of population)	26.9	29.4	38.3	66.0	0.9	2.7	4.6
Urban population (millions)	6.7	9.3	12.0	18.2	3.3	2.6	3.5
Urbanization rate (% of population)	29.8	32.5	33.2	36.3	0.9	0.2	0.8
Life expectancy at birth (years)							
Women	58.3	61.9	65.9	69.6	0.6	0.6	0.5
Men	53.0	56.9	60.7	63.3	0.7	0.7	0.3
Total	55.6	59.3	63.2	66.3	0.6	0.6	0.4
Poverty rate*							
Rural	94.0	85.0	58.0	65.0	–1.0	–3.7	0.9
Urban	80.0	60.0	27.0	35.0	–2.9	–7.1	2.2
Total	87.0	72.5	46.5	52.0	–1.8	–4.4	1.0

Source: FAO (2011); UNDP and OPHI (2023), World Bank (2019; 2025), and authors' calculations.

Note: * Figures for changes in poverty are percentage points per year. The figures shown for 1991, 2001, and 2011 reflect data for northern Sudan (excluding the economy of the future South Sudan).

poverty rate of 57.2 percent is similar to that of South Sudan, Chad, and Kenya, the only neighboring countries with recent data.

Similar patterns are seen in other measures of household and individual welfare, many of which are reflected in the Global Hunger Index (GHI) (Table 1.4). Sudan's GHI score ranks the country as 110th in the world, placing it in the same range as Chad, Kenya, and South Sudan but considerably lower than Egypt. The GHI is an unweighted average of four components measured in 2023: undernourishment, child wasting, child stunting, and child mortality. Stunting (low height for age) is particularly high in Sudan (39.6 percent), comparable to stunting in Ethiopia and Chad (36.8 and 31.9 percent, respectively). Life expectancy at birth in Sudan (66.3 years) is similar to that in Kenya (63.6) and Ethiopia (67.3), which is considerably higher than in Chad (55.1) and South Sudan (57.6), but 5.3 years lower than in Egypt (71.6).

Microlevel primary survey data used in the book

The analyses presented in this volume draw on a combination of primary and secondary data sources collected by IFPRI and its partners between 2023 and 2024 (Table 1.5). The primary data comprise a series of national and sub-national surveys, including rural and urban household panels, and small-holder farmer surveys. Data collection employed computer-assisted telephone

TABLE 1.4 Selected indicators, East African countries, 2023

	Chad	Egypt	Ethiopia	Eritrea	Kenya	South Sudan	Sudan
Population (millions)	19.3	114.5	128.7	3.5	55.3	11.5	50.0
Population growth rate (% , 2023)	4.6	1.7	2.6	1.8	2.0	4.1	1.3
Population in urban agglomerations of more than 1 million	1.6	27.8	5.5	...	6.8	...	6.3
GDP per capita (constant 2015 US\$)	567	4,111	875	...	1,808	...	767
GDP per capita growth rate (constant 2015 US\$, 2020–2023, %)	–1.9	2.9	3.1	...	4.0	...	–10.1
Agriculture, value added (% of GDP)	39.4	10.5	30.6	...	16.2	...	36.6
Agriculture, value added (growth rate 2010–2023, %)	1.0	0.9	1.3	...	0.3	...	–1.3
Poverty headcount ratio at \$3.65 a day (2017 PPP) (% of population)	65.7	66.9	63.5	57.2
Global Hunger Index (score)**	36.4	13.2	26.2	...	25	...	28.8
Global Hunger Index (country rank)**	125	63	102	...	100	...	110
Undernourishment (%)	35.1	8.5	22.2	...	34.5	19.6	11.4
Child wasting (%)	7.8	5.3	6.8	...	4.5	...	17.4
Child stunting (%)	31.9	21.1	36.8	...	17.6	...	39.6
Child mortality (%)	10.3	1.8	4.6	3.7	4.1	9.9	5.2
Life expectancy at birth, total (years)	55.1	71.6	67.3	68.6	63.6	57.6	66.3
Life expectancy at birth, female (years)	57.0	73.8	70.7	70.7	65.9	60.6	69.6
Life expectancy at birth, male (years)	53.2	69.5	64.1	66.5	61.5	54.6	63.3

Source: Welthungerhilfe et al. (2024), World Bank (2025), and authors' calculations.

TABLE 1.5 Summary of micro-level survey data, collected during 2023–2024

Survey title	Data collection method	Sample size	Year/period	Population group	Geographic coverage
Urban Household Survey 2024	CATI	3,000	July 2024	Urban households	18 states
Urban Household Survey 2025	CATI	2,513	Feb. 2025	Urban households	18 states
Rural Households Survey—Wave 2024	CATI	4,504	Jan. 2024	Rural households	18 states
Smallholder Farmers Survey	CATI, IVR, and CAPI	3,284	Summer 2023	Smallholder farmers	15 states

Source: Authors' compilation.

Note: IVR = interactive voice recording; CAPI = computer-assisted personal interviews; CATI = computer-assisted telephone interviews.

interviews and computer-assisted personal interviews to reach households, traders, and key informants across 18 Sudanese states. In total, more than 20,000 respondents were covered across multiple survey waves, capturing detailed information on livelihoods, income, displacement, food consumption, coping strategies, market access, and well-being.

In addition to these primary datasets, the book also utilizes secondary data sources, including administrative and monitoring data from the World Food Programme, the Integrated Food Security Phase Classification, and the UN Food and Agriculture Organization's market and production databases, alongside publicly available geospatial, demographic, and conflict datasets. Together, these data sources provide a robust empirical foundation for assessing the multifaceted impacts of conflict on Sudan's economy, food systems, and social resilience.

Organization of the book

This book includes four sections. The first, "Origins and Dynamics of the Conflict," consists of this introduction and two other chapters.

Chapter 2, "Origins and Causes of Conflict: Domestic and International Perspectives," by Suliman Baldo, covers the historical context of the conflict, including Sudan's civil wars (including the secession of South Sudan in 2011) and the transition from the Al-Bashir regime (1989–2019) to the onset of the current conflict in early 2023. Baldo argues that recent developments in the conflict are destroying commercial and trading activities between the areas controlled by the SAF and RSF. Given the "alarmingly inadequate" response of the international community to the humanitarian crisis in Sudan, the onus is on Sudanese stakeholders to work together to end the war and help restore peace, stability, and a democratic transition.

In Chapter 3, "State Failure and Elite Capture of Sudan's Agrifood System," Danielle Resnick, Hala Abushama, Oliver K. Kirui, and Khalid Siddig argue that the SAF's and RSF's contradicting yet complementary commercial interests are among the key drivers of the conflict in Sudan. Partly based on 50 key informant interviews, the chapter discusses three distinct strategies that the SAF and RSF adopted in their business operations: outright capture of livestock trade, unfair competition in wheat milling, and niche market development in horticulture. They also note the "oddly synergistic relationship" between SAF and RSF actors in the cattle sector, in which the RSF buys cattle in western Sudan and then sells them to SAF-affiliated companies that export herds through Port Sudan.

Section II of this book, “Economic, Social, and Humanitarian Impacts,” includes seven chapters based on analysis using various household and enterprise surveys, economic simulation models, and other sources.

In Chapter 4, “Monitoring Economic Activities: Leveraging Satellite and Remote Sensing Techniques,” Zhe Guo and colleagues use satellite-derived nitrogen dioxide (NO₂) concentration data and nightlight intensity data from March 2023 and May 2023 as proxies for human and economic activity. Comparing 2023 data with 2022 data from before the conflict, they find that the most pronounced declines in NO₂ concentrations and nightlight intensity occurred in Khartoum, Khartoum North, and Omdurman, where the conflict has been most severe. NO₂ emissions increased in some smaller cities, however, as well as in parts of Kassala state (east of Khartoum), which became major destinations for internally displaced persons.

Chapter 5, “Cereal Production, Markets, and Policy in Sudan,” by Paul Dorosh, Oliver K. Kirui, and Khalid Siddig, presents state-level data on the production of major cereals, econometric analysis of market price data for wheat and sorghum, and simulation model analysis of the effects of disruptions to trade and transport between western and eastern Sudan in 2023. The model simulations indicate that in the absence of the disruption of regional wheat markets and higher marketing costs, domestic consumption of wheat in western Sudan could have been 16 percentage points higher, assuming wheat imports were allowed to increase to meet demand at import parity prices.

Chapter 6, “Conflict-Induced Trade Dynamics: A Gravity Framework Analysis of Sudan’s Agricultural Exports,” by Enock Kojo Ayesu, Lukas Kornher, Daniel Sakyi, and Hala Abushama, describes an empirical analysis of the effects of Sudan’s conflict on its trade dynamics and employs an econometric model of exports by country of destination. In addition, using a simpler statistical model, the authors find that exports significantly increased in 2023 for products mainly produced in areas controlled by the SAF (including sesame, groundnuts, cotton, and other oilseeds). However, exports declined for products mainly produced in areas controlled by the RSF, such as live animals, meat, and sorghum. These differing outcomes are likely explained by the SAF’s control of Port Sudan, the country’s major port, and the surrounding areas.

In Chapter 7, “Economywide Impact of Conflict and Pathways to Recovery,” Khalid Siddig, Zuhail Elnour, and James Thurlow apply a dynamic computable general equilibrium model and an integrated 2021 economywide database to quantify the conflict’s economic costs and assess the effectiveness of various

intervention scenarios. Based on the simulation results, the authors recommend that government and donors prioritize integrated recovery packages that bundle investments in agriculture, include policies to promote the revitalization of enterprises, and provide household income support. They emphasize the importance of frontloading cash transfers and provision of working capital to help stabilize consumption and restart private sector activity in the short run, as well as investments in agriculture to build long-term resilience.

Chapter 8, “Food Consumption Patterns and Dietary Diversity amid Conflict,” by Fredrik Svensson and Oliver K. Kirui, presents data from the Comprehensive Food Security and Vulnerability Assessment (WFP 2024) and similar surveys collected both before the war in early 2023 and after it began in early 2024. These surveys were conducted through in-person interviews, except in some states most affected by conflict in 2024. The analysis shows a significant increase in the prevalence of inadequate food consumption in South Kordofan, Sennar, and East Darfur, states which were severely impacted by conflict. Maternal nutrition is especially alarming, with mid-upper arm circumference indicating that more than one in four pregnant or lactating women were acutely malnourished.

Chapter 9, “Worsening Food Security in Sudan amid Conflict,” by Oliver K. Kirui, Khalid Siddig, Alemayehu S. Taffesse, and Hala Abushama, utilizes nationally representative data from the 2022 Sudan Labor Market Panel Survey, the 2023/24 Sudan Rural Household Survey, and the 2024 Urban Household Survey. Food Insecurity Experience Scale scores indicate a dramatic drop in food security after the conflict began, with the share of food-secure households dropping from about 50 percent before the conflict to between 9 and 20 percent during the conflict. Econometric analysis highlights that socioeconomic factors, such as education, housing adequacy, and access to water, played significant roles in mitigating food insecurity before the conflict began. However, the influence of these factors has been diminished, with conflict-induced shocks, including a decline in household income, now significantly exacerbating food insecurity.

Chapter 10, “Human Capital at Risk: The Impact of Sudan’s 2023 War on Healthcare and Education,” by Ebaidalla M. Ebaidalla, Mohammed Gebrail, Gotada Suliman, Oliver K. Kirui, and Tarig Alhaj, documents how the armed conflict has exacerbated the problems of Sudan’s health and education sectors. According to data from the 2024 IFPRI Urban Household Survey, most urban households (78 percent) reported having full access to health services before the war. By 2024, only 15 percent had maintained full access, and nearly 25 percent reported no access at all; in Darfur, as much as 64 percent

had no access. School dropout rates are also extremely high, ranging from an average of 41 percent in northern Sudan to 75 percent in Darfur. The situation is particularly acute for girls, as the war has dramatically increased girls' vulnerability to withdrawal from school, sexual exploitation, and early marriage. Without urgent interventions, Sudan could face a "lost generation" that is unable to contribute meaningfully to future recovery.

Section III, "Resilience and Recovery Strategies," includes four chapters that assess the conflict's impact on household coping strategies and resilience, including preferences for aid delivery, as well as the key drivers of vulnerability and strategic approaches for postconflict reconstruction in Sudan.

Chapter 11, "Shocks, Coping, and Household Livelihood Strategies in Wartime," by Oliver K. Kirui and Tarig Alhaj Rakhy, examines the multifaceted impact of Sudan's 2023 conflict on household livelihoods, coping mechanisms, and resilience strategies in both rural and urban areas. Using data from the 2023–2024 National Rural and Urban Household Surveys, the analysis highlights how preexisting vulnerabilities have been worsened by conflict-related shocks, especially those related to health and climate in rural areas and crime, insecurity, and displacement in urban areas. In response to shocks, households have adopted diverse coping strategies, including food rationing, asset sales, borrowing, and migration. Remittances, social networks, and informal economic activities are critical survival tools, particularly among women. However, these tools are often unstable and insufficient, and formal assistance is very limited.

In Chapter 12, "Delivering Aid amid Active Conflict and Insecurity: Digital Transfers for Delivering Social and Humanitarian Assistance in Sudan," Kibrom A. Abay, Hala Abushama, Shima Mohamed, and Khalid Siddig investigate how household preferences for digital cash transfers compare to preferences for traditional cash or in-kind assistance. Drawing on a computer-assisted telephone survey of urban respondents across Sudan, the authors find that about two-thirds of respondents favor digital transfers, underscoring a growing acceptance of digital modalities, even in areas with limited digital infrastructure. Preference for digital transfers is significantly higher among those exposed to armed violence, theft, or insecurity, suggesting that perceived safety is a key driver. Moreover, trust in financial institutions and nongovernmental organizations emerges as a critical factor shaping demand for digital modalities.

Chapter 13, "Drivers of Vulnerability and Low Resilience in Sudan," by Youssef Chaitani and Hong Pum Chung, uses the Arab Risk Monitor's Risk Analysis framework to analyze the connections between conflict, economic failure, climate shocks, and governance collapse in Sudan. Key risk

factors include conflict escalation, including the ongoing warfare between the SAF and RSF, increased violence in Darfur, and regional spillovers; climate vulnerability, such as severe flooding, drought, and desertification that are worsening food and water insecurity; economic deterioration, including falling GDP, very high inflation, and widespread unemployment; and weak governance, with a breakdown in law, service delivery, and social protection.

Chapter 14, “The Political Economy of Resilience and Economic Recovery,” by Ibrahim Elbadawi, argues that Sudan’s postconflict national renewal and reconstruction requires a broad-based participatory peace-building process. Given the scale of destruction and collapse of social cohesion, however, a multidimensional, transformative peacekeeping operation is needed to initiate an end to the war and build sustainable peace. Also necessary is transformative economic growth that promotes interethnic cooperation by modernizing the economy, accelerating urbanization, and expanding the middle class. This chapter therefore recommends a strategic approach to postconflict reconstruction that includes ensuring a more equitable political landscape to foster sustainable development and peace, building pro-growth coalitions, and unleashing agriculture-led growth, anchored in stronger linkages with industry and services, through agro-industrial growth corridors.

Section IV, “The Way Forward,” features Chapter 15: “Toward a Prosperous and Secure Sudan: A Way Forward,” by Khalid Siddig, Oliver K. Kirui, and Paul Dorosh, which summarizes government development plans in the years prior to the 2023 conflict. It subsequently describes major obstacles that must be overcome to achieve goals in three broad areas: restoring peace and security, achieving broad-based economic growth, and meeting the food security needs of all households. The book concludes with a call for a blend of investments to meet humanitarian, development, and peacebuilding objectives.

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